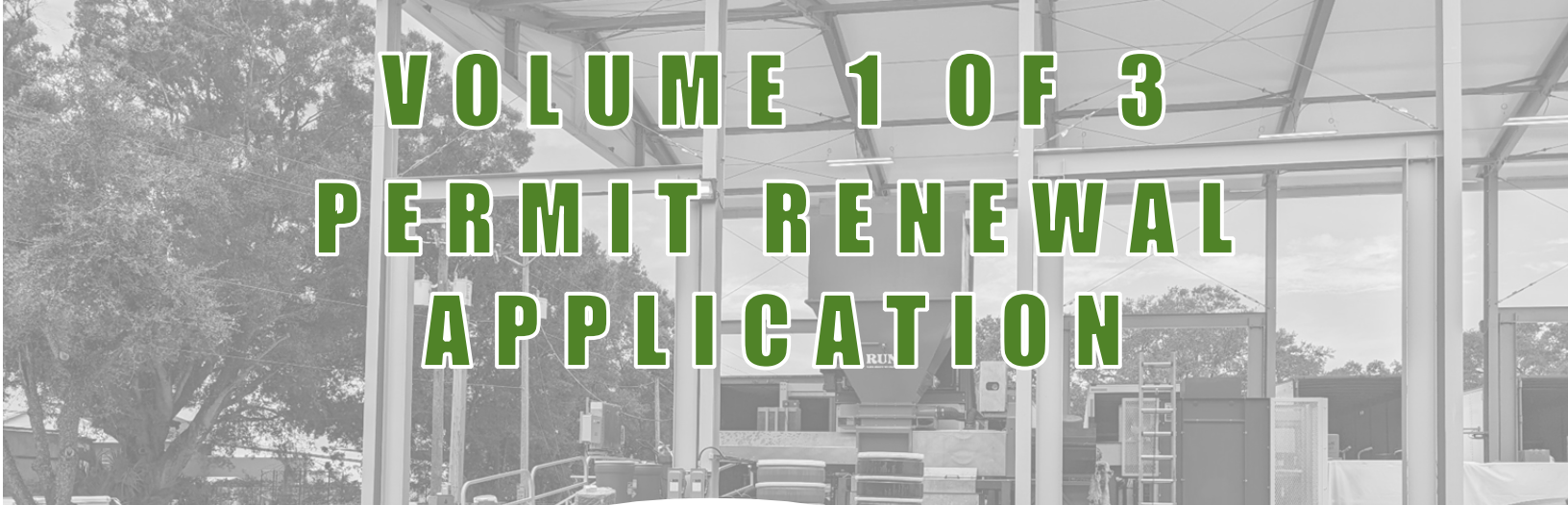

VOLUME 1 OF 3
PERMIT RENEWAL APPLICATION

OPERATION OF A HAZARDOUS WASTE TSDF

PERMIT NO. 34875-018-HO

7202 East 8th Avenue
Tampa, Hillsborough County, Florida

PREPARED FOR

US Ecology Tampa, Inc.
7202 East 8th Avenue
Tampa, FL 33619

PREPARED BY

PACSCON GeoEnvironmental, Inc.
4517 George Road, Suite 220
Tampa, FL 33634

Revision: 00
October 3, 2023
PACSCON No. 2023-1816

VOLUME 1 OF 3

Permit Renewal Application

FOR

Operation of a Hazardous Waste Treatment and Storage Facility

AT

7202 East 8th Avenue
Tampa, Hillsborough County, FL

Permit Application No.: 34875-018-HO

Prepared for:

US Ecology Tampa, Inc.
7202 East 8th Avenue
Tampa, FL 33619

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Prepared by:

PACSCON GeoEnvironmental, Inc.
4517 George Road, Suite 220
Tampa, FL 33634
Engrg. Business Registry No. 32162

Revision: 00
October 3, 2023
PACSCON No. 2023-1816

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COMMON ABBREVIATIONS

BCSA – Bulk Container Storage Area
CPCP – Consumer Products Consolidation Platform
CSB – Container Storage Building
EQ – EQ Holding Company, Inc.
I/O – Inbound/Outbound Staging Area
ISCA – Improved Secondary Containment Area
LDR – Land Disposal Restrictions
OCA – Offsite Consequence Analysis
PFT – Paint Filter Test
TCLP – Toxicity Characteristic Leachate Procedure
UHC – Underlying Hazardous Constituents
VOC – Volatile Organic Compound
UTS – Universal Treatment Standards
USET – US Ecology Tampa, Inc.
WPB – Waste Processing Building

1.0 APPLICATION FORMS

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Date October 3, 2023
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APPLICATION FOR A HAZARDOUS WASTE PERMIT
PART I – GENERAL
TO BE COMPLETED BY ALL APPLICANTS

Please Type or Print

A. General Information [40 CFR Part 270.13 (a)]

1. Type of Facility in accordance with Part 270.13(a)
   - ☒ TREATMENT
     - ☒ Tanks ☐ Piles ☐ Surface Impoundment
     - ☐ Incineration ☐ Containment Building
     - ☐ Boiler / Industrial Furnace Type of Unit _____
     - ☐ Miscellaneous Unit Type of Unit _____
   - ☒ STORAGE
     - ☒ Containers ☐ Tanks ☐ Piles
     - ☐ Surface Impoundment ☐ Containment Building
     - ☐ Miscellaneous Unit Type of Unit _____
   - ☐ DISPOSAL
     - ☐ Landfill ☐ Land Treatment ☐ Surface Impoundment
     - ☐ Miscellaneous Units Type of Unit _____

2. Type of application [40 CFR Part 270.13 (a)]:
   - ☐ Construction Permit
   - ☒ Operation Permit
   - ☐ Construction & Operation Permit
   - ☐ Research, Development & Demonstration (RD&D) Permit
   - ☐ Postclosure Permit
   - ☐ Clean Closure Plan
   - ☐ Subpart H Remedial Action Plan
   - ☐ Corrective Action

3. Revision Number: 00

4. Date Current Operation Began, or is expected to begin: 07 / 01 / 1990

5. Facility Name [40 CFR Part 270.13 (b)] US Ecology Tampa, Inc.

6. EPA/DEP I.D. No. FLD981932494

7. Facility Location or Street Address [40 CFR Part 270.13 (b)] 2002 North Orient Road, Tampa, FL 33619

8. Facility Mailing Address 7202 East 8th Avenue (Street or P.O. Box)
   Tampa (City) FL (State) 33619 (Zip)

9. Contact Person Ken Dean Telephone (813) 319-3433

   Title Environmental Compliance Manager

   Mailing Address 7202 East 8th Avenue (Street or P.O. Box)
   Tampa (City) FL (State) 33619 (Zip)

DEP Form 62-730.900(2)(a), incorporated in Rule 62-730.220(2)(a), F.A.C., Effective Date: 12/2019

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Contact E-mail KDean2@RepublicServices.com

10. Operator Name [40 CFR Part 270.13 (d)] Same as #9

Telephone (_____) _____

Mailing Address _____
Street or P.O. Box

_____
City State Zip

Operator E-mail _____

11. Facility owner's name [40 CFR Part 270.13 (e)] Same as #9

Telephone (_____) _____

Mailing address _____
Street or P.O. Box

_____
City State Zip

E-mail address _____

12. Legal structure [40 CFR Part 270.13 (d)]

☒ Corporation ☐ Non-profit corporation ☐ Partnership ☐ Individual
☐ Local government ☐ State government ☐ Federal government ☐ Other

13. If an individual, partnership, or business is operating under an assumed name, specify the county and state where the name is registered.

County N/A State N/A

14. If the legal structure is a corporation, indicate the state of incorporation.

State of Incorporation Michigan

15. If the legal structure is an individual or partnership, list the owners.

Name N/A

Address _____
Street or P.O. Box City State Zip

Name N/A

Address _____
Street or P.O. Box City State Zip

16. Site Ownership Status

Owned ☒ To be purchased To be leased _____ years
Presently leased; the expiration date of the lease is ____/____/_____.

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If leased, indicate land owner's name. _____

Address _____
Street or P.O. Box City State Zip

E-mail address _____

17. Name of Engineer Francisco J. "Paco" Amram, P.E. Registration No. 45133

Address 4517 George Road, Suite 220, Tampa, FL 33634
Street or P.O. Box City State Zip

Associated with: PACSCON GeoEnvironmental, Inc.

18. Is the facility located on Tribal land [40 CFR Part 270.13 (f)]? ☐ Yes ☒ No

19. Existing or pending environmental permits (attach a separate sheet, if necessary): [40 CFR Part 270.13 (k)]

NAME OF PERMIT	AGENCY	PERMIT NUMBER	DATE ISSUED	EXPIRATION DATE
Refer to Appendix C in Volume 3 of 3				

B. Site Information [40 CFR Part 270.13 (b)]

1. The facility is located in Hillsborough county.

The nearest community to the facility is Tampa.

Latitude 27 Deg. 57 Min. 44.95 Sec N Longitude 82 Deg. 22 Min. 26.17 Sec W

Method and datum Facility Center on Google Earth

2. The area of the facility site is 4.6 (MOL) acres.

3. Attach a scale drawing and photographs of the facility showing the location of all past, present, and future treatment, storage and disposal areas. Include photographs and the locations of all Solid Waste Management Units and Areas of Concern. Also, show the hazardous wastes traffic pattern including estimated volume and control [40 CFR Part 270.13 (h)].

4. Attach a topographic map which shows all the features indicated in the instructions for this part.

5. Is the facility located in a 100-year flood plain? ☐ Yes ☒ No

6. The facility complies with the wellhead protection requirements of Chapter 62-521, F.A.C.

☒ Yes ☐ No

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C. Land Use Information

1. The present zoning of the site is IH - Industrial Heavy.

2. If a zoning change is needed, what should the new zoning be? N/A.

D. Operating Information

1. Is waste generated on-site? ☒ Yes ☐ No

2. List the NAICS codes (5 to 6 digits) [40 CFR Part 270.13 (c)] 562211 562111

   562219 562112 _____ _____ _____ _____ _____

3. Use the codes and units provided in the instructions to complete the following table. Specify [40 CFR Part 270.13 (i and j)]:

   a. Each process used for treating, storing or disposing of hazardous waste (including design capacities) at the facility, and;

   b. The hazardous waste(s) listed or designated in 40 CFR Part 261, including the annual quantities, to be treated, stored, or disposed by each process at the facility.

PROCESS CODE	PROCESS DESIGN CAPACITY AND UNITS OF MEASURE	HAZARDOUS WASTE CODE	ANNUAL QUANITY OF HAZARDOUS WASTE AND UNITS OF MEASURE
Refer to Appendix B in Volume 3 of 3			

4. A brief description of the facility [40 CFR Part 270.13 (m)]:
   Refer to application Volume 1 of 3

5. For hazardous debris, a description of the debris category(ies) and contaminant category(ies) to be treated, stored or disposed of at the facility [40 CFR Part 270.13 (n)]:
   N/A

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P. Information Regarding Potential Releases from Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs)

Facility Name US Ecology Tampa, Inc.

EPA/DEP I.D. No. FLD981932494

Facility location Tampa (City) FL (State)

1. Are any of the following (SWMUs or AOCs), existing or closed at your facility?

A SWMU is a discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include all areas at a facility where solid wastes have been routinely and systematically released, as described in the July 27,1990 Federal Register (55 FR 30798). The SWMU list in this form does not include all types of SWMUs. These are examples of the more common types of units. If you have a different type of SWMU, mark "yes" under "other".

AOCs are indiscernible units at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Examples of AOCs include areas where loading and unloading of chemicals may have occurred or an area of contamination with no known source.

Do not include hazardous waste units that are currently being permitted in your Part B Application.

Landfill	☐ Yes	☒ No
Surface impoundment	☐ Yes	☒ No
Land farm	☐ Yes	☒ No
Waste pile	☐ Yes	☒ No
Incinerator	☐ Yes	☒ No
Storage tank	☐ Yes	☒ No
Container storage area	☒ Yes	☐ No
Injection wells	☐ Yes	☒ No
Wastewater treatment units	☐ Yes	☒ No
Transfer station	☒ Yes	☐ No
Waste recycling operations	☒ Yes	☐ No
Land treatment facility	☐ Yes	☒ No
Boiler/industrial furnace	☐ Yes	☒ No
Satellite accumulation areas	☒ Yes	☐ No
Less than 90-day storage units	☐ Yes	☒ No
Stormwater retention ponds	☒ Yes	☐ No
Septic tanks	☐ Yes	☒ No
Used oil/oil filter collection units	☒ Yes	☐ No
Aerosol can/drum crushers	☒ Yes	☐ No
On-ground areas, pits, ditches	☐ Yes	☒ No
Other (units not listed above)	☒ Yes	☐ No

DEP Form 62-730.900(2)(c), incorporated in Rule 62-730.220(2)(a), F.A.C., Effective Date: 12/2019

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2. For each "yes" answer in one (1.) above, on separate sheet(s) of paper:

   a. Describe the wastes that were stored, treated or disposed of in each unit, and whether the wastes would be considered hazardous wastes or hazardous constituents under RCRA. (Hazardous wastes are those identified in 40 CFR Part 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.) Include any available data on quantities or volumes of wastes disposed of and the dates of disposal.

   b. Describe each unit, type of unit including construction details, capacity, dimensions (supply any available drawings), and location at the facility on the topographic map provided under 40 CFR 270.14(b)(19). Provide a site plan, if available, and the dates of operation of the unit [40 CFR 270.14(d)(1)]. If the information has previously been submitted formally to the Department, references to the documents and or summary tables may be submitted to meet this requirement.

   c. Include a copy of federal, state and local permits or authorizations for SWMUs that may be permitted under other environmental programs.

3. For each unit described in two (2.) above, and for each hazardous waste unit in your Part B application [40 CFR 270.14(d)(2)], on separate sheet(s) of paper, provide available data on all prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or may still be occurring. If the data has previously been submitted formally to the Department, references to the documents and or summary tables may be submitted to meet this requirement. Provide the following information for each SWMU/AOC:

   a. Date of release
   b. Estimated or known quantity or volume of waste released
   c. Location of the release
   d. Describe the nature of the release (i.e., spill, overflow, ruptured pipe or tank, etc.).

4. Provide, for each unit, all available analytical data that describes the nature and extent of the environmental contamination due to the releases described in three (3.) above, on separate sheet(s) of paper. Focus on the concentrations of hazardous wastes or constituents present in contaminated media (e.g., soil, sediment, surface water and groundwater) [40 CFR 270.14(d)(3)]. If the information has previously been submitted formally to the Department, references to the documents and or summary tables may be submitted to meet this requirement.

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APPLICATION FOR A HAZARDOUS WASTE FACILITY PERMIT
CERTIFICATION
TO BE COMPLETED BY ALL APPLICANTS

Signature and Certification

Facility Name US Ecology Tampa, Inc.

EPA/DEP I.D. No. FLD981932494

The following certifications must be included with the submittal of an application for a hazardous waste authorization. The certifications must be signed by the owner of a sole proprietorship; or by a general partner of a partnership; or by a principal executive officer of at least the level of vice president of a corporation or business association, or by a duly authorized representative of that person. If the same person is a facility operator, facility owner, and real property owner, that person can cross out and initial the signature blocks under "1. Facility Operator" and "2. Facility Owner," and add the words "Facility Owner and Operator" at the line "Signature of the Land Owner or Authorized Representative."

1. Facility Operator

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, I agree to comply with the provisions of Chapter 403, Florida Statutes, and all rules of the Department of Environmental Protection. It is understood that the permit is only transferable in accordance with Chapter 62-730, Florida Administrative Code (F.A.C.), and, if granted a permit, the Department of Environmental Protection will be notified prior to the sale or legal transfer of the permitted facility.

Signature of the Operator or Authorized Representative*

Ken Dean / Environmental Compliance Manager
Name and Title (Please type or print)

Date October 3, 2023 E-mail address KDean2@RepublicServices.com

Telephone (813) 319-3433

*** Attach a letter of authorization**

DEP Form 62-730.900(2)(d), incorporated in Rule 62-730.220(2)(a), F.A.C., Effective Date: 12/2019

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2. Facility Owner

This is to certify that I understand this application is submitted for the purpose of obtaining a permit to construct, operate, or conduct remedial activities at a hazardous waste management facility on the property as described. As owner of the facility, I understand fully that the facility operator and I are jointly responsible for compliance with the provisions of Chapter 403, Florida Statutes, and all rules of the Department of Environmental Protection.

Same as above
_____
Signature of the Facility Owner or Authorized Representative*

_____
Name and Title (Please type or print)

Date _____ E-mail address _____

Telephone (____) _____

*** Attach a letter of authorization**

3. Land Owner

This is to certify that I, as land owner, understand that this application is submitted for the purpose of obtaining a permit for the construction, operation, postclosure or corrective actions of a hazardous waste management facility on the property as described. For hazardous waste facilities that close with waste in place, I further understand that I am responsible for providing the notice in the deed to the property required by 40 CFR 264.119 and 265.119, as adopted by reference in Chapter 62-730, F.A.C.

Same as above
_____
Signature of the Land Owner or Authorized Representative*

_____
Name and Title (Please type or print)

Date _____ E-mail address _____

Telephone (____) _____

*** Attach a letter of authorization**

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4. Professional Engineer Registered in Florida

Complete this certification when required to do so by Chapter 471, F.S., or when not exempted by Rule 62-730.220(9), F.A.C.

This is to certify that the engineering features of this hazardous waste management facility have been designed or examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgement, this facility, when properly constructed, maintained and operated, or closed, will comply with all applicable statutes of the State of Florida and rules of the Department of Environmental Protection.

_____
Signature

Francisco J. "Paco" Amram, P.E.
Name (please type)

Florida Registration Number 45133

Mailing Address 4517 George Road, Suite 220
Street or P.O. Box

Tampa | FL | 33634
City | State | Zip

Date October 3, 2023 E-mail address pamram@pacscon.com

Telephone (813) 503-6319

(PLEASE AFFIX SEAL)

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

DEP Form 62-730.900(2)(d), incorporated in Rule 62-730.220(2)(a), F.A.C., Effective Date: 12/2019

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5. Professional Geologist Registered in Florida

Complete this certification when required to do so by Chapter 492, F.S., or when not exempted by Rule 62-730.220(10), F.A.C.

This is to certify that the interpretations of geology at this hazardous waste management facility have been examined by me, and the interpretations conform to sound geological principles. In my professional judgement, this facility, when properly constructed, maintained and operated, or closed, will comply with all applicable statutes of the State of Florida and the rules of the Department of Environmental Protection.

Not Applicable
_____
Signature

_____
Name (please type)

Florida Registration Number _____

Mailing Address _____
Street or P.O. Box

_____
City State Zip

Date _____ E-mail address _____

Telephone (____) _____

(PLEASE AFFIX SEAL)

DEP Form 62-730.900(2)(d), incorporated in Rule 62-730.220(2)(a), F.A.C., Effective Date: 12/2019

LEVELS OF AUTHORITY POLICY

Note: This Policy is the property of Republic Services, Inc. and/or its subsidiaries (collectively referred to herein as "Republic" or the "Company") and is to be used in connection with the conduct of Republic's business. This Policy is not intended to and does not constitute or create contractual terms of employment. Refer to the Policies and Procedures Manual ("PPM") section of Inside Republic Services for the most current versions of Republic's Policies.

POLICY NUMBER: LOA-101	CATEGORY: Levels of Authority
ORIGINAL EFFECTIVE DATE: 12/05/2008	LATEST REVISION DATE: 7/11/2023
POLICY CONTACT(S) AND QUESTIONS: Director, Ethics & Compliance Questions also may be directed to EthicsandCompliance@RepublicServices.com	

POLICY HIGHLIGHTS:

- **Provides required scope and levels of management needed to review and approve significant business transactions and other commitments prior to their consummation.**
- **Provides guidance as to those positions/titles authorized to sign appropriate documentation to effectuate business transactions and other commitments – subject to all required approvals within the Levels of Authority.**

PURPOSE

This Policy defines the scope and levels of management required to review and approve business transactions and other commitments ("Levels of Authority") as delegated by Republic Services, Inc. ("Parent Company"), for itself and its subsidiaries ("Subsidiaries") (collectively, the Parent Company and Subsidiaries are referred to herein as "Republic" or the "Company"). This Policy further provides guidance as to those positions/titles that are authorized to sign the appropriate documentation to effectuate business transactions and other commitments on behalf of the Company, subject to all required approvals within the Levels of Authority being granted.

SCOPE

This Policy applies to all employees and third parties acting as representatives of the Company. Managers are expected to review this Policy with their employees and any representatives as it applies to positions and responsibilities to ensure an understanding of the requirements and that all approvals and signatures are properly obtained.

REQUIREMENTS AND RESPONSIBILITIES

Approval Authority

The Levels of Authority set forth all required levels of management that need to review and approve significant business transactions and other commitments prior to their consummation ("Approval Authority"). Unless indicated in the Levels of Authority, the designated Approval Authority may not be further delegated. All approvals must be documented in writing (includes emails and electronic signatures as acceptable formats) and retained for auditing purposes.

It is the responsibility of the Corporate Departments, having oversight of those transactions as set forth in the Levels of Authority, to establish and coordinate formal review processes to ensure that the appropriate responsible parties have performed all required reviews and due diligence **prior** to submitting documents to the designated Approval Authority. For example, Engineering, Finance and Legal approvals may not be included under the required Approval Authority; however, prior review may be required under the due diligence procedures established by the Corporate Departments.

Combining Transactions

Dividing a transaction into two or more parts to evade a limit of authority is prohibited and is a violation of this Policy. The Levels of Authority shall be interpreted broadly so that a series of reasonably related transactions and expenditures shall be considered as a single transaction for purposes of determining approval and authority levels required by this Policy.

Policy Exceptions

The CEO, COO, CFO or CLO may approve exceptions to this Policy, but not beyond the limits of their authority. Any exceptions must be documented in writing and maintained by the Director, Ethics & Compliance.

Signatory Authority

The required Approval Authority as set forth in the Levels of Authority does not represent the authorization to sign documents on behalf of the Parent Company and/or its Subsidiaries. Only those individuals and/or positions/titles that have been formally designated with the authority to sign documents as an officer or authorized agent by the appropriate governing authorities of the Parent Company and Subsidiaries may do so ("Signatory Authority"). The Levels of Authority provide a listing of positions/titles by action with Signatory Authority to execute documents (on behalf of the appropriate legal entity that is party to the specified transaction) for effectuating business transactions and other commitments **after** all Approval Authority requirements within the Levels of Authority have been granted in writing.

In addition to positions designated as authorized agents to sign certain documents, elected officers of the Parent Company and respective Subsidiaries have implied Signatory Authority to execute all documents on behalf of such legal entities. Examples include (i) Area Presidents serve as officers of Subsidiaries operating within their Areas; (ii) and Senior Vice President, Operations serves as an officer of all operating Subsidiaries. For additional information on routine signatory authorizations, refer to the Global Signatory Authority Resolutions as posted under the Legal Department section on Inside Republic Services.

Under no circumstances may any officer or designated authorized agent of Subsidiaries sign or agree to any obligation or agreement in the name or on behalf of the Parent Company (Republic Services, Inc.) or of any other legal entity of which the person is not authorized to do so. Any questions as to those elected officers that are authorized to sign on behalf of any Subsidiaries should be directed to the Legal Department. Inquiries related to officers of the Parent Company should be directed to the Senior Manager, Ethics & Compliance. For information as to the Subsidiaries and proper legal entity and fictitious names assigned to each operating location, refer to the Legal Entity by Division List as posted under the Legal Department section on Inside Republic Services.

Ethics and Compliance Responsibilities

All employees and third parties acting as representatives are expected to observe high standards of business and personal ethics in the conduct of their duties and responsibilities for Republic. Employees approving transactions and/or executing documents are required to ensure that all appropriate reviews and approvals required by the Levels of Authority and all other relevant policies and procedures of the Company have been obtained and that the appropriate documentation of these approvals is maintained. Violations of this Policy can significantly damage the Company and expose it to unintended legal and business consequences. Employees found to be in violation of this Policy may be subject to disciplinary action, up to and including termination of employment. Employees should report all instances of non-compliance with this Policy to a member of management or at EthicsandCompliance@RepublicServices.com.

POLICIES, PROCEDURES AND OTHER RESOURCES

- Code of Business Ethics and Conduct
- PPM SharePoint Site
- Speak Up Poster

SECTION 14: ENVIRONMENTAL PERMITS AND REPORTS – continued

[Note: Any indemnification provisions are subject to the Approval Authority set forth in Section 1 of this policy.]

The following Approval Authority and Signatory Authority under this Section 14 do not apply to the Parent Company (Republic Services, Inc.)

(Clean Water Act)

DESCRIPTION OF ACTIONS	APPROVAL AUTHORITY *(Approvals Required Prior to Signing Documents to Effectuate Transaction)* [Click Here for List of Abbreviated Titles] [Click Here for Further Guidance]	SIGNATORY AUTHORITY *(Authorized to Sign Transaction Documents)* [Click Here for Further Guidance]
NPDES Permit Applications, Stormwater Permits, Applications/NOI. (Federal Citation 40 CFR 122.22 (a)(1), 123 (a)(5)	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the GM is the preferred signer and AP also may sign as an Officer
Reports and Other Information Required by Permit. (Federal Citation 40 CFR 122.22 (a0(1), 123 (a)(5) [Note: Includes stormwater pollution prevention plans, reports and certifications required by general permit.]	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the Environmental Manager or DESD is the preferred signer and AP also may sign as an Officer
Wetlands Permit. (CWA Section 404) (Federal Citation 40 CFR 320-330; also state requirements must be addressed)	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the GM is the preferred signer and AP also may sign as an Officer
POTW/Industrial User Reports (Annual). (Federal Citation 40 CFR 403.12)	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the Environmental Manager or DESD is the preferred signer and AP also may sign as an Officer • Periodic (monthly and quarterly) POTW reporting can be signed by site operations management with authorization from GM

(RCRA – Solid Waste Facilities)

DESCRIPTION OF ACTIONS	APPROVAL AUTHORITY *(Approvals Required Prior to Signing Documents to Effectuate Transaction)* [Click Here for List of Abbreviated Titles] [Click Here for Further Guidance]	SIGNATORY AUTHORITY *(Authorized to Sign Transaction Documents)* [Click Here for Further Guidance]
Permit Applications. (Federal Citation 40 CFR 270.11 (a)(1))	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the GM is the preferred signer and AP also may sign as an Officer
Reports and Other Information Required by Permit. (Federal Citation 40 CFR 270.11 (b))	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the Environmental Manager or DESD is the preferred signer and AP also may sign as an Officer

SECTION 14: ENVIRONMENTAL PERMITS AND REPORTS – continued

[Note: Any indemnification provisions are subject to the Approval Authority set forth in Section 1 of this policy.]

Text Color Key:	
Text Color:	**Line of Business:**
Blue:	Solid Waste & Recycling (Field Groups 1 and 2)
Green:	Environmental Solutions (Field Group 3)
Black:	All (Field Groups 1, 2, and 3)

The following Approval Authority and Signatory Authority under this Section 14 do not apply to the Parent Company (Republic Services, Inc.)

(Other Permits)

DESCRIPTION OF ACTIONS	APPROVAL AUTHORITY *(Approvals Required Prior to Signing Documents to Effectuate Transaction)* [Click Here for List of Abbreviated Titles] [Click Here for Further Guidance]	SIGNATORY AUTHORITY *(Authorized to Sign Transaction Documents)* [Click Here for Further Guidance]
Other Permits that include Land Use Permits, Facility Permits, etc.	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• GM has signatory authority on behalf of the Subsidiaries; however, both positions must consult with the AEM, DESD and Legal Department • In the event Authorized Agents are unavailable, any Officers of Subsidiaries that includes the AP

(Other Tracking Documents)

DESCRIPTION OF ACTIONS	APPROVAL AUTHORITY *(Approvals Required Prior to Signing Documents to Effectuate Transaction)* [Click Here for List of Abbreviated Titles] [Click Here for Further Guidance]	SIGNATORY AUTHORITY *(Authorized to Sign Transaction Documents)* [Click Here for Further Guidance]
Manifests and Other Reporting. (Federal Citation 49 CFR 172.200)	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP **[Note: Other tracking documents such as manifests or leachate volume reports can be signed by site operations management with authorization from the GM. The regulations assume the person signing a manifest certification will have "personal knowledge" of the material being shipped.]**	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries and AP also may sign as an Officer • Other tracking documents such as manifests or leachate volume reports can be signed by site operations management with authorization from the GM (regulations assume the person signing a manifest certification will have "personal knowledge" of the material being shipped

(Special Waste Profiles)

DESCRIPTION OF ACTIONS	APPROVAL AUTHORITY *(Approvals Required Prior to Signing Documents to Effectuate Transaction)* [Click Here for List of Abbreviated Titles] [Click Here for Further Guidance]	SIGNATORY AUTHORITY *(Authorized to Sign Transaction Documents)* [Click Here for Further Guidance]
Special Waste Profiles. **Note: Profiles into a pre-approved 3rd party site should not require Republic approval if it has been through the Corporate 3rd party review and approval process.**	• GM or Designee: DM, Environmental Manager or Operations Manager	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries and AP also may sign as an Officer

8700-12FL - FLORIDA NOTIFICATION OF REGULATED WASTE ACTIVITY

DEP Waste Management Division–HWRS, MS4560
2600 Blair Stone Rd. Tallahassee, FL 32399-2400
(850) 245-8707

Date Received (for FDEP Official Use Only)

EPA ID: F L D 9 8 1 9 3 2 4 9 4

Please use the instructions document to complete this form
* mandatory fields

1. Reason for Submittal: (all submitters must complete pages 1 and 2 and sign page 7. Pages 3 through 6 - complete as applicable)

Mark 'X' in the correct box*: (must choose one if a notification)

- ☐ To obtain a new EPA ID number (for hazardous waste, universal waste, used oil activities, or PCW activities).
- ☒ To provide updated information for an EPA ID number (to update status and facility identification information).
- ☐ To provide the final information for an EPA ID number (closing). (see instructions—must complete pages 1, 2, 3, 7)
- ☐ To obtain new or updating an EPA ID number for conducting Electronic Manifest Broker activities.
- ☐ Submitting new or revised notification for Part A for permitted facilities.

FL Registration(s) ☒ UW Mercury (see page 4) ☒ HW Transporter (see page 5) ☒ Used Oil (see page 6)

2. Facility or Business Name:*

US Ecology Tampa, Inc.

3. Facility Physical Location Information: (No P.O. Boxes)

Physical Street Address*: 2002 North Orient Road ☐ Vessel

City or Town:	State:	Zip Code:
Tampa	FL	33619

County*:	Country (if not USA)*:
Hillsborough	

4. Facility or Business Mailing Address:

☐ Same address as #__ above or*:

7202 East 8th Avenue

City or Town*:	State*:	Zip/Postal Code*:	Country (if not USA):
Tampa	FL	33619	

5. Facility North American Industry Classification System (NAICS) Code(s)*: (at least 5 digits)

A. 5 6 2 2 1 1 (required)	B. 5 6 2 1 1 1
C. 5 6 2 2 1 9	D. 5 6 2 1 1 2

6. Facility or Business RCRA Contact Person: ☒ Same address as # 4 above or:

First Name*:	Last Name*:	Title*:
Ken	Dean	Environmental Compliance Mgr.

Phone Number*:	Extension*:	Fax*:
813-319-3433		813-626-7451

E-Mail*: KDean2@republicservices.com

Street or P.O. Box (or same address box is checked)*:

City or Town*:	State*:	Zip Code*:	Country (if not USA):

DEP Form 62-730.900(1)(b), adopted by reference in rule 62-730.150(2)(a), 62-710.500(1), and 62-737.400(3)(a)2., F.A.C. Effective Date: 12/2019 Page 1 of 10

RCRA Hazardous Waste Status Notification or Out of Business Notification	EPA ID No.* FLD981932494

7. Real Property (FL Land) Owner of the Facility's Physical Location (List additional owners in the comments section.)

Name of Owner*: US Ecology Tampa, Inc.		Date became Owner*: 06 / 28 / 19 ☐ New Owner mm dd yy	
Street or P.O. Box (or same address box is checked)*:		Phone Number*:	
City or Town*:	State*:	Zip Code*:	Country (if not USA):
E-Mail*:			
Owner Type*: ☒ Private ☐ Federal ☐ Municipal ☐ State ☐ County ☐ Other_____			
Comments:			

8. Facility Operator (List additional Operators in the comments section). Same address as #_4_ above or:

Name of Operator*:		Date became Operator*: ____/____/____ ☐ New Operator mm dd yy	
Street or P.O. Box (or same address box is checked)*:		Phone Number*:	
City or Town*:	State*:	Zip Code*:	Country (if not USA):
E-Mail*:			
Operator Type*: ☐ Private ☐ Federal ☐ Municipal ☐ State ☐ County ☐ Other_____			
Comments:			

9. RCRA Hazardous Waste Activities at this Facility: (Mark 'X' in all that apply):

(1) Generator of Hazardous Waste

☒ Yes ☐ No (This does not include Universal Waste or Used Oil)

If YES, Choose only one of the following three categories.

☒ **a. Large Quantity Generator (LQG):**
- Generates in any calendar month (includes quantities imported by importer site) 1,000 kilograms or greater per month (kg/mo) (2,200 lbs/mo.) of non-acute hazardous waste; or
- Generates in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs/mo) of acute hazardous waste; or
- Generates in any calendar month, or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.

☐ **b. Small Quantity Generator (SQG):**
- Generates in any calendar month greater than 100kg/mo but less than 1,000 kg/mo (>220 to <2,200 lbs.) of non-acute hazardous waste and/or 1 kg (2.2 lbs) or less of acute hazardous waste and/or no more than 100 kg (220 lbs) of any acute hazardous spill cleanup material.

☐ **c. Very Small Quantity Generator (VSQG):**
- Generates in any calendar month 100 kg/mo or less (220 lbs.) of non-acute hazardous waste and/or 1 kg (2.2 lbs) or less of acute hazardous waste.

In addition, indicate other generator activities that apply.

☐ **d.** Short-Term Generator (one-time, not on-going)
☐ **e.** Mixed Waste (hazardous and radioactive) Generator
☒ **f.** United States Importer of hazardous waste
☐ **g.** LQG notifying of VSQG Hazardous Waste Under Control of the Same Person pursuant to 40 CFR 262.17(f). **(Addendum A Required)**
☐ **h.** Episodic: Not lasting more than 60 days: ☐SQG ☐LQG **(Addendum B Required)**
☐ **i.** Electronic Manifest Broker, as defined in 40 CFR 260.10, electing to use EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator.

RCRA Hazardous Waste Status Notification or Out of Business Notification	EPA ID No.* FLD981932494

9. RCRA Hazardous Waste Activities at this Facility continued: (Mark 'X' in all that apply):

For Items 3 through 9, mark 'X' in all that apply.

(2) Treater, Storer, or Disposer of Hazardous Waste (at your facility—Choose Only One) Note: A hazardous waste permit may be required for this activity.

- [X] a. Operating Commercial TSD
- [ ] b. Operating Non-Commercial TSD
- [ ] c. Non-Operating: Postclosure or Corrective Action Permit or Order (HSWA, etc.)

(3) Recycler of Hazardous Waste (at your facility)

Specify: [ ] Commercial [ ] Non-Commercial

Specify: [ ] Stores prior to recycling [ ] Does not store prior to recycling.
Note: A permit maybe required for storage prior to recycling.

(4) Exempt Boiler and/or Industrial Furnace

- [ ] a. Small Quantity On-site Burner Exemption
- [ ] b. Smelting, Melting, and Refining Furnace Exemption

(5) Person Authorized to Manage Very Small Quantity Waste Generated at Other Facilities
Choose this management activity ONLY if you attach
EITHER a copy of your application for such authorization OR the authorization you received from FDEP.

(6) Receives Hazardous Waste from Off-Site

(7) Underground Injection Control

(8) **Recognized Trader—** Mark all that apply

- [ ] a. Importer
- [ ] b. Exporter

(9) Importer/ Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR subpart G— Mark all that apply

- [ ] a. Importer
- [ ] b. Exporter

10. Waste Codes for Federally Regulated Hazardous Wastes*: List the waste codes of the Federal hazardous wastes handled at your facility. List them in the order they are presented in the regulations (e.g., D001, D003, F007, K019, P012, U112).
Hazardous waste transporters must list codes routinely or usually transported. Use comments or an additional page if more spaces are needed.

1 D001	2 D002	3 D003	4 D004	5 D005	6 D006	7 D007
8 D008	9 D009	10 D010	11 D011	12 D012	13 D013	14 D014
15 D015	16 D016	17 D017	18 D018	19 D019	20 D020	21 D021

11. Other Status Changes (If no longer handling waste or closed, items 9 and 10 should be left blank and items 12-16 skipped):

(A) Central Accumulation Area (CAA) or Facility Closed:

- [ ] Central Accumulation Area (CAA)
- [ ] Facility Closed (Complete this section only if all business activities at this facility have ceased.)

(B) Closure Dates:

- [ ] (1) Expected closure date _____ (date in mm/dd/yyyy)
- [ ] (2) Requesting new closure date _____ (date in mm/dd/yyyy)
- [ ] (3) Date of closure: _____ (date in mm/dd/yyyy)
  - [ ] a. In compliance with the closure performance standards in 40 CFR 262.17(a)(8)
  - [ ] b. Not in compliance with the closure performance standards in 40 CFR 262.17(a)(8)

(C) Property Tax Default [ ] **(D) Petition for Bankruptcy Protection** [ ]

DEP Form 62-730.900(1)(b), adopted by reference in rule 62-730.150(2)(a), 62-710.500(1), and 62-737.400(3)(a)2., F.A.C. Effective Date: 12/2019 Page 3 of 10

Universal Waste Notification and Mercury Transporter/Handler Registration | EPA ID No.* FLD981932494

12. Universal Waste (UW) Activities (Mark 'X' and complete all that apply) :

A. Federal Notification

☐ **Federally Defined Large Quantity Handler (LQH) = Generate/Accumulate: 5,000 kg (11,000 lb) or more of any combination of UW accumulated (at any one time)**

Accumulates: ☐ **a. UW Batteries** ☐ **b. Pesticides** ☐ **c. Pharmaceuticals** ☐ **d. Mercury Containing Devices** ☐ **e. Mercury Containing Lamps**

☐ **Destination Facility for UW** Note: For this activity, a facility must treat, dispose, or recycle a UW. A permit is required for storage prior to recycling.

B. Florida Universal Pharmaceutical Waste (UPW): one-time notification

☐ Pharmaceuticals **LQH** = 5,000 kg or more of Universal Pharmaceutical Waste (UPW) accumulated (at any one time)

☒ Pharmaceuticals **Acute LQH** = more than 1 kg (2.2 lb) of acutely hazardous ("P-listed") pharmaceutical waste (UPW) accumulated (at any one time)

☒ **Reverse Distributor** of Universal Pharmaceutical Waste (UPW) (must be permitted with the Florida Department of Business and Professional Regulation [DBPR])

☒ Florida Universal Pharmaceutical Waste (**UPW**) Transporter

C. Florida Annual Mercury Handler Registration:

For-hire transporters, transfer facilities, handlers, reclamation and recovery facilities of Mercury-Containing Lamps and Devices operating in the State of Florida are required to register annually with the Department using this section of the form [Chapter 62-737, F.A.C.]. A one-time fee of $1,000 is required for first time registration as a Large Quantity for-hire Handler of Mercury-Containing Lamps and Devices as detailed in 62-737.400(3)(a)3.,F.A.C. (please contact FDEP first).

If you only generate lamps and/or devices or manage pharmaceuticals, do not register or complete the information below.

(1) This form is being submitted as a Florida Registration of Universal Waste Mercury Transporter/Handler for-hire Activities

☐ 1st Annual Registration ☒ Annual Renewal ☐ One-time $1,000 fee for Mercury for-hire first time LQH registration is attached

☒ For-hire **Transporter** of Universal Waste Mercury-Containing Lamps or Devices ☒ For-hire **Transfer Facility** of Universal Waste Mercury-Containing Lamps or Devices ☒ Mercury-Containing Devices (thermostats, etc.) **SQH** = less than 100 kg accumulated by for-hire handler ☒ Mercury-Containing Lamps **SQH** = less than 2,000 kg (8,000 lamps) accumulated by for-hire handler	Annual Registration Required
☐ Mercury-Containing Devices **LQH** = 100 kg (220 lb) or more accumulated at any one time by for-hire handler ☐ Mercury-Containing Lamps **LQH** = 2,000 kg (4400 lbs/8,000 lamps) or more accumulated by for-hire handler	Annual Registration + one– time $1,000 fee+ More Requirements (contact FDEP)
(2) Mercury Recovery and/or Reclamation Facility (A hazardous waste permit is required for this activity) ☐ 1st Annual Registration ☐ Annual Renewal	Annual Registration Required

Briefly Describe your Universal Waste Activities: ☐ We use Drum Top Bulb Crusher(s).

Hazardous waste TSDF. Material is collected from various generators, received at the facility, then sent off-site for recycling or final disposal.

13. Other State Regulated Waste Activities: **Petroleum Contact Water (PCW)** ☐ **Recovery** ☐ **Transport** [62-740 F.A.C.]

Note: A water facility permit may be required for this activity. An annual report is required for a recovery facility pursuant to Rule [62-740.300(5)] F.A.C.

DEP Form 62-730.900(1)(b), adopted by reference in rule 62-730.150(2)(a), 62-710.500(1), and 62-737.400(3)(a)2., F.A.C. Effective Date: 12/2019 Page 4 of 10

Hazardous Waste Transporter and Academic Laboratories	EPA ID No.* FLD981932494

14. HW Transporter Activities: (Mark 'X' and complete all that apply if you need to register your HW Transporter activities)

Transporters of and Transfer Facilities for Hazardous Waste in the State of Florida are required to register and annually renew their registration. Evidence of casualty/liability insurance pursuant to 62-730.170(2)(a) is required as part of this registration. Transporters and transfer facilities may only begin operations after receiving approval from the Department.

Generators who transport waste only within the boundaries of their facility should NOT register in box 14.A below.

A. HW Transporter Registration Information (must be completed annually and when this information changes**)**

This form is: ☐ **Initial Registration** ☒ **Renewal** ☐ **Notification of changes** ☐ **Cancel Registration**

☐ 1. For own waste only

☐ 2. For commercial purposes

☒ 3. Both commercial and own waste

4. **Transportation Mode** ☐ Air ☐ Rail ☒ Highway ☐ Water ☐ Other - specify _____

B. HW Transfer Facility Registration Information (must be completed annually and when this information changes**)**

☒ **This facility is a Hazardous Waste Transfer Facility: (as listed in Item 3)** Storage Volume 20,000 Gallons or 100 Cubic Yads

This form is: ☐ **Initial Registration** ☒ **Renewal** ☐ **Notification of changes** ☐ **Cancel Registration**

Note: Hazardous Waste transfer facilities must comply with the requirements of Rule 62-730.171, F.A.C., and Rule 62-730.182, F.A.C.

The Transfer Facility records required under the provisions of Rule 62-730.171(6) , F.A.C., are kept at (check one):
☐ Our mailing (business) address ☒ The site (facility) address

Please enter the EPA ID Number of the HW Transporter who carries the insurance for this Transfer Facility:

F	L	D	9	8	1	9	3	2	4	9	4

Please see 14.C for additional items to be submitted for registration of a Hazardous Waste Transfer Facility [Rule 62-730.171(3), Florida Administrative Code (F.A.C.)]:

C. The following items are required to be submitted with the initial notification for a **transfer facility** and any changed items must be submitted with any subsequent submission [Rule 62-730.171(3), Florida Administrative Code (F.A.C.)] :

__Certification by a responsible corporate officer of the transporter facility that the proposed location satisfies the criteria of Section 403.7211(2), Florida Statutes (F.S.) [Rule 62-730.171(3)(a)1., F.A.C.]

__Evidence of the transporter facility's financial responsibility [Rule 62-730.171(3)(a)3., F.A.C.]

__A brief general description of the transfer facility operations [Rule 62-730.171(3)(a)4., F.A.C.]

__A copy of the facility closure plan [Rule 62-730.171(3)(a)5., F.A.C.]

__A copy of the contingency and emergency plan [Rule 62-730.171(3)(a)6., F.A.C.]

__A map or maps of the transfer facility [Rule 62-730.171(3)(a)7., F.A.C.]

15. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

☐ 1. **Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories**

See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:

☐ a. College or University
☐ b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university
☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

☐ 2. **Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories**

Used Oil and Hazardous Secondary Material	EPA ID No.* FLD981932494

16. Used Oil and Used Oil Filter Activities: (Mark 'X' and complete all that apply)

Transporters (exemptions in 40 CFR 279.40(a)(1-4)), transfer facilities, processors, off-specification burners, and/or marketers must annually register with the Department using this form. An annual $100 registration fee is required for all, except used oil (UO) Processors and collection centers.

This form is: ☐ Initial Registration ☒ Renewal ☐ Notification of changes ☐ Cancel Registration

☐ If applicable, a check or money order, in the amount of $100, payable to Florida Department of Environmental Protection is enclosed. UO Collection Centers must check 16.(2) of this form (not as a registration).

(1) Used Oil Transporter - mark 'X' in all that apply: (occurring in Florida)

☒ a. Transporter (off-site) and noncontiguous locations

☒ b. Transfer Facility

(2) ☐ Collection Center (From businesses, no more than 55 gal per shipment)

(3) ☐ Used Oil Processor **(A permit is required.)**

(4) ☐ Used Oil Re-refiner **(A permit is required.)**

(5) ☐ Off-Specification Used Oil Burner
☐ Utility Boiler ☐ Industrial Boiler ☐ Industrial Furnace

(6) Used Oil Fuel Marketer ☐ On-Spec ☐ Off-Spec

(7) Used Oil Filter Management **(**must annually register)

☒ a. Transporter

☒ b. Transfer Facility

☐ c. Processor (Annual Report Required)

☐ d. End User (see instructions for definition)

(8) The records required under the provisions of Rule 62-710.510, FAC, are kept at (check one):

☐ Our mailing (business) address (as listed in Item 4)

☒ The site (facility) address (as listed in Item 3)

(9) Used Oil Transporters: (Exemptions in 40 CFR 279.40(a)(1-4))

- ALL registered UO transporters must submit an annual report except generators transporting UO from noncontiguous operations within their own company.
- UO transporters transporting off-site over public highways only within their own company must submit proof of insurance.
- UO transporters transporting more than 500 gallons/year must submit proof of insurance annually, and must sign and certify this submission as a certified used oil transporter in section 19 (except those exempted by Rule 62-710.600(1), F.A.C.).

☐ The used oil annual report is attached ☐ Evidence of Liability Insurance pursuant to 62-710.600(2)(e)., F.A.C. is attached.

17. Notification of Hazardous Secondary Material (HSM) Activity

(1) ☐ Notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), or (27). **(Addendum C Required)**

(2) ☐ Notifying under 40 CFR 260.43(a)(4)(iii) that the product of your recycling process has levels of hazardous constituents that are not comparable to or unable to be compared to a legitimate product or intermediate but that the recycling is still legitimate. **(Addendum C Required)**

Required signature page	**EPA ID No.*** FLD981932494

18. Comments (attach a page if more space is needed):

See Attachment 1 for additional EPA Waste Codes.

19. Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.

☒ **I certify as a Used Oil Transporter** that I am familiar with the applicable Florida and Federal laws and rules governing used oil transportation and have an annual and new employee training program in place covering the applicable used oil rules. Evidence of financial responsibility is demonstrated by the Used Oil Transporter Certificate of Liability Insurance, DEP form 62-730.900(5)(a), F.A.C..

Signature of owner, operator, or an authorized representative:	**Date Signed (mm-dd-yyyy):** 10/3/23
Print Name (First, Middle Initial, Last): Kenneth S. Dean	**Title:** Environmental Compliance Manager
Organization: US Ecology Tampa, Inc.	**Used Oil** ☒
Email: KDean2@republicservices.com	
Signature of owner, operator, or an authorized representative:	**Date Signed (mm-dd-yyyy):**
Print Name (First, Middle Initial, Last):	**Title:**
Organization:	**Used Oil** ☐
Email:	

If the person that filled in this form is not the Facility Contact or Operator, please complete the information below:

Christopher Poole	(813) 746-9896	cpoole@pacscon.com
(Name of person completing this form)	(Phone Number)	(E-mail Address)

DEP Form 62-730.900(1)(b), adopted by reference in rule 62-730.150(2)(a), 62-710.500(1), and 62-737.400(3)(a)2., F.A.C. Effective Date: 12/2019 Page 7 of 7

US Ecology Tampa, Inc.

PERMITTED HAZARDOUS WASTE CODES

CHARACTERISTIC WASTE

D001	D002	D003	D004	D005	D006	D007	D008	D009	D010	D011	D012	D013	D014	D015	D016	D017	D018
D019	D020	D021	D022	D023	D024	D025	D026	D027	D028	D029	D030	D031	D032	D033	D034	D035	D036
D037	D038	D039	D040	D041	D042	D043											

HAZARDOUS WASTE FROM NON-SPECIFIC SOURCES

F001	F002	F003	F004	F005	F006	F007	F008	F009	F010	F011	F012	F019	F020	F021	F022	F023	F024
F025	F026	F027	F028	F032	F034	F035	F037	F038	F039								

HAZARDOUS WASTE FROM SPECIFIC SOURCES

K001	K002	K003	K004	K005	K006	K007	K008	K009	K010	K011	K013	K014	K015	K016	K017	K018	K019
K020	K021	K022	K023	K024	K025	K026	K027	K028	K029	K030	K031	K032	K033	K034	K035	K036	K037
K038	K039	K040	K041	K042	K043	K044	K045	K046	K047	K048	K049	K050	K051	K052	K060	K061	K062
K069	K071	K073	K083	K084	K085	K086	K087	K088	K093	K094	K095	K096	K097	K098	K099	K100	K101
K102	K103	K104	K105	K106	K107	K108	K109	K110	K111	K112	K113	K114	K115	K116	K117	K118	K123
K124	K125	K126	K131	K132	K136	K141	K142	K143	K144	K145	K147	K148	K149	K150	K151	K161	

DISCARDED COMMERCIAL CHEMICAL PRODUCTS, OFF-SPECIFICATION SPECIES, CONTAINER RESIDUES AND SPILL RESIDUES THEREOF

P001	P002	P003	P004	P005	P006	P007	P008	P009	P010	P011	P012	P013	P014	P015	P016	P017	P018
P020	P021	P022	P023	P024	P026	P027	P028	P029	P030	P031	P033	P034	P036	P037	P038	P039	P040
P041	P042	P043	P044	P045	P046	P047	P048	P049	P050	P051	P054	P056	P057	P058	P059	P060	P062
P063	P064	P065	P066	P067	P068	P069	P070	P071	P072	P073	P074	P075	P076	P077	P078	P081	P082
P084	P085	P087	P088	P089	P092	P093	P094	P095	P096	P097	P098	P099	P101	P102	P103	P104	P105
P106	P108	P109	P110	P111	P112	P113	P114	P115	P116	P118	P119	P120	P121	P122	P123	P127	P128
P185	P188	P189	P190	P191	P192	P194	P196	P197	P198	P199	P201	P202	P203	P204	P205		

U001	U002	U003	U004	U005	U006	U007	U008	U009	U010	U011	U012	U014	U015	U016	U017	U018	U019
U020	U021	U022	U023	U024	U025	U026	U027	U028	U029	U030	U031	U032	U033	U034	U035	U036	U037
U038	U039	U041	U042	U043	U044	U045	U046	U047	U048	U049	U050	U051	U052	U053	U055	U056	U057
U058	U059	U060	U061	U062	U063	U064	U066	U067	U068	U069	U070	U071	U072	U073	U074	U075	U076
U077	U078	U079	U080	U081	U082	U083	U084	U085	U086	U087	U088	U089	U090	U091	U092	U093	U094
U095	U096	U097	U098	U099	U101	U102	U103	U105	U106	U107	U108	U109	U110	U111	U112	U113	U114
U115	U116	U117	U118	U119	U120	U121	U122	U123	U124	U125	U126	U127	U128	U129	U130	U131	U132
U133	U134	U135	U136	U137	U138	U140	U141	U142	U143	U144	U145	U146	U147	U148	U149	U150	U151
U152	U153	U154	U155	U156	U157	U158	U159	U160	U161	U162	U163	U164	U165	U166	U167	U168	U169
U170	U171	U172	U173	U174	U176	U177	U178	U179	U180	U181	U182	U183	U184	U185	U186	U187	U188
U189	U190	U191	U192	U193	U194	U196	U197	U200	U201	U203	U204	U205	U206	U207	U208	U209	U210
U211	U213	U214	U215	U216	U217	U218	U219	U220	U221	U222	U223	U225	U226	U227	U228	U234	U235
U236	U237	U238	U239	U240	U243	U244	U246	U247	U248	U249	U271	U278	U279	U280	U328	U353	U359
U364	U367	U372	U373	U387	U389	U394	U395	U404	U409	U410	U411						

2.0 GENERAL FACILITY INFORMATION

2.1 Permit Renewal Overview

This submittal is intended to renew the existing hazardous waste operating permit (34875-017-HO) for the US Ecology Tampa, Inc. (USET) facility (see Site Location Map, **Figure 1**) located at 7202 East 8th Avenue, Tampa, Hillsborough County, FL 33619. Site Area and Surrounding Area Maps are presented as **Figures 2** and **3**, respectively. An Overall Facility Layout Plan (**Figure 7**), a Permitted Facility Layout Plan (**Figure 8**), and a Boundary Survey (**Figure 9**) present surveyed, to-scale plans of the facility's processing, storage and office buildings, parking lots, retention ponds and adjoining and adjacent streets and offsite parcels. All figures referenced in this application are presented in **Volume 3 of 3** of the consolidated permit application.

The total existing hazardous waste storage capacities by facility building/storage at the USET facility are summarized below:

MAXIMUM HAZARDOUS WASTE STORAGE CAPACITY BY AREA

Building/Storage Area	Status	Location at Facility	SWMU	Capacity
CSB[1], ISCA[2], I/O[3,7] Staging Area, Low Explosive Magazine, Consolidation Platform, and RUNI Screw Compactor	Existing	2002 N. Orient Road, 7202 E. 8th Avenue, and Parking Lot West of Office Building	1, 2, 7, 8, 11, 21, 22	50,000 gallons[6]
WPB[4]	Existing	7202 E. 8th Avenue, West of Office Building	7	9,900 gallons
10-day Transfer Area	Existing	7202 E. 8th Avenue, Parking Lot, West of Office Building	11	20,000 gallons or 100 CY
BCSAs[5]	Existing	Parking Lot, South of E. 9th Avenue, North and West of Office Building	20a-20c	800 CY
Total Existing Hazardous Waste Storage Capacity:				**79,900 gallons + 800 CY**

NOTES:
1. CSB = Container Storage Building
2. ISCA = Improved Secondary Containment Area
3. I/O = Inbound/Outbound Staging Area
4. WPB = Waste Processing Building
5. Bulk Container Storage Areas
6. The 2,000-gallon storage for SWMU-21 is included in the 50,000-gallon total capacity.
7. The inbound staging area capacity of 20,000 gallons is not included in the 50,000-gallon total capacity; the outbound staging area capacity is a part of the 50,000-gallon total capacity.

This application has been prepared as a renewal for the current Resource Conservation and Recovery Act (RCRA) Hazardous and Solid Waste Amendment (HSWA) Operating Permit, No. 34875-017-HO,

finalized on April 13, 2023. While submitting this permit renewal application, USET is proposing the following minor changes to the existing permit:

1. With Florida Department of Environmental Protection (FDEP or Department) approval, the shredder was removed from the Waste Processing Building (WPB), which is designated Solid Waste Management Unit (SWMU) 7, on September 15, 2023. The recovered floor space in the northwestern portion of the WPB will be utilized for non-specific operational purposes (see **Figure 18**).

2. Move SWMU 16, the Universal Waste Lamp Storage Area, to the center dock location on the west side of the Consolidation Platform, SWMU 21 (see **Figure 12**).

3. Move SWMU 5, the Municipal Waste Dumpster, generally adjacent to the northeast corner of the Consolidation Platform, SWMU 21 (see **Figure 12**).

4. Request approval for the In-Transit Truck Staging Area located in Area 3 of the adjacent leased property (see **Figure 7**) to be used for both inbound shipments (as currently approved) and the overnight staging of outbound tractor trailers, box trucks, and/or roll-off trucks awaiting offsite transport.

The facility General Information, Inspection Plan, Contingency Plan, Procedures, Training Program, WAP, Container Management, Closure Plan, Risk/Offsite Exposure Analysis, and other sections have been updated as part of this renewal application and revised to reflect facility changes and more detailed and accurate conditions, as necessary.

2.2 Facility Background and Layout

USET is a division of EQ Holding Company, a Michigan Corporation, and a wholly owned subsidiary of Republic Services.

Facility ID No.:	FLD 981 932 494
Current HSWA Permit No.:	34875-017-HO
Pending HSWA Permit No.:	34875-018-HO
Facility Name:	US Ecology Tampa, Inc.
Facility Address:	7202 East 8th Avenue, Tampa, FL 33619
Facility Telephone No.:	(813) 623-5302
Facility County:	Hillsborough

The USET facility is a permitted non-hazardous and hazardous waste storage and treatment facility and a registered hazardous waste transporter with a State-registered (on-site) transfer facility. No on-site disposal occurs at the USET facility. USET manages non-RCRA regulated waste, household hazardous waste, used oil and filters, mercury containing lamps and devices, TSCA-exempt and limited quantity exempt PCB and asbestos wastes, recyclable materials, and other similar substances, materials, and wastes. The primary waste management operations are: storage, consolidation and transfer of hazardous wastes, and treatment of hazardous wastes (D002, D004 through D011, and K062). The majority of inbound wastes are delivered to the CSB located at 2002 N. Orient Road. The I/O Staging Area is co-located with the 10-day Transfer Area on the East 8th Avenue property and used for incoming loads of hazardous waste awaiting receipt and unloading, and for full loads awaiting transportation to an offsite disposal and/or recycling facility. The In-Transit Truck Staging Area is located in Area 3 on the leased property located directly adjacent to the southeast of the East 8th Avenue property.

An Overall Facility Layout Plan, a Permitted Facility Layout Plan, and a Boundary Survey are included as **Figures 7** through **9**, respectively. A current aerial photograph of the site is utilized as the background of **Figures 7** through **15**, and a topographic map at a scale of 1 inch to 2,000 feet is included as Site Location Map, **Figure 1**. The facility is located outside the 100-year floodplain as indicated on the Federal Emergency Management Agency (FEMA) floodplain map included as **Figure 5**.

The land was previously undeveloped and no SWMUs were located on the site. The SWMUs currently identified on site are described in **Section 8.0**. The surrounding land uses are heavy industrial (see Figure **2** and **3**). These include two National Priority List (NPL) (Superfund) sites, metals recyclers, a construction debris transfer facility, steel cleaning and coating, fishery, gas manufacturing, pesticide formulator, and bail bonds businesses. The surrounding land uses are shown on **Figure 3**.

The facility is located in the City of Tampa in a heavy industrial zoned area known as Orient Park. The area zoning is shown on **Figure 4**. The City of Tampa classifies this area as suitable for hazardous waste facilities. The West Florida Regional Planning Council (WFRPC) in 1985 performed in-depth evaluations to locate a suitable area for a hazardous waste storage and treatment facility, and this area was among those chosen.

The USET facility comprises 4.46 acres, more or less (MOL), with processing, storage, transportation and administrative operations conducted on two separate but adjacent/contiguous parcels located north and south, respectively, of East 9th Avenue, Tampa, Florida.

The northern parcel, or Area 1, contains the 5,866 square foot (ft^2) totally enclosed CSB, with a "covered processing area" and "staging area" to the west and a retention pond to the east and adjacent to Orient Road (see **Figure 17**). The CSB is utilized for the container storage of hazardous waste and has three bays, Bay 1 (A & B), Bay 2, and Bay 3 (A & B). Within the Covered Processing Area is the ISCA discussed in **Section 2.3** below. Also located on the northern parcel is a small, one-story modular office building where receiving is done.

The southern parcel consists of a two-story office building with a small laboratory and adjoining Solid Waste Operations Area (see **Figure 8**), asphalt parking areas, retention ponds and the 8,050 square foot covered, open-sided WPB that houses the on-ground solid waste solidification tank, non-hazardous waste storage (drums and containers), on-ground hazardous waste treatment tank, storage area for hazardous waste chemicals (up to 9,900 gallons), and a low explosive reactives magazine (see **Figure 18**).

A RCRA Facility Assessment (RFA) of the USET facility was initiated on February 15, 1993. An RFA Addendum was prepared by FDEP on May 13, 2011. To date, there have been no releases to the environment of hazardous waste or hazardous waste constituents for any USET SWMU. Refer to **Figure 12** and **Appendix D** for further information regarding the existing SWMUs at this facility. All Appendices referenced in this application are included in **Volume 3 of 3** of the consolidated permit application.

2.3 Facility Operations Layout

Below is a detailed explanation of the various hazardous waste operations which occur within the defined buildings and existing permitted storage areas across the USET facility. The Area 1 through 3 designations indicated in the subtitles below correspond to those depicted on **Figure 7**.

2.3.1 CSB and ISCA – Area 1, 2002 N. Orient Rd. – 50,000 Gallon Capacity

The CSB (**Figure 17**) was built in accordance with the Florida Fire Prevention Code and is composed of three separate bays. The bays are separated by an eight-inch-wide concrete block wall and 4-hour fire rated doors. The concrete block wall extends from the floor to the roof and has been designed with a minimum fire-resistance-rating of four hours. Bays 1 and 3 are used for storage of all of the permitted hazardous waste codes (see **Appendix B**). Bay 2 is used for the storage of ignitables, reactives and cyanides only.

All solid and hazardous waste is received at the CSB before further processing and/or storage. The CSB (and adjoining ISCA) has a total permitted hazardous waste capacity of 50,000 gallons. Of those 50,000 gallons, a maximum of 20,000 gallons each is permitted for Bays 1 and 3, and a maximum of 10,000 gallons is permitted for Bay 2.The ISCA is located in the loading/unloading area within the Container Processing Area west of the CSB on the west-side of Bays 2 and 3A and is constructed with two concrete containment walls. As stated previously, it shares a maximum allowable capacity of 50,000 gallons with the CSB, so at no time will the combined waste capacities exceed 50,000 gallons. This 50,000-gallon total capacity amount is known to be consistent with the physical limitations of the CSB and adjacent ISCA. Actual day-to-day volume is usually less than 25,000 gallons/day. The ISCA was specifically constructed in order to provide secondary containment for the following operations:

1) *Recontainerization/Over-Packing*. Some of the waste received at the CSB will be recontainerized or over-packed from one container to another. Specifically, lab pack containers will be repackaged in accordance with the requirements of USDOT 49 CFR 173.12(b). In general, re-containerization includes consolidation of like waste into similar sized or larger containers. Wastes are transferred between containers by pumping (using a portable pump) or pouring directly from one container to another. All container transfer operations take place either within the CSB or the ISCA. Other recontainerization operations will include drum crushing and rag compacting (SWMU 18, **Figures 12 and 17**), loading to roll-offs, and loading to tanker truck. Loading to roll-offs and tanker trucks only takes place within the ISCA.
2) *Paint Can Crushing (SWMU 9)*. The facility receives water-based latex and solvent-based paint in containers up to 5-gallons for re-containerization and disposal. The majority of the paint received is from household waste. This operation will include opening the container, crushing the paint can, collecting the paint waste, collecting the empty containers, and containerizing the paint for transport off-site. This operation will take place within the permitted ISCA processing area identified on **Figures 12 and 17**.

All waste transfer and re-containerization is conducted utilizing "best management practices" (BMP). Hazardous wastes have already been profiled and approved as described in the USET Waste Analysis Plan (WAP) (see **Section 4)**. Each hazardous waste stream has been sampled and quality control verified as described in the USET WAP. Only compatible wastes are transferred or re-containerized in each batch operation. The same waste management practices for inspections, contingency, preparedness and prevention, training, precautions for ignitable, reactive, and

incompatible wastes, waste analysis, record keeping, and container management that apply for treatment and storage will also apply for waste transfer and re-containerization.

USET will utilize the container arrangement shown on **Figure 17**. The containers will normally be stored in a "single-stacked" arrangement, although small containers (such as 5-gallon pails) may be manually stacked on top of the "single stacked" containers. USET will occasionally utilize a double-stack container arrangement. Pallet jacks are used in the CSB due to the fact that they are smaller and easier to navigate than forklifts and more efficient, given the lack of room to maneuver within the CSB.

2.3.2 Platform and Compactor – Area 1, 2002 N. Orient Rd. – 2,000 Gallon Capacity

The consumer products consolidation platform (SWMU 21) consists of a semipermanent loading dock specifically designed and manufactured for the USET facility. The loading dock is semipermanent in the sense that the sections of the dock are essentially portable but are deployed in such a manner as they are a permanent consolidation platform solution as shown on **Figure 17**. The consolidation platform is anchored to monolithically poured concrete foundations and is manufactured of heavy-duty diamond plate treated with a marine grade epoxy for traction. It is 60 feet long by 16 feet wide and contains four truck loading docks and a set of stairs on the west side and another loading dock and a 30-foot-long by 8-foot-wide drive ramp on the east side. The consolidation platform is covered from the elements and sun using a canopy that is permanently mounted to poured in place concrete footings. The canopy has a maximum peak height of ±29 feet and can accommodate a maximum anticipated internal equipment clear hit of ±23 feet. The cover of the canopy is removable during periods of severe weather. Examples of wastes processed in this area may include paints, thinners, solvents, pesticides, herbicides, fertilizers, pool chemicals, motor oil, greases, hydraulic oils, acidic and caustic cleaners, and personal care products such as soaps, hair care, etc.

To contain any incidental spills or releases that may occur during processing operations, the entire footprint of the consolidation platform is secondarily contained at ground surface using either concrete curbing or drive-over spill containment berms, as appropriate. The concrete foundations and curbing are treated with an additive, Xypex Admix C-500/C-500 NF, which consists of Portland cement, silica sand and various active, proprietary chemicals that are added to the concrete mix at the time of batching. The active chemicals in the additive react with the moisture in fresh concrete and with the byproducts of cement hydration to cause a catalytic reaction that generates a non-soluble crystalline formation throughout the pores and capillary tracts of the concrete which permanently seals the concrete and prevents the penetration of water and other liquids from any direction.

Box trucks or trailers transporting retail waste or household hazardous waste (HHW) to the platform backup directly to the loading docks to offload and/or these materials are brought to this area from the CSB using a forklift or other type of acceptable transport method. Popup containments are deployed underneath the unloading areas to contain any incidental spills or releases that might happen during transfer operations. Following the completion of processing or recontainerization activities, containers are placed back inside the CSB for storage. A portion of the 50,000-gallon storage capacity for the CSB, ISCA, and the I/O Staging Area has been reallocated to the platform to account for the 2,000 gallons of storage allowed at this location. At no time will the authorized 50,000-gallon storage capacity be exceeded.

A RUNI SK370 screw compactor unit (SWMU 22) and conveyor system were installed with the consolidation platform and canopy. It is primarily used for processing containers of retail herbicides and pesticides and compacted dunnage. The discharge, toxic liquids, and reject materials from the screw compactor are contained in an IBC tote the contents of which are managed (recontainerized) on the consolidation platform when full. The RUNI screw compactor is permanently mounted to poured in place concrete footings and its operational footprint is secondarily contained at ground surface using either concrete curbing or drive-over spill containment berms, as appropriate, to contain incidental spills or releases. Activities performed using the screw compactor unit have been demonstrated to be exempt from air emission regulation under the Generic Emission Unit Exemption requirements in Rule 62-210.300(3)(b)1, F.A.C.

Rainwater accumulated in the containment areas or pop-up containments in the footprint of the consolidation platform and screw compactor is visually inspected for signs of impact, such as discoloration, turbidity or suspended solids, foam, an oil sheen, or other obvious indicators of potential pollution prior to draining. If there are no obvious indicators of potential pollution in the rainwater it is drained directly from the containments to the surface. Rainwater possessing obvious indicators of potential pollution is not drained directly to the surface and is addressed using absorbents or other applicable means until the indicator has been removed prior to draining, or the rainwater is pumped out of the containments and placed into the facility process. At the discretion of facility management, any potentially impacted rainwater in the containments may also be pumped out and transported offsite for proper disposal.

Certification of construction completion (dated July 25, 2023) of the consolidation platform (SWMU 21) and integral screw compactor unit (SWMU 22) was approved by the FDEP on September 11, 2023.

2.3.3 I/O Staging Area – Area 2, 7202 E. 8th Ave. – 20,000 Gallon Capacity

The I/O Area (SWMU 11) is only used for inbound loads waiting for unloading and receipt and outbound loads waiting for completed transportation paperwork. Vehicles/trailers in this area are marked as either an inbound load or an outbound load to avoid being confused with other vehicles/trailers that may also be located in the same vicinity. The inbound identification tags are clearly visible and include the vehicle/trailer number, manifest document number, trip number (if applicable), receipt date, container count and total gallons. The outbound identification tags are also clearly visible and include the trailer number, manifest document number, start date, destination, container count and total gallons. USET may be either the generator or the designated facility. The inbound staging area capacity of 20,000 gallons is not included in the 50,000-gallon total capacity. The outbound staging area capacity is a part of the 50,000-gallon total capacity.

2.3.4 10-Day Transfer Area – Area 2, 7202 E. 8th Ave. – 20,000 Gallon or 100 CY Capacity

The 10-Day Transfer Facility (SWMU 11) is used to store manifested hazardous waste on site for no longer than ten (10) days as allowed for transfer facilities. It will not be utilized for any waste where USET is the designated facility on the manifest or originated at the facility where USET is listed as the generator. Vehicles and trailers parked in this area are marked as a 10-Day vehicle/trailer to avoid being confused with other vehicles/trailers that may also be located in the same vicinity. The 10-day identification tags are clearly visible and include the vehicle/trailer number, manifest document number, start date, destination, container count and total gallons. Transfer facility waste shipments are noted in a separate Transfer Log (operating record).

2.3.5 WPB – Area 2, 7202 E. 8th Ave. – 9,900 Gallon Capacity

The WPB (SWMU 7) includes the following units/storage areas (see **Figure 18**):

1) A non-hazardous drum storage area.
2) A permitted Reactives Storage Container Unit used for the temporary storage of reactives only. The total capacity of the magazine is 575 gallons which is included within the 50,000-gallon waste storage capacity shared between the CSB, ISCA and I/O Area.
3) A non-hazardous waste solidification tank.
4) A permitted hazardous waste treatment tank.
5) A hazardous waste storage area with a permitted capacity of 9,900 gallons.

The 8,050 ft^2 WPB has a total calculated storage capacity of 185,360 gallons (refer to **Appendix G**) and complies with 264.175(a) and 264.175(b)(1) through (b)(5). The entire WPB is surrounded by a concrete curb. The concrete slab in the north side of the building is sloped towards the center of the north side, which directs liquids towards a 50-gallon subsurface sump in that location. The concrete slab in the southern portion of the building is sloped towards a subsurface sump located near the south side of the building. These sumps allow for more efficient removal of liquids. Liquids accumulated in the sumps, from leakage or spills of containers (if any), will be managed as the waste which caused the leak or spill and be placed into the appropriate treatment/solidification tank (non-hazardous or hazardous), a tanker truck, or other container by suitable means (such as pumping to drums). Spillage of liquids on the hazardous waste side of the operations (southern end of the building) will be routed to the sump in this portion of the building. Spillage of liquids on the non-hazardous side of the operations (northern end of the building) will be primarily routed to the sump in this portion of the building, although some may drain to the sump in the hazardous waste operations area.

In order to separate the hazardous waste operations from the solid waste operations, a 12-in wide bright yellow line delineates between the two access ramps on the east and west sides of the treatment building and separating the north from the south sides. A similar bright yellow line encompasses the perimeter of the reactives magazine.

The following operations are also performed at the WPB:

1) Recontainerization/Over-Packing. Some of the waste received at the WPB will be re-containerized or over-packed from one container to another. In general, recontainerization includes consolidation of like waste into similar sized or larger containers. Wastes are transferred between containers by pumping (using a portable pump) or pouring directly from one container to another. The applicable management practices discussed for the CSB in **Section 2.3.1** will apply to the management of recontainerized material handled in the WPB.
2) Clean, RCRA-empty roll-offs and/or dump trailers are positioned on the south side of the WPB in close proximity to the Hazardous Waste Treatment Tank, loaded with treated material, and then moved onto a roll-off truck which then re-locates the roll-off box into one of the four permitted bulk container storage areas discussed below in **Section 2.3.5**.

2.3.6 BCSAs – Area 2, 7202 E. 8th Ave. – 800 CY Capacity

The BCSAs (SWMU 20a through 20c) are for hazardous waste that has been treated in the hazardous waste treatment tank, sampled for confirmatory analysis, is a solid (passes the paint filter test), and has been removed from the treatment tank. Until confirmatory analysis is received from

a certified laboratory, the waste will be considered hazardous waste. When the treated waste's confirmatory analysis is received, and the analytical results indicate that the waste has been successfully treated and meets all decharacterization and land disposal restriction (LDR) treatment standards, the waste will be considered non-RCRA waste. The asphalt parking lot area where the BSCAs are located is sloped (**Figures 8 and 12**) and drains precipitation away from the storage area and the stored bulk containers. The bottom of the bulk containers are elevated 6-8 inches above the ground and are protected from contact with any liquids (precipitation, stormwater runoff) that may accumulate. Both 20-yard roll-off containers and dump trailers may be stored in the BCSAs pending the receipt of confirmatory analysis and/or off-site transport.

Since the stabilization process post treatment in the hazardous waste treatment tank is exothermic, a high pH liquid has been found during previous site inspections to condense on the roll-off cover and leak onto the pavement beneath the roll-off box. Pop-up containments, or equivalent, will be used as a standard BMP to prevent any potential leaking while roll-offs and/or dump trailers are staged and cooled post treatment. The roll-off boxes or dump trailers will be moved from the temporary pop-up containments, or equivalent, after it is determined that the material has cooled and placed elsewhere within SWMU 20 pending the receipt of confirmatory analysis and/or off-site transport.

While USET believes that the roll-off boxes and/or dump trailers containing confirmed solids will not leak, in the event that leakage is identified/observed, the area will be immediately contained and cleaned up in accordance with the Cracks and Gaps SOP (OPS-OP-078-FLA) contained in **Appendix J**.

2.3.7 In-Transit Truck Staging Area – Area 3, 1902 N. Orient Rd. – No Permitted Capacity

USET temporarily parks in-transit trucks on this leased property located directly adjacent to the southeast of the permitted facility (see **Figure 7**). The trucks are either be in-transit to and awaiting acceptance and processing at the USET facility or will be in the process of completing a pickup route prior to acceptance and processing at the facility. USET has knowledge of the materials and their acceptance into the facility before transit to the facility. Through this permit renewal application, USET seeks FDEP approval for the overnight staging in this area of outbound trailers awaiting offsite transport.

The parking area is concrete paved and entirely surrounded by perimeter fence that can only be accessed by authorized facility or delivery personnel. A maximum of up to six in-transit trucks are parked in the designated area at any given time. The trucks parked in this area consist of tractor trailers, box trucks, and/or roll-off trucks. The box trucks are typically 26 to 28 feet in length while the trailers are either 48 or 53 feet in length. Vacuum tankers/trucks may also be parked in this area while in transit.

2.4 Operations Description - Overview

The hazardous waste operations at the USET facility consist of the treatment of permitted listed and characteristically hazardous wastes (Waste Codes D002, D004 through D011, and K062) and storage of hazardous waste in containers, primarily 55-gallon drums, although waste may be also be received in 250-gallon, 275-gallon totes, and cubic yard boxes. A minimum of 10 percent of each hazardous waste stream entering the facility is sampled. Some waste is recontainerized or consolidated in other containers. Recontainerization operations may also include USET of the following equipment: paint can crusher, drum

crusher, rag compactor, and RUNI screw compactor. Wastes not treated on site are shipped offsite for final disposal and/or recycling.

Hazardous wastes treated in the on-ground treatment tank that meet the LDRs, contain no free liquids (as determined by EPA SW-846 Method 9095B [i.e., Paint Filter Test (PFT)]) and no longer exhibit hazardous waste characteristics (i.e., have been decharacterized) based on TCLP test results will be loaded into roll-off boxes or dump trailers for subsequent off-site disposal at an approved disposal facility.

2.4.1 Waste Received

All solid and hazardous waste is received at the CSB before further processing and/or storage. Waste may be received at the facility in any size container up to 275-gallon totes. Waste is also received in other DOT-approved containers including bulk shipments. Drums and other portable containers are off-loaded into the CSB. Bulk shipments are stored in the ISCA located on the loading dock in front of Bay 2. Received containers are moved, categorized, and stored according to waste type. The following waste type categories (40 CFR 261.30 indicates the basis for listing the classes or types of wastes listed in 40 CFR 261 Subpart D) are handled at the facility:

1. Ignitable Waste (I)
2. Corrosive Waste (C)
3. Reactive Waste (R)
4. Toxicity Characteristic Waste (E)
5. Acute Hazardous Waste (H)
6. Toxic Waste (T)
7. Non-RCRA Regulated Waste

No forbidden explosives as defined in 40 CFR 261.23(a)(8), regulated radioactive, or regulated biohazardous waste will be managed at the USET facility.

Waste types include liquids, solids, sludges, and a variety of lab packs (waste which is packaged in its original container).

2.4.2 Recontainerization

Some of the waste received will be recontainerized or over packed from one container to another. In general, recontainerization includes consolidation of like waste into similar sized or larger containers. Wastes are transferred between containers by pumping (using a portable pump) or pouring directly from one container to another. All container transfer operations take place either within the CSB, the WPB, or on the consumer products consolidation platform except for the paint can crushing and the drum crusher/rag compactor operations.

Other recontainerization operations will include the RUNI screw compactor, paint can crushing, drum crushing and rag compacting, loading to roll-offs and dump trailers, and loading to tanker truck. All waste transfer and recontainerization is conducted utilizing BMPs. Hazardous wastes have already been profiled and approved as described in the USET Waste Analysis Plan (WAP) (see **Appendix J**). Each hazardous waste stream has been sampled and quality control verified as described in the WAP. Only compatible wastes are transferred or recontainerized in each batch operation. The same waste management practices for inspections, contingency, preparedness and prevention, training, precautions for ignitable, reactive, and incompatible wastes, waste analysis,

record keeping, and container management that apply for treatment and storage will also apply for waste transfer and recontainerization. Waste processing areas are identified on **Figure 11**.

USET refers to the recontainerization and compatibility testing as "Consolidated Confirmatory Compatibility Testing" and the text in subsequent sections has been modified to reflect this clarification. The SOP that USET has prepared for assuring compatibility during recontainerization is referred to as "Liquids Bulking" and is provided in **Appendix J** with other applicable USET SOPs pertinent to this hazardous waste renewal application.

2.4.3 Paint Can Crushing

The facility receives water-based latex and solvent-based paint in containers up to 5-gallons for re-containerization and disposal. The majority of the paint received is from household waste. This operation will include opening the container, crushing the paint can, collecting the paint waste, collecting the empty containers and containerizing the paint for transport off-site. Hours of operation of this equipment will be tracked using the Paint Can Crusher Usage Tracking Log, OPS-FM-116-FLA. This operation will take place within the permitted processing areas identified on **Figure 16**.

2.4.4 Drum Crushing and Rag Compacting

The drum crusher and rag compactor consists of a closed cabinet unit located on the ramp outside Bay 3. A drum is placed inside the unit and a ram is used to crush the drum. The unit contains a grate and collection pan at the bottom to catch any liquid or solid residue material from the crushed drum. The material is drummed as waste.

The rag compactor works in a similar manner in that a drum of waste rags is placed inside the unit. A ram, which is slightly smaller than the drum opening, is used to compact the rags inside the drum.

2.4.5 Treatment of Characteristic and Listed (K062) Hazardous Wastes

The goal of treating characteristic (D002 and D004 through D011) and listed hazardous waste (K062, untreated pickle liquor, an acidic material, from SIC codes 331 and 332 only) is to stabilize the material in a manner that the resulting mixture no longer exhibits the characteristics of hazardous waste and meets the LDRs. The first step in the process for all liquid wastes is the neutralization (NEUTR) of D002 acidic or alkaline materials. Treatment of characteristic waste (D002 and D004 through D011) must meet 40 CFR 268.40 and Underlying Hazardous Constituents (UHCs), if required. The facility is not permitted to treat F-, P-, or U-listed waste materials or organic UHCs. Additionally, when wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern. See the WAP in **Appendix J** for additional details. Adding prescribed reagents to the waste raises the pH of the mixture to an optimal metals' treatment range of 9 to 13. Once the mixture is at this optimum pH range, the toxicity of the hazardous components (RCRA metals) are reduced or eliminated by lowering their solubility and leaching ability. A solidifying reagent is added to the treated mixture in the final step of the treatment process eliminating any free liquids that may remain after thorough mixing.

The hazardous waste treatment tank is a custom manufactured piece of equipment, essentially meeting the 40 CFR, Part 260.10 definition of an on-ground tank. The unit is constructed of steel plates that have been welded into the shape of a box. The box is 20-ft. wide by 20-ft. long and is

4-ft. 7-in tall. The floor of the tank is 3/4-in steel plate and the side walls of the tank are 1/2-in steel plate. The top of the box is open. The connections between the plates are joined together with full penetration welded joints so that the box is liquid-tight and will not allow waste to escape. The treatment tank will also be anchored to the floor on the north, west and south sides. The design and installation of the on-ground treatment tank complies with all the requirements specified in 40 CFR, Subpart J, and the design drawings and specifications for the treatment tank are provided in **Appendix I**.

The primary reagents used for treatment of the waste include hydrated lime/lime kiln dust, ferrous sulfate, sodium sulfide/sulfide flakes, and hypochlorite. The amount of reagent varies based on the waste stream but is generally a 5:1 ratio (waste:reagent) when absorbing liquids and 10:1 for solids (i.e., 1 ton of waste to 200 pounds of lime).

The waste selected for treatment is deposited directly into the top of the box by pumping pouring, etc. The pH is then adjusted (neutralized) and then raised by adding treatment reagent to the waste until the optimal metals' treatment range of 9 to 13 is reached. The material is mechanically mixed using a backhoe, portable mixer, or similar piece of equipment thoroughly to ensure that all of the material has been treated. A solidification agent is then added to the treated mixture which eliminates any free liquids that may remain. The resulting mixture is of a homogenous consistency. Once the material has completed the treatment and solidification process, a grab sample of the treated material is collected from the treatment tank for verification analysis by a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory. The material is then removed from the treatment tank by an excavator or other similar piece of heavy equipment and placed into a lined, sealed, bulk container. The bulk container is then moved to the proposed BCSA pending analysis.

The grab sample is subjected to a TCLP test to assure compliance with the LDRs as well as running a PFT by Method 9095B to assure the absence of free liquids. Treated materials that are decharacterized, meet the LDRs, and contain no free liquids are sent for disposal at an approved disposal facility (Subtitle D landfill). If the treated material fails the initial TCLP screening and is still characteristically hazardous or fails to meet LDRs or PFT, it will be re-treated until a TCLP, LDR, and PFT tests have confirmed the treated waste is physically solid and no longer retains hazardous characteristics. It should also be pointed out that the disposal facility accepting the treated material may require additional testing above and beyond a TCLP test before they will accept the waste. USET will determine testing requirements for the proposed disposal facility and have the samples analyzed accordingly.

Reference **Appendix J**, Hazardous Waste Treatment OPS-OP-071-FLA, for additional detail.

2.4.6 Loading to Roll-Offs/Dump Trailers

Recontainerization operations will include loading material to roll-off boxes and/or dump trailers for transport off-site. Roll-offs or dump trailers will be loaded in the loading/unloading area located outside the CSB. Loaded roll-offs or dump trailers will be manifested and shipped off-site for ultimate treatment and disposal.

Treated hazardous wastes that no longer exhibit hazardous waste characteristics, contain no free liquids, and meet the LDRs based on the TCLP grab sample test results, will be loaded into bulk containers. They will be subsequently manifested off-site for disposal at an approved disposal facility. Because solid waste and decharacterized hazardous waste containing no free liquids and

meeting the LDRs may be stored in the WPB in bulk containers, proper paperwork will be completed and associated with each load in the event a facility inspection is performed.

Typically, only solid material is loaded into the roll-off containers and/or dump trailers, although some sludge material may also be off-loaded; however, free-flowing liquids are not typically contained in the roll-offs or dump trailers. The roll-offs and dump trailers will be kept closed except when loading.

Roll-off containers or dump trailers approved for storing or transporting liquids will be utilized if the hazardous waste being transported or stored contains free liquids. These containers may include "sludge boxes" or sealed roll-offs with liners.

2.4.7 Reactives Magazine

The reactives magazine consists of a custom Type 2 Class ABC, Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) specification indoor magazine manufactured by Armag Corporation. The exterior of the magazine is constructed of ¼-inch ASTM A-36 prime steel and the interior is lined with 2-inch hardwood to meet bullet resistant requirements. It has a front opening door (cabinet type), casters, shelving, a double lock system with ¼-inch steel lock covers, two ATF approved padlocks, one 12-inch by 24-inch magnetic sign reading "DANGER-EXPLOSIVES," top lifting D-rings, and a red exterior finish. The dimensions of the magazine are 6 feet long by 6 feet wide by 7 feet tall, and the approximate weight of the unit is 6,000 pounds empty. Information on the reactives magazine is contained in **Appendix I**.

The reactives magazine will be used for the temporary storage and pass-through of road flares, DOT 1.4 explosive material, marine aerial and signal flares, small arms munitions, black powder, residential fireworks and other permitted explosives. D001, D003, D005 and D008 are the most common waste codes managed in the reactives magazine. These wastes are shipped to the facility in USDOT approved containers and are typically reconsolidated into larger containers for more efficient accumulation and offsite disposal. The accumulation period for waste stored in the reactives magazine can be up to 1-year. Due to the limited size and nature of the material (consumer commodities), the storage of this material is exempted from the provisions of the Federal explosives laws and a Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) storage license is not required. No forbidden explosives will be transported to the site and/or stored in the magazine. No treatment or processing of explosive materials will be completed onsite.

There will be no staging of material in the reactives magazine area. Once moved to the reactives area, the material will immediately be placed in the unit. There should be no exposure to the elements because of the short duration of time between movement to the reactives magazine and placement in the unit. It will be kept secure by being locked except for those instances where material is added to or removed from the unit.

2.4.8 Tanker Loading/Unloading

Tanker loading/unloading can occur at either the CSB or WPB depending on the type of waste material received at the facility. Liquid wastes will be loaded to a tanker truck for transport off-site. Wastes will be pumped from a container directly to the tanker. If the waste material can be treated onsite it will be containerized in drums or totes and/or pumped directly into the treatment tank within the WPB. Compatibility will be determined through the facility waste acceptance and approval process if the waste is to be containerized. If there is no waste in the treatment tank, the

liquid will be pumped directly into the tank following waste acceptance. If wastes are already present in the treatment tank, an onsite Consolidated Confirmatory Compatibility Test will be performed prior to offloading any additional waste into the treatment tank. Tankers will be kept closed except when loading/unloading.

2.4.9 Empty Container Management

Empty containers and/or inner liners removed from empty containers which meet the requirements of 40 CFR 261.7 will be managed as RCRA Empty. Empty containers and/or liners that have held an acute hazardous waste listed in 40 CFR 261.31, 231.32, 261.33(e) will be managed as Acute Empty. Containers and/or liners which do not meet the requirements of RCRA Empty will be managed as Non-Empty Containers.

RCRA Empty containers smaller than 55 gallons will be recycled or managed as non-RCRA regulated solid waste. RCRA Empty containers 55 gallons and larger will be recycled, returned to reconditioners, or managed as non-RCRA regulated solid waste.

RCRA-Empty containers will be accumulated on an empty trailer, and/or at the truck loading/unloading area. The empty containers will be sent off-site for recycling, reconditioning, and/or disposal when sufficient quantity is available (usually a truckload). The empty container storage area will be inspected as per the inspection plan. Empty containers may be crushed and/or compacted on site.

Acute empty containers will be triple rinsed or managed as hazardous waste. Containers that are triple rinsed will be thoroughly rinsed using an appropriate solvent a minimum of three (3) times. The container will be fully emptied into a container, typically a 55-gallon drum or 5-gallon bucket following each rinse. The collected rinse solvent will be managed as hazardous waste. The rinsing will occur within the CSB or WPB above the impervious floor.

Non-Empty containers will be managed as per the requirements for the material within the container.

2.4.10 HHW Management

USET manages a significant quantity of HHW. The HHW is solid waste which is not hazardous waste as defined in 40 CFR 261.4 (b) 1). The HHW is regulated under Subtitle D regulations which (by definition) do not apply to this permit. The inclusion of HHW information is for informational purposes only. Upon receipt at the facility, HHW is entered into the facility waste tracking system. The origination source of any HHW accepted at the facility can be readily determined through the waste tracking system and will determine the appropriate regulatory requirements under which the waste is managed. USET exceeds all applicable regulations for HHW Management. Nearly all HHW managed at the USET facility is managed as if it were hazardous waste. USET typically manifests (including LDR notification) labels and enters this information into the facility operating record for HHW shipments. Other permit requirements such as training, inspections, and contingency are typically adhered to by USET for the management of HHW. The management of HHW is included in USET facility, containment, closure, and financial assurance calculations. Management of HHW does not interfere with management of RCRA regulated hazardous waste.

2.4.11 Universal Waste

The facility receives Universal Waste including batteries, aerosols, and mercury-containing lamps such as fluorescent lamps. If Universal Waste is received in containers that show evidence of leakage, spillage, or damage that could cause leakage, the material will be repackaged into containers that are structurally sound and compatible with the waste. All Universal Waste is handled in a manner that will prevent breakage, releases of their components, and their exposure to moisture. Once received, the lamps and batteries are placed in storage and are included as part of the total CSB inventory. Universal Waste batteries are stored on the ramp located adjacent to Bay 3B as shown on **Figure 17**. Universal Waste Lamps are stored in the cargo area of a box truck that is able to be sealed from the weather. The storage location for the Universal Waste Lamps is also illustrated on **Figure 12**.

2.4.12 Unknown Waste Handling Procedures

USET periodically receives unknown waste generated from off-site emergency clean-up activities. The unknown waste in all cases have been sufficiently characterized (by laboratory quality control, or similar means) to determine the waste compatibility and hazard class. This information will be sufficient for DOT approved shipping and handling of the waste but may not be sufficient to fully manage the waste per 40 CFR Part 268 (LDRs) until further information is received. USET will utilize the following procedure for the management of "not fully characterized" (*i.e.*, unknown) wastes.

1. USET (or other approved) personnel will sample the container of waste using FDEP SOP FS 5000 (Waste Sampling) as a guideline.
2. Field screening tests for color, density, physical state, pH, ignitability, oxidizer potential, solubility, and water reactivity will be performed to characterize the compatibility and hazard class of the waste.
3. The waste will be labeled and manifested for transport to the USET facility. Shipping name will be determined by the field characterization and, at minimum, will be Hazardous Waste Solid (or Liquid), Not Otherwise Specified (NOS). The legend "Pending Analysis" will be written on the container (or label) and manifest.
4. Any "not fully characterized" (unknown) waste received by the USET facility will be segregated from all other hazardous wastes until the wastes are identified and waste compatibility is determined. This is an extra precautionary measure since waste compatibility will have been field determined prior to receipt. The segregated area utilized for these wastes will have a separate containment system not contiguous with the containment systems provided for the known wastes. USET utilizes containment pallets for separate containment.
5. Each container of "not fully characterized" (unknown) waste will be sampled and analyzed following the procedures specified in the USET WAP.
6. Once the waste is fully characterized, the waste will be moved to the appropriate storage location and scheduled for treatment or shipment to an off-site disposal facility.
7. USET will notify the Department detailing waste type and quantity if characterization of the waste indicates the waste is not authorized by the USET permit. The waste will be shipped to a permitted treatment, storage, disposal facility if it is not authorized by the USET permit.

2.4.13 Stormwater Management System

The USET facility is designed and built to minimize the potential release of hazardous waste or hazardous waste constituents to the air, soil, or surface water. The CSB is totally enclosed. The

building floor is more than four (4) feet above the grounds of the site to allow loading and unloading directly from truck to warehouse and from warehouse to truck. The building roof overhangs ten feet out over the loading and unloading docks.

Many features have minimized the potential of stormwater contacting hazardous waste or hazardous waste constituents. The 10-foot roof overhang reduces the amount of stormwater in the loading and unloading area. All waste managed in the loading and unloading area is in closed containers. Currently, an extra precautionary design of the facility is a stormwater filtration system. It should be noted that this system is not a required by this permit and is included for information purposes only.

The loading and unloading area is constructed of concrete and asphalt materials. The surface is sloped to a containment trench. The containment trench runs from the north loading and unloading area to the south accumulation sump. All stormwater from the loading and unloading area flows to the 640-gallon concrete sump through the containment trench. The accumulated stormwater is pumped from the sump through a sand filter, two (2) carbon filters, and then to the stormwater drain where it flows (by gravity) to the stormwater retention pond.

The pump remains off during waste management operations with a potential of release of hazardous waste or hazardous waste constituents. When these operations (such as loading or unloading) are complete, the area, stormwater and stormwater systems are inspected. Unsatisfactory conditions (if any) are corrected prior to turning the pump on to activate the system. These inspections are also conducted daily (each operating day) as indicated the USET Inspection Plan.

The retention pond has dimensions of 126 feet x 35 feet with an average volume of 0.1335 acre-feet and a slope of 3:1. The pond retains filtered stormwater. Non-filtered stormwater from roof drains also discharges into the pond. The stormwater containment trenches and sump are constructed of concrete. The holding sump has a capacity of 640 gallons. The sump pump can pump 30-40 gallons per minute.

The sand filter has 3.1 square feet of filter area in a fiberglass wrapped shell. The sand filter can accommodate flow rates of 20-62 gallons per minute. The sand filter is an efficient means of filtering out potential solids, oils and greases. The sand in the sand filter system typically lasts for many years and is changed out as required. The filter can be back flushed when the filter pressure is high or the flow rate is restricted. Back flushed materials will be managed as either solid or hazardous waste depending upon the waste characterization.

The carbon filter consists of two 55-gallon drum/carbon filters. Each filter contains 200 pounds of activated carbon, which provides approximately three minutes of contact time at 20 gallons per minute. The filter is an effective means of filtering potentially toxic (organic and metal) constituents. The carbon is replaced at least annually. Documentation of filter carbon replacement is included in the facility operating record. USET may increase the amount of sand or carbon if it becomes necessary. More frequent changing will occur if breakout or breakthrough is detected. The spent carbon will be managed as solid or hazardous waste (depending upon the waste characterization) if it is not returned to the manufacturer for regeneration.

3.0 GENERAL FACILITY STANDARDS

3.1 Location Standards

In regard to seismic location standards, the USET facility is not located within 200 feet of a fault which has had displacement in Holocene time. Political jurisdictions requiring demonstration of the seismic location standard are listed in Appendix VI to 40 CFR, Part 264. There are no such locations in the state of Florida and therefore the facility is assumed to be in compliance with the seismic location standard.

The USET facility is not located in a 100-year floodplain. This is shown on the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency (FEMA) 100-year floodplain map included on **Figure 5**. The only water body within a one-mile radius of the USET facility is the Tampa Bypass Canal which is located approximately ¾-mile east.

No on-site disposal occurs at the USET facility. Wastes will not be placed in any salt dome formation, salt bed formation, underground mine, or cave. There are no surface impoundments, waste piles, or landfills.

The Southwest Florida Water Management WMIS (Water Management Information System) database was consulted to determine the presence of injection and withdrawal wells, both on site and off site, within 1000-ft around the hazardous waste management area. Information on these wells is contained in **Appendix L**. It should be noted that not every well permitted within this area was summarized in the table. The rule calls for injection and withdrawal wells within 1000-ft. The WMIS database is currently limited in its ability to sort wells in this fashion and professional judgment was used to screen out wells used for monitoring or recovery purposes considering the general heavy industrial use of the area surrounding the USET facility. In addition, because of the way the wells are loaded into the database, most are given similar latitudes and longitudes due to poor information by the applicant or driller. This results in tens of wells plotting in the same place on the location map.

3.2 Facility Security

A seven-foot-high security fence surrounds the entire USET facility. The fence includes six foot of chain link fabric and a one-foot barbed wire parapet. Entry is controlled at all times through closed locked gates. The control gates consist of lockable pedestrian and vehicle gates located in various locations along the fence lines. The vehicle gates may remain open for no longer than one (1) hour during normal operations. A sign with the legend "Danger - Unauthorized Personnel Keep Out" is posted at each gate entrance. Warning signs are also posted on the north, south, east, and west portions of the fence surrounding the facility. The legend is written in English and Spanish and is legible from a distance of at least 25 feet. The CSB is fully enclosed, and all doors are locked during non-working hours. The CSB is also monitored by an automatic alarm system for fire. The fire alarm automatically notifies the City of Tampa Fire Department. All site security features including fencing, gates, and signs are shown on **Figure 14**.

3.3 Traffic Information

The USET facility is located in an area of Tampa zoned heavy industrial (see **Figure 4**). The location is within easy access of major roads I-4, I-75, I-275, US 301, Highway 60, Highway 41 and the Crosstown Expressway. Vehicles may use these roads and others to access Orient Road. Vehicles heading south on Orient Road will turn right onto 9th Avenue then turn right into the entrance of the facility. Vehicles heading north on Orient Road will turn left onto 9th Avenue then turn right into the entrance of the facility. Exiting vehicles will turn left onto 9th Avenue from the exit of the facility. The vehicles will then be able to turn either left (north) or right (south) onto Orient Road to proceed to their destination. The vehicle gates

allow vehicles to enter one gate and exit another while minimizing turnarounds and two-way traffic. Traffic flow is shown on **Figure 13**.

Traffic volume usually consists of two 24-foot semi-truck van loads per day and three truck loads (tractor trailer, roll-off, or tanker) per week. The semi-truck vans are utilized primarily for inbound waste shipments and tractor trailers are utilized primarily for outbound shipments. Inbound vehicles are utilized for outbound shipments when possible. Access roadways (9th Avenue) are constructed of 8-inch lime rock base primed and compacted to 98% maximum density and 2 inches of type S-1 asphaltic concrete. The design load bearing capacity is 2,500 psi at 95% of Standard Proctor. The roadways are maintained by the City of Tampa

3.4 Ignitable, Reactive, or Incompatible Wastes

USET has taken precautions to prevent accidental ignition or reaction of ignitable or reactive waste. Ignitable and reactive wastes are separated from other wastes. Ignitable and reactive wastes are stored in Bay 2 of the CSB. All cyanide bearing waste will be stored in the northwest corner of Bay 2, in **Figure 17**. Bay 2 has been specifically designed and built for the storage of ignitable and reactive hazardous wastes. All four walls of Bay 2 are constructed of eight-inch-wide concrete block, extending from the floor to the roof. The walls are designed for a minimum fire resistance of four hours. The floor is five inches of 4,000 psi concrete placed monolithically and coated with three layers of chemical resistant coatings and sealants. The roof is also constructed of concrete.

Lighting and other fixtures in Bay 2 are intrinsically safe (explosion proof). Bay 2 has smoke, flame and lower explosive limit (LEL) monitors. There are two LEL meters. One is mounted in the spill containment sump in this bay to detect vapors that are denser than air. The second is mounted near the roof in this bay to detect vapors less dense than air. The LELs are set to automatically activate two blowers at 10% LEL and to automatically close magnetically released doors to the bay, activate the high expansion foam fire suppression system, the fire alarm, and automatically dispatches the Tampa Fire Department. ABC and Halon (or equivalent) fire extinguishers are located in Bay 2.

There is a single 1,001-gallon spill containment sump in Bay 2. The floor of the bay is sloped at 1/8 inch per foot so that all leaks and spills will be directed to the containment sump located in the center of the bay. The location of safety and fire control equipment located (or available) in Bay 2 is indicated on the building as-built record drawings included in **Appendix D** of **Volume 2 of 3** of the 2019 permit renewal application and facility evacuation routes are shown on **Figure 15**. Supplemental emergency and safety equipment are also listed in **Appendix H**.

Transfer of ignitable liquids is by pouring, manual repack, manually operated pump, or air operated pump. Grounding cables are utilized when transferring ignitable liquids. Intrinsically safe, explosion proof, and non-sparking equipment is used in the ignitable/reactive storage bay (Bay 2). "No Smoking" signs are located prominently throughout the facility. Smoking is only permitted in the designated smoking area located outside the north office entrance and west of the office in the undeveloped (inactive) portion of the facility. These designated areas are over 100 feet away from all ignitable, reactive, or any other hazardous waste area. Operational controls are in place to ensure that no open flames are allowed within 50 feet of any ignitable or reactive waste. All ignitable and reactive waste is stored at least fifty feet from all property lines. All areas of Bay 2 (including the east wall, loading dock, and ISCA) are at least 50 feet from the property line. This permit application is structured to provide detailed information on the precautions USET has taken to prevent reactions which may:

1. Generate extreme heat, pressure, fire, explosion, or violent reaction;

2. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantity to threaten human health or the environment;
3. Produce uncontrolled flammable fumes or gases in sufficient quantities to threaten human health or the environment;
4. Damage the structural integrity of the device or facility; and,
5. Through other similar means which threaten human health or the environment.

These precautions begin before any waste is transported or received by the facility.

All prospective waste materials are thoroughly reviewed by USET technical services staff prior to approval for transportation to or receipt by USET. The waste generator prepares a profile of the prospective waste for USET Technical Services Staff on USET Waste Profile form (see **Appendix J**). The form fully characterizes the waste including any applicable analytical results. A sample of the waste is included with the Waste Profile if necessary. This waste approval process is thoroughly described in the USET WAP.

A summary of the inbound waste shipments received in 2022 is provided in **Appendix K**. These forms also include the characteristically hazardous wastes that USET intends to treat in the treatment tank, and which formed the basis of the exposure evaluation described in **Section 13.0**.

All regulated waste containers meet DOT specifications. The transporter inspects each container for proper DOT approved containers, container condition and integrity, proper closure, labels, and manifesting prior to receipt by USET. USET personnel double-check each of these items upon receipt at the facility. Representative samples of each waste are taken to verify the container contents are the materials approved on the USET Waste Profile form. Selected samples are analyzed in the USET laboratory (or subcontractor lab) to verify this information. These procedures are fully detailed in the USET WAP.

Waste containers are placed in the proper storage location based on the Waste Profile or laboratory quality control information. The storage of ignitable and reactive wastes in Bay 2 was previously discussed in this section. Bays 1 and 3 are further subdivided into two different containment areas each. Bay 1 has two different 1,001-gallon containment sumps to further segregate incompatible wastes within this bay. The north half of Bay 1 is sloped to one containment sump and the south half of Bay 1 is sloped to another containment sump. Bay 3 is subdivided into two different containment areas in the same manner. Incompatible wastes such as acids and alkalines are in either separate containment sections or bays. Three major incompatibility groups (acids/alkalines, oxidizers/ignitable organic solvents, and acids/cyanides) are stored in separate bays with floor to roof walls and separate 1,001-gallon containment sumps.

There is no mixing of incompatible wastes at the facility. Waste compatibility is determined by test methods from "SW-846: Test Methods for Evaluating Solid Waste - Physical/Chemical Methods"; or equivalent accepted methods. No material will be transferred into an empty container or unit that previously contained an incompatible waste unless the container or unit has been properly cleaned or decontaminated. All pumps and hoses will be properly cleaned or decontaminated to eliminate cross contamination with incompatible wastes. Processing or treatment is by batch mode. Only compatible wastes will be processed by any unit or treated in any batch. All units will be cleaned or decontaminated at the end of processing or between batches of incompatible wastes. All cleaning and decontamination fluids and residues collected will be analyzed and managed in accordance with all applicable local, state, and federal regulations.

3.5 Considerations under Federal Law

No other federal environmental laws apply to the USET facility.

4.0 WASTE ANALYSIS PLAN

Refer to **Appendix J**.

5.0 INSPECTION PLAN

5.1 General

The USET facility is regularly inspected for malfunctions and deterioration, operator errors, and discharges, which may cause (or lead to) release of hazardous waste constituents to the environment or a threat to human health. These inspections are intended to identify problems in time to correct them before a release of hazardous waste or constituents occur. A facility inspection log is maintained to document the results of these inspections.

5.2 Schedule

Inspections will be performed by trained USET operations personnel. All inspections will be reviewed and approved by a senior USET employee (manager, supervisor, or chemist). All monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment, including the on-ground treatment tank, that are important to preventing, detecting, or responding to human health or environmental hazards will be inspected daily (each operating day) The following are the typical hours of operation at USET:

- Monday through Friday: 12:00 AM – 11:59 PM
- Saturday: 5:00 AM – 3:00 PM
- Sunday: 8:00 PM – 11:59 PM

The inspector will look for the items listed on the USET Facility Inspection Log. All areas subject to spills, such as the CSB and loading/unloading area, BCSAs, the WPB, and the consumer products consolidation platform are inspected daily (each operating day). All containers are inspected for container condition, closure, labeling, and aisle space. Housekeeping and proper storage in the storage building are also inspected daily. The vehicle loading and unloading areas and transfer facility vehicles and wastes are inspected daily to identify problems. External areas such as the area for storage of empty containers and the stormwater systems (trenches, filter, and retention pond) are inspected daily to identify problems. Safety and emergency equipment is inspected daily for condition, availability, and operations capability. The safety and emergency equipment inspected includes fire control equipment, communication devices, safety showers and eye washes, spill kits, exits, safety supply lockers, fire suppression and alarm systems, and LEL meter and sensors. The contents of the safety supply lockers will be inspected and inventoried monthly. The date of inspection and inventory will also be noted on the Facility Inspection Log. The contents of the safety supply lockers are to be used only in the event of an emergency. The date of re-inspection and re-inventory will be noted on the Facility Inspection Log. The waste inventory for each hazard class and bay, to include transfer facility waste, is noted daily on the inspection log.

5.3 Remedial Actions

Every unsatisfactory condition noted during the inspection will be immediately corrected if possible. Items not immediately corrected will be noted on the inspection log. Unsatisfactory conditions noted on the inspection log will be corrected within thirty (30) days. USET will submit a written schedule to correct the deficiency to the FDEP should any deficiency not be corrected within thirty (30) days. Where a hazard is imminent or has already occurred, remedial action will be taken immediately. The USET Contingency Plan (see **Appendix Q**) will be implemented if a fire, explosion, or unplanned release of hazardous waste or hazardous waste constituents occurs to the air, soil, groundwater, or surface water, which could threaten human health or the environment. All remedial actions completed will be noted on the inspection log.

5.4 Inspection Log

A copy of the USET Facility Inspection Log is included on the following page. Inspections will be recorded on the inspection log and these records will be kept for a minimum of three (3) years from the date of the inspection. The inspection log records include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or remedial actions.

US Ecology Tampa, Inc. Daily Inspection Log
Container Storage Building (CSB)

Date: _____ Inspector: _____

Time: _____ Approved By: _____

		SATISFACTORY	UNSATISFACTORY
1.	Containers		
1.1	Condition, Closure, Compatibility & Leaks		
1.2	Proper Labeling		
1.3	Over 1 Year Accumulation Start Date		
1.4	Proper Storage Location		
1.5	Aisle Space, Exits & Housekeeping		
2.	Safety Equipment		
2.1	Fire Extinguishers		
2.2	Telephone & Air Horns		
2.3	Safety Showers & Eye Washes		
2.4	Acid, Caustic, Solvent & Mercury Spill Kits		
2.5	Emergency Exits		
2.6	Safety Supply Lockers		
2.7	Fire Suppression System, LEL Meter & Sensors		
2.8	Signage		
3.	Vehicle Unloading Area & Improved Secondary Containment Area (ISCA)		
3.1	Structural Integrity (cracks, damage, etc.)		
3.2	Leaks, Spills & Standing Water		
3.3	Trench Sumps (cracks, leaks, etc.)		
4.	Consumer Products Consolidation Platform		
4.1	Structural Integrity (cracks, damage, etc.)		
4.2	Leaks, Spills & Standing Water		
4.3	Trench Sumps (cracks, leaks, etc.)		
5.	Stormwater System		
5.1	Trenches		
5.2	Sump & Filter System		
5.3	Lock Out Box Installed		
5.4	Retention Pond		
5.5	Outfall No. #1		

Waste Inventory		Total
Bay 1	Class 9	0
Bay 1	Acids	0
Bay 2	Flam Liquids	0
Bay 2	Flam Solids	0
Bay 2	Reactives	0
Bay 2	Aerosols	0
RM-WPB	Reactives	0
ISC	Flam Liquids	0
ISC	Aerosols	0
ISC	Flam Solids	0
Bay 3	Oxidizers	0
Bay 3	Alkalines	0
Bay 3	Poisons	0
Bay 3	Non-Regs	0
CPCP	Various	0
Outbound Staging		0
Inbound Bulk Staging		0
Inbound Staging		0
10-Day Transfer Facility		0
TOTAL HAZARDOUS WASTE IN STORAGE		
0	GALLONS	

6. Additional Comments & Information: _____

7. Remedial actions necessary for unsatisfactory items: _____

8. Remedial actions corrected and completed on: _____
Date

_____ _____
Print Name Signature

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US Ecology Tampa, Inc. Daily Inspection Log
Bulk Container Storage Area (BCSA)
Waste Processing Building (WPB)
10-Day Transfer AND Inbound/Outbound (I/O)Staging

Date: _____ Inspector: _____
Time: _____ Approved By: _____

		SATISFACTORY	UNSATISFACTORY
1.	Stormwater System		
1.1	Building Drains and Piping		
1.2	Retention Ponds & Overflows		
1.3	Inlet Pipe		
1.4	Outlet Pipe, Housing & Snorkel		
1.5	Outfall No. 2		
2.	10-Day Transfer AND Inbound/Outbound (I/O) Staging		
2.1	No Leaks		
2.2	Secondary Containment Integrity		
2.3	Placarding & Identification Tags		
2.4	Lot Integrity (cracks, gaps, etc.)		
3.	Bulk Container Storage Areas (BCSAs)		
3.1	No Leaks		
3.2	Bulk Container Integrity (tarps, bows, etc.)		
3.3	Placarding & Identification Tags		
3.4	Lot Integrity (cracks, gaps, etc.)		
4.	Container Storage (WPB)		
4.1	No Leaks		
4.2	Condition & Closure		
4.3	Proper Labeling		
4.4	Aisle Space (2 ft. min.) & Housekeeping		
4.5	Proper Storage Location (compatibility, etc.)		
4.6	Over 1 Year Accumulation Start Date		
5.	Waste Processing Building (WPB) Containment		
5.1	Berm Structural Integrity (cracks, leaks, etc.)		
5.2	Leaks, Spills & Standing Water		
6.	Hazardous Waste Treatment Tank		
6.1	Structural Integrity (cracks, leaks, etc.)		
6.2	Interstitial Inspection Ports		
7.	Hazardous Waste Treatment Tank Ramp		
7.1	Structural Integrity (cracks, damage, etc.)		
7.2	Leaks, Spills, Standing Water		
7.3	Trench Sumps		
8.	Non-Hazardous Waste Solidification Tank		
8.1	Structural Integrity (cracks, leaks, etc.)		
9.	Non-Hazardous Waste Solidification Tank Ramp		
9.1	Structural Integrity (cracks, damage, etc.)		
9.2	Leaks, Spills, Standing Water		
9.3	Trench Sumps		

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OPS-FM--017-FLA Page 1 of 2 Effective Date: XX/XX/XXXX

US Ecology Tampa, Inc. Daily Inspection Log
Bulk Container Storage Area (BCSA)
Waste Processing Building (WPB)
10-Day Transfer AND Inbound/Outbound (I/O)Staging

Date: _____ Inspector: _____
Time: _____ Approved By: _____

10.	Safety Equipment		
10.1	Fire Extinguishers		
10.2	Air Horns		
10.3	Safety Shower & Eye Wash		
10.4	Spill Kit		
10.5	Shredder Fire Suppression System		
10.6	Signage		
11.	Reactives Magazine		
11.1	Structural Integrity (cracks, damage, etc.)		
11.2	Locked		

12. Additional Comments & Information: _____

13. Remedial actions necessary for unsatisfactory items: _____

14. Remedial actions corrected and completed on:

Date	Print Name	Signature

WPB Inventory	Gallons
Hazardous Waste - Acids	0
Hazardous Waste - Alkalines	0
Hazardous Waste - Class 9	0
Non-Hazardous Solid Waste	0
Total Hazardous Waste =	**0**
Total Non-Hazardous Solid Waste =	**0**
Total WPB Inventory =	**0**

BCS Inventory	Cubic Yards
Hazardous Waste	0
Non-Hazardous Waste	0
Total BCS Inventory =	**0**

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6.0 TRAINING PROGRAMS

6.1 General

All USET operations personnel involved in any hazardous waste handling, transportation, emergency response, storage or treatment will successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a safe manner that ensures the facility compliance with the requirements of 40 CFR Part 264.16. Contingency Plan training for USET employees is documented in the Employee Training record. USET personnel who do not typically visit the facility more than once per year, do not have to have a training record. These employees will be treated as visitors. They will be given a safety briefing and be accompanied by an employee with Contingency Plan training if they visit the facility. Training includes a combination of continuing education courses, university or community college courses, seminars, off-site courses, classroom instruction, video films, computerized courses, on-the-job training, readings, or safety meeting briefings. The training given to each employee will be documented on the Employee Training Record according to job description.

6.2 Training Director

The USET Training Program is directed by personnel trained in hazardous waste management procedures. The Training Program is under the direction of the USET Compliance Manager. Training and management of the Training Program is conducted by the USET Technical Staff consisting of a senior chemist, technical manager, and facility manager. Training is also conducted by outside professional training organizations and consultants. Trainer qualifications will include a combination of degrees, training, certifications, or experience in the field that is taught. Qualifications of all USET trainers and personnel are included in the Employee Training Record. These records are filed in the Compliance Managers Office.

6.3 Contingency Plan (Emergency) Training

All USET employees have reviewed and are familiar with the USET Contingency Plan. "Hands on" operations personnel involved in hazardous waste handling, transportation, emergency response, storage, or treatment have successfully completed a program of classroom instruction or on-the-job training that teaches Contingency Plan implementation. The course outline for the USET Contingency Plan training is included in the Training Program. The Contingency Plan training includes an on-site emergency response drill and post-drill evaluation.

6.4 Training Schedule

USET facility operations personnel will successfully complete the USET training program within six months of their assignment to hazardous waste operations or to a new position in hazardous waste operations. USET operations personnel training will be updated and reviewed at least annually.

6.5 Annual Training Review

Facility operations personnel will take part in an annual review of the initial training. The annual review will, at minimum, include Contingency Plan training review and update as well as the OSHA required 8-hour HAZWOPER training review and update. The Contingency Plan training review and update may be included within the 8-hour HAZWOPER training review and update.

6.6 Training Records

The following documents and records are maintained for full-time USET employees:

1. Job title for each position at the facility related to hazardous waste management.
2. The name of the employee filling each job.
3. A written job description for each position at the facility related to hazardous waste management.
4. The required skills, education, qualifications, and duties of employees assigned to these positions.
5. A written description of the type and amount of introductory and continuing training given to each person filling these positions.
6. Records or certificates that document the training or job experience required, given to, and completed by facility operations personnel.

COURSE OUTLINE

USET 24 (or 40) Hour OSHA HAZWOPER Training
(As Required by 29 CFR 1910.120)

- ✓ Regulatory Review 29 CFR 1910.120
- ✓ Toxicology
- ✓ Principles of Hazardous Materials
- ✓ Right-To-Know (HAZ-COM)
- ✓ Personnel Protective Equipment (PPE)
- ✓ Respiratory Protection
- ✓ Contingency Plan Implementation
- ✓ Spill Clean-up Drill
- ✓ Decontamination
- ✓ Manifests, Profiles, Labels, & Land Bans
- ✓ DOT Labeling, Placarding, & Shipping
- ✓ On-The-Job Training
- ✓ Site Control/Site Safety & Health Plan
- ✓ Emergency Response
- ✓ Hazardous Waste Operations
- ✓ Firefighting Procedures
- ✓ Emergency First Aid/CPR

COURSE OUTLINE

USET 8-Hour OSHA HAZWOPER Refresher
(As Required by 29 CFR 1910.120)

- ✓ Contingency Plan Implementation
- ✓ Mock Chemical Spill Drill
- ✓ SCBA and Air Line
- ✓ Cartridge Respirator
- ✓ Respirator Fit Test
- ✓ PPE (Vendors)
- ✓ Florida Right-To-Know
- ✓ Manifests, Profiles, Labels, & Land Bans
- ✓ DOT Labeling, Placarding, & Shipping
- ✓ On-The-Job Training
- ✓ Safety Meetings
- ✓ Emergency Response
- ✓ Hazardous Waste Operations
- ✓ Firefighting Procedures
- ✓ Emergency First Aid/CPR

COURSE OUTLINE

USET Hazardous Waste Management Procedures & Contingency Plan Implementation

- ✓ Emergency Response
- ✓ Emergency Procedures
- ✓ Emergency Equipment
- ✓ Emergency Systems
- ✓ Communications and Alarms
- ✓ Response to Fires and Explosions
- ✓ Response to Groundwater Incidents
- ✓ Shutdown of Operations
- ✓ Response Drill
- ✓ Response Drill Evaluation

COURSE OUTLINE

USET Hazardous Waste Management Operations

- ✓ Introduction to Hazardous Waste Management Operations
- ✓ Waste Management Procedures
- ✓ Waste Management Documentation
- ✓ Safety and Emergency Procedures
- ✓ Transportation Procedures and Documentation

COURSE OUTLINE

USET Personal Protective Equipment (PPE) Training
(Protection Required by Hazard Level)

A. LEVEL A

a) Recognition of Level A Hazards
b) Description of PPE Required

B. LEVEL B

a) Recognition of Level B Hazards
b) Description of PPE Required

C. LEVEL C

a) Recognition of Level C Hazards
b) Description of PPE Required

D. LEVEL D

a) Recognition of Level D Hazards
b) Description of PPE Required

JOB DESCRIPTION

OPERATIONS MANAGER

Job Title: Operations Manager

Job Description: The Operations Manager has the overall responsibility for facility/field operations and maintenance.

Reports To: General Manager

Qualifications: Minimum four-year degree in chemistry or equivalent experience, engineering or related physical science and five years' experience in waste management or similar field. Equivalent years of education and/or experience may be substituted.

Applicants must pass pre-employment physical and drug screening.

Responsibilities: Plan, direct and monitor waste operations.

Train waste handlers.

Carry out corporate policy and standards regarding facility, equipment, operations and maintenance.

Ensure the regular inspection of the facility and equipment and the implementation of any necessary repairs or remedial actions.

Coordinate with Technical Service Department and implement necessary actions or plans for training programs, environmental, safety and health regulatory compliance.

Act as the primary emergency response coordinator.

Manage USET laboratory operations.

JOB DESCRIPTION

COMPLIANCE MANAGER

Job Title: Environmental, Health & Safety

Job Description: The Compliance Manager has responsibility for the development and implementation of programs and procedures required for training, environmental, safety, and health regulatory compliance related to waste operations.

Reports To: Operations Manager

Qualifications: Minimum four-year degree in chemistry or equivalent experience, engineering or related physical science and five years' experience in waste management or similar field. Equivalent years of education and/or experience may be substituted.

Applicants must pass pre-employment physical and drug screening.

Responsibilities: Plan, direct and monitor training, environmental, safety, and health compliance activities.

Evaluate and approve in-bound waste streams.

Develop outbound waste approvals.

Represent USET in local community affairs and public relation activities.

Carry out corporate policy and standards regarding facility, equipment, operations, and maintenance.

Evaluate laboratory data.

Evaluate incoming waste for acceptability.

Manage USET training program.

JOB DESCRIPTION

SUPERVISOR

Job Title: Operations Supervisor
Lead Coordinator
Transportation Supervisor
Field Supervisor
Lab Supervisor

Job Description: The Supervisors have the responsibility, under general supervision, for waste handling activities such as sampling, identifying, packaging, storing, and loading of waste materials in the field or at the facility.

Reports To: Operations Manager
Project Manager

Qualifications: Graduation from high school or equivalent (GED) and three years' experience in waste handing operations.

Applicants must pass pre-employment physical and drug screening. Drivers must possess CDL license and pass DOT physical and drug screening.

Responsibilities: Supervise and conduct waste stream sampling.

Supervise and conduct labeling of waste containers.

Supervise and conduct loading and unloading waste materials.

Supervise and conduct transfer, storage, or treatment of hazardous and non-hazardous wastes.

Supervise and conduct facility and equipment maintenance as directed.

Transportation of waste materials.

Transportation documentation.

JOB DESCRIPTION

OPERATOR / TECHNICIAN

Job Title: Chemical Process Operator
Driver Environmental Technician

Job Description: The Operator/Technician has the responsibility, under direct supervision, for sampling, packaging, storing, loading, and transferring of waste materials.

Reports To: Operations Supervisor
Field Supervisor

Qualifications: Graduation from high school or equivalent (GED).

Applicants must pass pre-employment physical and drug screening. Drivers must possess CDL license and pass DOT physical and drug screening.

Responsibilities: Sampling waste streams.

Labeling waste containers.

Loading waste materials onto trucks.

Transfer of hazardous and non-hazardous wastes.

Facility and equipment maintenance as directed.

JOB DESCRIPTION

CHEMIST

Job Title: Facility Chemist
Field Chemist
QA/QC Chemist

Job Description: The Chemist has the responsibility, under general supervision, for facility operations.

Reports To: Operations Supervisor
Field Supervisor
Lab Supervisor

Qualifications: Minimum four-year degree in chemistry, engineering or related physical science and two years' experience in waste management or similar field. Equivalent years of education and/or experience may be substituted.

Applicants must pass pre-employment physical and drug screening.

Responsibilities: Plan, direct, conduct, and monitor facility operations.

Plan, direct, conduct, and monitor field service operations.

Analyze and evaluate incoming waste streams for acceptability.

Direct appropriate waste management actions.

Carry out corporate policy and standards regarding facility, equipment, operations and maintenance.

Prepare shipments for outbound disposal.

Ensure the regular inspection of the facility and equipment and the implementation of any necessary repairs or remedial action.

Documentation of waste management activities.

Quality control analysis of waste samples.

JOB DESCRIPTION

ADMINISTRATIVE

Job Title: Project Coordinator
Retail Coordinator
Approvals Coordinator
Receiving Coordinator

Job Description: Administrative personnel have the responsibility, under general and/or direct supervision, for administrative duties related to the efficient operation of the facility, such as, maintaining written record of all waste-handling activities.

Reports To: Operations Supervisors

Qualifications: Graduation from high school or equivalent (GED) and one year's clerical experience.

Applicants must pass pre-employment physical and drug screening.

Responsibilities: Answering phones and directing calls.

Operate gate.

Recordkeeping (preparation, distribution, and retention).

Maintain clerical supplies.

Computer data entry.

Administrative equipment maintenance (fax and copy machine).

6.7 Training Records Retention

Training records on current personnel will be kept until closure of the facility. Training records on inactive former employees will be kept at least three years from the date the employee last worked at the facility. Inactive files will be kept in storage in archive files.

7.0 MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

7.1 Required Notices

Generators will be notified in writing that USET has the appropriate permit for, and will accept, the waste the generator is shipping. Copies of this written notice are kept as part of the operating record. Copies of the USET permit are available for review. The FDEP will be notified in writing at least 2 (two) weeks in advance of the date the waste is expected to arrive at the facility if USET arranges to receive hazardous waste from a foreign source.

The USET owner or operator will notify any new owner or operator in writing of the required notices of 40 CFR Parts 264.12 and 270 before transferring ownership or operation of the USET facility during its operating life. There are currently no plans to transfer ownership or operation of the USET facility.

7.2 Manifest System Use

All hazardous wastes entering and leaving the USET facility will be accompanied by a Uniform Hazardous Waste Manifest. All manifested hazardous waste shipments will be accompanied by LDR certifications. On June 30, 2018, the United States Environmental Protection Agency (EPA) launched the Hazardous Waste Electronic Manifest System (e-Manifest) which was established according to the *Hazardous Waste Electronic Manifest Establishment Act*, enacted into law on October 5, 2012. The e-Manifest system established a national electronic manifest system which significantly reduced the burden associated with paper manifests. The costs of developing and operating the e-Manifest system are recovered from user fees charged to those who use hazardous waste manifests to track the off-site shipment of wastes. The e-Manifest system is USET's preferred method for manifest tracking and retention.

For inbound (receiving) waste shipments using paper manifests, USET will:

1. Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest is received;
2. Significant discrepancies in the manifest [as defined in 40 CFR 264.72(a)] will be noted on each copy of the manifest; *[Note: The USET facility waste analysis may not be complete prior to signing the manifest and giving it to the transporter. Unreconciled discrepancies discovered during later analysis will be reported as per 40 CFR 264.72 (b).]*
3. The transporter will be given one copy of the signed manifest;
4. A copy of the signed manifest will be sent to the generator within 30 days after the delivery; and,
5. USET will retain a copy of each manifest at the facility for at least three years from the date of delivery.

The internal facility waste tracking system is used to enter waste material details upon acceptance. These details are then transferred electronically into the e-Manifest system.

For outbound (exiting) waste shipments, USET will:

1. Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest is properly shipped;
2. Have the designated transporter sign acknowledging receipt of the waste shipment;
3. Retain a copy of the manifest (generator copy) and submit the other copies (complete with LDR notifications) to the designated transporter;
4. Significant discrepancies in the manifest [as defined in 40 CFR 264.72 (a)] will be noted on the manifest;

5. The returned copy of the manifest (signed by designated Facility) will be filed with the original manifest copy retained; and,
6. USET will retain a copy of each manifest at the facility for at least three years from the date of delivery.

The internal facility waste tracking system is also used to enter waste material details upon outbound waste shipment.

The USET facility does not have rail or water access in order to receive hazardous waste directly from a rail or water transporter. Shipments of hazardous waste initiated from the USET facility will comply with the requirements of 40 CFR 262.

7.3 Manifest Discrepancies

Upon discovering a significant manifest discrepancy, USET will attempt to reconcile the discrepancy with the waste generator, transporter or designated facility. Manifest discrepancies are differences in quantity or type of hazardous waste designated on the manifest, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are:

1. Variations greater than 10 percent in weight for bulk waste, and
2. Any variation in piece count (quantity of containers in a truckload for containerized wastes).

Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or hazardous waste constituents not reported on the manifest. Discrepancies not resolved within 15 days after receiving the waste, will require notification to the FDEP. USET will submit to the FDEP a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest at issue.

7.4 Operating Record

A written operating record will be kept at the USET facility. The following information will be recorded and maintained in the operating record until closure of the facility:

1. A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its storage, shipment or treatment at the facility.
2. A description of the common name and EPA hazardous waste number which applies to the waste.
3. The physical form of the waste.
4. The process generating the waste (for hazardous waste not listed in 40 CFR, 261, Subpart D).
5. The manifest-reported weight or volume and density.
6. The methods (by handling codes) and dates of storage or treatment.
7. The location of each hazardous waste within the facility and quantity at each location.
8. Records and results of waste analyses performed.
9. Reports and details of all incidents that require implementing the contingency plan.
10. Records and results of inspections (these data need be kept only three years).
11. Monitoring, testing or analytical data, and corrective action where required by 40 CFR 264, Subpart F (Solid Waste Management Units), Miscellaneous Units, and Air Emission Standards for Equipment Leaks.
12. Notices to generators.
13. All closure cost estimates.
14. A certification no less often than annually, that a program is in place to reduce the volume and toxicity of hazardous waste that is generated to the degree determined to be economically

practicable; and the method of treatment or storage is that practicable method currently available which minimizes the present and future threat to human health and the environment.

15. A copy of the LDR notice, and the certification and demonstration, if applicable, required by the generator or owner or operator.

Most of the operating record information will be entered and stored on the USET computer management information system.

7.5 Records Retention

All records, including plans, will be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the FDEP who is duly designated by the Administrator.

The retention period for all records required under this part will be extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Administrator or FDEP.

A copy of records of waste disposal locations and quantities will be submitted to the FDEP and local land authority upon closure of the facility.

7.6 Biennial Report

USET will prepare and submit a biennial report to the FDEP by March 1 of each even numbered year. The report will cover facility activities during the previous calendar year and will include:

1. The EPA identification number, name, and address of the facility.
2. The calendar year covered by the report.
3. The EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report will give the name and address of the foreign generator.
4. A description and the quantity of each hazardous waste the facility received, treated, and shipped during the year. This information will be listed by EPA identification number of each generator.
5. The method of treatment, storage, or shipment for each hazardous waste.
6. The most recent closure cost estimate.
7. A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.
8. A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years.
9. The certification signed by the owner or operator of the facility or his authorized representative.

7.7 Unmanifested Waste Report

If the facility accepts for treatment or storage, any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper, and if the waste is not excluded from the manifest required by 40 CFR, 261.5, USET will prepare and submit a report to the FDEP within fifteen days after receiving the waste. The report will be designated "Unmanifested Waste Report" and include the following information:

1. The EPA identification number, name, and address of the facility.
2. The date the facility received the waste.
3. The EPA identification number, name, and address of the generator and the transporter, if available.

4. A description and the quantity of each unmanifested hazardous waste and facility received.
5. The method of treatment or storage for each hazardous waste.
6. The certification signed by the USET owner or operator or authorized representative.
7. A brief explanation of why the waste was unmanifested, if known.

In general, VSQGs are exempt from the RCRA manifest requirements provided the regulatory conditions for the exemptions are met. It is USET's policy that all waste received at the facility is entered into the facility's waste tracking system. Unmanifested Waste Reports for any such material will be provided to the FDEP District office as identified.

7.8 Waste Minimization

USET certifies that a program is in place to reduce the volume and toxicity of waste generated to the degree determined to be economically practicable able and that selected practicable methods of storage or treatment minimize the present and future threat to human health and the environment.

7.9 Additional Reports

USET will also report to the FDEP:

1. Releases, fires, and explosions requiring implementation of the Contingency Plan;
2. Facility closure; and
3. As otherwise required.

8.0 SOLID WASTE MANAGEMENT UNITS

8.1 Facility Setting

The USET facility is located in a heavily industrialized area (Orient Park) in Tampa, Florida. The previous use of the USET property was residential (one residence) and vacant land. There is significant documented groundwater contamination in the Orient Park area. Two NPL (Superfund) sites adjacent to and up hydraulic gradient from the USET facility are being investigated and remediated under the direction of the EPA. There are also several other sites or former sites potentially contributing to the documented Orient Park groundwater contamination. The site and surrounding area are shown on **Figures 2 and 3**.

The requirements of 40 CFR 264 Subpart F (releases from Solid Waste Management Units (SWMUs) do not apply to the USET facility. There have been no releases from any SWMU at the USET facility. USET will comply with the EPA and FDEP requirements of the Final RFA Report.

8.2 SWMU Discussion

A SWMU RCRA Facility Assessment (RFA) of the USET facility was initiated on February 15, 1993. The RFA was based on a preliminary review (PR) of EPA Region IV and FDEP files and a visual site inspection (VSI) of the USET facility. The PR was performed during the week of February 15-19, 1993. The VSI was conducted on February 25, 1993. A RFA report was issued by FDEP and EPA Region IV.

The purpose of the RFA was to identify SWMUs and other potential sources of environmental contamination not necessarily involving hazardous wastes. The SWMUs were evaluated for their potential of release of hazardous wastes or hazardous waste constituents to the air, surface water, soil, and groundwater.

An RFA of the USET facility was also conducted by the EPA on August 18, 1988. The USET facility was a new facility planned for construction at the time of the 1988 RFA. It was determined that there was no evidence of solid waste management activities at the site. It was also determined that there was no evidence of a prior or continuing release of hazardous waste or hazardous waste constituents at the site. Therefore, at the time of 1988 RFA, Section 3004 (u) of the Hazardous and Solid Waste Amendments (HSWA) of 1984 did not apply. The summary letter from the EPA concerning the 1988 RFA and a RFA Addendum prepared by the FDEP, dated May 13, 2011, are included in **Appendix D**.

The 1993 draft RFA (PR and VSI) resulted in the identification of six (6) SWMUs. The units identified are the container storage building and five sumps (SWMU #1), the entire loading/unloading dock area (SWMU #2), the stormwater retention pond (SWMU #3), the filter press (SWMU #4 no longer in use, the municipal waste dumpster (SWMU #5), and the sand and carbon stormwater filtration system (SWMU #6). All SWMUs identified at the USET facility were determined to have no evidence of release prior to or at the time of the draft 1993 RFA.

An RFA Addendum was completed by the FDEP on March 13, 2011. The RFA Addendum updated the SWMU information submitted in the July 22, 2010 Part B permit renewal application. The USET SWMUs previously and currently have not had any release of hazardous waste or hazardous waste constituents. The USET SWMUs are identified on **Figure 12** with additional supporting documentation provided in **Appendix D**. Each SWMU identified at the USET facility and associated waste generation activities, as applicable, are summarized below:

- **SWMU #1 (Container Storage Building)** – The concrete CSB is used to store containers (primarily 55-gallon drums) of permitted hazardous and non-hazardous wastes. The CSB is composed of three (3) separate containment bays having a total of five (5) collection sumps. Each collection sump has a capacity of 1,000 gallons. The collection sumps are seamless and made of pre-cast concrete coated with sealant. The floor is sloped at a grade of 1/8 inch per foot on all four sides to the collection sump. A similar floor design and collection sump exists in the flammable/combustible storage area. The maximum storage area and sump volumes capacities are 50,000 gallons and 5,000 gallons, respectively. The interior storage areas and sumps are visually inspected daily.

- **SWMU #2 (Loading/Unloading Dock)** – The loading/unloading dock is a concrete surface to load and unload permitted hazardous and non-hazardous wastes. The loading area is covered by a roof and sloped towards the containment trench. The area also contains an epoxy coated improved containment area in front of Bay 2.

- **SWMU #3 (Retention Pond)** – The retention pond has dimensions of 126 ft. by 35 ft. with an average volume of 0.1355 acre-feet and a slope of 3:1. The pond is used to retain stormwater runoff.

- **SWMU #4 (Former Filter Press)** – The filter press unit was certified closed on October 31, 2013.

- **SWMU #5 (Municipal Waste Dumpster)** – The municipal waste dumpster is located adjacent to the consumer products consolidation platform (SWMU 21) on the Orient Road property. The dumpster has an approximate capacity of 2.5 cubic yards and is used for municipal solid waste disposal pick-up.

- **SWMU #6 (Stormwater Pre-Treatment Unit)** – Stormwater from the truck loading/unloading area drains to a concrete trench drain which flows from north to south along the loading area. The trench drain flows to a 640-gallon concrete holding sump, which is equipped with a sump pump with a capacity of approximately 30 to 40 gallons per minute. The sump pump pumps the stormwater from the holding tank through sand and carbon filters and then to the stormwater retention pond. The pump is set to keep the sump level to below 300 gallons. The carbon filter utilizes activated carbon to remove contaminants and has specifications which include 24 inch by 36-inch dimensions (diameter/height), 200 pounds of carbon, and a flow rate of twenty gallons per minute (gpm) at 2 ½ minute contact time. The sand filter has a flow rate of 20 gpm per square foot, and a 3.1 square foot filter area.

- **SWMU #7 (Waste Processing Building)** – The WPB is used for the receiving, processing, and associated storage, loading, unloading, and transfer of solid and hazardous waste. The building consists of a concrete pad and a steel roof structure. The north and south sides of the structure are solid walls and the east and west sides are open in the southern two-thirds of the building to allow for the movement of waste and equipment in and out of the structure. The east and west walls of the building are closed in its northern third. The solid and hazardous waste processes completed in this structure include segregation, decanting, filtration, solidification, treatment and shredding. The non-hazardous waste solidification tank, hazardous waste treatment tank, and a reactives storage container unit are located in this building.

  An approach ramp and 4-foot-high raised concrete dock are located on the southeast corner of the structure that allow waste to be emptied from trucks and containers directly into the hazardous waste treatment tank installed adjacent to and flush with the dock.

  The non-hazardous waste solidification tank is installed adjacent to and flush with an approach ramp and 24-inch-high raised concrete dock located in the eastern central portion of the WPB. The non-hazardous waste solidification tank is located in the WPB approximately 30 feet to the north of the hazardous waste treatment tank.

The solid waste side of the operations in the northern portion of the WPB are separated from the hazardous waste operations in the southern portion of the WPB using a 12-inch-wide bright yellow line painted on the floor between the two existing ramps located near the center of the building on the east and west sides. A similar line is also present around the reactives magazine along with protective bollards.

- **SWMU #8 (Universal Waste Battery Storage Area)** – Universal Waste Battery Storage Area is located in the loading/unload dock 3C. This area is covered by a roof and sloped towards the containment trench.

- **SWMU #9 (Paint Can Crushing Area)** – Solvent-based paints are received in one-gallon cans for recontainerization and disposal. The operation takes place in the permitted hazardous waste processing areas. The operation includes manually placing the paint can in the enclosed unit and crushing the can. The paint drains into a 55-gallon drum for off-site transport. The empty crushed paint cans are handled as solid waste. USET uses BMPs such as using plastic sheeting to contain any drippage. Each waste stream is characterized to determine appropriate management.

- **SWMU #10 (Roll-Off/Dump Trailer Storage Area)** – The Roll-off Storage Area is located on the 8th Avenue property and is used for the storage of dump trailers and roll-off boxes that are full of the solidified material created in the WPB. The dump trailers and roll-off boxes are staged in this area and are waiting for outbound transportation. The area consists of a 2,288 square foot covered concrete pad and has a capacity of 20,200 gallons. Since no liquids are stored in this area, there is no leachate collection system.

- **SWMU #11 (10-Day Transfer Facility and Inbound & Out Bound Staging Area)** – The 10-Day Transfer Facility is located on the 8th Avenue property. The 10-Day Transfer Facility is used to store manifested hazardous waste on site for no longer than ten (10) days as allowed for transfer facilities. It will not be utilized for any waste where USET is the designated facility on the manifest or originated at the facility where USET is listed as the generator. Vehicles and trailers parked in this area are marked as a 10-Day vehicle/trailer to avoid being confused with other vehicles/trailers that may also be located in the same vicinity. The 10-day identification tags are clearly visible and include the vehicle/trailer number, manifest document number, start date, destination, container count and total gallons. Transfer facility waste shipments are noted in a separate Transfer Log (operating record). Vehicles/trailers located in this area are parked on a man-made impervious surface and secondary containment is provided if vehicles/trailers are going to be parked in this area for more than 24-hours.

  The Inbound & Outbound Staging (I/O) Area is also located on the 8th Avenue property and shares the same footprint as the 10-Day Transfer Facility. The I/O Area is only used for inbound loads waiting for unloading and receipt and outbound loads waiting for completed transportation paperwork. Vehicles/trailers in this area are marked as either an inbound load or an outbound load to avoid being confused with other vehicles/trailers that may also be located in the same vicinity. The inbound identification tags are clearly visible and include the vehicle/trailer number, manifest document number, trip number (if applicable), receipt date, container count and total gallons. The outbound identification tags are also clearly visible and include the trailer number, manifest document number, start date, destination, container count and total gallons. USET may be either the generator or the designated facility. Inbound waste shipments are noted in a separate Inbound Log (operating record). Outbound waste shipments are noted in a separate Outbound Log (operating record). Vehicles/trailers located in this area are parked on a man-made impervious surface. Secondary containment is provided if vehicles/trailers are going to be parked in this area for more than 24-hours.

- **SWMU #12 (Used Oil Facility)** – The Used Oil Facility is located in the CSB (SWMU#1) which is discussed above. SWMU #12 remains active since the proposed Oil-Water Separator System (SWMU #19) was not installed and is being removed from the application. Used oil is consolidated into larger containers prior to off-site disposal/recycling and is staged in the CBS or WPB (SWMU #7).

- **SWMU #13 (Satellite Accumulation Area)** - The Satellite Accumulation Area is located in the Laboratory on the 8th Avenue property. The material collected in the satellite accumulation area includes various types of debris associated with container sampling and the containerization of collected samples. Accumulated material is transferred to the Orient Road property for further processing and disposal.

- **SWMU #14 (Parts Washer – Not In Service)** – The parts washer was formerly located in the maintenance area on the 8th Avenue property. The washer consists of a metal sink fixed to a 30-gallon drum of part cleaning solution. The solution is pumped from the drum into the sink where the parts are washed and cleaned. The solution is drained back into the drum when the cleaning is completed. The solution is reused until it is no longer useful and at that point it is sent off-site for recycling. It should be noted that the parts washer is not currently in service, but USET contemplates using it again at a time in the future.

- **SWMU #15 (Additional Retention Pond)** – The additional Retention Pond is located on the 8th Avenue property and collects storm water from the roof of the WPB. The retention pond was sized for both the permanent pool volume required and the first inch of runoff storage (temporary pool). This SWMU was previously investigated, and the results have been submitted to the FDEP in a report entitled: "*Sediment Sampling Report 8th Avenue Property Stormwater Retention Pond*," dated February 29, 2012.

- **SWMU #16 (Universal Waste Lamp Storage Area)** – The Universal Waste Lamp Storage Area is located adjacent to the consumer products consolidation platform (SWMU 21) on the Orient Road property. The material is stored in a box van with a storage capacity of 1,104 cubic feet.

- **SWMU #17 (Former Aerosol Can Crushing)** – The aerosol can recycler was scrapped and removed from the site circa 2010. USET has no plans to re-enter the aerosol can recycling business and as such this SWMU no longer exists.

- **SWMU #18 (Drum Crushing/Rag Compacting)** – The crushing unit is a Drumbeaters of America crusher, model # DC5000-10. Additional details of the compactor are located in **Appendix I**. The drum crusher consists of a closed cabinet unit located at the top of the ramp leading into Bay 3. A drum is placed inside the container and a ram is used to crush the drum. The unit contains a grate and collection pan at the bottom to catch any liquid or solid residues from the crushed drum. The residue is managed as a waste. The unit is used to crush drums and other various RCRA empty metal containers, as well as to compact rags. Crushed drums are sent off-site to a metal recycler.

- **SWMU #19 (Oil-Water Separator System)** – The Oil-Waste Separator will not be installed and has been removed from the facility permit. As such, this SWMU does not exist.

- **SWMU #20a to 20c (Bulk Container Storage Area)** – The BCSA(s) are used for the storage of dump trailers and bulk containers that contain solid material (passes the paint filter test) that has been treated in the hazardous waste treatment tank. The material has been sampled and is waiting on confirmatory analytical results from the off-site laboratory. Bulk Containers pending analytical are marked as Treated Hazardous Waste to avoid being confused with other bulk containers that may also be located in the same vicinity. The Treated Hazardous Waste identification tags are clearly visible and include

the start date, Hazbox Tracking number, container number, and container count. The BCSA is also used for the storage of bulk containers that contain solid material (passes the paint filter test) that has been removed from the treatment tank and has received analytical results that confirms that the waste has been successfully treated and meets all decharacterization and LDR treatment standards. Bulk Containers that have received confirmatory analysis and meet all decharacterization and LDR treatment standards are marked as Treated Non-Hazardous Waste to avoid being confused with other bulk containers boxes that may also be located in the same vicinity. Their identification tags are clearly visible and include the start date, Hazbox Tracking number, container number, and container count. Bulk containers stored in the BCSA are noted in a separate Bulk Container (operating record).

The BCSA is sloped and drains precipitation away from the storage area and the bulk containers. The bulk containers also have metal rollers for wheels, which elevate the bottom of the container 6 to 8 inches above the ground surface and protect the containers from contact with accumulated liquids.

- **SWMU #21 (Consumer Products Consolidation Platform)** – The consumer products consolidation platform consists of a semipermanent loading dock specifically designed and manufactured for the USET facility. It is 60 feet long by 16 feet wide and contains four truck loading docks and a set of stairs on the west side and another loading dock and a 30-foot-long by 8-foot-wide drive ramp on the east side. The consolidation platform is covered from the elements and sun using a canopy. Box trucks or trailers transporting retail waste or HHW to the platform backup directly to the loading docks to offload and/or these materials are brought to this area from the CSB using a forklift or other type of acceptable transport method. Popup containments are deployed underneath the unloading areas to contain any incidental spills or releases that might happen during transfer operations. Following the completion of processing or recontainerization activities, containers are placed back inside the CSB for storage. A portion of the 50,000-gallon storage capacity for the CSB, ISCA, and the I/O Staging Area has been reallocated to the platform to account for the 2,000 gallons of storage allowed at this location. Examples of wastes processed in this area may include paints, thinners, solvents, pesticides, herbicides, fertilizers, pool chemicals, motor oil, greases, hydraulic oils, acidic and caustic cleaners, and personal care products such as soaps, hair care, etc.

- **SWMU #22 (RUNI Screw Compactor)** – A RUNI SK370 screw compactor unit and conveyor system were installed with the consolidation platform and canopy (SWMU 21). It is primarily used for processing containers of retail herbicides and pesticides and compacted dunnage. The discharge, toxic liquids, and reject materials from the screw compactor are contained in an IBC tote the contents of which are managed (recontainerized) on the consolidation platform when full. The operational footprint of the RUNI screw compactor is secondarily contained at ground surface using either concrete curbing or drive-over spill containment berms, as appropriate, to contain incidental spills or releases.

9.0 CLOSURE PLAN

Refer to **Appendix O**.

10.0 USE AND MANAGEMENT OF CONTAINERS

10.1 Condition of Containers

All hazardous waste containers are inspected by a USET driver or subcontract transporter prior to removal from the generator's site. The containers are checked for compliance with DOT (or other applicable) regulations. Containers are specifically checked for container and waste compatibility, container integrity, excess rust, excess corrosion, excess dents or defects, leakage, closure, labels, and proper shipping documents. All storage containers will comply with 40 CFR 264, Subpart I requirements. Unacceptable containers will be corrected at the generator's site. These corrections include things such as relabeling a container or tightening the closure. Unacceptable containers can be overpacked or the materials can be transferred to a new or acceptable container. Unacceptable containers, not resolved to USET satisfaction, will be left at the generator's site.

Containers are double checked for the same problems and conditions upon receipt at the USET facility. The same corrections or actions occur at the USET facility except unacceptable containers will be rejected and returned to the generator.

10.2 Compatibility of Waste with Containers

USET will use containers made of or lined with materials, which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. Chemical compatibility of the wastes with the containers will be in accordance with DOT regulations specified by 49 CFR. The DOT lists standards for containers made of steel, aluminum, metal (other than steel or aluminum), plywood, fiber, plastic, wood, natural wood, reconstituted wood, fiberboard, woven plastic, plastic film, textile, paper, composite with plastic liner, and composite with glass, porcelain, or stoneware liners.

USET utilizes many of these types of containers. The most common container types utilized are steel, plastic, fiber, and woven fiber. Most of the waste managed by USET is in 55-gallon steel drums. Fiber and woven fiber containers may be used for solid materials. Steel containers are used for nearly all types of waste materials except corrosives. Corrosives may be stored in steel containers if a plastic liner is used or if the corrosives are in lab pack form. Corrosive materials are usually stored in plastic (poly) containers. The container sizes usually range from a 5-gallon pail to one cubic yard totes. Bulk transport containers such as roll-off boxes and tankers are occasionally utilized for outbound or transfer shipments. All bulk tanker storage will be in the ISCA.

10.3 Management of Containers

All containers at the USET facility will remain closed. The containers will be opened only when it is necessary to add or remove waste materials for sampling, transfer, or treatment. All containers managed by USET will be handled to ensure that no damage, rupture, or leakage will occur. Containers will be moved manually, by drum truck, forklift with proper container handling attachment, pallet jack, or suitable means designed or utilized for movement of containers of hazardous waste.

10.4 Inspections

Container storage areas are inspected daily (each operating day) by USET personnel. The inspector will check for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors. Inspection of containers is described in the USET Inspection Plan provided as **Section 5.0**.

10.5 Containment Design & Operations

10.5.1 Base

The CSB has a containment system designed and built to contain leaks or spills of hazards waste. The building is 5,866 square feet MOL and features a floor, which is five inches of 4,000 PSI concrete placed monolithically with 6x6, 10/10 wire mesh woven throughout. The base is free of gaps and cracks. The floor has been coated with a chemical resistant sealant and two layers of chemical resistant polyurethane coating. All floors and containments in the container storage building are built and coated to these specifications. The floors, sumps, and coatings are compatible with the materials stored in the building. The floors and sumps with coatings are impervious to contain leaks or spills.

10.5.2 Slope and Drainage

The CSB is divided into 3 (three) separate bays. An eight-inch-wide concrete block wall separates each bay. The walls extend from the floor to the roof and are designed with a minimum fire resistance of 4 (four) hours. Bays 1 (north) and 3 (south) are for general storage (non-flammable) of hazardous waste. Bay 2 (center) is for the storage of flammable and reactive waste. Bays 1 and 3 have dimensions of approximately 48 feet by 50 feet. Bays 1 and 3 are each subdivided into two equal sections of approximately 24 feet by 50 feet. Each equal subdivided section of Bays 1 and 3 has its own containment sump (one sump each section, or two sumps each bay). Bay 2 is in the center of the building and approximately half the size of Bays 1 and 3. The dimensions of Bay 2 are approximately 22 feet by 50 feet. Bay 2 has a separate containment sump giving the entire building a total of five separate equal size containment sumps. The floors of Bay 2 and the floors of each of the subdivided sections of Bays 1 and 3 slope 1/8 inch per foot to the central containment sumps. This ensures that any liquids resulting from leaks or spills will be directed to a central containment sump. Each containment sump is available to contain spills or leaks of different hazard class materials. This prevents the potential for incompatible materials to spill or leak into the same containment sump. No container will be more than 25 feet from a containment sump. The USET container storage building is located completely under roof (complete with 10-foot overhang and 50-foot roof extension) and there is no potential of accumulation of precipitation in the building. The containment sumps and container storage areas are shown on **Figure 17** and the as-built record drawings for the hazardous waste/management building included in **Appendix D** of **Volume 2 of 3** of the 2019 permit renewal application.

The asphalt parking lot area where the BSCAs are located is sloped (see **Figure 8**) and drains precipitation away from the storage area and the stored bulk containers. The bottom of the bulk containers are elevated 6 -8 inches above the ground to protect the containers from contact with any liquids (precipitation, stormwater runoff) that may accumulate.

10.5.3 Capacity

The CSB shares an authorized hazardous waste storage capacity of 50,000 gallons with the ISCA, I/O area, and CPCP. The five (5) CSB containment sumps are of identical (MOL) rectangular dimensions of 8.5 feet (length) by 3.5 feet (width) by 4.5 feet (depth). The calculated containment volume of the sumps is approximately 5,007 gallons which alone exceeds the required 10% containment of the maximum storage quantity of hazardous waste that may potentially be on site at any time. Refer to **Appendix G** for a summary of calculated storage and containment capacities for the USET facility.

The USET facility containment is actually much greater if the following points are taken into consideration. Approximately one-fifth of the containers managed are lab packs (mostly exempt household waste). The lab pack containers contain a maximum of 20 gallons of hazardous waste per container. The remaining (non-lab packed) containers are approximately half with free liquids and half with no free liquids. The slope of the floors would also provide additional containment in an emergency. There is an approximate total of 3 inches of slope to each of the five containment sumps. The actual containment of the facility would actually far exceed the minimum required 10% when all these other conditions are considered. Containers without free liquids and lab packs (counted as 55 gallons instead of the actual 20-gallon maximum) have been included in the containment calculation to provide a worst-case scenario. For the purposes of storage capacity, the actual quantity of liquids being stored will always be less than the permitted capacity.

10.5.4 Waste Processing Building

The 8,050 square foot covered WPB (**Figure 15**) has a hazardous waste storage capacity of 9,900 gallons. Containers that will be placed in the proposed storage area will primarily consist of 55-gallon drums, although waste may also be received in 250- and 275-gallon totes and cubic yard boxes. The capacity is consistent with the physical limitations of the WPB, which has a total calculated storage capacity of 185,360 gallons. The entire WPB is surrounded by a concrete curb. The slab in the north side of the building is sloped towards the center of the north side, which directs liquids towards a 50-gallon subsurface sump in that location. The concrete slab in the southern portion of the building is sloped towards a subsurface sump located near the south side of the building. These sumps allow for more efficient removal of liquids. Liquids accumulated in the sumps, from leakage or spills of containers (if any), will be managed as the waste which caused the leak or spill and be placed into the appropriate treatment/solidification tank (non-hazardous or hazardous), a tanker truck, or other container by suitable means (such as pumping to drums). Spillage of liquids on the hazardous waste side of the operations (southern end of the building) will be routed to the sump in this portion of the building. Spillage of liquids on the non-hazardous side of the operations (northern end of the building) will be primarily routed to the sump in this portion of the building, although some may drain to the sump in the hazardous waste operations area. USET ensures that the proposed permitted hazardous waste storage area within the WPB complies with 264.175(a) and 264.175(b)(1) through (b)(5).

The building curbing and subsurface sumps provide 29,029 gallons of containment. This is sufficient to hold 110 percent of the largest container (the 14,064-gallon hazardous waste treatment tank) or 10 percent (18,536 gallons) of the total volume of waste (185,360 gallons) that can potentially be stored in the WPB, whichever is greater. Refer to **Appendix G** for a summary of calculated storage and containment capacities for the USET facility.

10.5.5 Bulk Container Storage Area

The BSCAs are sloped and drain precipitation away from the storage area and the stored bulk containers. The stored bulk containers contain only solids (passes the PFT). The bottom of the bulk containers are elevated 6 -8 inches above the ground to protect the containers from contact with any liquids (precipitation, stormwater runoff) that may accumulate. Per 40 CFR 264.175, a containment system is not required for this area.

10.5.6 Run-On – include all storage areas

Run-on into the containment system is not possible. The floors to the CSB are approximately four feet above the exterior ground elevation. The storage building is totally enclosed to prevent run-on into the building. The exterior drainage is away from the building.

10.5.7 Waste Removal – include all storage areas

Spilled or leaked waste will be removed from the containment sump in as timely a manner as is necessary to prevent overflow of the containment system or a threat to human health or the environment. Where a hazard is imminent or has already occurred, waste removal will be immediate. Wastes will be removed from sumps as soon as possible. Wastes will be removed the same day that waste is discovered in the sump by the daily (or other) inspections. The containment sumps are inspected daily as indicated in the Inspection Plan (see **Section 5.0**). All liquids which accumulate in the containment sumps, unless already identified, will be sampled and analyzed in accordance with the WAP. The accumulated liquids will be pumped into appropriate containers and managed as hazardous waste if required.

10.6 Containers without Liquids

Calculation of the containment capacity of the CSB, WPB, and the ISCA, includes all containers including those without free liquids. This is a conservative approach. The waste materials managed include liquids, sludges, and solids. Solids represent approximately one-third of the waste managed at the facility, yet containers of solids (with no free liquids) are counted as liquids and are included in the containment calculation. Should the facility need to test for free liquids, the procedures described in "*Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods*" US EPA SW 846 (latest edition) will be utilized. The test for free liquids is described in the WAP. The facility is designed and operated such that storage areas are able to drain and remove liquids so that containers do not remain in contact with accumulated liquids.

All wastes (including solids with no free liquids) which include waste codes F020, F021, F022, F023, F026, and F027 will have a containment system as required by 40 CFR 264.175.

10.7 Ignitable or Reactive Wastes

Containers holding ignitable or reactive wastes will be located at least 50 feet from the facility's property line. Ignitable or reactive wastes are described in the Ignitable, Reactive, or Incompatible Wastes section of this permit application (see **Section 3.4**).

10.8 Incompatible Wastes

The USET facility incompatible waste requirements and procedures are described in the Ignitable, Reactive, or Incompatible Wastes section of this permit application (see **Section 3.4**).

10.9 Closure

At closure, all hazardous waste and hazardous waste residues will be removed from the containment systems. All containers, liners, bases, and soil containing or contaminated with hazardous waste (or residues) will be decontaminated or removed. The closure process and associated closure cost estimate are discussed in the Closure Plan provided in this permit application (see **Appendix O**).

11.0 ON GROUND TREATMENT TANK SYSTEM

11.1 Design of Treatment Tank System

As described previously, USET operates an on-ground treatment tank system to treat selected characteristic hazardous wastes (waste codes D002, D004 through D011, and K062). No treated hazardous waste is disposed at the facility.

The design of the tank system and/or ancillary equipment is provided in **Appendix I**. The tank sits on the covered, concrete slab that forms the foundation of the WPB and is anchored on the north, west and south sides as shown on the design drawings.

The treatment tank dimensions are 20-ft wide x 20-ft long x 4-ft 7-in tall. The tank capacity is approximately 68 cubic yards (CY) but the working volume is approximately 2/3 of that, or between 40-45 CY. This allows adequate freeboard to prevent over topping of the tank due to wave or wind action and precipitation is not considered an issue because the tank is located inside the covered WPB. The WPB is open sided on the west and east. Retractable curtains are installed and used to counteract wind-related impacts when wind becomes an issue during the operation of the treatment unit.

The hazardous waste treatment tank is a custom manufactured piece of equipment, essentially meeting the 40 CFR, Part 264.10 definition of an on-ground tank. The unit is constructed of steel plates that are welded into the shape of a box. The box is 20-ft. wide by 20-ft. long and is 4-ft. 7-in tall. The floor and walls of the box are 3/4-inch and 1/2-inch steel plate, respectively, and the top of the box is open. The connections between the plates are joined together with full penetration welded joints so that the box is liquid-tight and will not allow waste to escape. The design and installation of the on-ground treatment tank complies with all the requirements specified in 40 CFR, Subpart J, and the design drawings and specifications for the treatment tank as well as the engineering certification of the design are provided in **Appendix I**

After the tank was constructed, and prior to being placed in operation, the tank system was inspected by an independent, qualified, Professional Engineer, for the presence of the following items:

(1) Weld Breaks
(2) Punctures
(3) Scrapes of protective coatings
(4) Cracks
(5) Corrosion
(6) Any other structural damage or inadequate construction/installation

A design and installation certification, in accordance 40CFR 270.11(d), is maintained on file at the facility.

11.2 Treatment Description

Candidate containers of hazardous waste potentially amenable for treatment in the on-ground hazardous waste treatment tank are selected from the current inventory and reviewed by the Operations Manager or designee prior to bench testing in the on-site lab. When the selection process is complete, representative samples of each selected waste stream are collected and forwarded to the on-site lab for bench testing. The bench testing determines waste compatibility and the sequence that the waste and reagents are added to the treatment tank in order to ensure complete treatment. Based on the bench test results, pH monitoring, and established solubility curves, a batch treatment recipe is developed by the QA/QC Chemist and the Operations Manager (or designee).

The approved batch treatment recipe is forwarded to the Waste Processing Building (WPB) Supervisor for processing. All of the selected containers on the batch recipe are verified by the Supervisor, or by a designated WPB staff member under the Supervisor's direct supervision, prior to being placed in the treatment tank. The waste and reagents are placed in the treatment tank as prescribed by the batch recipe and then thoroughly mixed using an excavator. The treatment process is complete when all of the reagents have been added to the waste according to the batch recipe, the material has been mixed thoroughly, and all free liquids have been removed.

When the treatment is complete, a representative sample of the treated waste is collected and forwarded to the QA/QC Chemist or designee. The QA/QC Chemist or designee conducts a Paint Filter Test (PFT) in the on-site lab to demonstrate that the waste has no free liquids remaining in the mixture. The remaining sample is then prepared and sent to a NELAP certified lab for TCLP and Universal Treatment Standards (UTS) analysis. If the material fails the PFT, additional treatment reagent is added to the mixture to ensure that all free liquids have been removed. The treated waste is then retested as required.

If the material passes the PFT, the batch is removed from the treatment tank and placed into bulk containers (usually 2-4 boxes per batch). A hazardous waste bulk container ID tag is applied to each bulk container in the batch. The ID tag identifies the bulk container as a hazardous waste and includes the accumulation start date, batch #, bulk container #, and the bulk container count (ex., 1 of X, 2 of X, etc.). Each bulk container is moved from the WPB and placed into storage. The areas designated for bulk container storage on the 8th Avenue property are identified on **Figures 8, 11, and 12**.

When the TCLP and UTS results are received from the off-site lab (usually within 2-business days of sample submittal), the QA/QC Chemist and the Operations Manager (or designee) review the analytical results and determine whether the batch has been decharacterized and meet the UHC treatment standards. If the results indicate that the batch has failed for either TCLP or UHC treatment standards, the batch and its associated bulk containers maintain their original hazardous waste bulk container ID tags and are placed on the schedule for retreatment. Retreatment usually occurs within 2-business days of analytical receipt. The failed batch bulk containers remain in the storage area until their scheduled retreatment. If both the TCLP and UHC treatment standards are met, no further treatment is required and the treated waste is now identified as Non-RCRA waste. The original hazardous waste bulk container ID tags are removed and replaced with new Non-RCRA bulk container ID tags which identified the accumulation start date, batch #, bulk container #, and the bulk container count (ex., 1 of X, 2 of X, etc.).

The analytical results of treated non-RCRA waste are sent to the Subtitle D landfill for review and approval per their acceptance requirements. When the acceptance approval is received from the Subtitle D landfill, the non-RCRA waste bulk containers are loaded onto a transportation vehicle, removed from the storage area, and transported to the landfill for disposal. Generally, all non-RCRA waste is removed from the storage area within 10-business days of passing treatment standard testing and being declared non-RCRA waste.

Waste Characterization Reports are submitted by generators for in-bound shipments. The proper identification of UHCs are the responsibility of the facility and the reports are reviewed to confirm that no organic UHCs are present. Only waste containing characteristic metals are treated on-site. Waste will be treated to meet inorganic constituent concentration UTS's listed in Part 268-Subpart D as required so that the treated material is rendered non-hazardous and can be decharacterized.

Table 11.1 summarizes the characteristic hazardous wastes to be treated by USET and the standards to be achieved for decharacterization and meeting the LDRs.

Table 11-1
Wastes Treated and Standards for Decharacterization/Meeting LDRs

Waste Code	Constituent	Concentration [1]	Non-Wastewater UTS/TCLP mg/L [2]	Other Requirements [3]
D002	Corrosive	2 ≥ pH ≥ 12.5	DEACT/NEUTR	PFT
D004	Arsenic	5.0	5.0	PFT
D005	Barium	100.0	21	PFT
D006	Cadmium	1.0	0.11	PFT
D007	Chromium	5.0	0.60	PFT
D008	Lead	5.0	0.75	PFT
D009	Mercury	0.2	0.025	PFT
D010	Selenium [4]	1.0	5.7	PFT
D011	Silver	5.0	0.14	PFT
K062	Chromium	0.60	0.60	PFT
K062	Lead	0.75	0.75	PFT
K062	Nickel	NA	NA	PFT

NOTES:

1 Metals constituents by TCLP (Toxicity Characteristic Leaching Procedure)

2 If the starting material is a liquid which is solidified/stabilized, there is a change in treatability group and the non-wastewater UTS Concentration would apply. This is not considered impermissible dilution.

3 USE does not intend to dispose of any bulk or noncontainerized treated liquids and will demonstrate the absence of free liquids by analyzing a sample by EPA SW-846 Method 9095B (Paint Filter Test).

4 Selenium will retain its hazardous characteristics if treated only to meet the non-wastewater UTS. Therefore it will require treatment to 1.0 mg/L TCLP or less in order to be decharacterized and meet LDRs.

It should also be pointed out that the disposal facility accepting the treated material may require additional testing above and beyond a TCLP test before they will accept the waste. USET will determine testing requirements for the proposed disposal facility and have the samples analyzed accordingly.

11.3 Treatment Process

In order to decharacterize treated waste and meet the LDR treatment standards, USET uses the NEUTR treatment technology, as defined in 40 CFR 268.42 Table 1, for the treatment of D002 waste and the STABL treatment technology, as defined in 40 CFR 268.42 Table 1, for the treatment of D004 through D011 and K062 waste.

The NEUTR treatment technology is described as follows: "Neutralization with the following reagents (or waste reagents) or combination of reagents: (1) acids; (2) bases; or (3) water (including wastewaters) resulting in a pH greater than 2 but less than 12.5 as measured in the aqueous residuals."

The STABL treatment technology is described as follows: "Stabilization with the following reagents (or waste reagents) or combinations of reagents: (1) Portland cement; or (2) lime/pozzolans (e.g., fly ash and cement kiln dust)—this does not preclude the addition of reagents (e.g., iron salts, silicates, and clays) designed to enhance the set/cure time and/or compressive strength, or to overall reduce the leachability of the metal or inorganic."

11.4 Routine Maintenance/Decontamination

As previously noted in **Section 5.0**, the hazardous waste treatment tank is inspected daily. Depending on usage rates and quantities of materials treated, the treatment tank will require periodic decontamination. The decontamination consists of a rough brush of the sides and bottom, followed by a high-pressure water

rinse. Mixing equipment decontamination will be considered when moving from one characteristically hazardous category or group (e.g., metals) to another (e.g., corrosives). The equipment will receive a rough surface brush followed by a clean water rinse. The decontamination solids and liquids will be containerized and temporarily stored until the next batch of like material is to be treated and it will be added to that batch rather than disposed of in some other fashion. Because each batch of treated material is tested to assure it has been decharacterized and meets LDRs before disposal, it is redundant to also have to test or characterize the decontamination solids and liquids. The internal SOP used by USET for decontamination is contained in **Appendix J**.

12.0 FACILITY AIR EMISSIONS REQUIREMENTS

12.1 Introduction

The primary operations at the USET facility are storage and processing of hazardous waste in containers, primarily 55-gallon drums, and treatment of hazardous waste codes D002, D004 through D011, and K062. A minimum of 10 percent of each waste stream entering the facility is sampled. Some waste is processed (recontainerized or consolidated) into other containers of similar size or larger. Recontainerization operations may also include use of a paint can crusher, a drum crusher/rag compactor, or transferred from tanker trucks to totes or other containers in the WPB. Wastes are primarily shipped out of the facility in 55-gallon drums, although some wastes will be consolidated in roll-off dumpsters or tanker trucks for transport off-site.

The facility currently does not require an air permit. The potential air emissions of volatile organic compounds (VOCs), to include these activities, have been evaluated and are presented herein to provide information that shows levels to be below air permitting requirements. Because this application is not requesting any change in waste codes or quantities, the write up and analysis provided below is still considered accurate and applicable to this evaluation.

Waste Characterization Reports are submitted by generators for in-bound shipments. The reports are reviewed to confirm the chemical nature and characteristics of a waste requiring disposal. The presence of volatile organic aromatics (VOAs), volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) are determined as a part of the Waste Characterization Report review. Wastes containing VOAs, VOCs, and SVOCs are not processed on-site in the WPB. Only waste containing characteristic metals are treated on-site.

12.2 Description of Operations

Waste is received at the facility primarily in 5-gallon drums to 275-gallon totes. The containers are offloaded at the concrete loading/unloading area just outside the CSB. The containers are moved inside the building and are categorized and stored according to compatible waste type. The following waste type categories are handled at the facility:

1. Ignitable Waste (I)
2. Corrosive Waste (C)
3. Reactive Waste (R)
4. Toxicity Characteristic Waste (E)
5. Acute Hazardous Waste (H)
6. Toxic Waste (T)
7. Non-RCRA Regulated Waste

40 CFR 261.30 indicates the basis for listing the classes or types of wastes listed in 40 CFR 261 Subpart D.

The containers are inspected and a portion, i.e., a minimum of 10 percent of each waste type received, are sampled and analyzed. Waste types include liquids, solids, sludges, and a variety of lab packs, i.e., waste that is packaged in its original container. Waste handling and associated operations completed at the site include:

- Container Sampling
- Recontainerization
- Container Loading
- Paint Can Processing
- Drum Crushing and Rag Compacting
- Loading to Roll-Offs and/or Dump Trailers
- Bulk Tank Loading
- Laboratory Analysis

12.3 Potential Air Emissions

12.3.1 Volatile Organic Compounds

The facility is currently permitted to handle virtually all types of hazardous waste. The primary VOCs handled at the facility are methyl ethyl ketone (MEK), methanol, xylenes, toluene, and benzene. In order to conservatively estimate emissions, the vapor pressure of acetone was used to represent all potentially evaporative waste at the facility. Acetone has the highest vapor pressure of the evaporative waste managed at the facility. Therefore, for the emission calculations, all evaporative liquid is assumed to contain 100 percent acetone and approximately half of the waste handled at the facility is assumed to contain all VOC. This assumption produces conservative emission estimates because:

1. Assuming that all liquid waste is 100 percent volatile produces emission estimates significantly higher than actually expected since liquid waste does not contain 100 percent VOC.
2. Because primary VOC constituents have vapor pressures less than acetone, the assumption that all VOC at the facility is acetone is conservative.

Other assumptions made for the emission estimates will also produce conservative results:

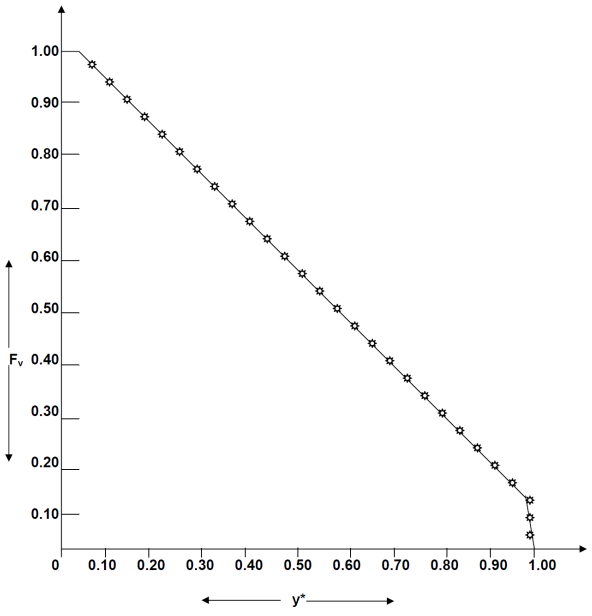
1. The effect of the CSB for containment of VOC emissions was not taken into consideration. All evaporation was assumed to occur outdoors to ambient air. Most operations occur within the CSB by the roll up doors.
2. True vapor pressure at a temperature of 90 degrees Fahrenheit (deg F) was assumed for all emission calculations. Mean annual temperatures in the Tampa area for years 1961 through 1998 were approximately 82 deg F. Therefore, assuming a vapor pressure at 90 deg F would result in higher emission estimates on an annual basis.

Potential VOC emissions have been estimated for several operations at the facility. A summary of primary activities at the facility and estimated emissions is included on Table 12-1.

Table 12-1
Summary of Primary Activities and Estimated Emissions

Activity Description	Activity Location	Potential Air Emissions	Comments & Assumptions	Reference for Emission Calculations	Estimated VOC Emissions (Tons Per Year)
Closed Container Loading/Unloading	Loading/unloading dock	None	Containers remain closed	NA	NA
Container Sampling	Inside Container Storage Building	Minimal	10% of containers are sampled	Table 13-2	0.0009
Hazardous Waste Treatment	Waste Processing Building	Minimal	HAPs and VHAPs are not present.	NA	NA
Emergency Exhaust Fans	Container Storage Building Bay 2	Negligible	Emergency use only	NA	NA
Portable Floor Fans	Container Storage Building Bays 1 & 3	Negligible	Personnel cooling	NA	NA
Roll-off Storage	Bulk Container Storage Areas	Negligible	Covered when in storage	NA	NA
Laboratory Hood Exhaust	8th Avenue Laboratory	Negligible	Exempt Activity (F.A.C. rule)	NA	NA
Recontainerization Operations					
Container to Container	Inside the Container Storage Building	Minimal	Typically pumped or poured; include lab packs	Table 13-3	0.26
Paint Can Crushing	Improved Secondary Containment Area	Minimal	Solvent-based paint	Table 13-6	0.40
Drum Crushing/Rag Compaction	Loading/unloading dock	Negligible	Low use, enclosed unit	NA	NA
Container to Roll-off	Improved Secondary Containment Area	Minimal	Typically solid material	Table 13-4	2.02
Tanker Loading	Loading/unloading dock	Minimal	Liquids Only	Table 13-5	0.577
				TOTAL =	**3.25**

Graph 12-1 – Fick's law correction factor F_v as a function of y * [31]



Emission calculations for individual operations are included on Tables 12-2 through 12-5.

Table 12-2
Worksheet for Estimating Emissions from Container Sampling

Calculation Parameters			
Variable	**Descriptions**	**Value**	**Basis**
Po	Atmospheric Pressure, mm Hg	760	Standard Value
MW	Molecular Weight, g/g mol	58.08	Chemical Database
yi*	Equil mole fraction in gas phase (xi*Pi*/Po)	0.20	Calculated
xi*	Mole fraction in aqueous liquid	0.5	Assumption
Pi*	Component vapor pressure, mm Hg	306	Based on 5.917 psia at 90 deg F
w	Width of dump to wind flow, cm	7.62	Assume 15 feet dumpster length
R	Gas constant, 62,300 mm Hg*cm^3/gmol*K	62,300	Given
T	Temperature, Deg K	305.4	90 deg F
Di	Diffusivity in air, cm^2/s	0.124	Chemical Database
1	Length of dumpster in direction of wind flow, cm	7.6	Assume 10 feet dumpster width
U	Wind speed, cm/s	22.35	Assume nominal 1 mph
Fv	Frick's law correction factor (function of yi*)	0.85	From Graph 12-1
Equation:	**(2)(Po)(MW)(yi*)(w)(R/T) x ((Di)(l)(U)(3.14)(Fv))^0.5**	**0.02 g/s**	**Calculated Emission Factor**
Operating Data			
Variable	**Descriptions**	**Value**	**Basis**
NC	Number of containers sampled, containers/yr.	1,560	10% of all containers
t	Typical sampling time. Seconds per container	25	Conservative assumption
Equation:	**Calculated Emission Factor x NC x t/454 g/lb.**	**1.72**	**Pounds per year**
	Total Emissions =	**0.0009**	**Tons per year**

Assumptions: Conservatively assume that half (by mole fraction) of all liquid waste sampled is acetone.
Source: Haz Waste Treatment, Storage, and Disposal Facilities (TSDF) - Air Emission Models. EPA-450/3/87-026, Dec 1987.

Table 12-3
Worksheet for Estimating Emissions from Drum Loading (Recontainerization)

Calculation Parameters			
Variable	**Descriptions**	**Value**	**Basis**
S	Saturation Factor	1.45	Based on splash loading
P	True Vapor Pressure of Liquid (psi)	5.917	VP of acetone at 90 deg F
M	Molecular Weight of Vapors (lb/lb-mole)	58.08	MW of acetone
T	Temperature of Bulk Liquid (deg R)	550	90 deg F
Equation:	**12.46(S)(P)(M)(T)**	**11.3 lbs/1,000 gal**	**Calculated Emission Factor**
Operating Data			
Variable	**Descriptions**	**Value**	**Basis**
Q	Quantity loaded (gal/year)	47,850	Pumping or pouring operations
Pct	Amount of solids in waste loaded (percent)	95	Assumption
Equation:	**Calculated emission factor x Q/1,000/2,000 lbs/ton x Pct/100**	**0.26**	**Tons per year**

Assumptions: Conservatively assume that half (by mole fraction) of all liquid waste recontainerized is acetone.
Source: Compilation of Air Pollutant Factors (AP-42), Section 4.4. EPA, September 1985.

Table 12-4
Worksheet for Estimating Emissions from Loading Roll-Off Containers

Calculation Parameters			
Variable	**Descriptions**	**Value**	**Basis**
Po	Atmospheric Pressure, mm Hg	760	Standard Value
MW	Molecular Weight, g/g mol	58.08	Chemical Database
yi*	Equil mole fraction in gas phase (xi*Pi*/Po)	0.40	Calculated
xi*	Mole fraction in aqueous liquid	1	Assumption
Pi*	Component vapor pressure, mm Hg	306	Based on 5.917 psia at 90 deg F
w	Width of roll-off to wind flow, cm	457.2	Assume 15 feet dumpster length
R	Gas constant, 62,300 mm Hg*cm^U3/gmol*K	62,300	Given
T	Temperature, Deg K	305.4	90 deg F
Di	Diffusivity in air, cm^U2/s	0.124	Chemical Database
1	Length of dumpster in direction of wind flow, cm	304.8	Assume 10 feet dumpster width
U	Wind speed, cm/s	44.7	Assume nominal 1 mph
Fv	Frick's law correction factor (function of yi*)	0.7	From Graph 12-1
Equation:	**(2)(Po)(MW)(yi*)(w)(R/T) x ((Di)(l)(U)(3.14)(Fv)) ^U0.5**	**0.02 g/s**	**Calculated Emission Factor**
Operating Data			
Variable	**Descriptions**	**Value**	**Basis**
NR	Number of roll-offs loaded, roll-offs/month	1,560	10% of all containers
t	Typical loading time. Hours per roll-off	1.5	Conservative assumption
Pct	Amount of solids in waste loaded (percent)	95	Assumption
Equation:	**Calculated emission factor x NR x t x 3,600 s/hr / 454 g/lb x (1-Pct/100)**	**335.85**	**Pounds per year**

Assumptions: Conservatively assume that half (by mole fraction) of all liquid waste loaded to roll-offs is acetone.
Source: Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF) - Air Emission Models. EPA-450/3/87-026, December 1987.

Table 12-5
Worksheet for Estimating Emissions from Tanker Truck Loading

Calculation Parameters			
Variable	**Descriptions**	**Value**	**Basis**
S	Saturation Factor	1.45	Based on splash loading
P	True Vapor Pressure of Liquid (psi)	5.917	VP of acetone at 90 deg F
M	Molecular Weight of Vapors (lb/lb-mole)	58.08	MW of acetone
T	Temperature of Bulk Liquid (deg R)	550	90 deg F
Equation:	**12.46(S)(P)(M)(T)**	**11.3 lbs/1,000 gal**	**Calculated Emission Factor**
Operating Data			
Variable	**Descriptions**	**Value**	**Basis**
Q	Quantity loaded (gal/year)	99,000	Assume 100 drums/tanker; tankers loadedmonth (1/2 acetone)
Pct	Amount of solids in waste loaded (percent)	95	Assumption
Equation:	**Calculated Emission Factor x Q/1,000/2,000 lbs/ton x Pct/100**	**0.57**	**Tons per year**

Assumptions: Conservatively assume that half (by mole fraction) of all liquid waste loaded to tanker trucks is acetone.
Source: Compilation of Air Pollutant Factors (AP-42), Section 4.4. EPA, September 1985.

Total facility emissions were estimated to be just 3.25 tons per year. As mentioned, these emissions are based on conservative assumptions and actual emissions are expected to be much less.

An Offsite Consequence Analysis (OCA) was conducted and modeled potential worst-case chemical releases for the USET facility. The results of the OCA are summarized in **Section 13.0** and discussed in detail in the report provided in **Appendix N**.

12.3.2 Lead

Lead is considered to be the most significant toxic heavy metal constituent handled at the facility. It is estimated that approximately 20 percent of all waste handled contains some quantity of lead. RCRA regulated lead hazardous waste managed usually ranges from 5 to 500 parts per million (ppm) in concentration. Therefore, the amount of lead present at the facility is less than the amount of VOCs present. The vapor pressure of lead in aqueous solution is much lower than VOCs, and, as such, lead emissions are expected to be negligible based on the same conservative assumptions used and emission estimates calculated for VOC emissions.

12.4 Regulatory Applicability

12.4.1 Stationary Sources

Because the facility handles waste which may contain small amounts of benzene, the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations relating to benzene were analyzed for potential applicability.

40 CFR 60 Subpart A-Standards of Performance for New Stationary Sources

There are no stationary sources or affected facilities as defined in this section that apply to this permit application.

12.4.2 Pumps in Light Liquid Service

USET will utilize pumps to transfer materials within the processing area of the permitted facility. The total use of equipment subject to the requirements of this subpart will not exceed 300 hours per calendar year. Each pump will be inspected visually each calendar week to determine that no indications of leaking liquids from the pump seals are present. Additionally, if an instrument reading of greater than 10,000 ppm is measured the pump will be considered to be leaking. If a leak is detected it will be repaired as soon as practical, not to exceed 15 calendar days. No pump that is known to leak will be used for hazardous waste transfer operations.

40 CFR 61 Subpart J-National Emission Standards for Equipment Leaks (Fugitive Emission Sources) of Benzene

This subpart applies to sources (i.e., pumps, compressors, pressure relief devices, sampling connections, etc.) which are intended to operate in benzene service. However, "benzene service" refers to facilities with process units that contain equipment in benzene service. A "process unit" is defined under 61.241 as equipment assembled to produce a volatile hazardous air pollutant (VHAP) or its derivatives as intermediates or final products, or equipment assembled to use a VHAP in the production of a product. Because the facility does not produce or manufacture a product, it is not subject to this subpart.

40 CFR 61 Subpart V-National Emission Standards for Equipment Leaks (Fugitive Emission Sources)

Again, this unit applies to equipment operating in VHAP service, which is part of a process unit. Because the facility does meet the requirements of a process unit (see **Section 4.2.1**), the facility is not subject to this subpart.

40 CFR 61 Subpart BB-National Emission Standards for Benzene Emissions from Benzene Transfer Operations

This subpart applies to loading racks at benzene production facilities and bulk terminals only. Therefore, the facility is not subject to this subpart.

40 CFR 61 Subpart FF-Emission Standards for Benzene Waste Operations

This subpart applies to owners and operators of chemical manufacturing plants, coke byproduct recovery plants, and petroleum refineries, or owners and operators of hazardous waste treatment, storage, and disposal facilities that treat, store, or dispose of hazardous waste generated by any of the affected facilities. Because USET does not currently accept waste from these facility types, this subpart does not apply.

40 CFR 264 Subpart BB-Emission Standards for Equipment Leaks General

Compliance with the requirements of 40 CFR 264, Subpart BB will be attained by the following the procedures described in this section. This section requires facilities to identify and repair leaks in specified pieces of equipment. Equipment is considered to be leaking when materials are dripping from pump seals or valves, or when an instrument reading of greater than 10,000 ppm is measured. The detection instrument used for monitoring will meet the performance criteria of Reference Method 21 in 40 CFR Part 60. Equipment used to transfer hazardous waste (with an organic concentration of at least 10 percent by weight) at USET is used less than 300 hours per calendar year. USET uses pumps in light liquid service as identified herein.

12.4.3 Trucks in Vacuum Service

USET will utilize equipment that is in vacuum service. Vacuum trucks are used to transport and transfer hazardous materials.

40 CFR 264 Subpart BB-Emission Standards for Equipment Leaks General

Compliance with the requirements of 40 CFR 264, Subpart BB will be attained by the following the procedures described in this section. This section requires facilities to identify and repair leaks in specified pieces of equipment. Equipment is considered to be leaking when materials are dripping from pump seals or valves, or when an instrument reading of greater than 10,000 ppm is measured. The detection instrument used for monitoring will meet the performance criteria of Reference Method 21 in 40 CFR Part 60. Equipment used to transfer hazardous waste (with an organic concentration of at least 10 percent by weight) at USET is used less than 300 hours per calendar year. Equipment in vacuum service is also used. USET uses trucks in vacuum service as identified herein.

12.4.4 Containers

USET stores hazardous waste in containers greater than 26 gallons and as such must follow the requirements of 40 CFR 264 Subpart CC. Most of the hazardous waste processed by USET will have a VOC concentration of greater than 500 parts per million by weight (ppmw). In most cases, hazardous waste that may have a VOC concentration of less than 500 ppmw and will be managed as if it does have a VOC concentration of greater than 500 ppmw.

12.4.5 Hazardous Waste Stabilization/Treatment

USET does not treat hazardous waste regulated by 40 CFR 264 Subpart BB in the treatment tank process and therefore these items are not addressed in this permit application.

40 CFR 264 Subpart CC- Air Emission Standards for Tanks, Surface Impoundments, and Containers

USET will control air pollutant emissions from all containers stored or processed at the permitted facility. The transfer of hazardous waste in or out of containers will be accomplished in a manner that minimizes the exposure of hazardous waste to the atmosphere. This will be done to the extent practical, considering the physical properties of the hazardous waste and good engineering practices. Containers having a design capacity of 0.1m^3 - 0.46 m^3 will be managed using USDOT regulations on packaging hazardous materials for transportation as a Level 1 control standard. Containers will comply with the requirements of 49 CFR part 178, except as permitted by USET approved DOT exemption for lab packs managed in accordance with 49 CFR part 178 or combination packages specified in 49 CFR 173.12. Containers having a capacity of greater than 0.46 m^3, that are in light service, will also comply with these USDOT standards, as required, to provide Level 2 control. Containers meeting these standards are designed so that any potential release of VOC concentrations are eliminated with proper care and use. Pursuant to 40 CFR part 270.27, the following table provides additional information regarding air emission controls for hazardous waste management units present at the USET facility, as applicable:

TABLE 12-6
Summary of Hazardous Waste Management Units Subject to Subpart CC

HWMU Type & I.D. No.	HWMU Location	EPA Hazardous Waste Codes managed in each HWMU	Brief Waste Description	Average Volatile Organic Concentration of the Hazardous Waste Managed	DOT Performance Packaging Std ID Code	Subpart CC Status	Control Option
Various Containers (SWMU 7)	Reactives Magazine in WPB (See Figs 15 & 17)	D001, D003, D005, D008	DOT 1.4 explosives, road & marine flares, small munitions, etc.	Concentration Varies	1A1, 1A2, 1H1, 1H2, 4G	Level 1 Container Standards	11 & 14
Various Containers (SWMUs 1 & 2)	CSB & ISCA (See Figs 14 & 17)	All Permitted Waste Codes	Waste Varies	Concentration Varies	1A1, 1A2, 1H1, 1H2, 4G, 11G, 11H2, 13H4, 31H1	Level 1 Container Standards	11 & 14
Various Containers (SWMUs 1 & 2)	CSB & ISCA (See Figs 14 & 17)	All Permitted Waste Codes	Waste Varies	Concentration Varies	11G, 11H2, 13H4, 31H1	Level 2 Container Standards	17

Notes:

1. Containers have a design capacity greater that 26 gal and less than 122 gal.
2. CO 11 - These containers have a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3 and meet the applicable USDOT regulations under the Container Level 1 standards. The container shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted at a facility. If a container remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(I) & (c)(1)(I)]
3. CO 14 - These containers have a design capacity greater than 0.46 m^3, are not in light material service and meet the applicable USDOT regulations under the Container Level 1 standards. The container shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted at a facility. If a container remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(ii) & (c)(1)(I)]
4. CO 17 - These containers have a design capacity greater than 0.46 m^3, are in light material service and meet the applicable USDOT regulations under the Container Level 2 standards. The container shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted a t a facility. If a container remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(iii) & (d)(1)(I)]

Closures must comply with USDOT regulations on any container over 26 gallons managing waste with 500 ppm volatile organic content. USET will ensure that containers have secured closure devices (drum lid, tanker lid or equivalent) in place and closed when materials are not being loaded to the container. This will be done within 15 minutes, when the person performing the loading

operation leaves the immediate vicinity of the container, or the process generating the material being added to the container shuts down, whichever occurs first. Containers will also be opened as needed to allow access for routine activities other than the transfer of hazardous waste. These activities may include sampling, measurement, inventory, or repackaging. The container will be properly closed and secured immediately following the completion of the activity.

All containers will be inspected for visible cracks, holes, gaps or other spaces into the interior of the container when closed and secured in order to ensure that no emission release into the environment will occur. If defects are discovered they will be corrected (repaired, replaced, repacked or over packed) within 24 hours of detection. **Section 10.0**, USET and Management of Containers, provides detailed information on inspection practices.

12.5 Conclusions

Potential emissions of VOCs have been estimated for operations at the USET facility. Because the treatment tank only treats characteristically hazardous wastes (D002 and D004 through D011) and listed hazardous waste (K062 via "lime stabilization") which have low volatilities and do not contain any VOCs, the calculations previously performed for the facility appear appropriate for the current application. The emission estimates have been prepared based on conservative assumptions. Therefore, the estimated emissions are expected to be far lower than presented herein. These data show that current air emission estimates are below the existing standard of 10 tons per year (TPY). Rule 62-210.300(3)(b), F.A.C. requires a level of greater than 10 TPY for air permitting to be required. These data have been presented to the Hillsborough County Environmental Protection Commission (HCEPC) during prior permit renewals.

12.6 Section References

USEPA, 1987. Hazardous Waste Treatment, Storage, and Disposal Facilities, (TSDF)-Air Emission Models. EPA-450/3-87-026. Section 7.3.1.

FDEP, 1994a. Letter from Howard L. Rhodes to Angela R. Morrison, May 20, 1994. Title V Insignificant Source Summary-Electric Power Plants.

FDEP, 1994b. Letter from Howard L. Rhodes to Jose F. Alvarez, October 5, 1994. Title V Insignificant Source Summary-Sugar Cane Industry.

FDEP, 1994c. Letter from Howard L. Rhodes to Nancy Stephens, January 26, 1994. Title V Insignificant Source Summary-Chemical Industry.

Weather History at: http://www.ncdc.noaa.gov/cgi/bin/gsod_xmgr

13.0 EXPOSURE INFORMATION

A comprehensive *Airborne Contaminant Risk Assessment Report*, or OCA, was prepared to support the substantial modification demonstration completed during the December 2022 permit modification request prepared for the USET facility. The modeling and risk analysis results demonstrate that the project appears to substantially comply with applicable target reference levels for the studied compounds of concern. The referenced report is provided as **Appendix N**.

14.0 ITEMS NOT APPLICABLE TO THE PERMIT RENEWAL APPLICATION

The following items are not applicable to the USET facility and information pertaining to them is not included in this permit renewal application:

- Surface Impoundments
- Waste Piles
- Land Treatment
- Landfills
- Incinerators
- Compliance Schedule
- Groundwater Protection
- Research, Development, and Demonstration
- Air Emission Standards for Process Vents
- Air Emission Standards for Equipment Leaks
- Boilers and Industrial Furnaces
- Requirements for Drip Pads
- Professional Geologist Certification

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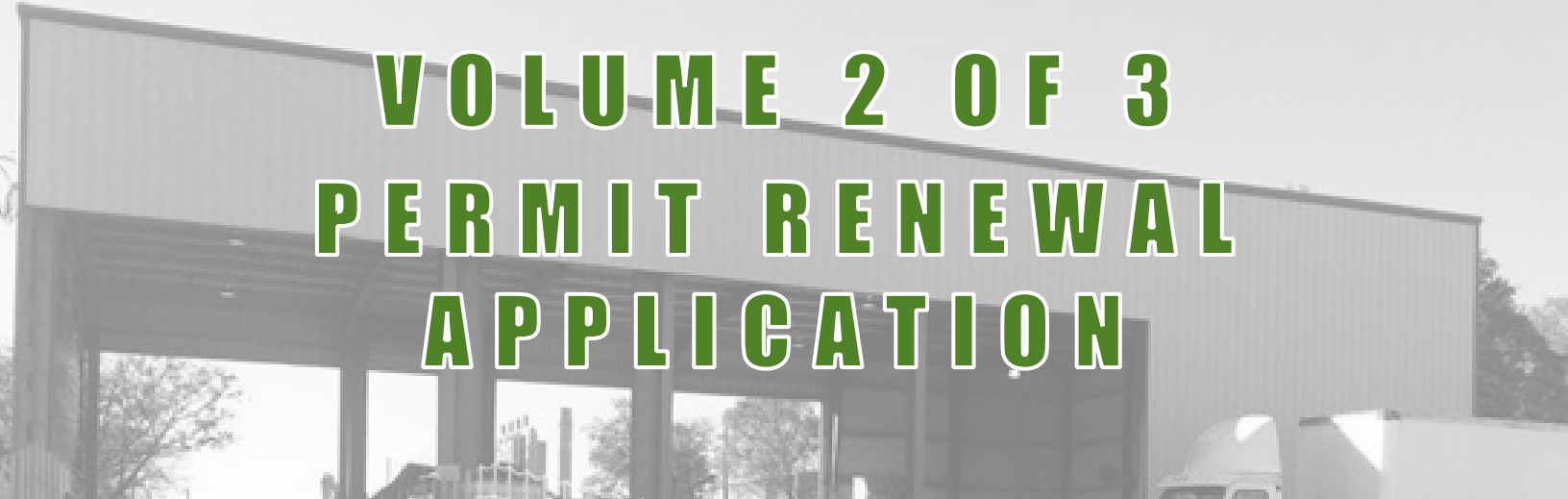

VOLUME 2 OF 3
PERMIT RENEWAL APPLICATION

OPERATION OF A SOLID WASTE PROCESSING FACILITY

PERMIT NO. 34875-016-SO

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Tampa, Hillsborough County, Florida

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Revision: 00
October 3, 2023
PACSCON No. 2023-1816

VOLUME 2 OF 3

Permit Renewal Application

FOR

Operation of a Solid Waste Processing Facility

AT

7202 East 8th Avenue
Tampa, Hillsborough County, FL

Permit Application No.: 34875-016-SO

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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COMMON ABBREVIATIONS

BCSA – Bulk Container Storage Area
CPCP – Consumer Products Consolidation Platform
CSB – Container Storage Building
EQ – EQ Holding Company, Inc.
I/O – Inbound/Outbound Staging Area
ISCA – Improved Secondary Containment Area
LDR – Land Disposal Restrictions
OCA – Offsite Consequence Analysis
PFT – Paint Filter Test
TCLP – Toxicity Characteristic Leachate Procedure
UHC – Underlying Hazardous Constituents
VOC – Volatile Organic Compound
UTS – Universal Treatment Standards
USET – US Ecology Tampa, Inc.
WPB – Waste Processing Building

1.0 APPLICATION FORM

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form #: 62-701.900(4), F.A.C.
Form Title: Application to Construct, Operate, or Modify a Waste Processing Facility
Effective Date: February 15, 2015
Incorporated in Rule: 62-701.710(2), F.A.C.

APPLICATION TO CONSTRUCT, OPERATE, OR MODIFY A WASTE PROCESSING FACILITY

GENERAL REQUIREMENT: Solid Waste Management Facilities shall be permitted pursuant to Section 403.707, Florida Statutes (F.S.) and in accordance with Florida Administrative Code (F.A.C.) Chapter 62-701. A permit application shall be submitted in accordance with the requirements of Rule 62-701.320(5)(a), F.A.C., to the Department District Office having jurisdiction over the facility. The appropriate fee in accordance with subsection 62-701.315(4), F.A.C., shall be submitted with the application by check made payable to the Department of Environmental Protection (DEP). Complete appropriate sections for the type of facility for which application is made and include all additional information, drawings, and reports necessary to evaluate the facility.

Please Type or Print in Ink

A. GENERAL INFORMATION

1. Type of facility (check all that apply):

■ Transfer Station:

☐ C&D ☐ Class III ☐ Class I

☐ Other Describe: _____

☐ Materials Recovery Facility:

☐ C&D Recycling ☐ Class III MRF ☐ Class I MRF

☐ Other Describe: _____

■ Other Facility That Processes But Does Not Dispose Of Solid Waste On-Site:

☐ Storage, Processing or Disposal for Combustion Facilities (not addressed in another permit)

■ Other Describe: Volume reduction, segregation, and repackaging

NOTE: C&D Disposal facilities that also recycle C&D, shall apply on DEP FORM 62-701.900(6), F.A.C.

2. Type of application:

☐ Construction/Operation

■ Operation without Additional Construction

3. Classification of application:

☐ New ☐ Substantial Modification

■ Renewal ☐ Intermediate Modification

☐ Minor Modification

4. Facility name: US Ecology Tampa, Inc.

5. DEP ID number: SWD/29/44633 County: Hillsborough

6. Facility location (main entrance): 2002 Orient Road, Tampa, FL 33619

Northwest District
160 Government St., Ste. 308
Pensacola, FL 32501-5794
850-595-8300

Northeast District
7825 Baymeadows Way W., Ste. 100
Jacksonville, FL 32256-7590
904-256-1700

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-897-4100

Southwest District
13051 N. Telecom Pky.
Temple Terrace, FL
813-470-5700

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
239-344-5600

Southeast District
3301 Gun Club Rd, MSC 7210-1
West Palm Beach, FL 33406
561-681-6600

7. Location coordinates:

Section: 14 Township: 29 South Range: 19 East

Latitude: 27 ° 57 ' 44.2 " Longitude: 82 ° 22 ' 27.6 "

Datum: WGS84 Coordinate Method: Facility Center on Google Earth

Collected by: Christopher Poole Company/Affiliation: PACSCON

8. Applicant name (operating authority): US Ecology Tampa, Inc.

Mailing address: 7202 East 8th Avenue, Tampa, FL 33619
Street or P.O. Box City State Zip

Contact person: Ken Dean Telephone: (813) 319-3433

Title: Environmental Compliance Manager KDean2@RepublicServices.com
E-Mail address (if available)

9. Authorized agent/Consultant: PACSCON GeoEnvironmental, Inc.

Mailing address: 4517 George Road, Suite 220, Tampa, FL 33634
Street or P.O. Box City State Zip

Contact person: Christopher Poole Telephone: (813) 447-9433

Title: President cpoole@pacscon.com
E-Mail address (if available)

10. Landowner (if different than applicant): Not Applicable

Mailing address: _____
Street or P.O. Box City State Zip

Contact person: _____ Telephone: (____)_____

_____
E-Mail address (if available)

11. Cities, towns and areas to be served: Southeastern United States

12. Date site will be ready to be inspected for completion: Now

13. Estimated costs:

Total Construction: $ Not Applicable Closing Costs: $ _____

14. Anticipated construction starting and completion dates:

From: Not Applicable To: _____

15. Expected volume of waste to be received: 10.7 yds^3/day 8.9 tons/day

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Effective [effective date]

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16. Provide a brief description of the operations planned for this facility: Segregation and processing of solid waste for transfer to off-site disposal and recycling facilities. Detailed discussion of facility operations is provided in the permit renewal application and supporting documentation.

B. ADDITIONAL INFORMATION

Please attach the following reports or documentation as required.

1. Provide a description of the operation of the facility that shall include (62-701.710(2)(a), F.A.C.):
   a. The types of materials, i.e., wastes, recyclable materials or recovered materials, to be managed or processed;
   b. The expected daily average and maximum weights or volumes of materials to be managed or processed;
   c. How the materials will be managed or processed;
   d. How the materials will flow through the facility including locations of the loading, unloading, sorting, processing and storage areas;
   e. The types of equipment that will be used;
   f. The maximum time materials will be stored at the facility;
   g. The maximum amounts of wastes, recyclable materials, and recovered materials that will be stored at the facility at any one time; and
   h. The expected disposition of materials after leaving the facility.

2. Attach a site plan, signed and sealed by a professional engineer registered under Chapter 471, F.S., with a scale not greater than 200 feet to the inch, which shows the facility location, total acreage of the site, and any other relevant features such as water bodies or wetlands on or within 200 feet of the site, potable water wells on or within 500 feet of the site (62-701.710(2)(b), F.A.C.).

3. Provide a boundary survey and legal description of the property (62-701.710(2)(c), F.A.C.).

4. Provide a construction plan, including engineering calculations, that describes how the applicant will comply with the design requirements of subsection 62-701.710(3), F.A.C. (62-701.710(2)(d), F.A.C.).

5. Provide an operation plan that describes how the applicant will comply with subsection 62-701.710(4), F.A.C. and the recordkeeping requirements of subsection 62-701.710(8), F.A.C. (62-701.710(2)(e), F.A.C.).

6. Provide a closure plan that describes how the applicant will comply with subsection 62-701.710(6), F.A.C. (62-701.710(2)(f), F.A.C.).

7. Provide a contingency plan that describes how the applicant will comply with subsection 62-701.320(16), F.A.C. (62-701.710(2)(g), F.A.C.).

8. Unless exempted by subparagraph 62-701.710(1)(d)1., F.A.C., provide the financial assurance documentation required by subsection 62-701.710(7), F.A.C. (62-701.710(2)(h), F.A.C.).

9. Provide a history and description of any enforcement actions by the applicant described in subsection 62-701.320(3), F.A.C. relating to solid waste management facilities in Florida. (62-701.710(2), F.A.C. and 62-701.320(7)(i), F.A.C.)

10. Provide documentation that the applicant either owns the property or has legal authorization from the property owner to use the site for a waste processing facility (62-701.710(2), F.A.C. and 62-701.320(7)(g), F.A.C.)

C. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

1. Applicant:

The undersigned applicant or authorized representative of US Ecology Tampa, Inc. is aware that statements made in this form and attached information are an application for a Solid Waste Processing Facility Permit from the Florida Department of Environmental Protection and certifies that the information in this application is true, correct and complete to the best of his/her knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

Signature of Applicant or Agent

Ken Dean
Name and Title (please type)

Environmental Compliance Manager
E-Mail address (if available)

7202 East 8th Avenue
Mailing Address

Tampa, FL 33619
City, State, Zip Code

(813) 319-3433
Telephone Number

October 3, 2023
Date

Attach letter of authorization if agent is not a governmental official, owner, or corporate officer.

2. Professional Engineer registered in Florida (or Public Officer if authorized under Sections 403.707 and 403.7075, Florida Statutes):

This is to certify that the engineering features of this waste processing facility have been designed/examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.

Signature

Francisco J. "Paco" Amram, P.E.
Name and Title (please type)

45133
Florida Registration Number
(please affix seal)

4517 George Road, Suite 220
Mailing Address

Tampa, FL 33634
City, State, Zip Code

pamram@pacscon.com
E-Mail address (if available)

(813) 503-6319
Telephone Number

October 3, 2023
Date

DEP FORM 62-701.900(4)
Effective [effective date]

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

LEVELS OF AUTHORITY POLICY

Note: This Policy is the property of Republic Services, Inc. and/or its subsidiaries (collectively referred to herein as "Republic" or the "Company") and is to be used in connection with the conduct of Republic's business. This Policy is not intended to and does not constitute or create contractual terms of employment. Refer to the Policies and Procedures Manual ("PPM") section of Inside Republic Services for the most current versions of Republic's Policies.

POLICY NUMBER: LOA-101	CATEGORY: Levels of Authority
ORIGINAL EFFECTIVE DATE: 12/05/2008	LATEST REVISION DATE: 7/11/2023
POLICY CONTACT(S) AND QUESTIONS: Director, Ethics & Compliance Questions also may be directed to EthicsandCompliance@RepublicServices.com	

POLICY HIGHLIGHTS:

- **Provides required scope and levels of management needed to review and approve significant business transactions and other commitments prior to their consummation.**
- **Provides guidance as to those positions/titles authorized to sign appropriate documentation to effectuate business transactions and other commitments – subject to all required approvals within the Levels of Authority.**

PURPOSE

This Policy defines the scope and levels of management required to review and approve business transactions and other commitments ("Levels of Authority") as delegated by Republic Services, Inc. ("Parent Company"), for itself and its subsidiaries ("Subsidiaries") (collectively, the Parent Company and Subsidiaries are referred to herein as "Republic" or the "Company"). This Policy further provides guidance as to those positions/titles that are authorized to sign the appropriate documentation to effectuate business transactions and other commitments on behalf of the Company, subject to all required approvals within the Levels of Authority being granted.

SCOPE

This Policy applies to all employees and third parties acting as representatives of the Company. Managers are expected to review this Policy with their employees and any representatives as it applies to positions and responsibilities to ensure an understanding of the requirements and that all approvals and signatures are properly obtained.

REQUIREMENTS AND RESPONSIBILITIES

Approval Authority

The Levels of Authority set forth all required levels of management that need to review and approve significant business transactions and other commitments prior to their consummation ("Approval Authority"). Unless indicated in the Levels of Authority, the designated Approval Authority may not be further delegated. All approvals must be documented in writing (includes emails and electronic signatures as acceptable formats) and retained for auditing purposes.

It is the responsibility of the Corporate Departments, having oversight of those transactions as set forth in the Levels of Authority, to establish and coordinate formal review processes to ensure that the appropriate responsible parties have performed all required reviews and due diligence **prior** to submitting documents to the designated Approval Authority. For example, Engineering, Finance and Legal approvals may not be included under the required Approval Authority; however, prior review may be required under the due diligence procedures established by the Corporate Departments.

Combining Transactions

Dividing a transaction into two or more parts to evade a limit of authority is prohibited and is a violation of this Policy. The Levels of Authority shall be interpreted broadly so that a series of reasonably related transactions and expenditures shall be considered as a single transaction for purposes of determining approval and authority levels required by this Policy.

Policy Exceptions

The CEO, COO, CFO or CLO may approve exceptions to this Policy, but not beyond the limits of their authority. Any exceptions must be documented in writing and maintained by the Director, Ethics & Compliance.

Signatory Authority

The required Approval Authority as set forth in the Levels of Authority does not represent the authorization to sign documents on behalf of the Parent Company and/or its Subsidiaries. Only those individuals and/or positions/titles that have been formally designated with the authority to sign documents as an officer or authorized agent by the appropriate governing authorities of the Parent Company and Subsidiaries may do so ("Signatory Authority"). The Levels of Authority provide a listing of positions/titles by action with Signatory Authority to execute documents (on behalf of the appropriate legal entity that is party to the specified transaction) for effectuating business transactions and other commitments **after** all Approval Authority requirements within the Levels of Authority have been granted in writing.

In addition to positions designated as authorized agents to sign certain documents, elected officers of the Parent Company and respective Subsidiaries have implied Signatory Authority to execute all documents on behalf of such legal entities. Examples include (i) Area Presidents serve as officers of Subsidiaries operating within their Areas; (ii) and Senior Vice President, Operations serves as an officer of all operating Subsidiaries. For additional information on routine signatory authorizations, refer to the Global Signatory Authority Resolutions as posted under the Legal Department section on Inside Republic Services.

Under no circumstances may any officer or designated authorized agent of Subsidiaries sign or agree to any obligation or agreement in the name or on behalf of the Parent Company (Republic Services, Inc.) or of any other legal entity of which the person is not authorized to do so. Any questions as to those elected officers that are authorized to sign on behalf of any Subsidiaries should be directed to the Legal Department. Inquiries related to officers of the Parent Company should be directed to the Senior Manager, Ethics & Compliance. For information as to the Subsidiaries and proper legal entity and fictitious names assigned to each operating location, refer to the Legal Entity by Division List as posted under the Legal Department section on Inside Republic Services.

Ethics and Compliance Responsibilities

All employees and third parties acting as representatives are expected to observe high standards of business and personal ethics in the conduct of their duties and responsibilities for Republic. Employees approving transactions and/or executing documents are required to ensure that all appropriate reviews and approvals required by the Levels of Authority and all other relevant policies and procedures of the Company have been obtained and that the appropriate documentation of these approvals is maintained. Violations of this Policy can significantly damage the Company and expose it to unintended legal and business consequences. Employees found to be in violation of this Policy may be subject to disciplinary action, up to and including termination of employment. Employees should report all instances of non-compliance with this Policy to a member of management or at EthicsandCompliance@RepublicServices.com.

POLICIES, PROCEDURES AND OTHER RESOURCES

- Code of Business Ethics and Conduct
- PPM SharePoint Site
- Speak Up Poster

SECTION 14: ENVIRONMENTAL PERMITS AND REPORTS – continued

[Note: Any indemnification provisions are subject to the Approval Authority set forth in Section 1 of this policy.]

The following Approval Authority and Signatory Authority under this Section 14 do not apply to the Parent Company (Republic Services, Inc.)

(Clean Water Act)

DESCRIPTION OF ACTIONS	APPROVAL AUTHORITY *(Approvals Required Prior to Signing Documents to Effectuate Transaction)* [Click Here for List of Abbreviated Titles] [Click Here for Further Guidance]	SIGNATORY AUTHORITY *(Authorized to Sign Transaction Documents)* [Click Here for Further Guidance]
NPDES Permit Applications, Stormwater Permits, Applications/NOI. (Federal Citation 40 CFR 122.22 (a)(1), 123 (a)(5)	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the GM is the preferred signer and AP also may sign as an Officer
Reports and Other Information Required by Permit. (Federal Citation 40 CFR 122.22 (a0(1), 123 (a)(5) [Note: Includes stormwater pollution prevention plans, reports and certifications required by general permit.]	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the Environmental Manager or DESD is the preferred signer and AP also may sign as an Officer
Wetlands Permit. (CWA Section 404) (Federal Citation 40 CFR 320-330; also state requirements must be addressed)	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the GM is the preferred signer and AP also may sign as an Officer
POTW/Industrial User Reports (Annual). (Federal Citation 40 CFR 403.12)	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the Environmental Manager or DESD is the preferred signer and AP also may sign as an Officer • Periodic (monthly and quarterly) POTW reporting can be signed by site operations management with authorization from GM

(RCRA – Solid Waste Facilities)

DESCRIPTION OF ACTIONS	APPROVAL AUTHORITY *(Approvals Required Prior to Signing Documents to Effectuate Transaction)* [Click Here for List of Abbreviated Titles] [Click Here for Further Guidance]	SIGNATORY AUTHORITY *(Authorized to Sign Transaction Documents)* [Click Here for Further Guidance]
Permit Applications. (Federal Citation 40 CFR 270.11 (a)(1))	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the GM is the preferred signer and AP also may sign as an Officer
Reports and Other Information Required by Permit. (Federal Citation 40 CFR 270.11 (b))	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries, although the Environmental Manager or DESD is the preferred signer and AP also may sign as an Officer

SECTION 14: ENVIRONMENTAL PERMITS AND REPORTS – continued

[Note: Any indemnification provisions are subject to the Approval Authority set forth in Section 1 of this policy.]

Text Color Key:	
Text Color:	**Line of Business:**
Blue:	Solid Waste & Recycling (Field Groups 1 and 2)
Green:	Environmental Solutions (Field Group 3)
Black:	All (Field Groups 1, 2, and 3)

The following Approval Authority and Signatory Authority under this Section 14 do not apply to the Parent Company (Republic Services, Inc.)

(Other Permits)

DESCRIPTION OF ACTIONS	APPROVAL AUTHORITY *(Approvals Required Prior to Signing Documents to Effectuate Transaction)* [Click Here for List of Abbreviated Titles] [Click Here for Further Guidance]	SIGNATORY AUTHORITY *(Authorized to Sign Transaction Documents)* [Click Here for Further Guidance]
Other Permits that include Land Use Permits, Facility Permits, etc.	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP	• GM has signatory authority on behalf of the Subsidiaries; however, both positions must consult with the AEM, DESD and Legal Department • In the event Authorized Agents are unavailable, any Officers of Subsidiaries that includes the AP

(Other Tracking Documents)

DESCRIPTION OF ACTIONS	APPROVAL AUTHORITY *(Approvals Required Prior to Signing Documents to Effectuate Transaction)* [Click Here for List of Abbreviated Titles] [Click Here for Further Guidance]	SIGNATORY AUTHORITY *(Authorized to Sign Transaction Documents)* [Click Here for Further Guidance]
Manifests and Other Reporting. (Federal Citation 49 CFR 172.200)	• Environmental Manager, AEM and GM • GM, EHS Manager, DESD or AP [Note: Other tracking documents such as manifests or leachate volume reports can be signed by site operations management with authorization from the GM. The regulations assume the person signing a manifest certification will have "personal knowledge" of the material being shipped.]	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries and AP also may sign as an Officer • Other tracking documents such as manifests or leachate volume reports can be signed by site operations management with authorization from the GM (regulations assume the person signing a manifest certification will have "personal knowledge" of the material being shipped

(Special Waste Profiles)

DESCRIPTION OF ACTIONS	APPROVAL AUTHORITY *(Approvals Required Prior to Signing Documents to Effectuate Transaction)* [Click Here for List of Abbreviated Titles] [Click Here for Further Guidance]	SIGNATORY AUTHORITY *(Authorized to Sign Transaction Documents)* [Click Here for Further Guidance]
Special Waste Profiles. **Note: Profiles into a pre-approved 3rd party site should not require Republic approval if it has been through the Corporate 3rd party review and approval process.**	• GM or Designee: DM, Environmental Manager or Operations Manager	• Positions listed under Approval Authority have signatory authority on behalf of the Subsidiaries and AP also may sign as an Officer

2.0 INTRODUCTION

US Ecology Tampa, Inc. (USET) is a division of EQ Holding Company, a Michigan Corporation, and a wholly owned subsidiary of Republic Services. USET operates a permitted solid waste processing facility (FDEP ID No. SWD/29/44633) in combination with a hazardous waste treatment and storage facility (EPA ID No. FLD981932494) in Tampa, Florida.

This Engineering Report has been prepared to support a permit renewal application for the solid waste processing operation at the USET facility located at 2002 North Orient Road, Tampa, Florida and 7202 East 8th Avenue, Tampa, Florida (contiguous property). While submitting this permit renewal application, USET is proposing the following minor change to the existing facility permit:

1. With Florida Department of Environmental Protection (FDEP or Department) approval, the shredder was removed from the Waste Processing Building (WPB) on September 15, 2023. The recovered floor space in the northwestern portion of the WPB will be utilized for non-specific operational purposes (see **Figure 18**).

This permit renewal application was prepared by USET and PACSCON GeoEnvironmental, Inc. (PACSCON) in general accordance with the requirements of Chapter 62-701, F.A.C. and provides the required information for agency review and approval. A cross-reference that identifies the applicable portions of the rule and the location in this report of the discussion of the facility's compliance with each applicable section can be found in **Appendix E**. All appendices referenced in this application are presented in **Volume 3 of 3** of this consolidated permit application unless otherwise noted.

A copy of this application will be kept at the facility office for reference during all periods of operation.

3.0 FACILITY OVERVIEW

The existing facility is situated on a 4.53-acre property owned by USET. As stated above, the facility is located on two contiguous properties: 2002 North Orient Road (referred to from this point forward as the "Orient Road property" or "Area 1") and 7202 East 8th Avenue (referred to form this point forward as the "8th Avenue property" or "Area 2"). These areas are depicted on **Figure 7**.

In addition to being a permitted solid waste operation, the USET facility is also registered as a hazardous waste treatment and storage facility (TSDF), a 10-day hazardous waste transfer facility, a used oil and filter collection facility, and a universal waste and mercury containing lamps and devices storage facility. The facility hazardous waste operations are currently conducted in accordance with hazardous waste permit number 34875-017-HO.

Figure 1 is a U.S. Geological Survey Quadrangle Map (Brandon Quadrangle) identifying the facility location. **Figure 2** is an aerial photograph identifying the facility location and surrounding area, while **Figure 3** is a surrounding area map. Key features of the surrounding area such as water bodies and wells are depicted on **Figure 2**. **Figures 4** through **6** depict the facility zoning, a Federal Emergency Management Agency (FEMA) floodplain map, and a geological cross section, respectively. The overall facility layout is depicted on **Figure 7** while a permitted facility layout plan is presented as **Figure 8**. A boundary survey is included as **Figure 9**. The layout of the WPB is presented on **Figure 18**.

All figures referenced in this application are presented in **Volume 3 of 3** of this consolidated permit application.

4.0 SOLID WASTE MANAGED

4.1 Waste Types

The USET facility currently manages both bulk and non-bulk wastes. The nature of the wastes managed is not expected to change during the duration of this permit. Bulk wastes are wastes contained in tanks, vacuum trucks, tanker trucks, roll-offs, dump trailers, sludge boxes, or other similar type transportation units. Non-bulk wastes are contained in containers that are smaller in size and that can generally be moved by hand or forklift. These include original product containers (quarts, gallons, etc.), 5-gallon pails, 55-gallon drums, one-cubic yard bags and boxes, tote-tanks (of capacity of up to 500 gallons), and other similar type containers. Most waste currently received and managed consists of non-bulk containers, usually 55-gallon drums.

Wastes managed may include any or all (including combinations) of the following items: petroleum contaminated materials, used oil, coolants, surfactants, latex paints, non-putrescible household wastes, special wastes (lead-acid batteries and asbestos), ashes, wastewaters, wastewater sludges, scrap metal, universal wastes (including mercury-containing lamps and devices), and other non-RCRA regulated solid wastes. Wastes managed may be solid, sludge, or liquid in form. For the purposes of later discussion in this document the term recyclable materials is defined as consisting of batteries, scrap metal, mercury-containing lamps and devices, and universal waste.

Some of the wastes USET manages are classified as special wastes. Below is a summary of the special wastes managed, applicable regulations complied with, and permits or registrations (if necessary) for USET to manage these special wastes:

SPECIAL WASTE	FLORIDA ADMINISTRATIVE CODE	PERMIT / REGISTRATION
Contaminated Soil	62-701, 62-713	34875-015-SO
Used Oil and Filters	62-710	FLD 981 932 494
Asbestos	62-701.520	34757-010-SO
Mercury Lamps & Devices	62-730.185 and 62-737	FLD 981 932 494
Other Universal Wastes	62-730.185	FLD 981 932 494
Petroleum Contact Water	62-740	FLD 981 932 494
Hazardous Wastes	62-730	34875-017-HO

Wastes specifically excluded from management under the solid waste permit are: hazardous waste, polychlorinated biphenyls (PCBs), radioactive or mixed wastes (wastes that are a mixture of radiological waste and hazardous waste), and bio-hazardous wastes. The management of RCRA-regulated hazardous waste at the facility is currently conducted under Hazardous Waste Permit 34875-017-HO.

4.2 Disposal of Material

The ultimate disposition of all wastes will be off-site. No on-site disposal will occur. Liquid and sludge waste will either be sent to approved off-site treatment or disposal facilities in the form they are received, or they will be solidified at this facility prior to shipment to approved off-site treatment or disposal facilities. Solids and debris will be sent to off-site treatment facilities or directly to approved and permitted disposal facilities. Used oils and other materials that meet recycling standards will be sent to off-site recycling facilities. Off-site treatment of wastes may include: fuel-blending, incineration,

solidification, stabilization, chemical treatment, land application or other approved treatment as allowed by regulation and the disposal facility permit. Listed below is a summary of solid waste disposal.

WASTE	OFF-SITE TREATMENT, DISPOSAL, RECYCLING OR RECLAMATION METHODS
Waste Solids and Debris	Landfills, Treatment Facilities, Thermal Treatment Facilities
Waste Liquids	Wastewater Treatment Facilities, Landfills (after solidification)
Waste Sludge	Landfills, Treatment Facilities, Thermal Treatment Facilities
Contaminated Soils	Landfills, Treatment Facilities, Thermal Treatment Facilities
Used Oil and Filters	Oil and Filter Recycling Facilities
Asbestos	Asbestos Landfills
Mercury Lamps & Devices	Reclamation Facilities
Universal Wastes	Reclamation Facilities
Petroleum Contact Water	Reclamation Facilities
Scrap Metal	Recycling Facilities
Hazardous Wastes	Permitted TSD Facilities
Lead Acid Batteries	Reclamation Facilities

4.3 Waste Projections

Most of the wastes received will be in sealed 55-gallon drums. Monthly non-RCRA solid waste receiving is expected to average approximately 1,100 containers. The density of the wastes will vary, but the 55-gallon containers should average approximately 450 pounds each for a total of 247.5 tons of non-bulk waste received per month. In addition, it is expected that an additional 150 tons of bulk waste will be received in roll-offs and other large containers each month. This equates to an average monthly total of approximately 397.5 tons of waste received. This quantity is equivalent to approximately 477 cubic yards per month. Processed wastes shipped to off-site disposal or recycling facilities is expected to average one 5,000-gallon tanker of liquid and ten (20 yard) roll-offs or dump trailers of solid per week. The increase in the volume of waste between receipt and shipping is due to the incorporation of solidification agents.

5.0 FACILITY OPERATIONS

5.1 Waste Flow

The USET solid waste management operations include several steps. A waste process flow diagram for the USET facility is included on **Figure 11**, the waste management area locations map, and the operations are summarized below:

a) The Generator submits a waste profile to USET.

b) The USET Compliance & Safety Manager or other knowledgeable personnel reviews the Generator's waste profile.

c) The Waste profile is rejected, amended, sent back for further information, or approved by USET.

d) Approved waste is scheduled for pick-up or delivery.

e) Approved waste is transported to the USET facility.

f) Containers are inspected and associated documentation is reviewed at the USET facility.

g) Waste containers are sampled per the USET Waste Analysis Plan (WAP), refer to **Appendix J**.

h) QC analysis is performed on the QC samples per the USET WAP.

i) Unacceptable waste may be returned to the waste generator or managed as hazardous waste under the facility's hazardous waste permit.

j) Waste may be stored in waste management areas as shown on **Figure 11**. Wastes are stored until sufficient quantities of similar materials are available for recontainerization, transfer to bulk or other containers, processing, or shipment offsite to treatment / disposal facilities.

k) Segregation of wastes may be conducted if necessary.

l) Recontainerization/transfer of solid waste will be done if necessary. Small containers may be recontainerized to larger containers or bulk containers such as tankers and roll-offs.

m) Solid waste processing will occur if necessary and may include decanting, filtration, and/or solidification.

n) Confirmatory screening or analysis of waste ready for shipment off-site may be done per the USET WAP.

o) Shipping papers are prepared and reviewed, containers are inspected, and analysis and other documentation (if necessary) are reviewed prior to the waste being shipped off-site for treatment and/or disposal.

p) Waste is shipped off-site for treatment and/or disposal.

5.2 Operation Summary

Solid waste management operations include processing, staging, storage and management of non-RCRA regulated solid wastes. Processing includes segregation, decanting, filtration, transfer, or solidification. No on-site disposal will occur. All wastes managed will be sent off-site to other facilities for ultimate disposal or recycling.

Wastes will be received and stored in closed containers such as the manufacturer's original container, 5-gallon pails with lids, 55-gallon drums, one-ton bags and boxes, tote tanks, dump trailers, roll-off boxes, or tankers. Wastes may be separated or consolidated. The primary goal of all on-site processing is to configure wastes for efficient off-site shipment and/or disposal. Recyclable materials such as scrap

metals, used oils, and lead-acid batteries will be separated, segregated and/or consolidated for shipment to an off-site recycling facility.

Most bulk shipments managed at the facility currently consist of "pass-through" shipments. Pass-through shipments are shipments that are received, re-manifested and shipped to a disposal facility without any additional handling of the waste. Pass-through shipments are typically shipped to the disposal facility in their existing container(s) and are not unloaded from the original transport vehicle.

An Operation Plan is included as **Appendix F**.

5.2.1 Inbound Shipments

Prior to shipping wastes, the waste generator submits a waste profile to USET. The waste profile identifies the nature of the waste, the form of the waste, the type of containers of waste, and the expected volume of waste. The USET Compliance & Safety Manager or other knowledgeable personnel reviews the generator's waste profile for acceptability. The waste profile is approved by USET or if necessary is sent back for further information, amended, or rejected. Once an approved waste profile is in place, the waste is scheduled for pick-up or delivery. The approved waste is then transported to the USET facility.

5.2.2 Waste Receiving, Acceptance, Unloading, and Staging

All inbound loads of solid waste will be received upon arrival. Containers and shipment are inspected and associated documentation (manifests, etc.) is reviewed upon arrival at the USET facility. Waste containers are inspected and as necessary, sampled per the USET WAP. Quality control analysis is performed on the samples per the USET WAP. After inspection and waste analysis activities are complete, the waste is accepted or rejected. Rejected waste may be returned to the waste generator or managed by USET as hazardous waste under the facility's hazardous waste permit. Accepted wastes are either unloaded or are kept on the original transport vehicle, re-manifested and shipped to a disposal facility without any additional handling of the waste ("Pass-through" shipments).

Containers may be unloaded from transportation vehicles manually, utilizing a drum cart (or similar type device), or mechanically with a forklift. Containers may be off-loaded at the Container Storage Building (CSB), Improved Secondary Containment Area (ISCA), Consumer Products Consolidation Platform, or at the WPB. Bulk containers are usually not unloaded. Bulk containers requiring unloading will be unloaded by pumping, emptying, auguring, or by mechanical means such as a backhoe or loader. The unloading (if required) will be to another container or processing unit. Bulk unloading will occur at the ISCA or WPB.

Staging is the temporary storage of transportation vehicles of wastes. Staging of inbound loads may occur in the Inbound/Outbound Staging Area, ISCA, WPB, and Solid Waste Operations area as shown in **Figure 8**. Inbound wastes will be staged for no more than 5 days.

5.2.3 Waste Storage

Non-bulk waste may be stored in one or more waste management area until sufficient quantities of similar materials are available for transfer to bulk or other containers, processing, or shipment offsite to treatment/disposal facilities. Bulk wastes are stored to allow time to accumulate the waste, fill the container completely, process the waste, wait on confirmatory analysis results, and/or to schedule for outbound shipment. Wastes will usually be stored one to three days but in no case longer than one week prior to being processed. Most material will have been processed

and shipped off site within thirty (30) to sixty (60) working days. However, the facility aggregates waste for cost effective transportation and disposal and anticipates that one (1) calendar year may be required to accumulate sufficient quantities of some wastes. This one-year aggregation time frame is allowable for hazardous wastes under the facility's hazardous waste permit and USET requests the FDEP allow similar flexibility for the aggregation of solid wastes under the solid waste permit.

The CSB is the primary location for the storage of non-bulk wastes including containers such as 5-gallon pails, 55-gallon drums, cubic yard bags, cubic yard boxes, 500-gallon tote tanks, palletized containers, and other similar type containers. Both RCRA-regulated hazardous waste and non-RCRA regulated solid waste are managed in the CSB. Incompatible wastes are stored in separate areas with separate containment areas. Containers will remain closed at all times unless the waste is being processed, transferred, or sampled. Additional non-bulk storage may occur in the ISCA, consolidation platform, and WPB.

Bulk containers, such as tankers, roll-offs, dump trailers, or portable storage tanks, may be stored in the ISCA or WPB.

Recyclable materials (containerized solids) will be stored in the CSB, ISCA, and Inbound/Outbound Staging Area. Scrap metal is collected in a roll-off box located adjacent to the northeast corner of the office/lab building.

5.2.4 Segregation

Segregation is a physical process of separating a waste into two or more distinct types of materials to improve waste management. For example, separating a box of sealed containers of paint into two separate boxes, one for latex paint and one oil-based paints. Waste segregation activities are completed in the CSB, ISCA, consolidation platform, and northern portion of the WPB.

5.2.5 Transfer

Solid waste transfer operations include recontainerization of solid waste that may or may not require further processing. Transfer operations represent the majority of USET solid waste operations. Solid waste transfer operations include:

- Repack, pump or empty small (less than 55 gallon) size containers to 55-gallon drums.
- Repack, pump or empty containers (less than one cubic yard) to one cubic yard bags, boxes, or tote tanks.
- Pump liquids and/or sludges to bulk tankers, sludge boxes, vacuum trucks, or similar bulk tanks.
- Empty solids to bulk roll-offs, dump trucks, dump trailers, or similar bulk containers.

Transfer operations may occur in the CSB, ISCA, consolidation platform, and the WPB.

5.2.6 Processing

Solid waste processing operations are conducted primarily in the WPB. Some processing may occur in the CSB and the ISCA. Processing operations are discussed in further detail below:

Decanting

Decanting is the process of allowing the waste (typically sludges) to settle to two or more phases. The liquid and/or sludge phase is physically removed from the remaining (usually solid) phase by pouring, pumping, or other similar methods.

Filtration

Filtration is accomplished by pumping liquids and/or sludges through a filter media. USET may utilize simple screens to filter out solids during pumping or pouring. The use of screens during pumping or pouring operations is the most common type of filtration used at the facility. The decision to use filtration is done on a case-by-case basis. In all cases, the specific procedure is simply the placement of filter media in line during waste transfer in order to filter out solids. The size, type and placement of the filter media are appropriate for the type and quantity of waste being filtered. This also varies and is determined on a case-by-case basis. The liquids that pass through the filter media or screen are directed into a waste container. The containers may range in size from small jars to drums or roll-off boxes or tankers. Materials are handled in a manner that minimizes the possibility for spillage. This is done by ensuring that containers are not overfilled and by controlling the rate of flow of the pouring or pumping. At no time during the transfer of materials is waste allowed to flow unattended. All filtering operations occur in the WPB. Plastic sheeting may be used to offer additional protection/ containment during pumping and/or pouring operations. USET may also utilize in-line sand and/or carbon filters to filter solids from liquids or sludges as they are pumped from one container to another. Used filter material will be managed as solid waste in a similar manner as other wastes received by USET.

Solidification/Stabilization

Solidification/stabilization is the process of physically solidifying a sludge or liquid waste. The process involves mixing solidification media into a waste to absorb residual free liquids. At the current time, the only solidification agent used at USET is sawdust from unadulterated wood, which is stored on a concrete pad located immediately to the west of the WPB. Documentation regarding the sawdust was included in **Appendix K** in **Volume 3 of 3** of the 2019 permit application. There have been no changes in the sawdust used at the USET facility since the prior submittal. USET may, in the future, use other solidification agents such as fly ash, kiln dust or cement on a case-by-case basis. If included as a condition of the facility permit, USET will provide notifications to FDEP when solidification agents other than sawdust will be used. Notifications will be provided to the Department 14 days prior to the use of alternative agents.

Most solidification occurs in the non-hazardous solidification area located in the WPB; however, USET may solidify some wastes directly in the original waste containers (drums, roll-offs, etc.) or other liquid-tight container if the waste and container are amenable to the operation and increased volume. Small containers (5 gallons or smaller) are opened and poured into the solidification unit. Large containers (5 gallon or larger) are emptied into the solidification unit using a forklift, pump, or other necessary equipment. Bulk wastes are emptied directly from the bulk container into the solidification unit using a pump or by gravity feed.

5.2.7 Waste Shipment Preparation and Loading

Prior to loading an outbound shipment, documentation is prepared and reviewed, shipment details are finalized with the treatment/disposal facility, and non-bulk containers are inspected. Loading will be completed by the same means and in the same locations as unloading. Containers will be loaded to transport vehicles manually, utilizing a drum cart (or similar type device), or

mechanically with a forklift. Bulk containers may be loaded by pumping, emptying, auguring, or by mechanical means such as a backhoe or loader. Loaded shipping vehicles awaiting final shipment are parked (staged) in the Inbound/Outbound Staging Area or the Solid Waste Operations Area as shown in Figure 6. Outgoing loads of waste will be staged for no more than ten business days.

5.2.8 Outbound Shipment to Treatment, Disposal, and/or Recycling Facilities

After loading, all wastes are shipped to off-site treatment, disposal, and/or recycling facilities.

5.3 Waste Processing Equipment

The USET facility utilizes a variety of equipment for managing solid waste. USET operates a fleet of vehicles for transporting solid waste. Most of these vehicles are owned by USET; however, some are leased. Transportation vehicles and equipment include box trailers, roll-offs, sludge boxes, dump trailers, tankers, vacuum trucks, and box vans. These vehicles and equipment are utilized to transport solid waste to and from the facility.

Storage equipment includes drums, cubic yard boxes, cubic yard bags, tote tanks (500 gallons or less), other non-bulk containers, roll-off boxes, sludge boxes, portable skid mounted tanks, frac tanks, and other similar bulk storage containers. Storage equipment may be owned or leased.

Material handling equipment includes forklifts, backhoes/loaders, diaphragm pumps, drum pumps, fork drum handling attachments, drum scales, air compressors, and other similar material handling equipment. Material handling equipment may be owned or leased.

Processing equipment includes sand filters, carbon filters, a non-hazardous waste solidification unit, and other similar processing equipment. Processing equipment is limited to equipment that changes only the physical state of the waste (liquid, sludge, solid). No chemical treatment will occur at the facility under the provisions of the solid waste processing permit.

The non-hazardous waste solidification unit is a custom manufactured piece of equipment constructed of steel plates welded into the shape of a box. The box is 21 feet wide by 21 feet long by 3 feet tall and has a capacity of approximately 49 cubic yards. The floor and walls of the box will be ½- inch steel plate, and the top of the box will be open. The connections between the plates will be joined together with full penetration welded joints so that the box is liquid-tight and will not allow waste to escape. Construction and floor bolting details for the solidification unit are provided on **Figure 18.**

Waste to be processed in the non-hazardous solidification unit will be deposited directly into the top of it and then solidification agent (sawdust) will be introduced. The materials will be mixed using a backhoe, portable mixer, or similar piece of equipment. Additional solidification agent will be added until no free liquids are present. Solidified waste will be removed from the solidification unit using a backhoe and loaded into a roll-off box or dump trailer positioned next to it inside the WPB.

Safety equipment that may be used during waste processing activities includes personal protection equipment (PPE) such as boots, chemical-resistance suits (such as “Saranex” or “Tyvek”), gloves, and air-purifying respirators. Other safety equipment includes fire extinguishers, fire alarms, smoke and flame detectors, air monitoring meters, supplied air respirators, safety showers, eye washes, overpack drums, absorbent material, dikes, booms, pads, as well as other similar equipment.

5.4 Facility Operation Plan and Recordkeeping

A complete Operation Plan as required by 62-701.710(2)(e), F.A.C. is included in **Appendix F** and will serve as the operation and maintenance manual. It includes information on facility operations, staff responsibilities, inspections, startup and shut down procedures, training, safety, and fire and security control methods.

Pursuant to the recordkeeping requirements of 62-701.710(8), F.A.C., operational records pertaining to waste management are processed through the administrative office located at the facility. The operational records, consisting of the quantity of waste received and transported and the county of origin of the waste are compiled on a daily basis and filed at the administrative office on site. Records containing information regarding the type of waste and the ultimate off-site treatment or disposal activities are compiled on a monthly basis. These records are submitted to FDEP on a quarterly basis. They are maintained on-site for three years and available for FDEP inspection, upon request.

6.0 FACILITY DESIGN

6.1 Facility Layout and Design

The USET facility is located in an industrial area of Tampa that is zoned heavy industrial. The facility is located on two contiguous properties the Orient Road property and the 8th Avenue property. The property is generally level, and the ground surfaces consist of buildings, impervious (concrete or asphalt) surfaces, and pervious surfaces (earth or crushed stone and shell).

Structures on the Orient Road property include the CSB, the ISCA which is attached to the CSB, a Staging Area, the consumer products consolidation platform, and an office building.

Structures on the 8th Avenue property include a two-story office building, which includes a work bay used as the Solid Waste Operations Area, and the WPB.

The CSB is fully enclosed and is therefore equipped with a ventilation system. All other areas used for waste management activities are open on a least one side and therefore mechanical ventilation is not necessary. The wastes managed at this facility are not typically light enough to be blown from the area by the wind and become a litter problem and therefore litter control devices are not utilized. The facility property is informally inspected on a routine basis and any litter is collected and managed along with other similar sold waste.

To allow work to occur 24-hours a day, the CSB and WPB are lighted in accordance with OSHA requirements (specifically 29 CFR 1926.56).

Descriptions of the facility structures used for waste management are presented in the subsections below.

6.1.1 Container Storage Building (CSB)

The CSB is used to store received waste pending processing and/or shipment to an off-site facility. Operations conducted at the CSB include receiving, storage, unloading, loading, transfer and minor processing of solid waste. A diagram of the CSB is provided as **Figure 17**. The building is a one-story masonry building with four walls and a roof. The west side of the building consists of loading docks which allow wastes to be delivered to and removed from the building.

6.1.2 Improved Secondary Containment Area (ISCA)

The ISCA is used for loading, unloading, storing, transfer, and minor processing of solid waste. The ISCA is located directly to the west of the CSB and covers the loading docks of that building. The ISCA has a roof and it is open to the Staging Area on the west side and the CSB on the east side. A diagram of the Covered Processing Area is found on **Figure 17**.

6.1.3 Consumer Products Consolidation Platform (CPCP)

The consumer products consolidation platform consists of a semipermanent loading dock specifically designed and manufactured for the USET facility. The loading dock is semipermanent in the sense that the sections of the dock are essentially portable but are deployed in such a manner as they are a permanent consolidation platform solution as shown on **Figure 17**. It is 60 feet long by 16 feet wide and contains four truck loading docks and a set of stairs on the west side and another loading dock and a 30-foot-long by 8-foot-wide drive ramp on the east side. Examples of wastes processed in this area may include paints, thinners, solvents, pesticides, herbicides, fertilizers, pool chemicals, motor oil, greases, hydraulic oils, acidic and caustic cleaners, and personal care products such as soaps, hair care, etc.

A RUNI SK370 screw compactor unit (SWMU 22) and conveyor system were installed with the consolidation platform and canopy. It is primarily used for processing containers of retail herbicides and pesticides and compacted dunnage. The discharge, toxic liquids, and reject materials from the screw compactor are contained in an IBC tote the contents of which are managed (recontainerized) on the consolidation platform when full.

Certification of construction completion (dated July 25, 2023) of the consolidation platform and integral screw compactor unit was approved by the FDEP on September 11, 2023.

6.1.4 Staging Area

The Staging Area is used for receiving and staging of solid waste. The Staging Area is located directly to the west of the ISCA. The Staging Area consists of a paved or concrete surface and curbing and related drainage control features. A diagram of the Staging Area is on **Figure 8**.

6.1.5 Waste Processing Building (WPB)

The WPB is used for the receiving, processing, and associated storage, loading, unloading, and transfer of solid waste. The building consists of a concrete pad and a steel roof structure. The north and south sides of the structure are solid walls, and the east and west sides are open in the southern two-thirds of the building to allow for the movement of waste and equipment in and out of the structure. The east and west walls of the building are closed in its northern third. The solid waste processes completed in this structure include segregation, decanting, filtration, and solidification. The non-hazardous waste solidification unit is located in this building. An approach ramp and platform are located on the east side of the structure that allow waste to be emptied from trucks and containers directly into the non-hazardous waste solidification unit.

A hazardous waste treatment tank that is regulated under the facility's RCRA Part B permit was installed adjacent to the existing ramp on the southeast corner of the building. The non-hazardous waste solidification unit and associated 24-inch-high approach ramp were installed approximately 30 feet to the north of the hazardous waste treatment tank in the building. The dimensions of the non-hazardous waste solidification unit are 21 feet long by 21 feet wide by 3 feet high (49 cubic yards).

The solid waste side of the operations is kept separate from the hazardous waste operations in the WPB by demarcating the areas with a bright yellow, 12-inch-line, painted on the floor, between the two existing ramps located near the center of the building on the east and west sides. The building is also labeled as to the non-hazardous (northern of the building) and hazardous (southern portion of the building) waste operations sides. The layout of the WPB is depicted on **Figure 18**.

6.1.6 Solid Waste Operations Area

The Solid Waste Operations Area is used primarily for the temporary staging of roll-off boxes and/or dump trailers of solidified waste generated at the WPB. After processing, wastes are loaded into roll-off boxes or dump trailers that are then moved to this area where they are staged for outbound transportation to an off-site disposal facility. Only solids or solidified wastes are stored in this area. Storage may also include decharacterized hazardous waste meeting the Land Disposal Restrictions (LDR) under RCRA as described in Sections 2.3 and 2.4 of the Hazardous Waste Permit application. There is no processing of waste or storage of liquid wastes in this area. Temporary staging at the Solid Waste Operations Area lasts no more than ten business days. The Solid Waste Operations Area is enclosed by walls on the north and east sides and open on the

south and west sides. The area has a roof and a level concrete slab floor. A depiction of the area is presented on **Figure 8**.

6.2 Waste Storage Capacity and Secondary Containment Capacity

Waste storage capacity for the facility has been determined by the maximum volume of waste that can be stored in each structure based on its physical dimensions, structural layout, and USET storage practices. USET does not expect to store the maximum allowable volume of waste at the facility but has prepared this calculation for permitting and planning purposes. Refer to **Appendix G** for a summary of calculated storage and containment capacities for the USET facility.

Structures that may store liquid waste materials, and where operations include processing wastes, have been designed to provide secondary containment for those wastes. Secondary containment volume has been designed to contain at least 110 percent of the largest single container of waste expected to be stored in an area or ten percent (10 percent) of the maximum total volume of waste stored in the area, whichever is greater. As there are no specific design requirements identified in Chapter 62-701.710, F.A.C., the containment has been designed to meet the RCRA hazardous waste secondary containment requirement of 40 CFR 264.175(b)(3), which has been used as guidance in this matter. Structures that include secondary containment are the CSB, ISCA, and WPB. Containment provided for the CPCP includes concrete curbing on three sides and three-inch high hard rubber drive-over curbing on the remaining side.

The remaining waste-related areas at the facility; i.e., the Staging Area and Solid Waste Operations Area, will only be used to receive, or stage wastes. Processing of waste will not occur in these areas. Wastes received or staged will be contained in sealed/covered Department of Transportation (DOT) approved containers that are ready for transport on the highway.

The applicable design requirements of Chapter 62-701.710(3)(b), F.A.C. require in part that, "the facility be designed with a leachate control system to prevent discharge of leachate." However, there are no design requirements specified. USET has determined that the areas that will only be used to receive or stage waste in DOT containers pose a minimal risk of generating leachate. Therefore, these areas have not been designed with structural secondary containment. Instead, these areas will be controlled by best management practices and a strong spill response capability.

The use of operational controls rather than structural controls is in keeping with guidance obtained from other environmental programs such as the 40 CFR 112 for oil spill prevention and 40 CFR 122 for stormwater pollution prevention. In fact, per 62-620.200(48), F.A.C. and related guidance, a facility that only handles closed containers in an uncovered outdoor location is allowed to claim there is no exposure of industrial activities to stormwater and to obtain a conditional exclusion from stormwater permitting.

Operational procedures for these areas (the Staging Area and the Solid Waste Operations Area) include:

- Waste containers will be closed or covered.
- Containers will be inspected on a regular basis for leaks.
- Spill clean-up materials and spill response personnel will be available to respond to these areas in the event of a release.

Additional discussion of the storage and containment capacity of each area is provided in the following sections. Detailed waste storage and containment calculations are presented in **Appendix G**.

6.2.1 Container Storage Building (CSB)

The CSB has a storage capacity of 50,000 gallons of containerized (non-bulk) wastes based on the structural containment capacity. The combined capacity of the CSB and ISCA is limited to 50,000 gallons according to the USET hazardous waste permit. Additionally, 2,000 gallons of the 50,000-gallon total storage capacity has been reallocated to the consumer products consolidation platform. The CSB is divided into five bays which are numbered from the north to the south as Bay #1A, 1B, 2, 3A, and 3B. Each of these bays has its own below-grade sumps for containment. The floor of each bay slopes from all sides to their respective sumps. Each sump has a capacity of 1,001 gallons for a total of 5,005 gallons containment. This provides containment greater than the largest container (500-gallon tote-tank) and greater than 10 percent of the warehouse maximum storage capacity (50,000). Each sump is blind/dead ended so that contained materials cannot be accidentally released. Best management practices and a strong spill response capability will be used to control spills or leakage from the consolidation platform.

Liquids accumulated in the containment sumps, from leakage or spills of containers (if any), will be placed in containers by suitable means (such as pumping to drums) and managed as the waste which caused the leak or spill.

6.2.2 Improved Secondary Containment Area (ISCA)

The ISCA has a storage capacity of 50,000 gallons of wastes based on the structural secondary containment provided. The combined capacity of the CSB and the ISCA is limited to 50,000 gallons according to the USET hazardous waste permit. The ISCA is divided into the following sub-areas: Area A, Area B, and Area C as illustrated on **Figure 17**. Area A is bounded by a concrete half-wall on the north, the CSB on the east, a concrete ramp on the south, and is open to the west. Area B is bounded by a concrete half-wall on the north, the CSB on the east, a concrete half-wall on the south, and is open to the west. Area C is bounded by a concrete half-wall on the north, the CSB on the east, a concrete half-wall on the south, and is open to the west.

The floor of each sub-area slopes towards the center from the west and east. In Area A and Area C there is a trench drain that runs north to south along the centerline of the area. The trench drain in Area C is connected to the trench drain in Area A through a subsurface pipe running under Area B. Area B was not constructed with a trench drain; rather containment for Area B is provided by the slope of the concrete floor and the concrete half-walls on either side of the area. Liquids that might accumulate in Area B are either removed by wet vacuuming (to be processed in the solidification process) or may be drained into the trench drain in Area C via a valve in the retaining wall between the two areas. The valve between Areas B and C is kept locked in the closed position unless it is needed.

Stormwater that may enter the ISCA is defined as “potential contact” stormwater. The trench drain discussed above discharges to a 640-gallon concrete sump located to the south of the ISCA. The sump allows for the holding and visual inspection of the liquid and acts as the final secondary containment for the area. After manual visual inspection, the potential contact stormwater can be pumped from the sump by a manually actuated sump pump through a sand filter and two (2) carbon filter prior to discharging to the existing on-site stormwater retention pond. A comprehensive discussion regarding the operational procedures of this potential contact stormwater management system is provided below in Section 7.1.

6.2.3 Staging Area

The Staging Area has a staging capacity of 35,200 gallons. This concrete area contains concrete curbing and is graded to allow flow to be directed to the trench drain at the southern end of the Staging Area. The Staging Area is to be used for temporary staging of covered tractor-trailers. There is no planned leachate collection system for secondary containment purposes. Liquid is collected in storm drains and transferred to the stormwater retention pond to the east, along Orient Road.

6.2.4 Waste Processing Building (WPB)

The 8,050 sq. ft. WPB has a total storage capacity of 185,360 gallons. The entire WPB is surrounded by a concrete curb. The slab in the north side of the building (the original building area) is sloped towards the center of the north side, which directs liquids towards a 50-gallon subsurface sump in that area. The concrete slab in the southern portion of the building (the building expansion area) is sloped towards a subsurface sump located near the south side of the building. These sumps allow for more efficient removal of liquids. A third ±50-gallon collection sump, which was approved by the Department previously, is proposed in the center middle aisle on the hazardous waste side of the WPB at the approximate location indicated on **Figure 18** due to the general collection of liquid in this area. Liquids accumulated in the existing and proposed sumps, from leakage or spills of containers (if any), will be managed as the waste which caused the leak or spill and be placed into the appropriate solidification unit/tank (non-hazardous or hazardous), a tanker truck, or other container by suitable means (such as pumping to drums). Spillage of liquids on the hazardous waste side of the operations (southern end of the building) will be routed to the existing and proposed sumps in this portion of the building. Spillage of liquids on the non-hazardous side of the operations (northern end of the building) will be primarily routed to the sump in this portion of the building, although some may drain to the existing and proposed sumps in the hazardous waste operations area.

The building curbing and subsurface sumps provide 29,029 gallons of containment. This is sufficient to hold 110 percent of the largest planned container (the 14,064-gallon constructed steel welded box hazardous waste treatment tank) or 10 percent (18,536 gallons) of the total volume of waste (185,360 gallons) that can potentially be stored in the WPB, whichever is greater.

6.2.5 Solid Waste Operations Area

The capacity of the 2,288 sq. ft. Solid Waste Operations Area is 20,200 gallons. No liquid wastes are placed in this area and no waste processing occurs in this area. Therefore, there is no leachate collection system for secondary containment purposes in the area. Furthermore, the Solid Waste Operations Area is covered to prevent stormwater contact with the waste temporarily staged here. Although no liquid wastes are placed in this area and no leachate is anticipated, were liquids to accumulate in the area they will be contained by absorbents, placed in containers by suitable means (such as pumping to drums), and managed as the waste which caused the leak or spill.

7.0 STORMWATER MANAGEMENT

The USET facility is covered under an Environmental Resource Permit (ERP), permit number 29-0246914-003, issued by the FDEP. The USET facility is also covered under a *Multi-Sector Generic Permit (MSGP) for Stormwater Discharge Associated with Industrial Activity*, facility ID number FLR05E179, issued by the FDEP and has a Stormwater Pollution Prevention Plan (SWPPP) as required by this permit. The SWPPP is updated to reflect any changes at the facility as required by the MSGP.

Surface water flow, drainage improvements, and run-off for the facility are indicated on **Figure 10**. Both properties have existing on-site stormwater retention ponds that allow percolation of stormwater to the subsurface. Stormwater management includes preventative maintenance, which involves the regular inspection and testing of facility equipment and operational systems. These inspections are designed to uncover conditions such as cracks or slow leaks that could cause breakdowns or failures that result in discharges of materials to storm sewers or surface waters. The program is designed to prevent breakdowns and failures by adjustment, repair, or replacement of equipment.

Related equipment, including the sump/pump/filter system, is inspected on a quarterly basis to insure integrity, therefore minimizing spill or leak potential. Records of the quarterly inspections are kept onsite for a period of three years.

7.1 Orient Road Property Stormwater Improvements

Stormwater falling on impervious surfaces at the Orient Road property flows to an on-site stormwater retention pond. The pond has an emergency riser system which leads to an outfall structure discharging to a ditch along Orient Road. The emergency riser system passes larger size storms. The 1-inch precipitation runoff is allowed to percolate through the soil, although inefficiently due to the high ground water.

As discussed above in Section 6.2.2, stormwater that may enter two areas under the existing ISCA is defined as potential contact stormwater. All potential contact stormwater is collected via a system of drains and flows first to a sump. The potential contact stormwater is pumped from the sump (by a sump pump) through a sand filter and two (2) carbon filter prior to flowing to the on-site stormwater retention pond. The sand filter is inspected periodically and may be back flushed when required. The carbon filter is changed at least annually unless more frequent changes are necessary due to the detection of breakout or breakthrough.

The sump pump located in the blind sump for the potential contact stormwater management system is manually activated by plugging the pump power cord into an outlet. In this way the pump is shut down during transfer and processing operations and only activated when needed to transfer water from the sump. This allows any collected stormwater to remain in the contained area and sump. Should a discharge to the system be suspected during transfer or processing operations, the captured stormwater will be pumped to a tank or tanker to be solidified onsite or sent offsite for treatment or disposal at an appropriate facility. After a stormwater event and after the completion of waste transfer and processing operations, the area will be inspected and cleaned (if necessary) prior to activating the sump pump to transfer the collected water thru the sand and carbon filters. The piping from the sump pump to the sand/carbon filters is fitted with two valves that will either direct the water through the filters or allow the water to bypass the filters. Under normal conditions the bypass valve remains closed. The bypass valve is only used in emergency circumstances and must be approved by the FDEP and the City of Tampa.

The area controlled by the potential contact stormwater management system also contains USETs permitted hazardous waste operations. Both the FDEP and EPA Region IV have inspected the

stormwater management system during a Solid Waste Management Unit RCRA Facility Assessment. The system is covered by the RCRA portion of the USET Hazardous Waste Permit as well as the Hazardous and Solid Waste Amendments portion of the USET Hazardous Waste Permit. The system is also covered by USET's General Stormwater Permit issued by FDEP.

The non-contact stormwater that flows from the CSB roof and the Staging Area is directed to the existing stormwater retention pond located to the east of the CSB, through storm drain entry or through the ditch along Orient Road.

7.2 8th Avenue Property Stormwater Improvements

The WPB is a covered area and stormwater solid waste contact does not occur. The stormwater from the WPB drains through a roof drain trunk line system to the existing stormwater retention pond. Any stormwater that enters the building is pumped out with a vacuum-truck or portable pumps, or is placed in other containers, sampled, tested, and either treated onsite or sent offsite for liquid treatment and/or disposal, as appropriate. Stormwater that contacts the hazardous waste processing area will not be placed into the non-hazardous waste solidification unit without supporting testing to determine that the contact stormwater is non-hazardous and non-reactive with solid waste processed in the unit.

The infiltration basin previously located at the facility was converted to a stormwater retention pond during the expansion of the WPB in 2010. Due to the high groundwater conditions at the facility, the infiltration basin was not effective at driving collected stormwater through the soils. The groundwater table is found at approximately 1-foot below the bottom of the stormwater retention pond and the seasonal high-water table is estimated to be approximately 1-foot above the bottom of the stormwater retention pond. The stormwater retention pond was sized to pass the 2-yr, 10-yr, 25-yr, and 100-yr storms safely through the small drawdown orifice, notched weir, and over the emergency riser.

The non-contact stormwater that flows from the roof of the existing Office Building, including the Solid Waste Operations Area, runs off as sheet flow to the southeast and ends up flowing into a ditch along 8th Avenue.

A second block wall stormwater retention pond exists in the southwest of the 8th Avenue property which accepts stormwater runoff from the gravel/rock area located to the west of the WPB. Both of these ponds are covered under separate environmental resource permits (ERPs) authorized by the Southwest Florida Waste Management District. Pond inspection and monitoring activities are competed in accordance with the conditions of the ERP permits.

8.0 CONTINGENCY PLAN

The Contingency Plan as required by 62-701.710(2)(g), F.A.C., is included as **Appendix Q**.

9.0 FACILITY CLOSURE

USET plans to operate the solid waste facility as long as economically and environmentally possible. There are currently no plans to stop solid waste management activities or close the facility. However, in keeping with 62-701.710(2)(f), F.A.C., a Closure Plan has been prepared and is included as **Appendix O**. The Closure Plan was prepared to plan, prepare, and secure financial assurances so that closure could be completed, if required, and includes estimated closure costs used to secure financial assurance (see Section 10.0).

10.0 FINANCIAL ASSURANCE

Pursuant to Rule 62-701.630, F.A.C., proof of financial assurance is no longer required as a condition of the issuance of this permit, but the facility cannot operate without proof of adequate financial assurance. Accordingly, proof of financial assurance is provided in **Appendix P**.

11.0 FACILITY COMPLIANCE

11.1 History of Enforcement Actions

USET has operated this facility as a hazardous waste 10-day transfer operation, a hazardous waste treatment and storage operation, and/or a solid waste management operation for over fifteen years. Most regulatory agency findings, especially those in recent years, have been minor in nature and corrected immediately or shortly after being identified. There are no outstanding regulatory concerns at this time for either the solid waste or hazardous waste operations. Regulatory agency inspections are on file at the respective agencies. Pursuant to 62-701.320(7)(i), F.A.C., **Appendix M** is provided to summarize historical enforcement actions at this facility.

11.2 Compliance With Prohibitions

Section 62-701.300, F.A.C., sets forth specific restrictions on the location and operation of solid waste management facilities. This section has been prepared to demonstrate USET's compliance with these restrictions.

11.2.1 Groundwater Contamination Considerations – Orient Park Industrial Area

The USET facility is located in a heavily industrialized area of Orient Park in Tampa, Florida. Prior to being purchased by USET in 1989, the property was unoccupied vacant land and residential property with one residence. Prior to start-up of the USET facility and its predecessor operations, there were no solid waste management activities at the property as documented by an EPA Region IV RCRA Facility Assessment completed in 1988.

There have been no releases of hazardous constituents to the groundwater at the USET facility since operations began in 1989. USET voluntarily performs periodic monitoring of the groundwater from its property for liability protection. There are a total of four groundwater-monitoring wells at the USET facility. Three are located up-gradient and one down-gradient of the facility.

Historical records of analytical data from analysis of groundwater samples taken from the USET facility indicate that several regulated compounds have been detected at levels that exceed regulatory standards. It has been confirmed that historical releases from the National Priorities List Helena Chemical Co. site (Superfund site) are responsible for the elevated levels of regulated constituents in the USET groundwater samples. These elevated levels have been found in samples taken both up-gradient as well as down-gradient of the USET facility. The Helena Chemical Co. site is located approximately 250 feet north (up-gradient) of the USET facility. A Remedial Investigation (ESD 1995a[1]), Feasibility Study (ESD 1995b[2]), and Record of Decision (EPA 1996[3]) have been completed and issued for the Helena site.

Other industrial sites are located within 500 feet up gradient of the USET facility. They include Wheelblast, Stauffer, Alaric, Singleton Woodcraft, Trademark Metals Recycling, and B and D Towing and Recovery (Formerly Festive Floats). Some of these industrial sites may be contributors to the documented elevated levels of regulated constituents in the Orient Park industrial area.

[1] (ESD 1995a) "Final Remedial Investigation Report,". Environmental and Safety Designs, Inc for Helena Chemical Company, March 29, 2005.
[2] (ESD 1995b) "Helena Chemical Company Tampa Site, Feasibility Study," Environmental and Safety Designs, Inc for Helena Chemical Company, May 25, 2005.
[3] (EPA 1996) "Record of Decision – Summary of Remedial Alternative Selection," EPA Region IV, May 7, 1996.

11.2.2 Air and Water Quality

Rule 62 701.300(1)(b), F.A.C., states, "no person shall store, process, or dispose of solid waste in a manner or location that causes air quality standards to be violated or water quality standards or criteria of receiving water to be violated."

No direct discharges of wastewater are expected from the USET facility and as such no water quality standards or criteria will be violated by the operation of this facility.

Air emissions associated with USET's waste management activities are expected to be negligible and are not expected to contribute to violations of air quality standards. As discussed in Section 12.0 of Volume 1 of 3 of this permit renewal application, potential emissions of volatile organic compounds (VOCs) have been estimated for operations at the USET facility. Because the hazardous waste treatment tank only treats characteristically hazardous wastes (D002 and D004 through D011) and listed hazardous waste (K062) which have low volatiles and do not contain any VOCs, calculations previously performed for the facility show that current air emission estimates are below the existing standard of 10 tons per year (TPY). In fact, given the conservative assumptions used for these calculations, the actual air emissions at the facility are expected to be far lower than discussed. Rule 62-210.300(3)(b), F.A.C. requires a level greater than 10 TPY for air permitting to be required.

11.2.3 Geological Formation Support

Rule 62 701.300(2)(a), F.A.C., states, "Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or a Department license or site certification based upon site-specific geological, hydrogeological, design, or operational features, no person shall store or dispose of solid waste in an area where geological formations or other subsurface features will not provide support for the solid waste."

The USET facility is not located in an area where geological formation or other subsurface features will not provide support for the solid waste. Further, as discussed in Sections 4.2 and 5.2 of this permit renewal application, no on-site disposal will occur. A Geological Cross-Section of the USET facility is shown on **Figure 6**.

11.2.4 Potable Water Wells

Rule 62.701.300(2)(b), F.A.C., states, "Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or a Department license or site certification based upon site-specific geological, hydrogeological, design, or operational features, no person shall store or dispose of solid waste within 500 feet of an existing or approved potable water well unless storage or disposal takes place at a facility for which a complete permit application was filed or which was originally permitted before the potable water well was in existence. This prohibition shall not apply to any renewal of an existing permit that does not involve lateral expansion, nor to any vertical expansion at a permitted facility."

The Southwest Florida Water Management District's (SWFWMD) Water Management Information System (WMIS) was researched to identify potable wells that may be located within 1,000 feet of the facility. A figure identifying the 200-, 500-, and 1,000-foot radius from the property boundary is presented as **Figure 2**. Based upon review of the WMIS database online, a number of well completion permits were identified for wells of various types located in the

general area (1,000 feet) of the facility. The WMIS database is currently limited in its ability to sort wells by function and professional judgment was used to screen out wells used for monitoring or recovery purposes considering the general heavy industrial use of the area surrounding the USET facility (see "Groundwater Contamination Considerations – Orient Park Industrial Area" section above). In addition, because of the way the wells are loaded into the database, many are given similar latitude and longitude coordinates (typically the center of the Public Land Survey System [PLSS] section area, which is about one square mile) due to poor information by the applicant or driller. This results in tens of wells plotting in the same place on the location map, the actual locations of which may be unknown or well outside the intended search area.

Upon review of the database, it was determined that three water wells (WCP Permit Nos. 305163, 687154, and 467955) of possible concern may be present within a 500-foot radius of the USET property boundary. These wells are further discussed below:

- **WCP Permit No. 305163:** The original well owner is listed as Stauffer Chemical Co. with its current owner listed as Stauffer Management Company, LLC. The total well depth is reported as 305 feet below ground surface (bgs) with a completion date during March 1970. The current status of the well could not be determined through records available online, but its use is listed as "industrial."
- **WCP Permit No. 687154:** The original well owner is listed as Alaric with its current owner listed as Sawtooth Land, LLC. The total well depth is reported as 440 feet bgs with a completion date during July 2003. The current status of the well could not be determined through records available online, but its use is listed as "injection well."
- **WCP Permit No. 467955:** The original well owner is listed as Lee A. Levant with its current owner listed as Jail Road Venture, LLC. The total well depth is reported as 57 feet bgs with a completion date during October 1988. The current status of the well could not be determined through records available online, but its use is listed as "irrigation."

Further, it should be noted that the former industrial well located on the Orient Road property at the USET facility is no longer in service and has been properly abandoned and capped. The well survey information can be located in **Appendix L**.

11.2.5 Dewatered Pits

Rule 62.701.300(2)(c), F.A.C., states, "Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or a Department license or site certification based upon site-specific geological, hydrogeological, design, or operational features, no person shall store or dispose of solid waste in a dewatered pit unless the pit is lined and permanent leachate containment and special design techniques are used to ensure the integrity of the liner."

This facility does not operate a dewatered pit. No waste will be stored or disposed of in a dewatered pit.

11.2.6 Natural or Artificial Bodies of Water

Rule 62.701.300(2)(d), F.A.C., states, "Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department

rule or a Department license or site certification based upon site-specific geological, hydrogeological, design, or operational features, no person shall store or dispose of solid waste in any natural or artificial body of water including groundwater and wetlands within the jurisdiction of the Department."

The facility is not located in any natural or artificial body of water. No waste will be stored or disposed of in a body of water including groundwater and wetlands.

11.2.7 Setback from Bodies of Water

Rule 62.701.300(2)(e), F.A.C., states, "Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or a Department license or site certification based upon site-specific geological, hydrogeological, design, or operational features, no person shall store or dispose of solid waste within 200 feet of any natural or artificial body of water unless storage or disposal takes place at a facility for which a complete permit application was filed or which was originally permitted before the water body was in existence. This prohibition shall not apply to any renewal of an existing permit that does not involve lateral expansion, nor to any vertical expansion at a permitted facility. For purposes of this paragraph, a "body of water" includes wetlands within the jurisdiction of the Department but does not include impoundments or conveyances which are part of an on-site, permitted stormwater management system, or bodies of water contained completely within the property boundaries of the disposal site which do not discharge from the site to surface waters. A person may store or dispose of solid waste within the 200-foot setback area upon demonstration to the Department that permanent leachate control methods will result in compliance with water quality standards and criteria. However, nothing contained herein shall prohibit the Department from imposing conditions necessary to assure that solid waste stored or disposed of within the 200-foot setback area will not cause pollution from the site in contravention of Department rules."

The facility is not located within 200 feet of any natural or artificial body of water, including wetlands. **Figure 2** identifies the 200-foot radius from the property boundary in relation to water bodies in the area of the facility.

11.2.8 Right of Way

Rule 62 701.300(2)(f), F.A.C., states, "Unless authorized by a Department permit or site certification in effect on May 27, 2001 or unless specifically authorized by another Department rule or a Department license or site certification based upon site-specific geological, hydrogeological, design, or operational features, no person shall store or dispose of solid waste on the right of way of any public highway, road, or alley."

Waste will be stored within the facility boundary and not within the right of way of any public highway, road, or alley.

11.2.9 Open Burning

Rule 62 701.300(3), F.A.C., states, "Open burning of solid waste is prohibited except in accordance with Rule 62-256, F.A.C. Controlled burning of a solid waste is prohibited except in a permitted incinerator, or in a facility in which the burning of solid waste is authorized by a site certification order issued under Chapter 403, Part II, F.S."

Solid waste is not burned at the USET facility.

11.2.10 Hazardous Waste

Rule 62 701.300(4), F.A.C., states, "No hazardous waste shall be disposed of in a solid waste management facility unless such facility is permitted pursuant to Chapter 62 730, F.A.C."

No hazardous wastes are accepted under this permit. A separate hazardous waste permit approved by the Department has been issued for hazardous waste operations at the USET facility as discussed in thorough detail in Volume 1 of 3 of this consolidated permit renewal application.

11.2.11 PCBs

Rule 62 701.300(5), F.A.C., states, "Disposal of liquids containing a polychlorinated biphenyl (PCB), or non-liquid PCBs in the form of contaminated soil, rags, or other debris, may be restricted or prohibited by 40 CFR Part 761. Persons managing PCBs are advised to consult that federal regulation before attempting to dispose of PCBs in any solid waste disposal unit in this state."

No PCB waste will be accepted under this permit. Prior to acceptance, wastes are profiled and inspected in accordance with the USET Waste Analysis Plan (WAP) included in **Appendix J** to ensure that the nature of the wastes being accepted at the facility is known and that they are properly managed.

11.2.12 Bio-Medical Waste

Rule 62 701.300(6), F.A.C., states:

"-(a) No biomedical waste shall be knowingly deposited in any solid waste management facility unless:

1. The solid waste facility is specifically permitted to receive untreated biomedical waste;
2. The biomedical waste has been properly incinerated so that little or no organic material remains in the ash residue, or treated by a process approved by the Department of Health, and the provisions in Rule 62-701.520(5)(c), F.A.C., are complied with; or
3. The biomedical waste is generated by an individual as a result of self-care, or care by a family member or other non-health care provider. However, in order to reduce the chance of exposure to the public, home generators are advised to segregate and package such waste before disposal according to the guidelines for disposal of home-generated biomedical waste available from each county health department.

-(b) No solid waste, including treated biomedical waste, shall be commingled with untreated biomedical waste unless the solid waste is being managed in the same manner as the untreated biomedical waste.
-(c) Treated or untreated biomedical waste shall not be allowed to leak into the environment during transport."

Bio-hazardous wastes are not accepted at this facility. Prior to acceptance, wastes are profiled and inspected in accordance with the USET WAP included in **Appendix J** to ensure that the nature of the wastes being accepted at the facility is known and that they are properly managed.

11.2.13 Class I Surface Waters

Rule 62 701.300(7), F.A.C., states, "The Department shall not issue a construction permit for a landfill within 3,000 feet of Class I surface waters."

This rule does not apply to the USET facility as it is not a landfill, and no on-site disposal will occur.

11.2.14 Special Wastes for Landfills

Rule 62 701.300(8), F.A.C., pertains to special wastes for landfills. It states:

"-(a) No person who knows or who should know of the nature of such solid waste shall dispose of the following wastes in any landfill:

1. Lead-acid batteries;
2. Used oil in any landfill, except as provided in Chapter 62-710, F.A.C.;
3. Yard trash in a Class I landfill, except as may be allowed pursuant to Section 403.708(12)(c), F.S.; and,
4. White goods in any landfill.

-(b) Whole waste tires may not be disposed of in any landfill or in any construction and demolition debris disposal facility, except as provided in Chapter 62-711, F.A.C."

This facility is permitted to manage these special wastes and to ensure that no special waste will be disposed of in a landfill. Prior to acceptance, wastes are profiled and inspected in accordance with the USET WAP included in **Appendix J** to ensure that the nature of the wastes being accepted at the facility is known and that they are properly managed.

11.2.15 Special Wastes for Waste to Energy (WTE) Facilities

Rule 62 701.300(9), F.A.C., pertains to special wastes for WTE facilities. It states, "No person who knows or who should know of the nature of such solid waste shall dispose of lead-acid batteries, mercury-containing devices, or spent mercury-containing lamps in any waste-to-energy facility."

Prior to acceptance, wastes are profiled and inspected in accordance with the USET facility WAP included in **Appendix J** to ensure that the nature of the wastes being accepted at the facility is known and that they are properly managed. No special wastes such as lead-acid batteries and mercury-containing devices managed at the USET facility are shipped for off-site disposal at a WTE plant; however, USET does ship a portion of the non-RCRA regulated solid waste treated in the non-hazardous solidification unit at the facility off-site to a WTE plant for disposal. The WTE plant where waste is shipped from the USET facility is the Lake County Resource Recovery Facility, operating as Covanta Lake, Inc., located in Okahumpka, Lake County, Florida. Covanta has reached an agreement with USET to accept the solidified non-RCRA regulated waste under the provisions of their facility siting and operating permit.

11.2.16 Liquid Restrictions

Rule 62 701.300(10), F.A.C., states:

"-(a) Noncontainerized liquid waste shall not be placed in solid waste disposal units which accept household waste or construction and demolition debris for disposal unless:

1. The liquid waste is household waste other than septic waste; or
2. The liquid waste is leachate or gas condensate derived from the solid waste disposal unit, or by products of the treatment of such leachate or gas condensate, and the solid waste disposal unit is lined and has a leachate collection system.

-(b) Containers holding liquid waste shall not be placed in a solid waste disposal units unless:

1. The container is a small container similar in size to that normally found in household waste;
2. The container is designed to hold liquids for use other than storage; or
3. The waste is household waste.

-(c) Containers or tanks twenty gallons or larger in capacity shall either have one end removed or cut open; or have a series of punctures around the bottom to ensure the container is empty and free of residue. The empty container or tank shall be compacted to its smallest practical volume for disposal."

All liquids received and processed at the USET facility will comply with these rules. Liquid wastes will be solidified prior to shipment for off-site disposal, or shipments of liquid waste will be sent to properly permitted off-site treatment facilities for management. Further, in accordance with this rule empty containers will be compacted to their smallest practical volume for disposal, as applicable.

11.2.17 Used Oil and Oily Waste

Rule 62 701.300(11), F.A.C., states:

"-(a) Used oil and oily wastes. Except as provided in paragraph (b) of this subsection, no person may mix or commingle used oil with solid waste that is to be disposed of in landfills or directly dispose of used oil in landfills.

-(b) Oily wastes, sorbents or other materials used for maintenance or to clean up or contain leaks, spills or accidental releases of used oil, and soils contaminated with used oil as a result of spills or accidental releases are not subject to the prohibition in paragraph (a) of this subsection."

The USET facility is permitted to manage used oil. Used oil is sent off-site for recovery at properly permitted facilities. No used oil or oily waste will be mixed or commingled with solid waste except as provided for in Rule 62 701.300(11)(b), F.A.C.

11.2.18 Exceptions

The following Rules provide exceptions to the previously discussed restrictions: 62 701.300(12), 62 701.300(13), 62 701.300(16), and 62 701.300(17), F.A.C. USET will not exercise any of these exceptions as the facility meets the restrictions as discussed above.

CCA Treated Wood

Rule 62 701.300(14), F.A.C., states, "CCA treated wood shall not be incorporated into compost or made into mulch, decorative landscape chips or any other wood product that is applied as a ground cover, soil, or soil amendment. CCA treated wood may be ground and used as initial cover on interior slopes of lined solid waste disposal facilities provided it meets the criteria of subsection 62-701.200(53), F.A.C. CCA treated wood shall not be disposed of through open burning or through combustion in an air curtain incinerator."

CCA treated wood will not be processed or burned at the USET facility.

Dust

Rule 62 701.300(15), F.A.C., states, "The owner or operator of a solid waste management facility shall not allow the unconfined emissions of particulate matter in violation of paragraph 62-296.320(4)(c), F.A.C."

There will be no unconfined emissions of particulate matter at the facility in violation of paragraph 62-296.320(4)(c), F.A.C.

Existing Facilities

Rule 62 701.300(18), F.A.C., states, "Those portions of facilities which were constructed prior to May 27, 2001, remain subject to the prohibitions that were in effect at the time the permit authorizing construction was issued. Lateral expansions of such facilities remain subject to the prohibitions that were in effect at the time the permit authorizing the lateral expansion was issued. For example, portions of facilities constructed prior to May 19, 1994 were subject to the prohibition against storing or disposing of solid waste within 500 feet of an existing or approved shallow water supply well but are not subject to the prohibitions of paragraphs (2)(b) and (h) of this section. However, lateral expansions of such facilities which occurred after May 19, 1994 are subject to the prohibitions of paragraphs (2)(b) and (h) of this section."

The facility meets the current restrictions; however, according to this Rule, only the Waste Processing Building and the Solid Waste Operations Area are actually subject to the current standards as the remaining portions of the site were constructed prior to 2001.

12.0 ADDITIONAL DOCUMENTATION TO SUPPORT APPLICATION

12.1 Proof of Property Ownership

In accordance with 62-701.320(7)(g), F.A.C., proof of property ownership is provided in **Appendix A**. An ordinance vacating Parcel 6 that identifies USET as the owner is also provided in **Appendix A**.

12.2 Airport Safety

In accordance with 62-701.320(13), F.A.C., it has been determined that the property boundary of the USET facility is not located within 10,000 feet of any licensed and operating airport runway used by turbine powered aircraft nor is the facility property boundary located within 5,000 feet of any licensed and operating airport runway used only by piston engine aircraft. The closest airport to the facility is the Tampa Executive Airport (formerly Vandenberg Airport) which is located more than 17,000 feet northeast of the USET facility.

13.0 PUBLIC NOTICE

Notice of the Application will be published following receipt of the Department's intent to issue the permit. Proof of publication will be included in **Appendix R**.

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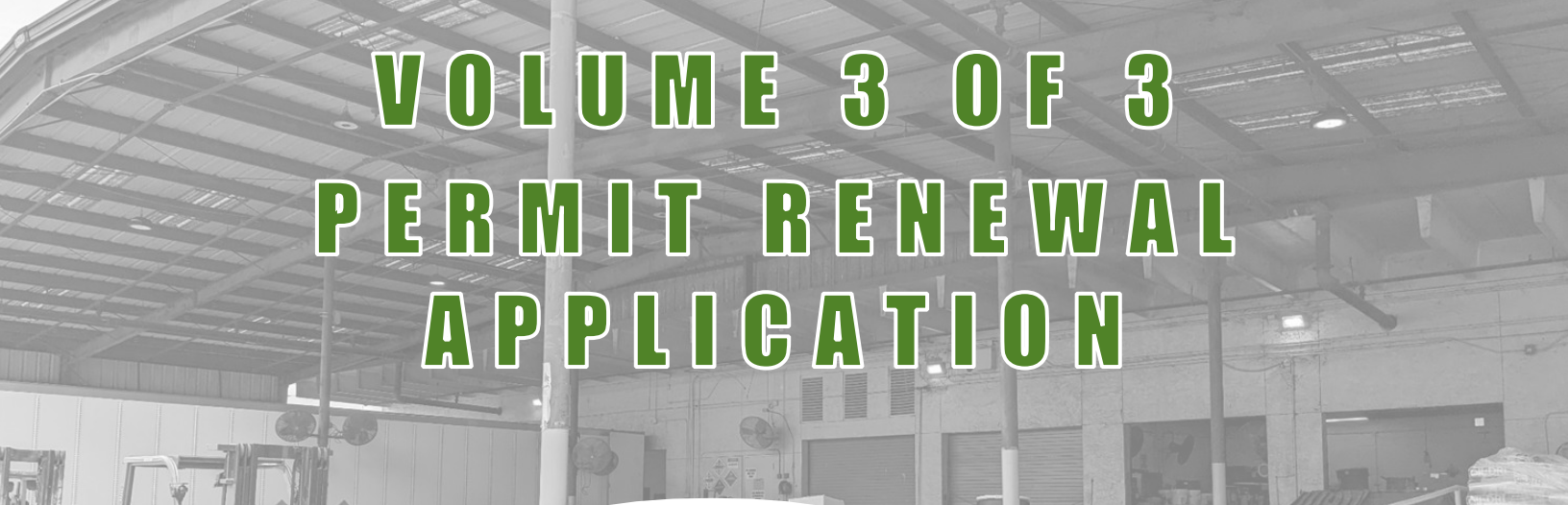

VOLUME 3 OF 3
PERMIT RENEWAL APPLICATION

OPERATION OF A CONSOLIDATED FACILITY

PERMIT NOS. 34875-016-SO AND 34875-018-HO

7202 East 8th Avenue
Tampa, Hillsborough County, Florida

PREPARED FOR

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Tampa, FL 33634

Revision: 00
October 3, 2023
PACSCON No. 2023-1816

VOLUME 3 OF 3

Permit Renewal Application

FOR

Operation of a Consolidated Hazardous and Solid Waste Facility

AT

7202 East 8th Avenue
Tampa, FL 33619

Permit Application Nos.:
34875-016-SO & 34875-018-HO

Prepared for:

REPUBLIC SERVICES

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PACSCON
Client Centric | Geo-Environmentally Focused

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

PACSCON GeoEnvironmental, Inc.
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Revision: 00
October 3, 2023
PACSCON No. 2023-1816

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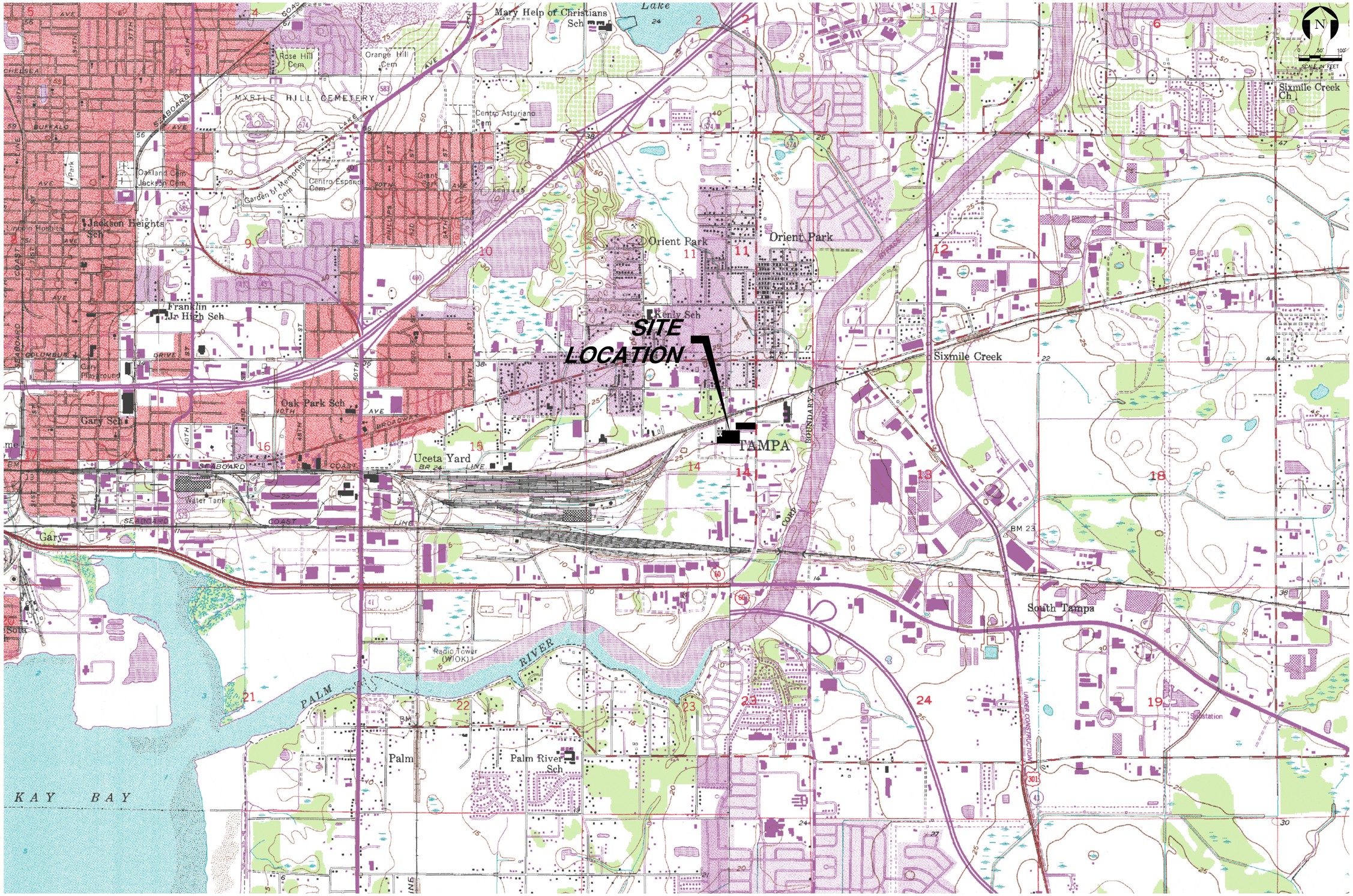
Appendix R	Public Notice

FIGURES



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PACSCON GEOENVIRONMENTAL, INC.
4517 GEORGE ROAD, SUITE 220
TAMPA, FLORIDA 33634
ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM

SITE LOCATION MAP

US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE 1 of 19

PACSCON
Client Centric | Geo-Environmentally Focused

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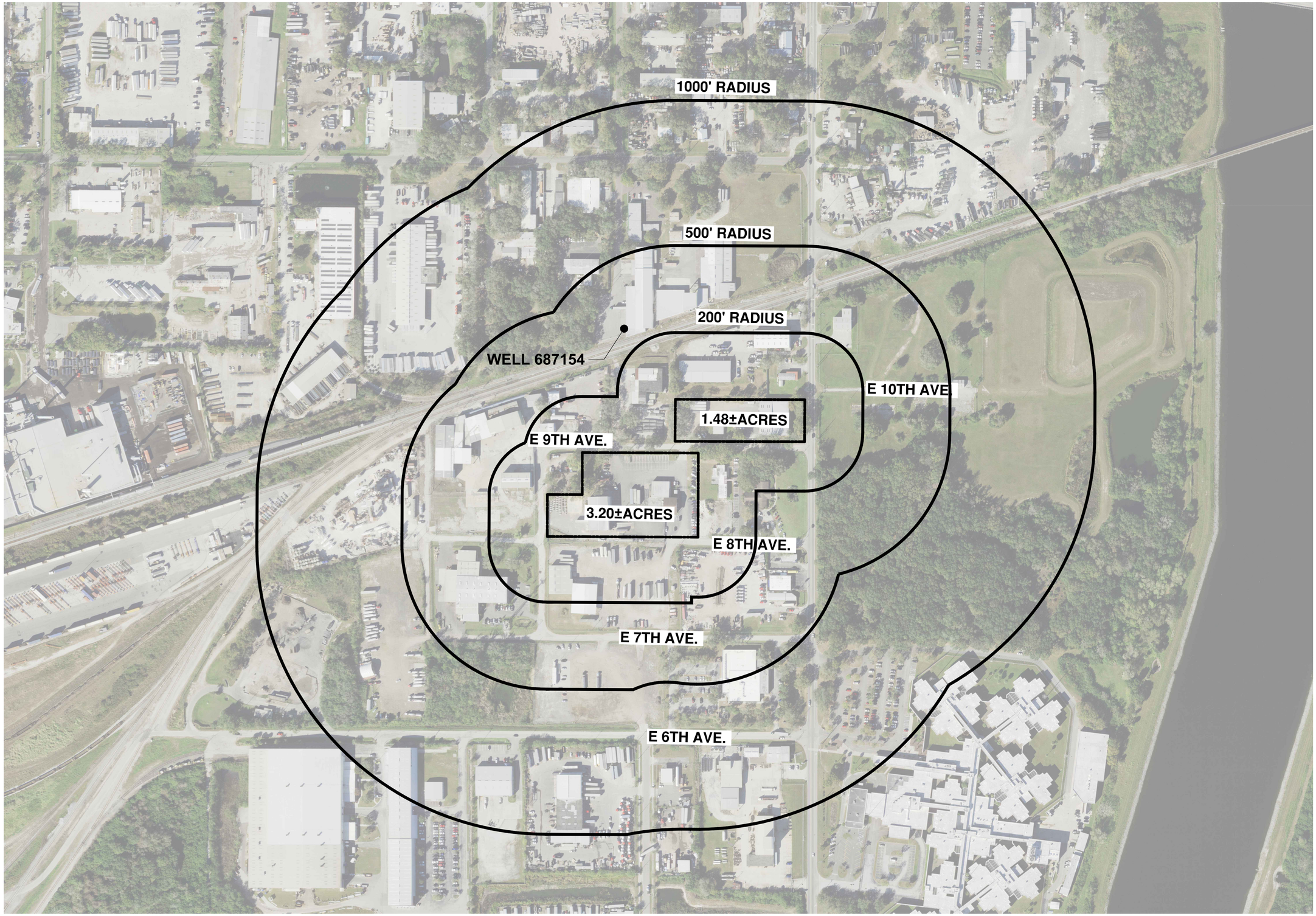

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SITE AREA / LOCATION MAP

US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816

FIGURE 2 of 19

PACSCON
Client Centric | Geo-Environmentally Focused

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SAIA MOTOR FREIGHT LINE INC.
FOLIO: 1597500000

PED-MAR HOLDINGS INC.
FOLIOS: 1597570000, 1597580000

SAWTOOTH LAND LLC
FOLIO: 1597550100

HELENA CHEMICAL CO.
FOLIO: 1597560000

SEVENTH AVE PROPERTIES LLC
FOLIO: 1596980000

HELENA CHEMICAL CO
FOLIOS: 1597600000, 1597610000, 1597860000

CSX TRANSPORTATION, INC.
FOLIO: 1992950000

CSX TRANSPORTATION, INC.
FOLIO: 1598210000

B AND D TOWING AND RECOVERY, INC
FOLIO: 1597620000

T AND J REALTY OF TAMPA INC.
FOLIOS: 1597780000, 1597780100

DJZ LAND HOLDINGS, INC
FOLIO: 1598220000

LEVANT ENTERPRISES LLC
FOLIO: 1597840000

2002 NORTH ORIENT ROAD
TAMPA, FL 33619

STAUFFER MANAGEMENT COMPANY LLC
FOLIO: 1595980000
&1595980100

E 9TH AVE.

ORIENT ROAD

JAIL ROAD VENTURE LLC
FOLIO: 1597880000

JOANKI QUINONES LINARES AND ISACHY PINERO FONG
FOLIO: 1598250000

JAIL ROAD VENTURE LLC
FOLIO: 1597880000

7202 EAST EIGHTH AVENUE
TAMPA, FL 33619

AMERICAN XV LLC
FOLIOS: 1598020000, 1598030000

E 8TH AVE.

ATMAX EQUIPMENT CO.
FOLIO: 1598110000

AMERICAN VIII LLC
FOLIO: 1598100000

AMERICAN VIII LLC
FOLIO: 1598060000

ROCHE BAIL BONDS INC
FOLIO: 1598050500

ARMANDO ARCOS BAIL BONDS INC
FOLIO: 1598050000

HILLSBOROUGH CTY
FOLIO: 1596850000

E 7TH AVE.

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SURROUNDING AREA MAP

US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816

FIGURE 3 of 19

PACSCON
Client Centric | Geo-Environmentally Focused

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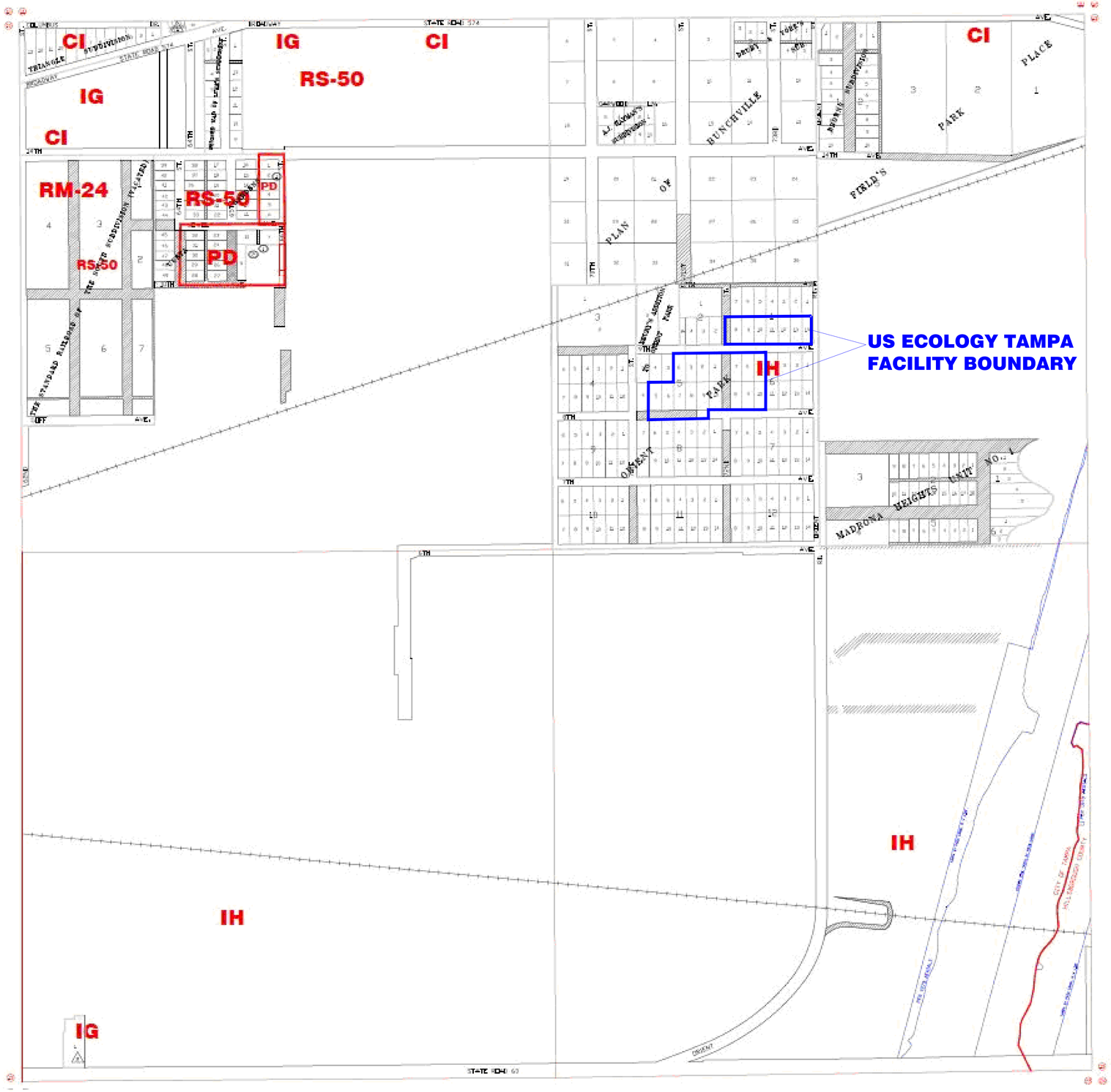

ZONING LEGEND:

SINGLE-FAMILY RESIDENTIAL DISTRICTS:

RS-150 RESIDENTIAL SINGLE FAMILY.
RS-100 RESIDENTIAL SINGLE FAMILY.
RS-75 RESIDENTIAL SINGLE FAMILY
RS-60 RESIDENTIAL SINGLE FAMILY
RS-50 RESIDENTIAL SINGLE FAMILY

MULTIPLE-FAMILY RESIDENTIAL DISTRICTS:

RM-12 RESIDENTIAL MULTIPLE-FAMILY.
RM-16 RESIDENTIAL MULTIPLE-FAMILY.
RM-18 RESIDENTIAL MULTIPLE-FAMILY.
RM-24 RESIDENTIAL MULTIPLE-FAMILY.
RM-35 RESIDENTIAL MULTIPLE-FAMILY.
RM-50 RESIDENTIAL MULTIPLE-FAMILY.
RM-75 RESIDENTIAL MULTIPLE-FAMILY.

OFFICE DISTRICT:

RO RESIDENTIAL OFFICE.
RO-1 RESIDENTIAL OFFICE.
OP OFFICE PROFESSIONAL.
OP-1 OFFICE PROFESSIONAL.

COMMERCIAL DISTRICT:

CN COMMERCIAL NEIGHBORHOOD.
CG COMMERCIAL GENERAL.
CI COMMERCIAL INTENSIVE.

INDUSTRIAL DISTRICT:
IG INDUSTRIAL-GENERAL.
IH INDUSTRIAL-HEAVY.

M-AP MUNICIPAL AIRPORT COMPATIBILITY DISTRICT:

M-AP-1.
M-AP-2.
M-AP-3.
M-AP-4.

YBOR CITY HISTORIC DISTRICT:

YC-1 CENTRAL COMMERCIAL CORE.
YC-2 RESIDENTIAL.
YC-3 HILLSBOROUGH COMMUNITY COLLEGE.
YC-4 MIXED USE DEVELOPMENT.
YC-5 GENERAL COMMERCIAL
YC-7 MIXED USE.
YC-8 RESIDENTIAL.
YC-9 SITE PLANNED CONTROLLED.

PP PUBLIC PARKS:

CENTRAL BUSINESS DISTRICT (CBC):

CBD-1.
CBD-2.

PLANNED DEVELOPMENT:

PD PLANNED DEVELOPMENT.
PD-A PLANNED DEVELOPMENT ALTERNATIVE.

UNIVERSITY COMMUNITY DISTRICT (U-C):

CHANNEL DISTRICT (CD):

CD-1
CD-2
CD-3

ZONING INFORMATION
LANDKMARK SITES
SMALL SUBDIVISIONS

NOT TO SCALE

NOTE:
THIS MAP IS SUBJECT TO REVISION AND INTERPRETATION AS PERMITTED BY CITY OF TAMPA CODE, CHAPTER 27, PRIOR TO MAKING ANY DECISION OR TAKING ANY ACTION BASED ON THE INFORMATION CONTAINED ON THIS MAP, IT IS HIGHLY RECOMMENDED THAT YOU CONTACT THE CITY OF TAMPA'S LAND DEVELOPMENT COORDINATION DIVISION AT 813-274-8403 FOR THE LATEST AND MOST UP TO DATE ZONING INFORMATION.

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ZONING MAP
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE 4 of 19

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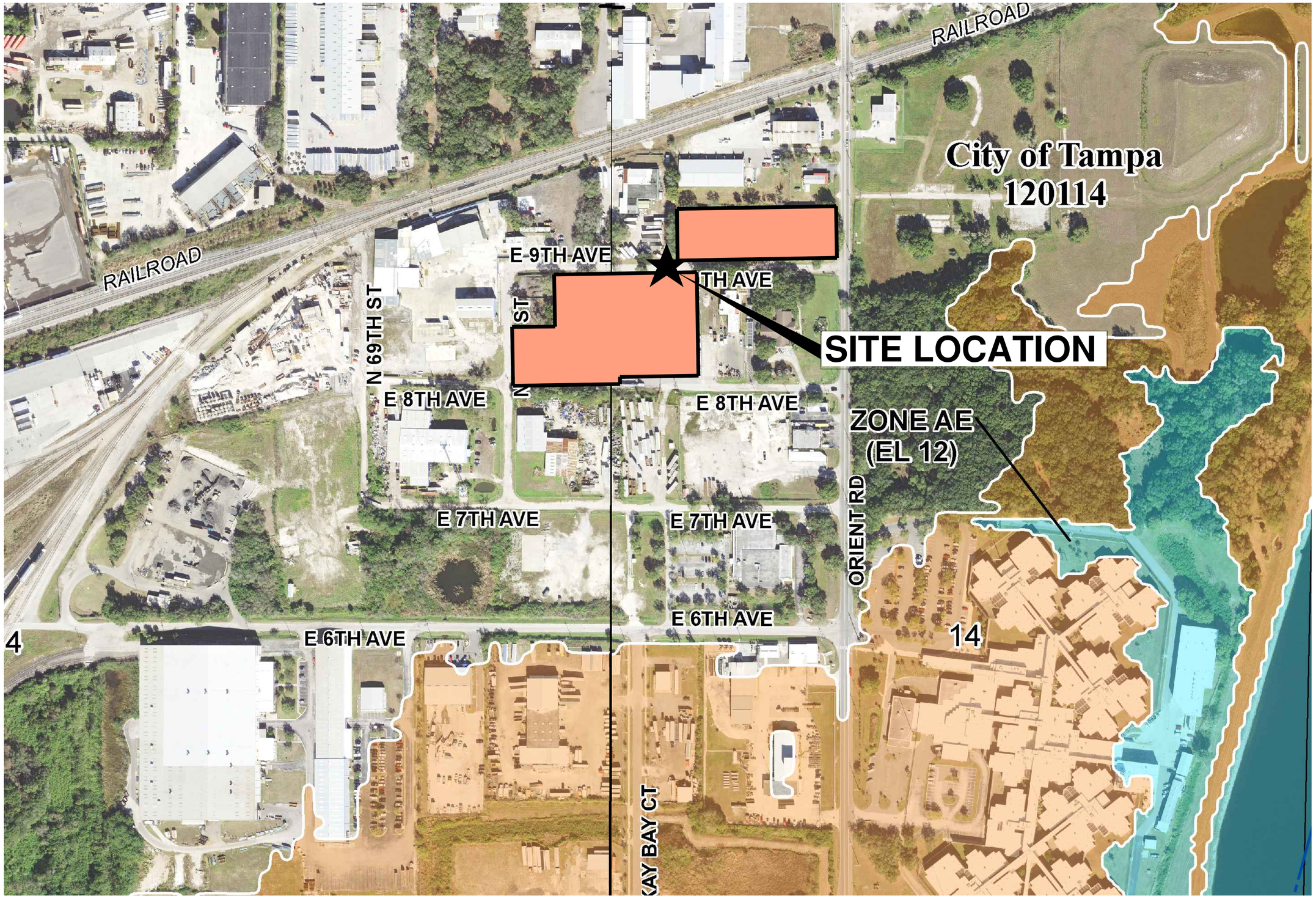

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FLOODPLAIN MAP
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE 5 of 19

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Client Centric | Geo-Environmentally Focused

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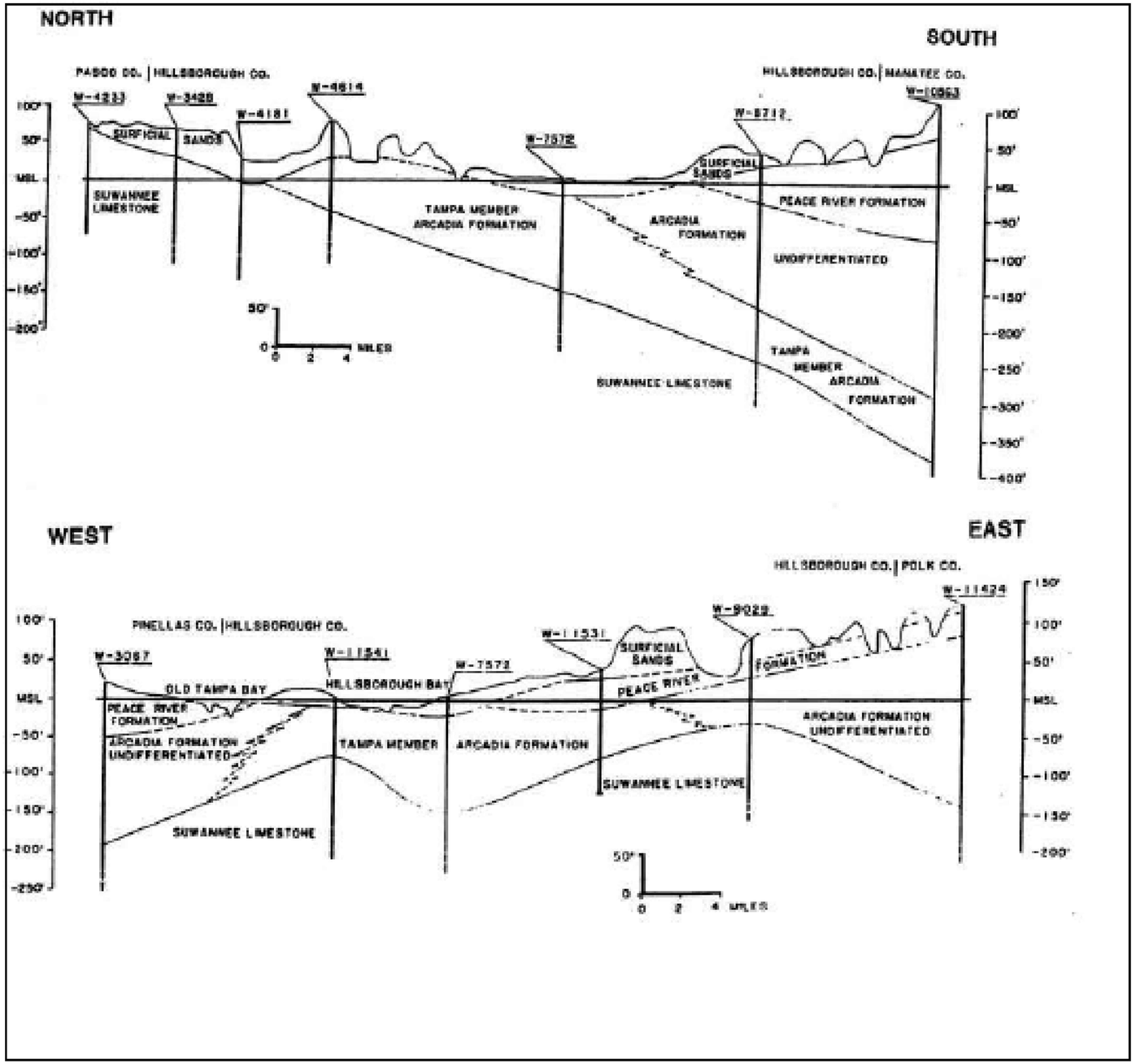

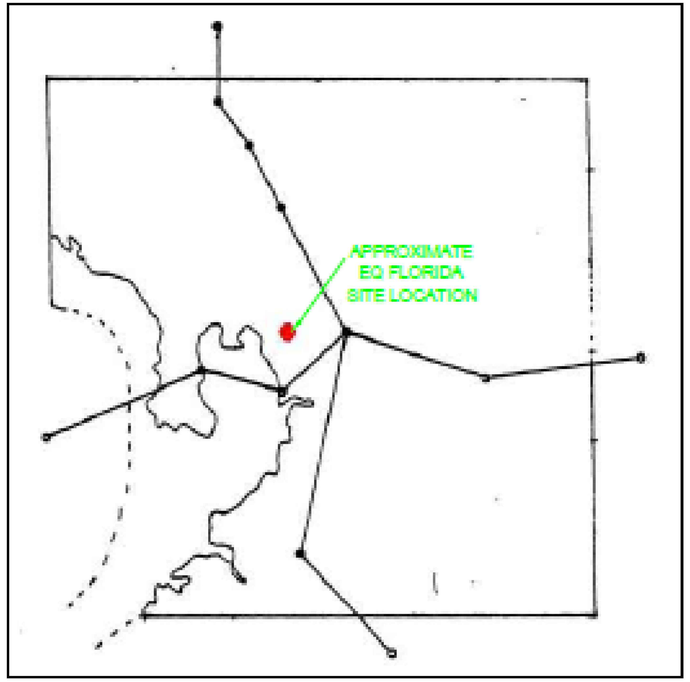

CROSS SECTION LOCATION MAP
NOT TO SCALE

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GEOLOGICAL CROSS SECTION

US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE 6 of 19

PACSCON
Client Centric | Geo-Environmentally Focused

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AREA 1
ORIENT ROAD PROPERTY
PERMITTED FACILITY

LOCATION OF EXISTING CONSOLIDATION PLATFORM & RUNI SCREW COMPACTOR (SEE FIGURE 17)

CONC
STAGING AREA (ASPHALT)
IMPROVED SECONDARY CONTAINMENT AREA (CONC.)
CONTAINER STORAGE BUILDING (1-STORY MASONRY)
RETENTION POND
OFFICE (1-STORY MODULAR)

E 9TH AVENUE

ORIENT ROAD

SWALE
LIFT STATION
BULK CONTAINER STORAGE AREA
RETENTION POND
ASPHALT PAVEMENT
CONTROL LABORATORY LOCATION (APPROX.)
DIRT/ GRAVEL PARKING
DIRT/ GRAVEL PARKING
FIRE SAND ENCLOSURE
BULK CONTAINER STORAGE AREA
10-DAY TRANSFER AREA AND INBOUND/ OUTBOUND STAGING AREA
EXISTING OFFICE BUILDING (PRE-ENGINEERED STEEL STRUCTURE)
GRASS AREA
A/C WITHIN EXTERIOR ENCLOSURE
CONC PAD (SAWDUST STORAGE) WITH COVER
CONC PAD WITH TANKS
WASTE PROCESSING BUILDING (PRE-ENGINEERED STEEL STRUCTURE)
SOLID WASTE OPERATIONS AREA
EXISTING 2 STORY OFFICE BUILDING
CONCRETE STOOP WITH SANITARY CLEANOUT
CONC RAMP
RAISED CONCRETE DOCK AREA
8"X8" CONC CURB
PARKING STRIPE (TYPICAL)
BULK CONTAINER STORAGE AREA
8" CONCRETE WALL WITH STEEL RAILING
HAZ WASTE STORAGE AREA
RAISED CONCRETE DOCK AREA
RAMP
8"X8" CONC CURB
MANUAL WHEELED GATE WITH KEYED LOCK ON CHAIN
GRAVEL/ROCK
EXTERIOR METAL SIDING
8" CONCRETE WALL WITH STEEL RAILING
RETENTION POND

AREA 2
8TH AVENUE PROPERTY
PERMITTED FACILITY

IN-TRANSIT TRUCK STAGING AREA (APPROX)

E 8TH AVENUE

71ST STREET
40' PLATTED RIGHT OF WAY
19'+/- ASPHALT PAVEMENT

AREA 3
LTL/RETAIL/LAB PACK/HHW
SERVICE GROUP
LEASED, NOT PERMITTED

E 7TH AVENUE
40' PLATTED RIGHT OF WAY
19'+/- ASPHALT PAVEMENT

ORIENT ROAD
38' PLATTED RIGHT OF WAY
21'+/- ASPHALT PAVEMENT

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TAMPA, FLORIDA 33634
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OVERALL FACILITY LAYOUT PLAN
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE 7 of 19

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BCSA 20A STORAGE CONFIGURATION DETAIL

NOTE:
DUMP TRAILERS AND 20 YARD ROLL-OFF CONTAINERS MAY BE STORED IN BCSA'S PENDING OFF-SITE TRANSPORT.

LOCATION OF EXISTING CONSOLIDATION PLATFORM & RUNI SCREW COMPACTOR (SEE FIGURE 17)

CONC

STAGING AREA (ASPHALT)

IMPROVED SECONDARY CONTAINMENT AREA (CONC)

CONTAINER STORAGE BUILDING (1-STORY MASONRY)

RETENTION POND

OFFICE (1-STORY MODULAR)

E 9TH AVENUE

ORIENT ROAD

SWALE

RETENTION POND

LIFT STATION

BULK CONTAINER STORAGE AREA SEE CONFIGURATION DETAIL ON THIS SHEET

ASPHALT PAVEMENT

CONTROL LABORATORY LOCATION (APPROX.)

DIRT/ GRAVEL PARKING

DIRT/ GRAVEL PARKING

BULK CONTAINER STORAGE AREA

FIRE SAND ENCLOSURE

A/C WITHIN EXTERIOR ENCLOSURE

CONC PAD (SAWDUST STORAGE) WITH COVER

CONC PAD WITH TANKS

WASTE PROCESSING BUILDING (PRE-ENGINEERED STEEL STRUCTURE)

10-DAY TRANSFER AREA AND INBOUND/ OUTBOUND STAGING AREA

EXISTING OFFICE BUILDING (PRE-ENGINEERED STEEL STRUCTURE)

GRASS AREA

SOLID WASTE OPERATIONS AREA

EXISTING 2 STORY OFFICE BUILDING

CONCRETE STOOP WITH SANITARY CLEANOUT

CONC RAMP

RAISED CONCRETE DOCK AREA

8"x8" CONC CURB

BULK CONTAINER STORAGE AREA

8" CONCRETE WALL WITH STEEL RAILING

HAZ WASTE STORAGE AREA

RAISED CONCRETE DOCK AREA

RAMP

8" CONCRETE WALL WITH STEEL RAILING

MANUAL WHEELED GATE WITH KEYED LOCK ON CHAIN

GRAVEL/ROCK

8"x8" CONC CURB

EXTERIOR METAL SIDING

RETENTION POND

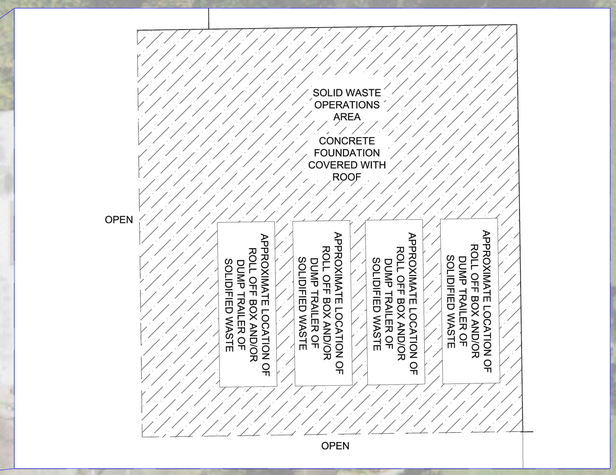
PARKING STRIPE (TYPICAL)

IN-TRANSIT TRUCK STAGING AREA (APPROX)

E 8TH AVENUE

SD

BUILDING DETAIL INSET



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TAMPA, FLORIDA 33634
ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
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PERMITTED FACILITY LAYOUT PLAN

US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816

FIGURE 8 of 19

PACSCON
Client Centric | Geo-Environmentally Focused

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TAMPA, FLORIDA 33634
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BOUNDARY SURVEY
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE 9 of 19

PACSCON
Client Centric | Geo-Environmentally Focused

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PACSCON
Client Centric | Geo-Environmentally Focused

PROJECT No. 2023-1816	**DRAINAGE AREA STORMWATER CONTROLS** **US ECOLOGY TAMPA, INC.** **7202 EAST 8TH AVENUE** **TAMPA, FLORIDA 33619**	**PACSCON GEOENVIRONMENTAL, INC.** 4517 GEORGE ROAD, SUITE 220 TAMPA, FLORIDA 33634 ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162 PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM
FIGURE **10** of 19		

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LOCATION OF WASTE MANAGEMENT OPERATIONS

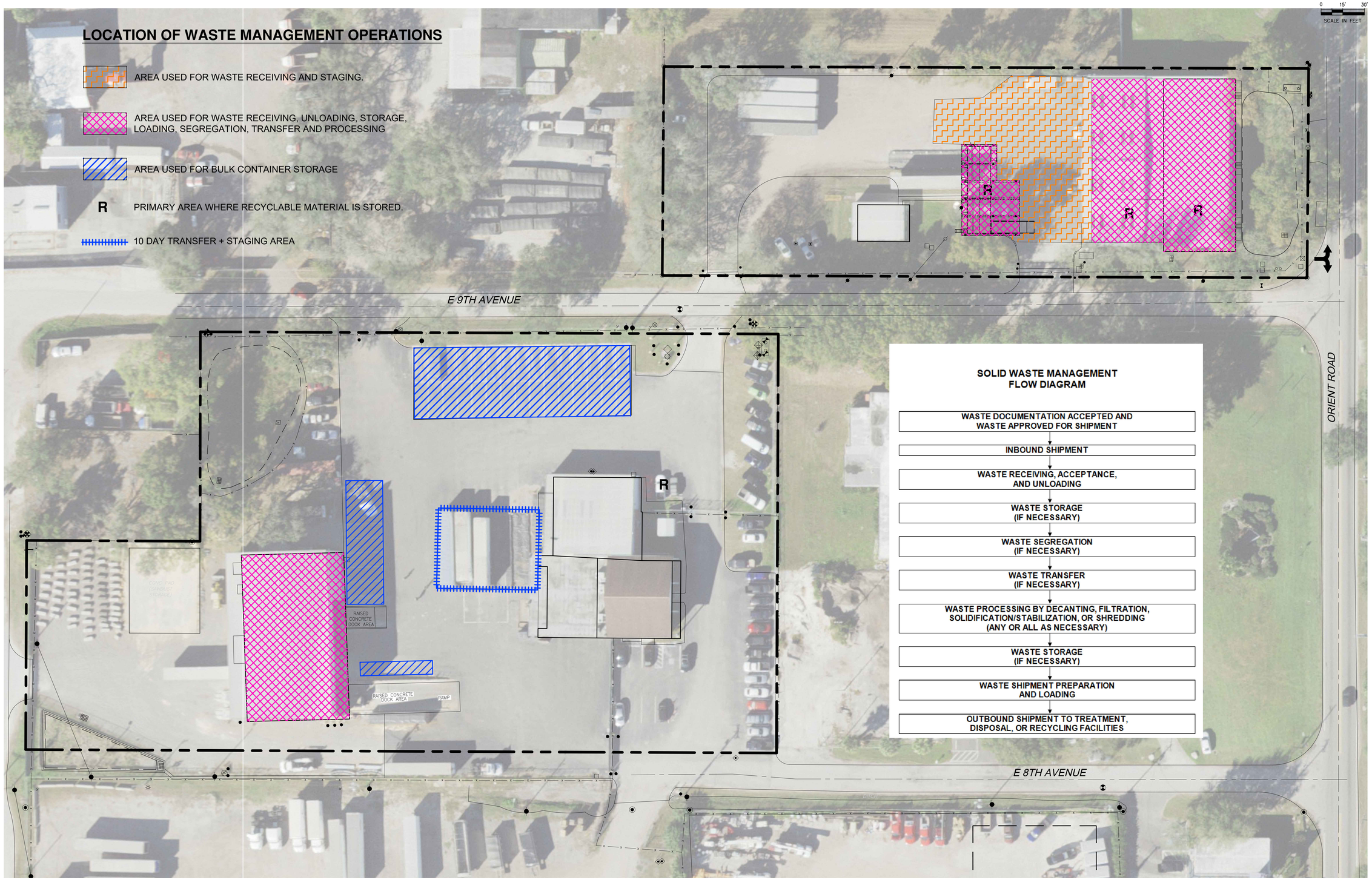
AREA USED FOR WASTE RECEIVING AND STAGING.

AREA USED FOR WASTE RECEIVING, UNLOADING, STORAGE, LOADING, SEGREGATION, TRANSFER AND PROCESSING

AREA USED FOR BULK CONTAINER STORAGE

R PRIMARY AREA WHERE RECYCLABLE MATERIAL IS STORED.

10 DAY TRANSFER + STAGING AREA



SOLID WASTE MANAGEMENT FLOW DIAGRAM

WASTE DOCUMENTATION ACCEPTED AND WASTE APPROVED FOR SHIPMENT

↓

INBOUND SHIPMENT

↓

WASTE RECEIVING, ACCEPTANCE, AND UNLOADING

↓

WASTE STORAGE (IF NECESSARY)

↓

WASTE SEGREGATION (IF NECESSARY)

↓

WASTE TRANSFER (IF NECESSARY)

↓

WASTE PROCESSING BY DECANTING, FILTRATION, SOLIDIFICATION/STABILIZATION, OR SHREDDING (ANY OR ALL AS NECESSARY)

↓

WASTE STORAGE (IF NECESSARY)

↓

WASTE SHIPMENT PREPARATION AND LOADING

↓

OUTBOUND SHIPMENT TO TREATMENT, DISPOSAL, OR RECYCLING FACILITIES

N

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WASTE MANAGEMENT AREA LOCATIONS
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE 11 of 19

PACSCON
Client Centric | Geo-Environmentally Focused

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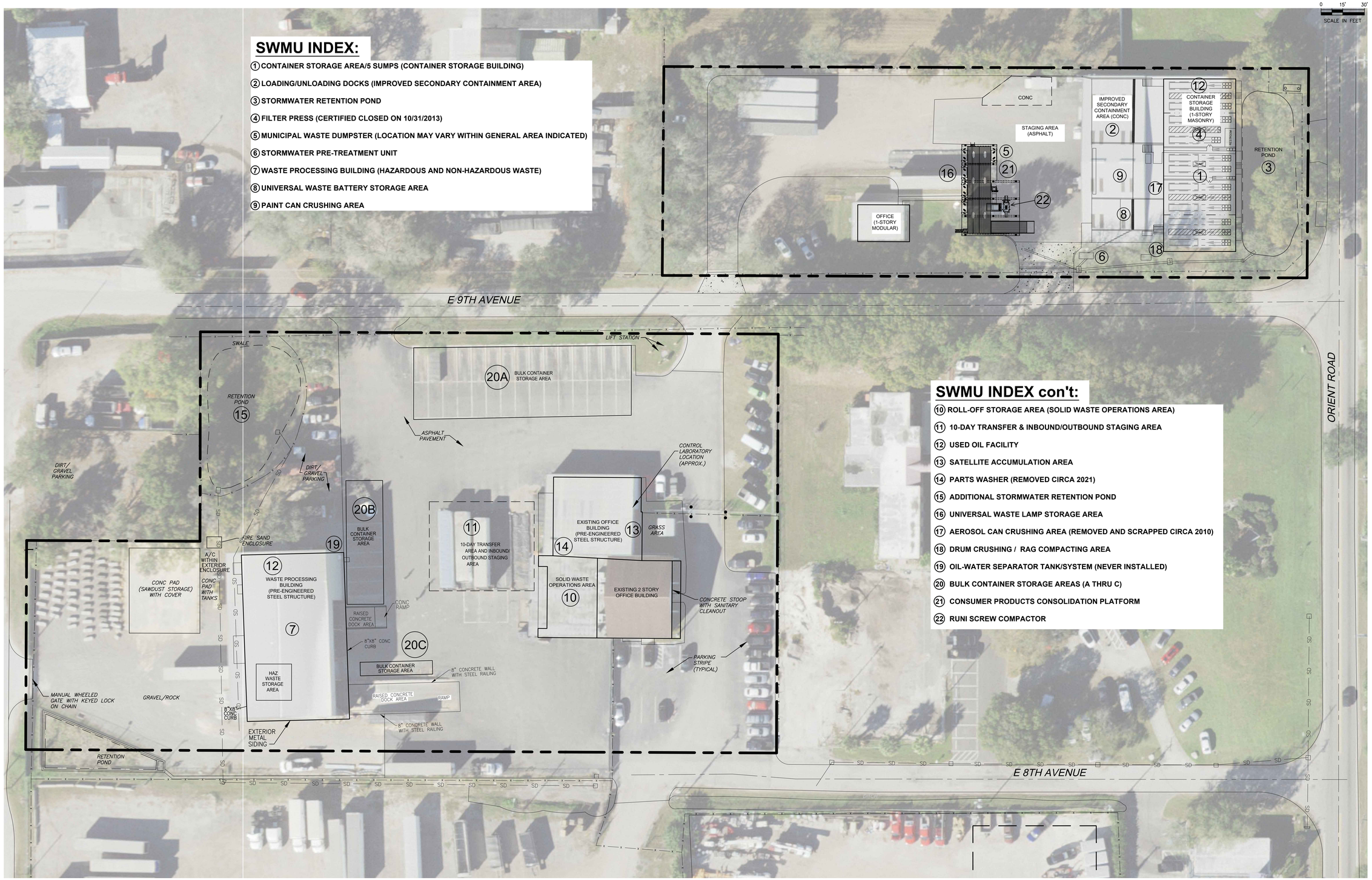

SWMU INDEX:

1. CONTAINER STORAGE AREA/5 SUMPS (CONTAINER STORAGE BUILDING)
2. LOADING/UNLOADING DOCKS (IMPROVED SECONDARY CONTAINMENT AREA)
3. STORMWATER RETENTION POND
4. FILTER PRESS (CERTIFIED CLOSED ON 10/31/2013)
5. MUNICIPAL WASTE DUMPSTER (LOCATION MAY VARY WITHIN GENERAL AREA INDICATED)
6. STORMWATER PRE-TREATMENT UNIT
7. WASTE PROCESSING BUILDING (HAZARDOUS AND NON-HAZARDOUS WASTE)
8. UNIVERSAL WASTE BATTERY STORAGE AREA
9. PAINT CAN CRUSHING AREA

SWMU INDEX con't:

10. ROLL-OFF STORAGE AREA (SOLID WASTE OPERATIONS AREA)
11. 10-DAY TRANSFER & INBOUND/OUTBOUND STAGING AREA
12. USED OIL FACILITY
13. SATELLITE ACCUMULATION AREA
14. PARTS WASHER (REMOVED CIRCA 2021)
15. ADDITIONAL STORMWATER RETENTION POND
16. UNIVERSAL WASTE LAMP STORAGE AREA
17. AEROSOL CAN CRUSHING AREA (REMOVED AND SCRAPPED CIRCA 2010)
18. DRUM CRUSHING / RAG COMPACTING AREA
19. OIL-WATER SEPARATOR TANK/SYSTEM (NEVER INSTALLED)
20. BULK CONTAINER STORAGE AREAS (A THRU C)
21. CONSUMER PRODUCTS CONSOLIDATION PLATFORM
22. RUNI SCREW COMPACTOR

N

0 15' 30'
SCALE IN FEET

SCALE VERIFICATION
THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING
0 1"
USE TO VERIFY FIGURE

REV.	DATE	DESCRIPTION

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CHECKED BY: | DATE:
APPROVED BY: | DATE:

PACSCON GEOENVIRONMENTAL, INC.
4517 GEORGE ROAD, SUITE 220
TAMPA, FLORIDA 33634
ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM

SOLID WASTE MANAGEMENT UNITS
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE 12 of 19

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Client Centric | Geo-Environmentally Focused

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LEGEND

VEHICLES MAY BE EMPTY OR LOADED AND CAN INCLUDE THE FOLLOWING TYPES OF VEHICLES: TRACTOR TRAILERS, BOX TRUCKS, ROLL-OFFS, DUMP TRAILERS, VAC TANKERS AND BULK TANKERS

VEHICLES ARE EMPTY AND CAN INCLUDE THE FOLLOWING TYPES OF VEHICLES: TRACTOR TRAILERS, BOX TRUCKS, ROLL-OFFS, DUMP TRAILERS, VAC TANKERS AND BULK TANKERS

N

0 15' 30'
SCALE IN FEET

E 9TH AVENUE

ORIENT ROAD

PROPOSED 16-FOOT TALL POLE BARN STRUCTURE TO BE INSTALLED OVER EXISTING SWIDUST STORAGE CONCRETE PAD

RAISED CONCRETE DOCK AREA

RAISED CONCRETE DOCK AREA

RAMP

IN-TRANSIT TRUCK STAGING AREA (APPROX)

E 8TH AVENUE

E 8TH AVENUE

SCALE VERIFICATION
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0 1"
USE TO VERIFY FIGURE

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TRAFFIC FLOW

US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No.
2023-1816

FIGURE
13 of 19

PACSCON
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PACSCON
Client Centric | One Environmentally Focused

PROJECT No. 2023-1816	**SITE SECURITY** **US ECOLOGY TAMPA, INC.** **7202 EAST 8TH AVENUE** **TAMPA, FLORIDA 33619**	**PACSCON GEOENVIRONMENTAL, INC.** **4517 GEORGE ROAD, SUITE 220** **TAMPA, FLORIDA 33634** ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162 PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM	CAD FILE: / SCALE: DRAWN BY: / DATE: CHECKED BY: / DATE: APPROVED BY: / DATE:
FIGURE 14 of 19			

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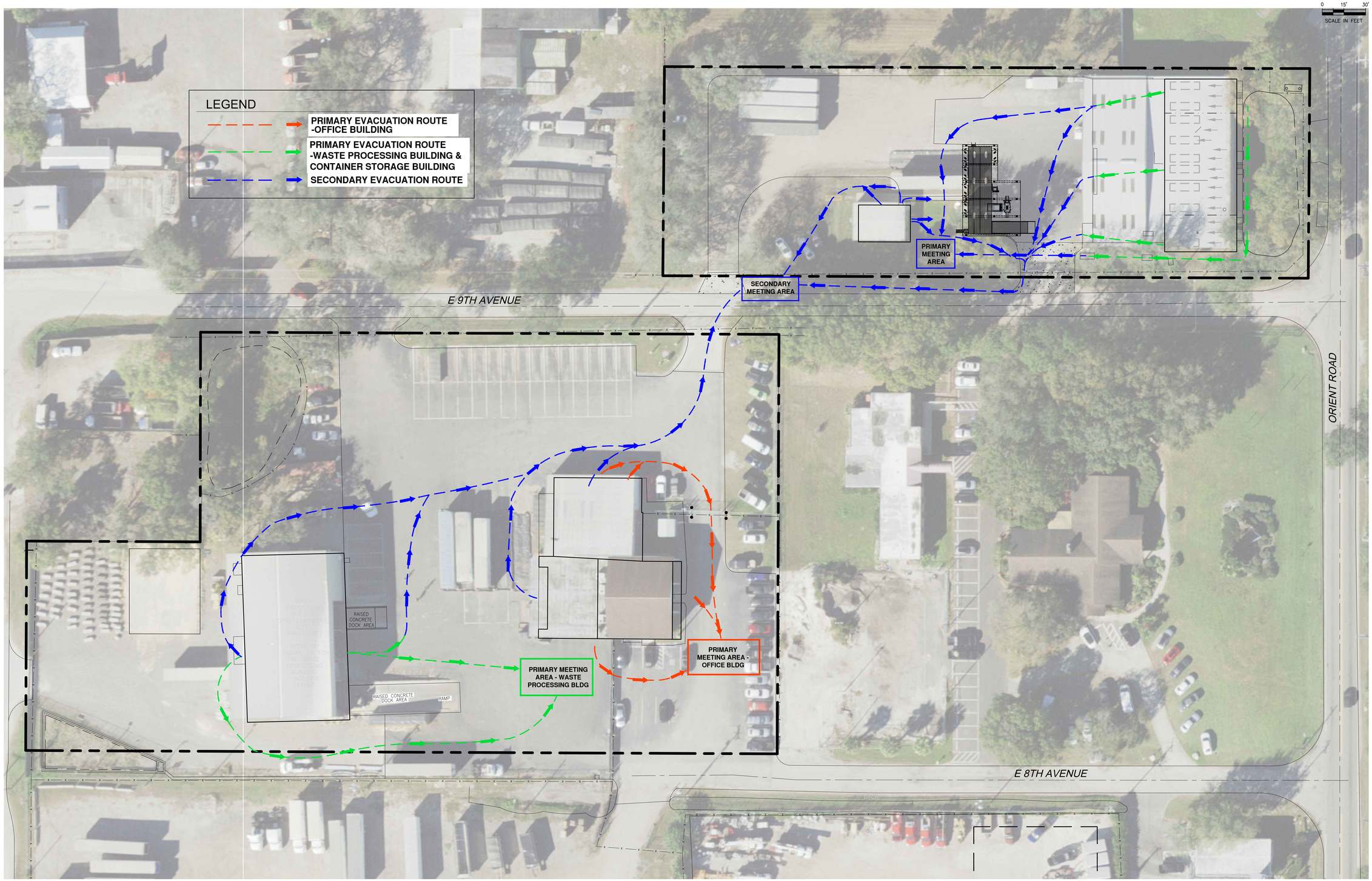
0 1"
USE TO VERIFY FIGURE



N

0 15' 30'
SCALE IN FEET

SCALE VERIFICATION
THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING
0 1"
USE TO VERIFY FIGURE

REV.	DATE	DESCRIPTION

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DATE:

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TAMPA, FLORIDA 33634
ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM

EMERGENCY PREPAREDNESS PLAN
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816

FIGURE 15 of 19

PACSCON
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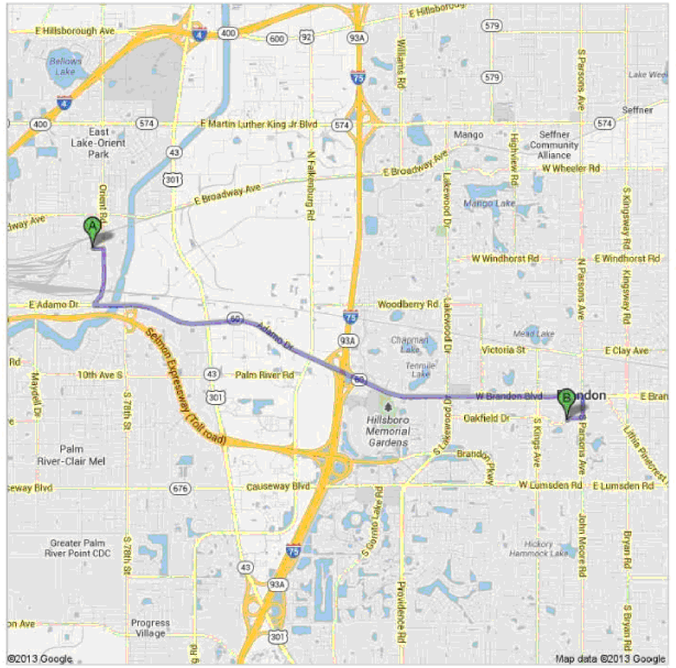

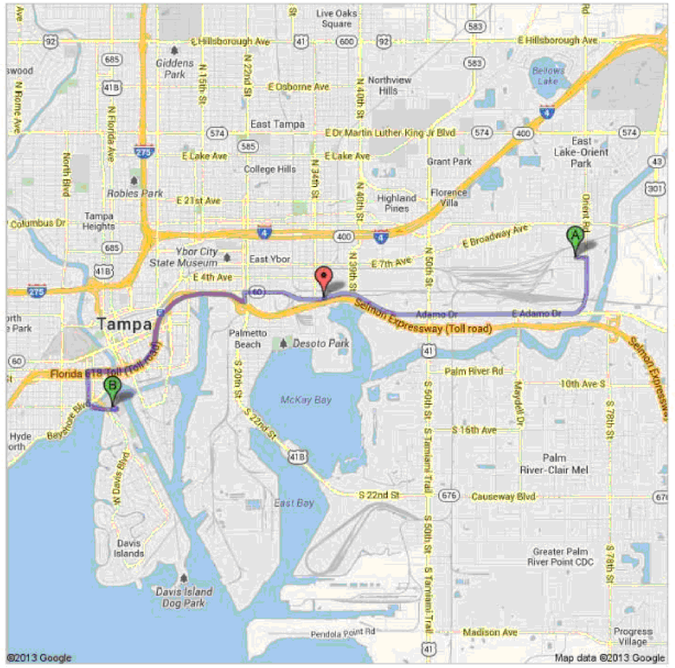

7202 E 8th Ave, Tampa, FL 33619

1.	Head **east** on **E 8th Ave** toward **N 72nd St**	go 0.1 mi total 0.1 mi
2.	Turn right onto **Orient Rd** About 3 mins	go 0.7 mi total 0.8 mi
3.	Turn left onto **FL-60 E/E Adamo Dr** Continue to follow FL-60 E About 10 mins	go 5.7 mi total 6.5 mi
4.	Turn right onto **S Parsons Ave**	go 0.2 mi total 6.7 mi
5.	Take the 2nd right onto **Oakfield Dr** Destination will be on the left	go 0.2 mi total 6.9 mi

Brandon Regional Hospital
119 Oakfield Dr, Brandon, FL 33511

7202 E 8th Ave, Tampa, FL 33619

1.	Head **east** on **E 8th Ave** toward **N 72nd St**	go 0.1 mi total 0.1 mi
2.	Turn right onto **Orient Rd** About 2 mins	go 0.6 mi total 0.8 mi
3.	Take the 3rd right onto **E Adamo Dr** About 7 mins	go 3.8 mi total 4.6 mi
4.	Turn left onto **N 21st St** About 1 min	go 495 ft total 4.7 mi
5.	Turn right onto the **Florida 618 West Toll** ramp to **St Petersburg** Toll road About 45 secs	go 0.3 mi total 4.9 mi
6.	Merge onto **Selmon Expressway** Toll road About 2 mins	go 1.8 mi total 6.7 mi
7.	Take exit **5** toward **Hyde Park Ave/Davis Islands** Toll road	go 0.2 mi total 6.8 mi
8.	Merge onto **W Brorein St**	go 381 ft total 6.9 mi
9.	Turn left onto **S Hyde Park Ave** About 2 mins	go 0.3 mi total 7.2 mi
10.	Take the exit toward **Tampa General Cir** About 46 secs	go 0.2 mi total 7.4 mi
11.	Keep left at the fork, follow signs for **Tampa General Hospital**	go 0.1 mi total 7.6 mi
12.	Keep left at the fork, follow signs for **Emergency/Physician Parking** and merge onto **Tampa General Cir**	go 194 ft total 7.6 mi
13.	Turn left to stay on **Tampa General Cir**	go 85 ft total 7.6 mi
14.	Turn left to stay on **Tampa General Cir** Destination will be on the right	go 233 ft total 7.7 mi

Tampa General Hospital
1 Tampa General Cir, Tampa, FL 33606

N

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0 1"
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TAMPA, FLORIDA 33634
ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM

ROUTES TO HOSPITALS
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE 16 of 19

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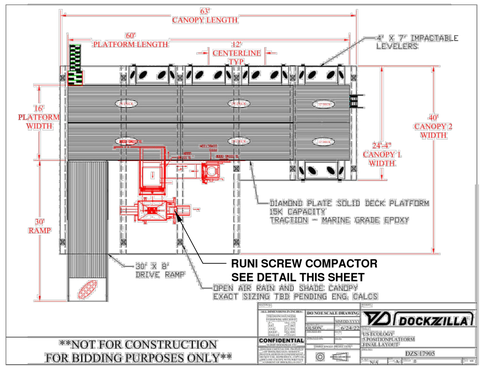
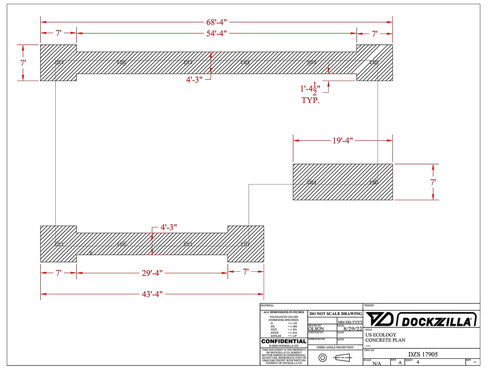
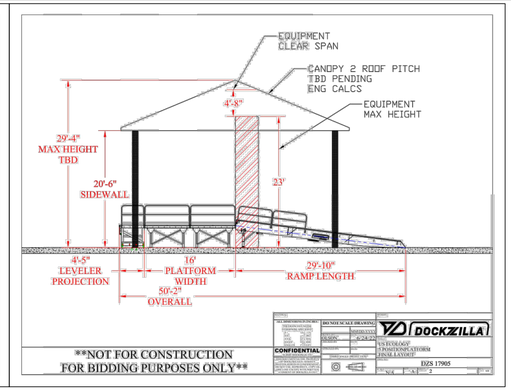
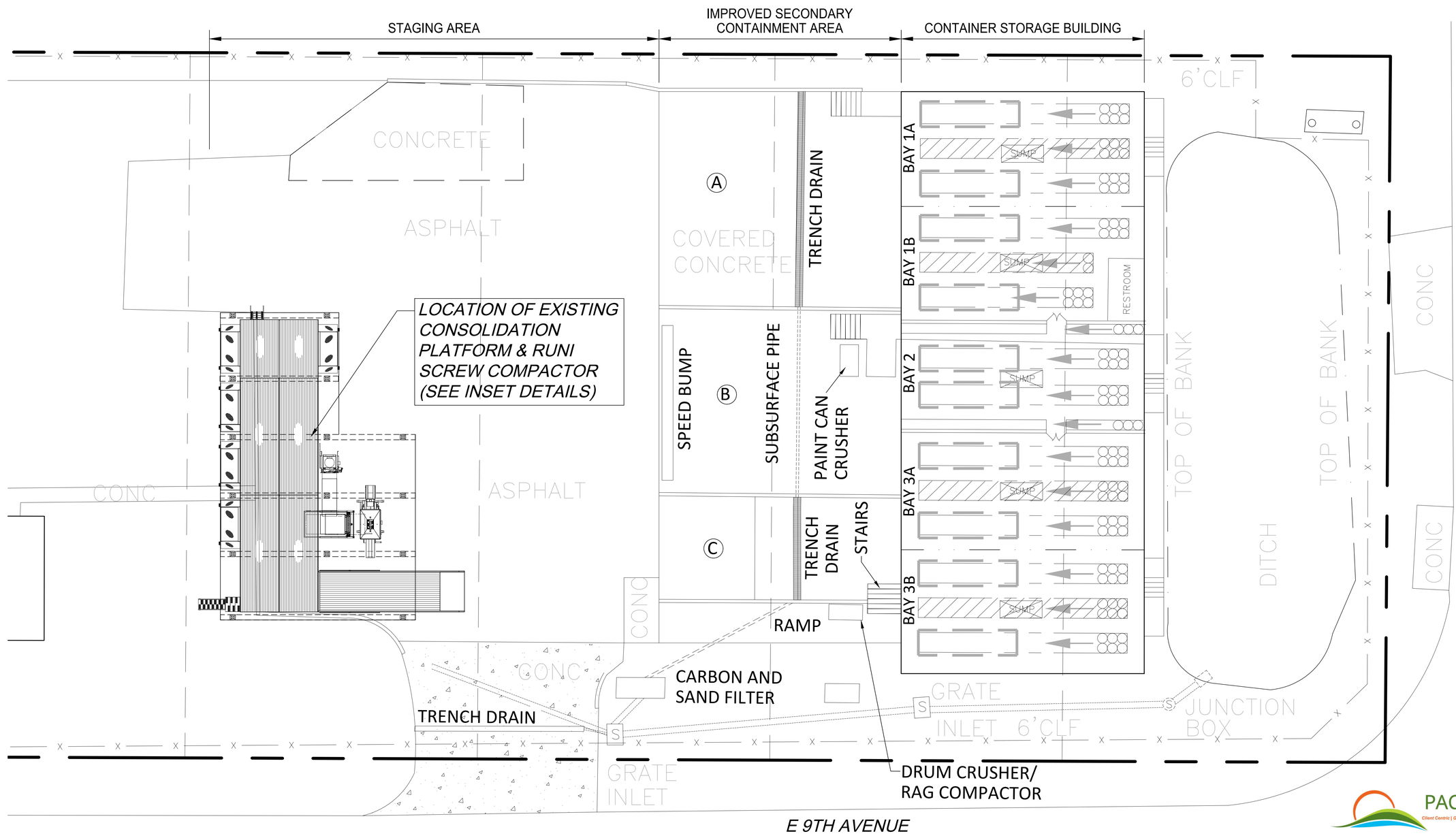






RUNI SK370 SCREW COMPACTOR

(RENDERING FOR INFORMATION PURPOSES ONLY)



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0 5' 10'

SCALE IN FEET

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TAMPA, FLORIDA 33634
ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM

ORIENT RD. PROPERTY LAYOUT PLAN

US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816

FIGURE 17 of 19

PACSCON
Client Centric | Geo-Environmentally Focused

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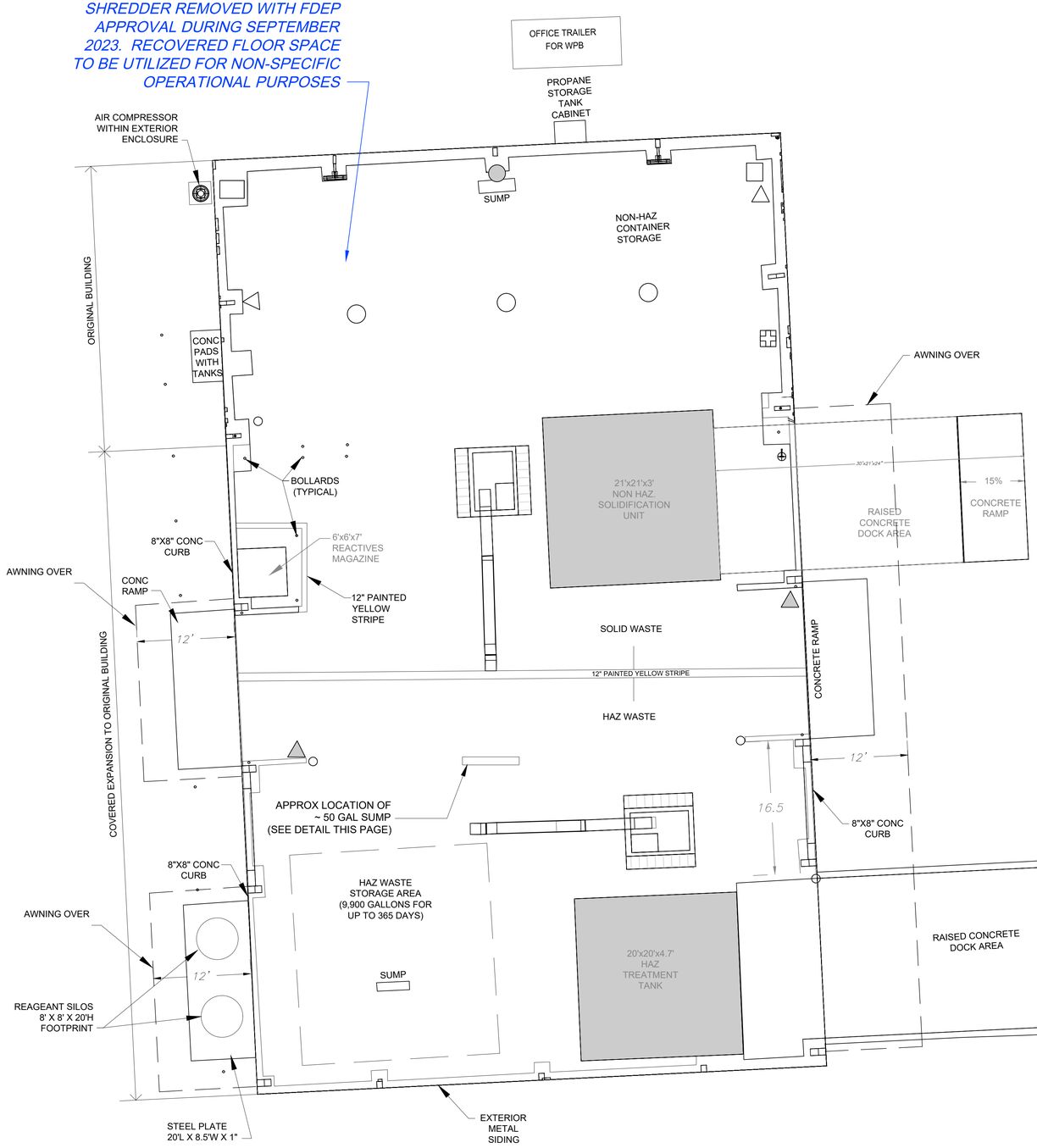
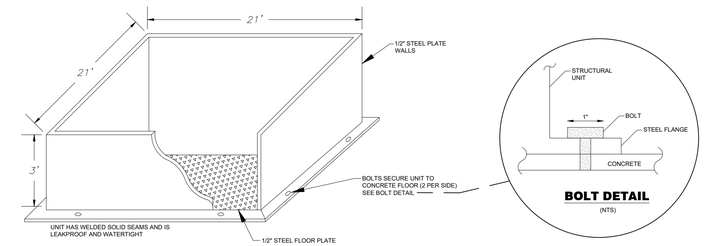
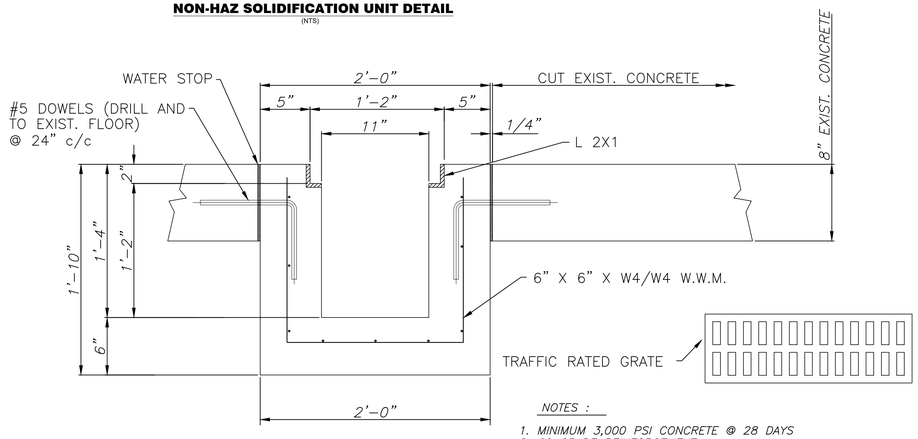
SHREDDER REMOVED WITH FDEP APPROVAL DURING SEPTEMBER 2023. RECOVERED FLOOR SPACE TO BE UTILIZED FOR NON-SPECIFIC OPERATIONAL PURPOSES





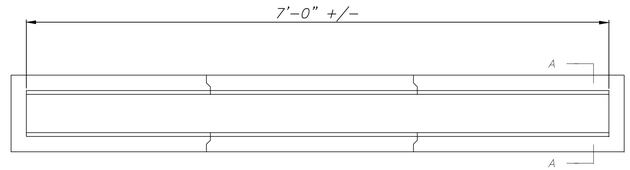
NON-HAZ SOLIDIFICATION UNIT DETAIL
(NTS)



NOTES :

1. *MINIMUM 3,000 PSI CONCRETE @ 28 DAYS*
2. *60 GRADE REINFORCEMENT*
3. *APPROX. WEIGHT = 325 LBS/LIN.FT.*

SECTION A-A



PLAN VIEW

NEW SUMP DETAIL

SAFETY EQUIPMENT LEGEND

- FIRST AID STATION
- SHOWER & EYE WASH STATION
- FIRE ALARM
- SPILL KIT
- AIR HORN
- FIRE EXTINGUISHER
- CEILING MOUNTED SMOKE DETECTOR TIED IN WITH ADT/TYCO

N

0 3.75' 7.5'
SCALE IN FEET

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TAMPA, FLORIDA 33634
ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM

WASTE PROCESSING BUILDING LAYOUT
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE 18 of 19

PACSCON
Client Centric | Geo-Environmentally Focused

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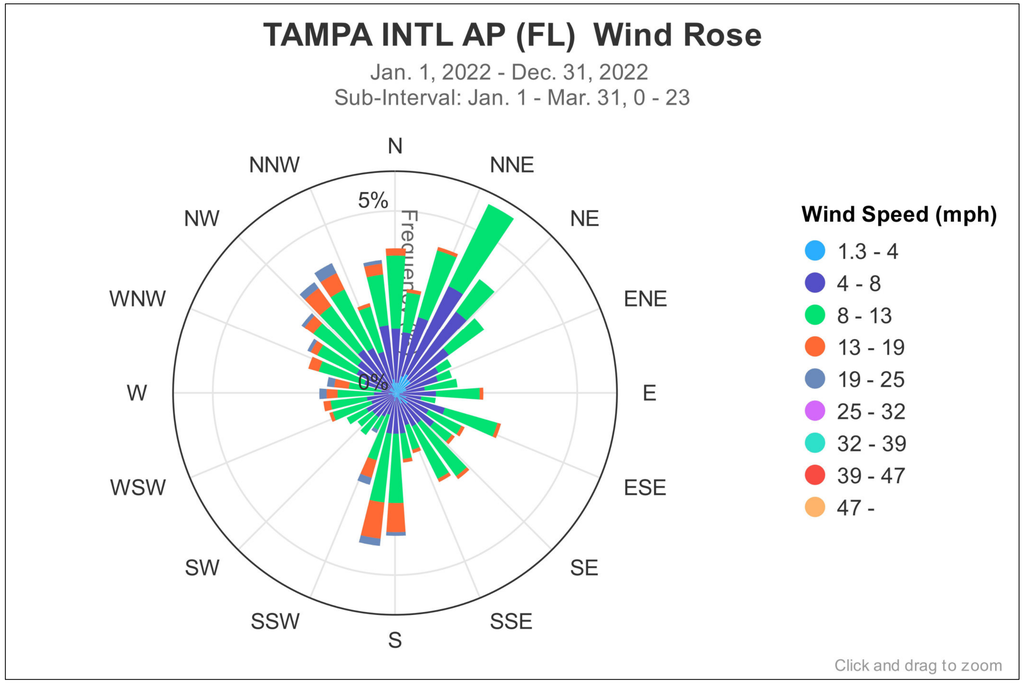

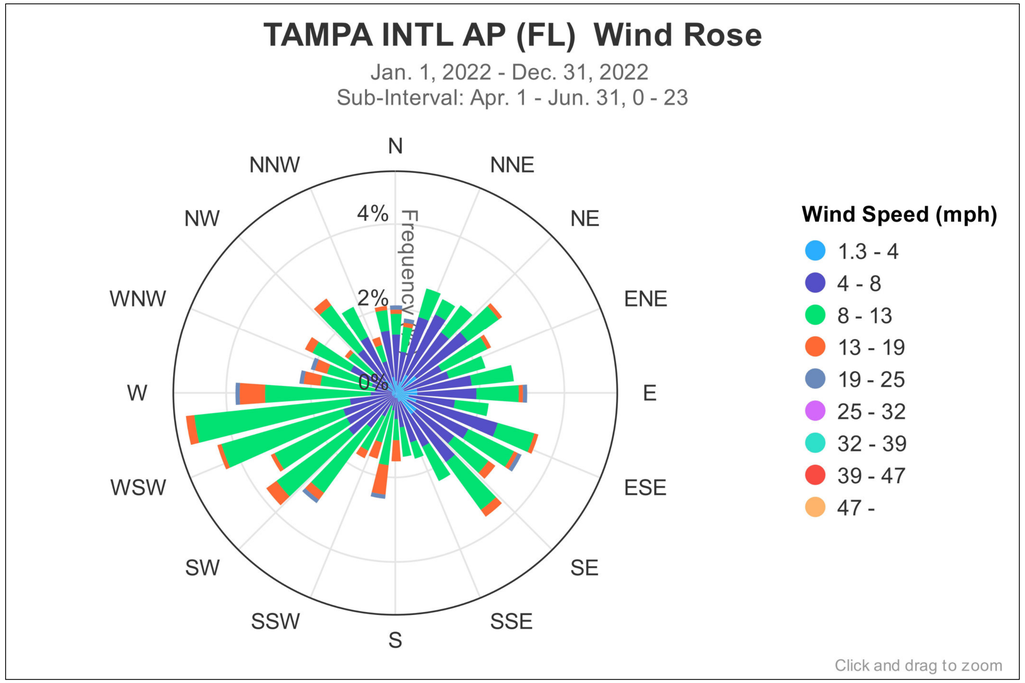

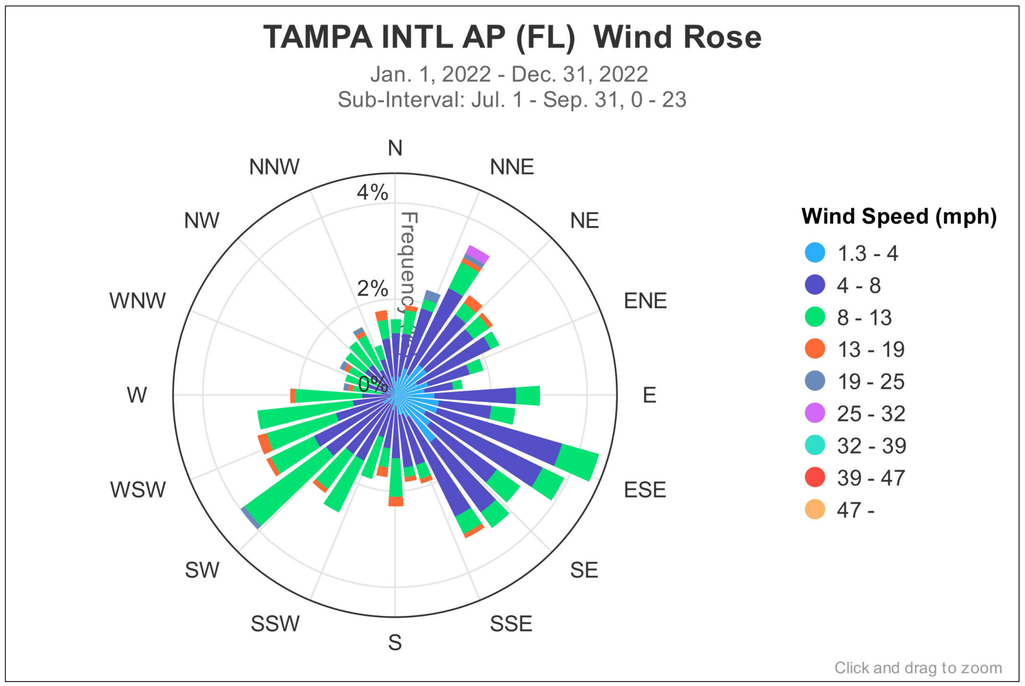

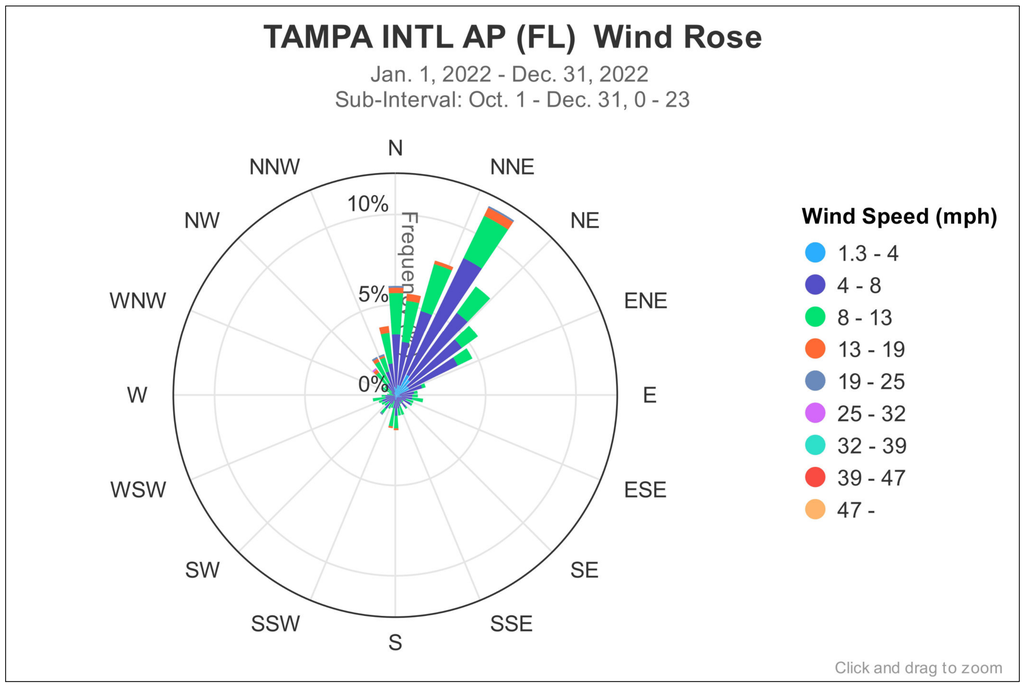

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PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM

WIND ROSE DIAGRAMS
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE 19 of 19

PACSCON
Client Centric | Geo-Environmentally Focused

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APPENDIX A

Corporate & Property Ownership Documentation

Detail by Entity Name

Foreign Profit Corporation
US ECOLOGY TAMPA, INC.

Filing Information

Document Number	F03000006003
FEI/EIN Number	20-0414157
Date Filed	12/04/2003
State	MI
Status	ACTIVE
Last Event	NAME CHANGE AMENDMENT
Event Date Filed	07/11/2018
Event Effective Date	NONE

Principal Address

18500 North Allied Way
Phoenix, AZ 85054

Changed: 04/26/2023

Mailing Address

18500 North Allied Way
Phoenix, AZ 85054

Changed: 04/26/2023

Registered Agent Name & Address

C T CORPORATION SYSTEM
1200 SOUTH PINE ISLAND ROAD
PLANTATION, FL 33324

Officer/Director Detail

Name & Address

Title Director

Goebel, Brian A.
18500 North Allied Way
Phoenix, AZ 85054

Title President

Brummer, Gregg K K.
18500 North Allied Way
Phoenix, AZ 85054

Title VP

Nickerson, John B.
18500 North Allied Way
Phoenix, AZ 85054

Title VP

Thomson, Jennifer L.
18500 North Allied Way
Phoenix, AZ 85054

Title VP

Wilhoit, Adrienne W.
18500 North Allied Way
Phoenix, AZ 85054

Title VP

Kang, Richard D.
18500 North Allied Way
Phoenix, AZ 85054

Title VP

Macaluso, James M.
19 National Drive
Franklin, MA 02038

Title VP, Tax

Focazio, Lawrence D.
18500 North Allied Way
Phoenix, AZ 85054

Title Secretary

McKeon, Lauren
18500 North Allied Way
Phoenix, AZ 85054

Title Assistant Secretary

Nickerson, John B.
18500 North Allied Way
Phoenix, AZ 85054

Title Assistant Secretary

Thomson, Jennifer L.
18500 North Allied Way
Phoenix, AZ 85054

Title Assistant Secretary

Wilhoit, Adrienne W.
18500 North Allied Way
Phoenix, AZ 85054

Title Treasurer

Boyd, Calvin R.
18500 North Allied Way
Phoenix, AZ 85054

Annual Reports

Report Year	Filed Date
2021	04/24/2021
2022	03/24/2022
2023	04/26/2023

Document Images

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12/04/2003 -- Foreign Profit View image in PDF format

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07/11/2018

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EQ FLORIDA, INC.

Certificate of Status	0
Certified Copy	1
Page Count	03
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2018 JUL 11 AM 9:15
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TALLAHASSEE, FLORIDA

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C. GOLDEN

JUL 23 2018

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July 11, 2018

FLORIDA DEPARTMENT OF STATE
Division of Corporations

EQ FLORIDA, INC.
36255 MICHIGAN AVENUE
WAYNE, MI 48184US

SUBJECT: EQ FLORIDA, INC.
REF: F03000006003

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Please correct number 4 when the name change was made.

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Claretha Golden
Regulatory Specialist II

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Letter Number: 618A00014255

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18 JUL 20 AM 8:17
SECRETARY OF STATE
TALLAHASSEE, FLORIDA

PROFIT CORPORATION
APPLICATION BY FOREIGN PROFIT CORPORATION TO FILE AMENDMENT TO APPLICATION FOR AUTHORIZATION TO TRANSACT BUSINESS IN FLORIDA

(Pursuant to s. 607.1504, F.S.)

FILED
2018 JUL 11 AM 9:15
SECRETARY OF STATE
TALLAHASSEE, FLORIDA

SECTION I
(1-3 MUST BE COMPLETED)

F03000006003
(Document number of corporation (if known)

1. EQ FLORIDA, INC.
(Name of corporation as it appears on the records of the Department of State)

2. MICHIGAN
(Incorporated under laws of)

3. 12/04/2003
(Date authorized to do business in Florida)

SECTION II
(4-7 COMPLETE ONLY THE APPLICABLE CHANGES)

4. If the amendment changes the name of the corporation, when was the change effected under the laws of its jurisdiction of incorporation? 6/15/2018

5. US ECOLOGY TAMPA, INC.
(Name of corporation after the amendment, adding suffix "corporation," "company," or "incorporated," or appropriate abbreviation, if not contained in new name of the corporation)

(If new name is unavailable in Florida, enter alternate corporate name adopted for the purpose of transacting business in Florida)

6. If the amendment changes the period of duration, indicate new period of duration.

(New duration)

7. If the amendment changes the jurisdiction of incorporation, indicate new jurisdiction.

(New jurisdiction)

8. Attached is a certificate or document of similar import, evidencing the amendment, authenticated not more than 90 days prior to delivery of the application to the Department of State, by the Secretary of State or other official having custody of corporate records in the jurisdiction under the laws of which it is incorporated.

Wayne R. Ipsen
(Signature of a director, president or other officer - if in the hands of a receiver or other court appointed fiduciary, by that fiduciary)

Wayne R. Ipsen
(Typed or printed name of person signing)

Secretary
(Title of person signing)

The State of Michigan

Department of Licensing and Regulatory Affairs

Lansing, Michigan

This is to Certify That

US ECOLOGY TAMPA, INC.

was validly incorporated as a Michigan profit corporation on November 25, 2003.

I FURTHER CERTIFY that a Certificate of Amendment to the Articles of Incorporation was filed on June 15, 2018, amending Article I, changing the corporate name from ***EQ FLORIDA, INC.*** *to* ***US ECOLOGY TAMPA, INC.***

This certificate is in due form, made by me as the proper officer, and is entitled to have full faith and credit given it in every court and office within the United States.

In testimony whereof, I have hereunto set my hand, in the City of Lansing, this 2nd day of July, 2018.

Julia Dale, Director
Corporations, Securities & Commercial Licensing Bureau

Sent by electronic transmission

Certificate Number: 17111194490

Verify this certificate at: www.michigan.gov/corpverifycertificate

THIS IS NOT A CERTIFIED COPY

This instrument prepared by:

Name: Phyllis G. Rozof, Esq.
Address: Honigman Miller Schwartz & Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226

Return to: 64112
RETURN TO:
First American Title Ins. Co.
25400 US 19 N, Suite 135
Clearwater, FL 33763

INSTR # 2004053209
O BK 13547 PG 0347
Pgs 0347 - 349; (3pgs)
RECORDED 02/11/2004 04:01:51 PM
RICHARD AKE CLERK OF COURT
HILLSBOROUGH COUNTY
DOC TAX PD(F.S.201.02) 5,642.70
DEPUTY CLERK J Anglin

SPECIAL WARRANTY DEED

THIS SPECIAL WARRANTY DEED is made as of the 30 day of January, 2004, between **US LIQUIDS OF FLORIDA, INC.**, a Florida corporation which was formerly known as USL City Environmental Services of Florida, Inc. ("Grantor"), whose address is 411 N. Sam Houston Parkway East, Suite 400, Houston, Texas 77060, and **EQ FLORIDA, INC.**, a Michigan corporation ("Grantee"), whose address is 36255 Michigan Avenue, Wayne, Michigan 48184.

WITNESSETH:

GRANTOR, in consideration of Ten and No/100 Dollars ($10.00) and other good and valuable consideration paid by Grantee, the receipt and sufficiency of which are hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto Grantee, and Grantee's successors and assigns forever, the following property located in Hillsborough County, Florida ("Property"), to wit:

See Exhibit A attached hereto and by this reference made a part hereof.

TOGETHER, with all the tenements, hereditaments, easements and appurtenances thereto belonging or in any way appertaining.

SUBJECT TO, easements and building and use restrictions of record and further subject to those matters set forth in Schedule B of that certain Pro Forma Policy of Title Insurance issued by First American Title Insurance Company under Commitment No. NCS-64112-CHI1 with respect to the Property on or about the date of delivery of this deed.

TO HAVE AND TO HOLD the same unto Grantee and Grantee's successors and assigns in fee simple forever.

THIS IS NOT A CERTIFIED COPY

Grantor hereby covenants with Grantee that Grantor is lawfully seized of said Property in fee simple; that Grantor has good right and lawful authority to sell and convey the Property; and Grantor hereby warrants the title to the Property and will defend the same against the lawful claims of all persons claiming by, through or under Grantor, but against no others.

IN WITNESS WHEREOF, Grantor has executed and delivered this Special Warranty Deed as of the day and year first above written.

Signed, sealed and delivered
in the presence of:

Name: Gregory Fleck

Name: Kevin C Fletcher

US LIQUIDS OF FLORIDA, INC.,
a Florida corporation, formerly know as
USL City Environmental Services of Florida, Inc.

By: _____
Print Name: WILLIAM M. DeARMAN
Title: PRESIDENT

STATE OF TEXAS)
) SS.
COUNTY OF HARRIS)

The foregoing instrument was acknowledged before me this 30TH day of JANUARY, 2004, by WILLIAM M. DEARMAN, the PRESIDENT of US Liquids of Florida, Inc., a Florida corporation, formerly known as USL City Environmental Services of Florida, Inc., on behalf of said corporation.

ANITA C. KEELAN
MY COMMISSION EXPIRES
January 11, 2007

Notary: _____
Print Name: ANITA C. KEELAN
Notary Public, State of TEXAS
My Commission Expires: 1-11-2007

DET_C\602204.1

THIS IS NOT A CERTIFIED COPY

EXHIBIT A

Legal Description

Land situated in Hillsborough County, Florida more particularly described as follows:

Parcel I:

Lots 8 through 14, inclusive, of Block 1 of ORIENT PARK, according to the map or plat thereof recorded in Plat Book 11, Page 7 of the Public Records of Hillsborough County, Florida, TOGETHER WITH the East 1/2 of vacated 72nd Street (62nd Street per plat), abutting said Lot 8 on the West, bounded on the South by Ninth Avenue and on the North by the South boundary of Lot 7 extended.

Parcel II:

Lots 1 through 10, inclusive, of Block 5 of ORIENT PARK, according to the map or plat thereof recorded in Plat Book 11, Page 7 of the Public Records of Hillsborough County, Florida, TOGETHER WITH the West 1/2 of vacated 72nd Street (62nd Street per plat), abutting said Lots 1 and 10 on the East, bounded on the North by Ninth Avenue and on the South by Eighth Avenue.

Parcel III:

Lots 5 and 6 in Block 5 of DRURY'S ADDITION TO ORIENT PARK, according to the map or plat thereof recorded in Plat Book 12, Page 63 of the Public Records of Hillsborough County, Florida.

Parcel IV:

Lots 7 and 8 of Block 6 of ORIENT PARK, according to the map or plat thereof recorded in Plat Book 11, Page 7 of the Public Records of Hillsborough County, Florida, TOGETHER WITH the East 1/2 of vacated 72nd Street (62nd Street per plat), abutting said Lots 7 and 8 on the West, bounded on the North by Ninth Street and on the South by Eighth Avenue.

Parcel V:

TOGETHER WITH a perpetual, non-exclusive easement as set forth in Easement Agreement by and between Armando O. Roche and Linda J. Roche, husband and wife, and Universal Transit Property Company, a Florida corporation, dated October 3, 1994, recorded October 4, 1994 in O.R. Book 7542, Page 868, Public Records of Hillsborough County, Florida, over property more particularly described as follows:

Lots 1 through 6, inclusive, and Lots 9 through 14, inclusive, of Block 6 of ORIENT PARK, according to the map or plat thereof recorded in Plat Book 11, Page 7 of the Public Records of Hillsborough County, Florida.

APPENDIX B

Facility Permitted Hazardous Waste & Process Codes Summary

US ECOLOGY TAMPA, INC.

Summary of Characteristic and Listed Hazardous Wastes

Process Code	Process Design Capacity and Units of Measure	Hazardous Waste Code(s)	Annual Quantity of Hazardous Waste (Gallons)[2]
S01	Permitted max capacity of 50,000 gls not exceeded at any time.	D001	143,026
S01		D002	635,508
S01		D003	2,921
S01		"D" Characteristic Wastes D004 - D043	315,931
S01		"F" Listed Wastes	100,103
S01		"P" Listed Wastes	2,372
S01		"K" Listed Wastes	5,074
S01		"U" Listed Wastes	34,651
		TOTAL =	**1,239,586**

T21[1]	Permitted max capacity of 9,900 gls not exceeded at any time.	"D" Characteristic Wastes treated will include only D002 & D004 through D011	567,675
T21[1]		K062	5,074
		TOTAL =	**572,749**

NOTE:
1/ Chemical fixation/solidification/stabilization in the treatment tank.
2/ Based on volume of waste received during CY 2022.

Total Existing Hazardous Waste Storage Capacity

Container Storage Building (CSB) Bay 1	20,000 Gallons[3]
Container Storage Building (CSB) Bay 2	10,000 Gallons[3]
Container Storage Building (CSB) Bay 3	20,000 Gallons[3]
Inbound/Outbound Staging Area (I/O)	10,000 Gallons[3]
Consumer Products Consolidation Platform (CPCP)	2,000 Gallons[3]
10-Day Transfer Area	20,000 Gallons or 100 Cubic Yards
Waste Processing Building (WPB)	9,900 Gallons
Bulk Container Storage Areas	800 Cubic Yards
TOTAL =	**79,900 Gallons + 800 Cubic Yards**

NOTE:
3/ Provided the permitted maximum capacity of 50,000 gallons is not exceeded at any time.

Each **storage area** may contain hazardous wastes with any of the USE Tampa permitted waste codes. The hazardous waste is segregated into separate bays (and containment) by hazard class and compatibility, not by waste code.

US Ecology Tampa, Inc.

PERMITTED HAZARDOUS WASTE CODES

CHARACTERISTIC WASTE

D001 D002 D003 D004 D005 D006 D007 D008 D009 D010 D011 D012 D013 D014 D015 D016 D017 D018
D019 D020 D021 D022 D023 D024 D025 D026 D027 D028 D029 D030 D031 D032 D033 D034 D035 D036
D037 D038 D039 D040 D041 D042 D043

HAZARDOUS WASTE FROM NON-SPECIFIC SOURCES

F001 F002 F003 F004 F005 F006 F007 F008 F009 F010 F011 F012 F019 F020 F021 F022 F023 F024
F025 F026 F027 F028 F032 F034 F035 F037 F038 F039

HAZARDOUS WASTE FROM SPECIFIC SOURCES

K001 K002 K003 K004 K005 K006 K007 K008 K009 K010 K011 K013 K014 K015 K016 K017 K018 K019
K020 K021 K022 K023 K024 K025 K026 K027 K028 K029 K030 K031 K032 K033 K034 K035 K036 K037
K038 K039 K040 K041 K042 K043 K044 K045 K046 K047 K048 K049 K050 K051 K052 K060 K061 K062
K069 K071 K073 K083 K084 K085 K086 K087 K088 K093 K094 K095 K096 K097 K098 K099 K100 K101
K102 K103 K104 K105 K106 K107 K108 K109 K110 K111 K112 K113 K114 K115 K116 K117 K118 K123
K124 K125 K126 K131 K132 K136 K141 K142 K143 K144 K145 K147 K148 K149 K150 K151 K161

DISCARDED COMMERCIAL CHEMICAL PRODUCTS, OFF-SPECIFICATION SPECIES, CONTAINER RESIDUES AND SPILL RESIDUES THEREOF

P001 P002 P003 P004 P005 P006 P007 P008 P009 P010 P011 P012 P013 P014 P015 P016 P017 P018
P020 P021 P022 P023 P024 P026 P027 P028 P029 P030 P031 P033 P034 P036 P037 P038 P039 P040
P041 P042 P043 P044 P045 P046 P047 P048 P049 P050 P051 P054 P056 P057 P058 P059 P060 P062
P063 P064 P065 P066 P067 P068 P069 P070 P071 P072 P073 P074 P075 P076 P077 P078 P081 P082
P084 P085 P087 P088 P089 P092 P093 P094 P095 P096 P097 P098 P099 P101 P102 P103 P104 P105
P106 P108 P109 P110 P111 P112 P113 P114 P115 P116 P118 P119 P120 P121 P122 P123 P127 P128
P185 P188 P189 P190 P191 P192 P194 P196 P197 P198 P199 P201 P202 P203 P204 P205

U001 U002 U003 U004 U005 U006 U007 U008 U009 U010 U011 U012 U014 U015 U016 U017 U018 U019
U020 U021 U022 U023 U024 U025 U026 U027 U028 U029 U030 U031 U032 U033 U034 U035 U036 U037
U038 U039 U041 U042 U043 U044 U045 U046 U047 U048 U049 U050 U051 U052 U053 U055 U056 U057
U058 U059 U060 U061 U062 U063 U064 U066 U067 U068 U069 U070 U071 U072 U073 U074 U075 U076
U077 U078 U079 U080 U081 U082 U083 U084 U085 U086 U087 U088 U089 U090 U091 U092 U093 U094
U095 U096 U097 U098 U099 U101 U102 U103 U105 U106 U107 U108 U109 U110 U111 U112 U113 U114
U115 U116 U117 U118 U119 U120 U121 U122 U123 U124 U125 U126 U127 U128 U129 U130 U131 U132
U133 U134 U135 U136 U137 U138 U140 U141 U142 U143 U144 U145 U146 U147 U148 U149 U150 U151
U152 U153 U154 U155 U156 U157 U158 U159 U160 U161 U162 U163 U164 U165 U166 U167 U168 U169
U170 U171 U172 U173 U174 U176 U177 U178 U179 U180 U181 U182 U183 U184 U185 U186 U187 U188
U189 U190 U191 U192 U193 U194 U196 U197 U200 U201 U203 U204 U205 U206 U207 U208 U209 U210
U211 U213 U214 U215 U216 U217 U218 U219 U220 U221 U222 U223 U225 U226 U227 U228 U234 U235
U236 U237 U238 U239 U240 U243 U244 U246 U247 U248 U249 U271 U278 U279 U280 U328 U353 U359
U364 U367 U372 U373 U387 U389 U394 U395 U404 U409 U410 U411

APPENDIX C

Facility Permit List Summary

US Ecology Tampa, Inc. Permit List			
Permit	**Permit #**	**Agency**	**Expiration Date**
EPA ID #	FLD981932494	FDEP	N/A
CERCLA APPROVAL LETTER	FLD981932494	EPA	N/A
EPA STORM WATER NOI MULTI-SECTOR	FLR05E179	FDEP	7/10/2026
DOT HAZ MAT REGISTRATION	062723550248F	DOT	6/30/2024
SOLID WASTE PERMIT	34757-SO-015	FDEP	4/1/2024
MERCURY STORAGE & TRANSPORTER	FLD981932494	FDEP	3/1/2024
HAZARDOUS WASTE TRANSPORTER	FLD981932494	FDEP	6/30/2024
TAMPA PORT AUTHORITY WASTE OIL	N/A	TPA	9/30/2023
WASTE TIRE COLLECTOR	00044633	FDEP	4/1/2024
USED OIL COLLECTION & TRANSPORTER	FLD981932494	FDEP	6/30/2024
BROWARD CO. WASTE TRANSPORTER	WT-22-0004	DNRP	2/28/2024
HAZARDOUS WASTE PERMIT (TSDF)	34875-HO-017	FDEP	4/1/2024
Rx DRUG DESTRUCTION FACILITY	5316	DBPR	1/31/2024
APHIS PERMIT TO RECEIVE SOIL	P330-18-00293	USDA	10/7/2024
GEORGIA REVERSE DISTRIBUTOR PHARMACY	PHRD000030	GBOP	6/30/2024

APPENDIX D

Solid Waste Management Units Summary & Supporting Documentation

US ECOLOGY TAMPA, INC.
Solid Waste Management Unit (SWMU)
Identification Summary

SWMU No.	SWMU Name / Description	Years of Operation	Waste Managed	Evidence of Release
1	Container Storage Building (CSB)	June 1990 - Present	Permitted Wastes	None
2	Loading/Unloading Docks (Improved Secondary Containment Area [ISCA])	June 1990 - Present	Permitted Wastes	None
3	Stormwater Retention Pond	June 1990 - Present	Stormwater	None
4	Former Filter Press	Certified Closed on 10/31/2013	None	None
5	Municipal Waste Dumpster	June 1990 - Present	RCRA Empty Containers, Office Waste	None
6	Stormwater Pre-Treatment Unit	June 1990 - Present	Stormwater	None
7	Waste Processing Building (WPB)	June 2006 - Present	Hazardous & Non-Hazardous Waste	None
8	Universal Waste Battery Storage Area	January 2009 - Present	Universal Waste Batteries	None
9	Paint Can Crushing Area	1996 - Present	Scrap Cans and Paint	None
10	Roll-Off Storage Area (Solid Waste Operations Area)	July 2010 - Present	Non-Hazardpus Waste	None
11	10-Day Transfer & Inbound/Outbound (I/O) Staging Area	July 2011 - Present	Permitted Wastes	None
12	Used Oil Facility	June 1990 - Present	Used Oil	None
13	Satellite Accumulation Area	January 2002 - Present	Laboratory Waste	None
14	Parts Washer (Not In Service)	January 2009 - Present	Parts Washer Solvent	None
15	Additional Retention Pond	July 2010 - Present	Stormwater	None
16	Universal Wate Lamp Storage Area	2002 - Present	Universal Waste Lamps	None
17	Former Aerosol Can Crushing Area	Removed & Scrapped Circa 2010	None	None
18	Drum Crushing/Rag Compacting Area	1996 - Present	RCRA Empty Metal Containers	None
19	Oil-Water Separator System	Never Constructed	None	None
20a	Bulk Container Storage Area (BCSA)	2016 - Present	Hazardous & Non-Hazardous Waste	None
20b	Bulk Container Storage Area (BCSA)	2016 - Present	Hazardous & Non-Hazardous Waste	None
20c	Bulk Container Storage Area (BCSA)	2016 - Present	Hazardous & Non-Hazardous Waste	None
20d	Bulk Container Storage Area (BCSA)	2019 - Consolidated with SWMU 20b	Hazardous & Non-Hazardous Waste	None
21	Consumer Products Consolidation Platformm (CPCP)	2023	Permitted Wastes	None
22	RUNI Screw Compactor	2023	Permitted Wastes	None

NOTE:
The locations of the SWMUs summarized above are depicted on Figure 12.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

JAN 30 1990

4WD-RCRA

Mr. Barry Swihart, Chief
Bureau of Waste Planning and Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED
FEB 26 1990
HAZARDOUS WASTE
PERMITTING

RE: Universal Waste and Transit, Inc.
EPA I.D. Number FLD 981 932 544

Dear Mr. Swihart:

The Environmental Protection Agency (EPA) conducted a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) at the referenced facility on August 18, 1988. This is a new facility and it was determined that there has been no evidence of a prior or continuing release of hazardous wastes or hazardous constituents at this site. Therefore, at this time, Section 3004(u) of the Hazardous and Solid Waste Amendments (HSWA) of 1984 does not apply.

Since, apparently, only the Section 3005(h) waste minimization and Section 3004(d) prohibitions on land disposal of specified wastes requirements of HSWA apply to this facility, a separate permit would not be required, provided the State permit incorporates these requirements. In this case, the State permit would constitute the full RCRA permit.

For facilities where only the above mentioned sections apply, the public notice, the notice of intent to issue, and cover page of the permit should contain the following information:

1. EPA has determined that the provisions of 3004(u) of HSWA do not apply; but if new information to the contrary becomes available, the permit may be reopened.

2. The permit incorporates both the Section 3005(h) HSWA Waste minimization certification requirements and Section 3004(d) Land Disposal prohibitions.

3. The State permit constitutes the full RCRA permit, and a federal permit is not required to address the provisions of HSWA.

Additionally, the permit should incorporate the waste minimization requirements, land disposal restrictions and condition for reopening the permit if it is later determined that 3004(u) applies.

We have enclosed recommended wording for inclusion in the public notice, notice of intent to issue, permit cover page and permit conditions.

If you have any questions concerning this matter, please contact Harry Desai at (404) 347-3433.

Sincerely yours,

James H. Scarbrough, P.E.
Chief, RCRA Branch
Waste Management Division

Enclosure

cc: Satish Kastury, FDER, Tallahassee
Bill Crawford, FDER, Southwest District

The Environmental Quality Company
FLD 981 932 494
Operating Permit 34875-HO-009

RCRA Facility Assessment (RFA) Addendum

Prepared by
Merlin D. Russell Jr, P.G.

May 13, 2011

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1.0 Introduction

The purpose of a RCRA Facility Assessment (RFA) is to compile existing information on environmental conditions at a given facility, including information on actual or potential releases. The RFA includes a review of existing information about a facility, a visit to the facility, and, if warranted, limited sampling to determine if there is an actual or potential release of hazardous wastes or hazardous constituents from the Solid Waste Management Units (SWMU) or Areas of Concern (AOC) at the facility. The primary decision point is a determination of whether there is the potential for contamination at levels that would pose human health or ecological concerns. If no further investigation or remediation is necessary, the Department of Environmental Protection (DEP or Department) issues a "No Further Action at this Time" This RFA addendum provides an update to the original RFA. This addendum provides information for twelve additional SWMUs (SWMU-7 through SWMU-18). The information is based upon documents listed in Section 4.0 References of this addendum, information submitted by EQ and the DEP inspection of August 25, 2010.

The original RCRA Facility Assessment Report was completed for Universal Waste & Transit, Inc., and was dated March 1995. That RFA identified six SWMUs. These six SWMUs are not discussed in detail in this addendum. The current Operating Permit 34875-HO-009, issued on June 14, 2006, contains the following SWMU list:

TABLE 1

• SWMU-1, Drum Storage Area	• SWMU-2, Loading and Unloading Area
• SWMU-3, Pre-Treatment Unit	• SWMU-4, Filter Press
• SWMU-5, Municipal Waste Dumpster	• SWMU-6, Retention Pond
• SWMU-7, Solid Waste Processing Building	• SWMU-8, Batteries Storage Area
• SWMU-9, Paint Can Crushing Area, and	• SWMU-10, Roll-off Storage Area

Each of these SWMUs has been given a No Further Action recommendation. A review of FDEP files revealed that a RFA Addendum had not been completed for SWMUs seven through ten above. In addition, the summary above is in error as it reversed the number assignments and names for SWMUs 3 and 6. As shown in section 2.0 below, SWMU-3 is actually the Retention Pond and SWMU-6 is actually the Pre-treatment Unit used to treat stormwater before it enters the Retention Pond.

On July 22, 2010, EQ submitted a renewal application for their Part B. The review of the Part B determined that the SWMU information was incomplete although much of the information was provided in various parts of the Part B. The request to update and consolidate the SWMU information was embodied in the First Notice of Deficiencies dated September 22, 2010.

On November 4, 2010, EQ submitted updated SWMU information to the Department as part of their response to the First Notice of Deficiencies. Upon receipt, the Department initiated the drafting of this RFA Addendum.

2.0 Corrective Action Chronology

EPA conducted the initial Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) at this location on August 18, 1988. At that time, the construction of the facility was not completed and it was determined that there was no evidence of a prior or continuing release of hazardous wastes or hazardous constituents at the site. Therefore, at that time, Section 3004(u) of the Hazardous and Solid Waste Amendments (HSWA) of 1984 did not apply.

On January 30, 1990, a site inspection was conducted to verify completion of construction activities. On July 3, 1990, DEP Tampa issued Universal Waste & Transit (UW&T) an operating permit for a Hazardous Waste Storage and Treatment Facility.

During the week of February 15-19, 1993, DEP Tallahassee conducted a facility file search. The search consisted of the review of UW&T's November 15, 1990 and May 21, 1991 RCRA Compliance Inspection Reports, permitting files, Superfund files, the permit application and the Operating Permit. The file search enabled staff to compile background data on existing and potential SWMUs and the regulatory history of the facility.

On February 25, 1993, a VSI was conducted by both DEP and EPA staff. The inspection was led by Wanda Parker (FDEP) and Harry Desai (EPA). The other attendees were Bheem Kothur (FDEP), Roger Evans (FDEP, Tampa), and John Taylor, General Manager for UW&T.

The 1993 the draft RFA (PR and VSI) resulted in the identification of six SWMUs. The findings and suggested further actions for this facility are summarized in Table 2 below. No further action was suggested for four of the SWMUs: Drum Storage Area and five Sumps (SWMU #1), Loading/Unloading Area (SWMU #2), Filter Press (SWMU #4), and Municipal Waste Dumpster (SWMU #5). Confirmatory soil sampling was recommended for the unlined retention pond (SWMU #3). Confirmatory sampling of influent and effluent of the pretreatment system (SWMU #6) was also recommended. These original six SWMUs are not discussed further in this RFA Addendum.

TABLE 2

SWMU IDENTIFICATION SUMMARY

SWMU NO.	TYPE OF UNIT	YEARS OF OPERATION	WASTE MANAGED	POLLUTANT MIGRATION PATHWAYS	EVIDENCE OF RELEASE	EXPOSURE POTENTIAL	RECOMMENDATIONS			
							Confirmatory Sampling	RFI	NFA	FURTHER ASSESSMENT
1 *	Drum Storage Area	June 1990 - Present	Permitted Wastes (see Appendix A)	Air, Soil, Surface Water, Ground Water	None	L			X	
2 *	Loading/Unloading Area	June 1990 - Present	Permitted Wastes (see Appendix A)	Air, Soil, Surface Water, Ground Water	None	L			X	
3	Retention Pond	June 1990 - Present	Storm Water	Air, Soil, Surface Water, Ground Water	None	M	X			
4 *	Filter Press	June 1990 - Present	Non-hazardous wastes (One-time test)	Air, Soil, Surface Water, Ground Water	None	L			X	
5	Municipal Waste Dumpster	June 1990 - Present	Empty storage containers, paint cans, office wastes	Air, Soil, Surface Water, Ground Water	None	L			X	
6	Pre-treatment Unit	June 1990 - Present	Storm Water	Air, Soil, Surface Water, Ground Water	None	M	X			

* = RCRA Regulated Unit

The RFA Report for UT&W was finalized by FDEP in March, 1995.

In a letter dated April 18, 1996, a request for a name change to City Environmental Services, Inc., (dated March 29, 1996), was submitted to DEP for approval. In a May 27, 1998 letter to DEP, the name was changed again to USL City Environmental Services of Florida, Inc. That change was approved on June 4, 1998. A January 9, 2001 request to change the name from USL City Environmental Services of Florida to US Liquids of Florida was approved by DEP on January 30, 2001. A February 5, 2004 request to change the name from US Liquids of Florida to EQ Florida Inc. was approved by DEP on February 13, 2004.

The current Operating Permit 34875-HO-009 was issued to EQ on June 14, 2006 and contains the following SWMU summary:

TABLE 3

- SWMU-1, Drum Storage Area
- SWMU-2, Loading and Unloading Area
- SWMU-3, Pre-Treatment Unit
- SWMU-4, Filter Press
- SWMU-5, Municipal Waste Dumpster
- SWMU-6, Retention Pond
- SWMU-7, Solid Waste Processing Building
- SWMU-8, Batteries Storage Area
- SWMU-9, Paint Can Crushing Area, and
- SWMU-10, Roll-off Storage Area

Each of these SWMUs has a No Further Action recommendation.

On July 22, 2010, EQ submitted a renewal application for their Part B. The review of the Part B determined that the SWMU information was incomplete although much of the information had

been submitted in various parts of the Part B. The request to update and consolidate the SWMU information was embodied in the First Notice of Deficiencies dated September 22, 2010.

On November 4, 2010, EQ submitted updated SWMU information to the Department as part of their response to the First Notice of Deficiencies. Upon receipt, the Department initiated the drafting of this RFA Addendum.

Included in this addendum are summary sheets describing each additional SWMU[1], photographs and a location map (Figure 5.14 from the Part B).

[1] Other than the original SWMUs identified in the UW&T RFA dated December 1995.

3.0 Facility Description & Operations

The EQ facility is a permitted hazardous waste storage and treatment facility. No on-site disposal occurs at EQ. EQ also manages non-hazardous regulated waste, household hazardous waste, used oil and filters, mercury containing lamps and devices, TSCA-exempt and limited quantity exempt PCB and asbestos wastes, recyclable materials, and other similar substances, materials, and wastes. The primary waste management operations are storage and transfer.

The facility consists of the 4.46-acre, more or less (MOL), site. The permitted hazardous waste storage facility located on site is a 5,866 square foot (MOL) building, which was specifically designed for hazardous waste management. The container storage building is composed of three separate bays separated by an eight-inch wide concrete block wall and fire doors. The wall extends from the floor to the roof and has been designed with a minimum fire resistance of four hours. Container storage is also allowed under a 1,786 square foot (MOL) improved secondary containment area located on the loading dock side of Bay 2.

The total hazardous waste capacity within the building and covered outside storage area is 50,000 gallons. The hazardous waste consists of solids, sludges, liquids, and lab packs.

Prior to construction, the land had been undeveloped. There were no existing SWMUs located at this location.

The surrounding land uses are heavy industrial. Land uses include two National Priority List (NPL) sites, metal recyclers, a construction debris transfer facility, steel cleaning and coating, fishery, gas manufacturing, a pesticide formulator, and bail bonds businesses. The facility is located in the City of Tampa in a heavy industrial area known as Orient Park. The area is zoned heavy industrial. The City of Tampa classifies this area as suitable for hazardous waste facilities.

The primary operation at the EQ facility is storage of hazardous waste in containers, primarily 55-gallon drums. Some waste is re-containerized or consolidated in other containers of similar size or larger. Re-containerization operations may also include use of the paint can crusher, aerosol spray can recycler, and/or drum crusher. Wastes are primarily shipped out of the facility in 55-gallon drums, although some wastes are consolidated in roll-off dumpsters or tanker trucks.

The following waste type categories are handled at the facility: solid waste, flammable, poisons, toxic, acids, alkaline, Hazardous Organic Compounds (HOC), oxidizers, reactive and Otherwise Regulated Material (ORM or Class 9). No regulated explosive, regulated radioactive, or regulated biohazardous waste are managed at EQ. Waste types include liquids, solids, sludges, and lab packs. Lab pack waste usually consists of waste generated by private (household) individuals such as paints, pesticides, household wastes, etc.

EQ is also authorized to operate a transfer facility on site in accordance with Rule 62-730.171, Florida Administrative Code (F.A.C.), and is authorized to hold manifested hazardous waste on site not to exceed ten (10) days as allowed for transfer facilities. Current regulations allow transfer facility waste to be held anywhere on the paved lot within the facility boundary. The maximum permitted capacity is limited to 20,000 gallons or 100 cubic yards.

EQ is also a used oil and used oil filter transporter and transfer facility in accordance with Chapter 62-710, F.A.C.

EQ is a transporter and handler of mercury containing lamps and devices that are regulated in accordance with Chapter 62-737, F.A.C.

EQ manages Solid Waste in accordance with its solid waste permit (34757-003-SO and 34757-005-SO) and Chapter 62-701, F.A.C.

EQ also manages household hazardous waste (HHW) at the facility. This waste is regulated as a Solid Waste. Any HHW received with a hazardous waste manifest is managed as hazardous waste.

EQ also manages pharmaceutical wastes in accordance with a Drugs, Devices and Cosmetics permit (53; 00007) issued by the Florida Department of Health.

4.0 References

The following documents were used in preparation of this amended RFA (listed chronologically):

1. EQ's additional information for the Operating Permit Renewal dated April 28, 2011.
2. EQ's (Stuart Stapleton) e-mail dated April 25, 2011 containing information.
3. EQ's response to the Second Notice of Deficiencies dated February 10, 2011.
4. EQ's (Stuart Stapleton) e-mail dated January 25, 2011 containing photographs and information.
5. EQ's (Stuart Stapleton) e-mail dated January 18, 2011 containing photographs and information.
6. EQ's response to the First Notice of Deficiencies dated November 4, 2010.
7. FDEP Inspection report dated August 25, 2010.
8. EQ's Part B renewal dated July 22, 2010.
9. Kleinfelder's *Monitoring Well Installation and Sampling Report* dated November 4, 2009
10. *RCRA Facility Assessment Report for Universal Waste & Transit, Inc*., March 1995, prepared by Florida Department of Environmental Protection.

5.0 SWMU/AOC Summary Table

SOLID WASTE MANAGEMENT UNITS/AREAS OF CONCERN SUMMARY TABLE						
				Suggested Action		
SWMU or AOC #	Waste Management Unit/Area of Concern Name	Type of Unit	Evidence of releases	NFA at This Time	Confirmatory Sampling Required	Wastes Managed
SWMU-7	Solid Waste Processing Facility	Treatment and Storage	No	X		Non-hazardous materials
SWMU-8	Universal Waste Battery Storage Area	Storage	No	X		Used batteries
SWMU-9	Paint Can Crushing Area	Treatment and Storage	No	X		Water- and solvent-based paints
SWMU-10	Roll-off Storage	Storage	No	X		Non-hazardous materials
SWMU-11	Transfer Facility	Temporary Holding of Waste	No	X		Hazardous Waste
SWMU-12	Used Oil Facility	Storage	No	X		Used oil
SWMU-13	Satellite Accumulation Area	Storage	No	X		Laboratory chemicals
SWMU-14	Parts Washer	Treatment and Storage	No	X		Solvents
SWMU-15	Additional Retention Pond	Treatment, Storage & Disposal	No		X	Storm water
SWMU-16	Universal Waste Lamp Storage Area	Storage	No	X		Fluorescent lamps
SWMU-17	Aerosol Can Crushing	Treatment and Storage	No	X		Aerosol cans
SWMU-18	Drum Crushing	Treatment and Storage	No	X		Drums and drum residues

6.0 SWMU/AOC Data Sheets

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	**SWMU-7**
NAME	Solid Waste Processing Facility (*aka* Solid Waste Processing Area)
TYPE OF UNIT	Treatment and storage
DESCRIPTION OF WASTE MANAGED	Non-hazardous materials
PHYSICAL DESCRIPTION AND CONDITION	The Materials Processing Facility (MPF) is an 8,050 square foot building located on the 8th Avenue property (southern portion of property). The building is used for processing, staging, storage and management of non-hazardous regulated solid waste. Processing includes segregation, decanting, filtration, transfer, shredding, or solidification. The storage capacity of the MPF is 185,650 gallons. The containment provided by the 8-inch high concrete curb and two 50-gallon sumps is 32,676 gallons which is sufficient to hold 110% of the largest container (a 7,660 gallon constructed steel welded box used in the solidification process) or 10% of the total volume of the waste permitted to be stored in the building. Construction of the MFP was completed in November 2009 and it went into operation in July 2010.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None
RECOMMENDATION	No Further Action
COMMENTS	The operations are conducted in accordance with DEP's solid waste permit 34757-006-SO/30 issued November 18, 2008 and expiring on November 18, 2013. Closure and postclosure of the facility are covered by Part G of the Solid Waste permit.

Photos of SWMU-7

SWMU-7, Solid Waste Processing Facility. This photograph shows the front entrance, facing west. Photo taken on January 11, 2011 by Stuart Stapleton.

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	**SWMU-8**
NAME	Universal Waste Battery Storage Area
TYPE OF UNIT	Storage
DESCRIPTION OF WASTE MANAGED	Universal Waste Batteries
PHYSICAL DESCRIPTION AND CONDITION	The Universal Waste Battery Storage Area is located in the southeastern portion of the container storage building in Bay 3. This area is covered by a roof and slopes towards the containment trench. Batteries stored in the battery storage area include lead acid, lithium, alkaline, and NiCd. These batteries are sent to AERC for recycling. Alkaline batteries are land filled (Omni Landfill). The Batteries Storage Area began operation in January 2009 and is currently in use.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None
RECOMMENDATION	No Further Action
COMMENTS	

SWMU-8, Universal Waste Battery Storage Area. This photograph was taken facing east. Photo taken on January 11, 2011 by Stuart Stapleton.

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	SWMU-9
NAME	Paint Can Crushing Area
TYPE OF UNIT	Treatment and Storage
DESCRIPTION OF WASTE MANAGED	Solvent-based paints
PHYSICAL DESCRIPTION AND CONDITION	Solvent-based paints are received in one-gallon cans for re-containerization and disposal. The operation takes place in the permitted hazardous waste processing areas. The operation includes the opening of containers, crushing the can in an enclosed unit, collecting the paint waste in a 55-gallon drum and containerizing the paint for off-site transport. The paint can is manually placed in and removed from the unit. EQ uses best management practices such as using plastic sheeting to contain any drippage. Each waste stream is characterized to determine appropriate management. Latex or water based paints are not crushed in this machine. The Paint Can Crushing Area began operations in 1996 and is currently in use.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None
RECOMMENDATION	No Further Action
COMMENTS	

Photo of SWMU-9

SWMU-9, Paint Can Crushing Area. This photograph was taken facing east/northeast. Photo taken on January 11, 2011 by Stuart Stapleton.

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	**SWMU-10**
NAME	Rolloff Storage (*aka* Rolloff Storage Area)
TYPE OF UNIT	Storage
DESCRIPTION OF WASTE MANAGED	Non-hazardous materials
PHYSICAL DESCRIPTION AND CONDITION	The Rolloff Storage Area is also known as the Solid Waste Processing Building. It is used for the storage of roll-off boxes that are full of the solidified material created in the MPF (SWMU-7). The roll-off boxes are staged in this area where they await outbound transportation. The area consists of a 2,288 square foot covered concrete pad and has a capacity of 20,200 gallons. The Rolloff Storage was a pre-existing building and no special construction was needed prior to using it for the roll-off storage. Operation as the Rolloff Storage began in November 2008.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None
RECOMMENDATION	No Further Action
COMMENTS	The operations are conducted in accordance with DEP's solid waste permit 34757-006-SO/30 issued November 18, 2008 and expiring on November 18, 2013. Closure and postclosure of the facility are covered by Part G of the Solid Waste permit.

Photo of SWMU 10

SWMU-10, Rolloff Storage. This photograph was taken facing east. Photo taken on January 11, 2011 by Stuart Stapleton.

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	**SWMU-11**
NAME	Transfer Facility (*aka* Transfer Area/Staging Area)
TYPE OF UNIT	Short-term Storage
DESCRIPTION OF WASTE MANAGED	Hazardous Waste
PHYSICAL DESCRIPTION AND CONDITION	The Transfer Facility is currently located in, and part of, the Container Storage Area (SWMU 1). It is located in Bay 1. EQ is authorized to operate a transfer facility on site in accordance with Rule 62-730.171, F.A.C., and is be authorized to hold manifested hazardous waste on site not to exceed ten (10) days as allowed for transfer facilities. Current regulations allow transfer facility waste to be held anywhere on the paved lot within the facility boundary. The maximum permitted capacity is limited to 20,000 gallons or 100 cubic yards The Transfer Facility began operation in 1990 and is currently in use.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None
RECOMMENDATION	No Further Action
COMMENTS	EQ's information submitted in the February 10, 2011 Part B updates proposes to move the transfer facility to an area located on the 8th Avenue Property as identified on Figure 5.14.

Photo of SWMU 11

SWMU-11, Transfer Facility. This photograph was taken facing east. Photo taken on April 16, 2011 by Stuart Stapleton.

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	**SWMU-12**
NAME	Used Oil Facility
TYPE OF UNIT	Storage
DESCRIPTION OF WASTE MANAGED	Used Oil, Used Oil Filters
PHYSICAL DESCRIPTION AND CONDITION	The Used Oil Facility is located within, and part of, the Container Storage Area (SWMU 1). It is located in Bay 1. Used oil is received in various size containers and transferred into either 55- gallon drums or 275-gallon tote tanks. Used oil is pumped from these containers on a weekly basis. EQ does not drain oil filters other than during routine vehicle maintenance performed in the vehicle maintenance area. Used oil filter are received in various sized containers and are consolidated into 55-gallon drums. The Used Oil Facility began operation in 1990 and is currently in use.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None
RECOMMENDATION	No Further Action
COMMENTS	EQ is registered as a used oil transporter, transfer facility, filter transporter and filter transfer facility in accordance with Chapter 62-710, F.A.C. The June 16, 2010 certification expires on June 30, 2011.

Photo of SWMU 12

SWMU-12, Used Oil Facility. This photograph was taken facing west. Photo taken on April 16, 2011 by Stuart Stapleton.

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	**SWMU-13**
NAME	Satellite Accumulation Area
TYPE OF UNIT	Storage
DESCRIPTION OF WASTE MANAGED	Laboratory samples
PHYSICAL DESCRIPTION AND CONDITION	The Satellite Accumulation Area is located in the laboratory located in the Office Building on the 8th Avenue (southern) property. The material collected in the satellite accumulation area includes various types of solvents and debris associated with waste sampling. Accumulated material is transferred to the northern property for further processing. The Satellite Accumulation Area began operation in 2002 and is currently in use.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None
RECOMMENDATION	No Further Action
COMMENTS	

Photos of SWMU 13

SWMU-13 Satellite Accumulation Area. This photograph was taken facing south. Photo taken on January 11, 2011 by Stuart Stapleton.

SWMU-13 Satellite Accumulation Area. This photograph was taken facing east. Photo taken on January 11, 2011 by Stuart Stapleton.

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	SWMU-14
NAME	Parts Washer
TYPE OF UNIT	Treatment and Storage
DESCRIPTION OF WASTE MANAGED	Liquids and sludges from a non-hazardous solvent
PHYSICAL DESCRIPTION AND CONDITION	EQ currently utilizes a Safety Kleen Parts Washer located in the maintenance area of the office building on the 8th Avenue property. The washer consists of a metal sink fixed to a 30-gallon drum of part cleaning solution. The solution is pumped from the drum into the sink where the parts are washed and cleaned. The solution is drained back into the drum when the cleaning is completed. The solution is reused until it is no longer useful and at that point it is sent off-site for recycling. The waste solvent is periodically tested. Parts Washers began operation in January 2009 and it is currently in use.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None
RECOMMENDATION	No Further Action
COMMENTS	

Photo of SWMU 14

SWMU-14 Parts Washer. This photograph was taken facing west. Photo taken on January 11, 2011 by Stuart Stapleton.

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	SWMU-15
NAME	Additional Retention Pond
TYPE OF UNIT	Storage
DESCRIPTION OF WASTE MANAGED	Storm water
PHYSICAL DESCRIPTION AND CONDITION	The Additional Retention Pond is located in the northwestern corner of the 8th Avenue property. It collects storm water from the roof of the Material Processing Facility (SWMU-7). The retention pond was sized for both the permanent pool volume required and the 1" runoff storage (temporary pool). The pond is unlined. Construction of the retention pond was completed in March 2010 and it became operational in July 2010.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None. Prior to construction, a shallow well (MW-1) was installed on October 22, 2009 to determine if there were any groundwater impacts from the Helena Chemical Company Superfund Site. The sampling did not detect any measurable concentrations of analytes. Analytes were limited to total xylenes, alpha-BHC, beta-BHC, lindane (gamma-BHC) 4,4'-DDT, aldrin, dieldrin, endosulfan I and endosulfan II.
RECOMMENDATION	Confirmatory Sampling
COMMENTS	

Photo of SWMU 15

SWMU-15 Additional Retention Pond. This photograph was taken facing north. Photo taken on January 11, 2011 by Stuart Stapleton.

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	SWMU-16
NAME	Universal Waste Lamp Storage Area
TYPE OF UNIT	Storage
DESCRIPTION OF WASTE MANAGED	Fluorescent lamps
PHYSICAL DESCRIPTION AND CONDITION	Lamps are received from various sources including Conditionally Exempt Small Quantity Generators (CESQG). If Universal waste (UW) is received in containers that show evidence of spillage, leakage or damage that could cause leakage, the material is repacked into structurally sound containers. The Universal Waste Lamp Storage Area is located in the parking area of the northern property. The material is stored in a box van with a storage capacity of 1,104 cubic feet. The Universal Waste Lamp Storage Area began operation in 2002 and is currently in use.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None
RECOMMENDATION	No Further Action
COMMENTS	EQ is a transporter and a Small Quantity Handler Facility of Universal Waste Lamps and Devices in accordance with Chapter 62-737, F.A.C. EQ's certification was issued March 31, 2011 and it expires on March 1, 2012.

Photo of SWMU 16

SWMU-16 Universal Waste Lamp Storage Area. This photograph was taken facing south/southwest. Photo taken on January 26, 2011 by Stuart Stapleton.

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	SWMU-17
NAME	Aerosol Can Crushing (*aka* Aerosol Can Recycling)
TYPE OF UNIT	Treatment
DESCRIPTION OF WASTE MANAGED	Solvent-based paint waste, auto products (e.g., carburetor cleaner, engine degreaser, etc.) and personal care products
PHYSICAL DESCRIPTION AND CONDITION	The aerosol can crushing was conducted in a machine that crushed aerosol cans while simultaneously capturing all liquids into a 55-gallon container. Aerosol cans were placed within an enclosed unit and punctured. The material within the can was ejected into the drum. A filter unit was attached to the machine that captured vapors expelled from the can/drum during the recycling operation. This operation was carried out in area 2A of the hazardous waste storage area. The filters were changed out as per the manufacturer's specifications. Spent filters were characterized and managed as solid or hazardous waste. Both Aerosolv and TeeMark crushers have been used. The TeeMark is no longer in operation and a replacement is being considered. Additional details of the crushers are located in Attachment 16 of the Part B renewal dated July 22, 2010. The empty cans were sent off site to a metal recycler. The collected paint was sent off site for fuels blending. The Aerosol Can Crushing units began operation in 2003 but are currently ***not*** in use. This process may be used in the future at some point, and if so, information on the

	particular type of unit will be submitted to the Department.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None
RECOMMENDATION	No Further Action
COMMENTS	

WASTE MANAGEMENT AREA /AREA OF CONCERN
DATA SHEET

WASTE MANAGEMENT AREA/AREA OF CONCERN REFERENCE NUMBER	**SWMU-18**
NAME	Drum Crushing
TYPE OF UNIT	Treatment
DESCRIPTION OF WASTE MANAGED	Empty Drums and residues
PHYSICAL DESCRIPTION AND CONDITION	EQ uses a Drumbeaters of America crusher, model # DC5000-10. Additional details of the compactor are located in Attachment 16 of the Part B renewal dated July 22, 2010. The unit is located at the top of the ramp leading into Bay 3. The unit is used to crush drums and other various RCRA empty metal containers. Crushed drums are sent off site to a metal recycler. Rags are no longer being compacted. Crushed drums are sent off site to a metal recycler. The Drum Crushing units began operation in 1996 and is currently in use.
HISTORY AND/OR EVIDENCE OF RELEASE(s)	None
RECOMMENDATION	No Further Action
COMMENTS	

Photo of SWMU 18

SWMU-18 Drum Crushing. This photograph was taken facing west/northwest. Photo taken on January 11, 2011 by Stuart Stapleton.

7.0 Figure

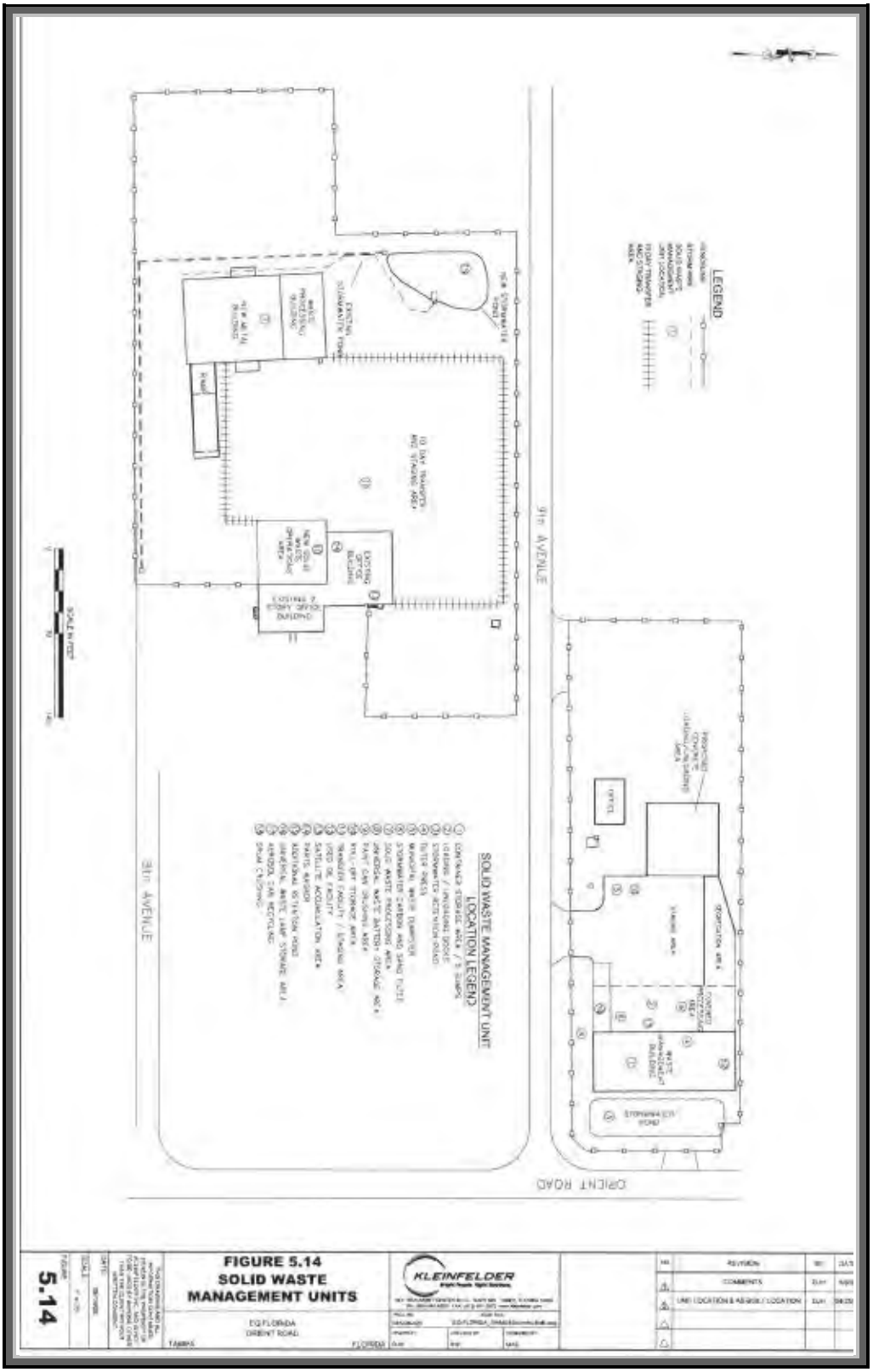
FIGURE 5.14
SOLID WASTE MANAGEMENT UNITS
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31st AVENUE
ORIENT ROAD
SCALE IN FEET

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Photo of SWMU-7

SWMU 7 – Waste Processing Building (WPB) - Hazardous Waste Treatment Tank. This photograph shows the hazardous waste treatment tank, facing southwest. Photo taken 2014.

Photo of SWMU-7

SWMU 7 – WPB – Non-Hazardous Waste Treatment Tank. This photograph shows the hazardous waste treatment tank, facing south. Photo taken 2014.

Photo of SWMU-7

SWMU 7 – WPB – Reactives Magazine. This photograph shows the reactives magazine facing west. Photo taken 2016.

Photo of SWMU-7

SWMU 7 – WPB – Container Storage Area. This photograph shows the location of the hazardous waste container storage area facing south. Photo taken 2016.

Photo of SWMU 12

SWMU 12 – Used Oil Facility. The Used Oil Facility is located in Bay 1 of the Container Storage Building (CSB). Used oil is also stored in the north (non-hazardous) side of the WPB. Photo taken 2016.

Photo of SWMU-19

SWMU 19 – Proposed location of the Oil-Water Separator. This photograph shows the proposed location of the Oil-Water Separator, facing south. The unit was never installed. Photo taken 2016.

Photo of SWMU-20a

SWMU 20a – Location of the Bulk Container Storage Area (BCSA). This photograph shows the BCSA facing north. Photo taken 2016.

Photo of SWMU-20b

SWMU 20b – Location of the BCSA. This photograph shows the location of the BCSA facing north. This area was consolidated with SWMU 20d and will no longer be present at the facility. Photo taken 2016.

Photo of SWMU-20c

SWMU 20c – Location of the BCSA. This photograph shows the location of the BCSA facing west. Photo taken 2016.

Photo of SWMU-20d

SWMU 20d updated to SWMU 20b – Location of the BCSA. This photograph shows the location of the BCSA facing west. This area was consolidated with SWMU 20b and renamed accordingly. SWMU 20d designation will no longer be present at the facility. Photo taken 2016.

Photos of SWMU-21

SWMU 21 – Location of the Consumer Products Consolidation Platform. These photographs show views of the consolidation platform and associated operations. Photos taken 2023.

Photo of SWMU-22

SWMU 22 – Location of the RUNI Screw Compactor and associated operations which are integral to the consumer products consolidation platform (SWMU-21). Photos taken 2023.

APPENDIX E

Solid Waste Regulatory Cross-Reference

Solid Waste Regulatory Cross-Reference

Requirement	FAC Reference 62-701.320	Document Section
Application content and format. Applications for permits to construct, operate, modify, or close a solid waste management facility shall include in the following sequence:	-(7)	
A letter of application transmittal;	-(7)(a)	Attached
A completed application form dated and signed by the applicant;	-(7)(b)	Attached
The permit fee specified in Rule 62-701.315, F.A.C., in check or money order, payable to the Department.	-(7)(c)	Attached
An engineering report addressing the requirements of this rule which shall:	-(7)(d)	
Contain a cover sheet stating the project title, location, applicant's name, and the engineer's name, address, signature, date of signature and seal	-(7)(d)1	Inside Cover
Have the text printed on 8 1/2 inch by 11 inch consecutively numbered pages;	-(7)(d)2	Narrative
Contain a table of contents or index describing the body of the report and the appendices;	-(7)(d)3	Contents
Include the body of the report and all appendices.	-(7)(d)4	
Appendices submitted as part of an engineering report to support a permit application shall contain, where required under applicable sections of this rule:	-(7)(e)	
An operation plan and closure plan appropriate for the type of facility;	-(7)(e)1	Appendix F & Appendix O
A contingency plan appropriate for the type of facility to cover operations interruptions and emergencies such as fires, explosions, or natural disasters;	-(7)(e)2	Appendix Q
Illustrative charts and graphs;	-(7)(e)3	Figures
Records or logs of tests, soil borings, hydrogeological information, geochemical surveys, and water quality analyses; and	-(7)(e)4	N/A
Engineering calculations, including literature citations.	-(7)(e)5	Appendix G
Plans or drawings for all solid waste management facilities shall:	-(7)(f)	
Use sheets 22 inches by 34 inches or 24 inches by 36 inches, and include title blocks;	-(7)(f)1	
Have a cover sheet that includes the project title, applicant's name, sheet index, legend of symbols, and the engineer's name, address, signature, date of signature and seal;	-(7)(f)2	Inside Cover
Include a regional map or plan showing the project location;	-(7)(f)3	Figure 1
Include a current vicinity map, or aerial photograph taken within one year preceding the application;	-(7)(f)4	Figures 2
Have a site plan containing the location of all property boundaries certified by a registered Florida land surveyor; and	-(7)(f)5	Figure 9
Clearly show all necessary details and be numbered, titled, and referenced to the narrative report. Drawings shall contain a north arrow and horizontal and vertical scales, and shall specify drafting or origination dates. All elevations shall be referenced to National Geodetic Vertical Datum.	-(7)(f)6	All Figures
Documentation that the applicant either owns the property or has legal authorization from the property owner to use the site for a solid waste management facility; and	-(7)(g)	Appendix A
For facilities owned or operated by a county, a description of the existing or proposed recycling facilities or activities, if any, at the site and a description of whether, and the extent to which, these recycling facilities or activities will contribute to the county's achievement of the waste reduction and recycling goals contained in Section 403.706, F.S.	-(7)(h)	N/A

Solid Waste Regulatory Cross-Reference

Requirement	FAC Reference 62-701.320	Document Section
For purposes of the evaluation required in subsection (3) of this section, a history and description of any enforcement actions described in subsection (3) of this section relating to solid waste management facilities in this state.	-(7)(i)	Section 11.1 & Appendix M
Airport Safety	-(13)	Section 12.2
Emergency Preparedness and Response	-(16)	
Every permitted solid waste management facility shall have, as part of its operation plan, a contingency plan appropriate for the type of facility to cover operational interruptions and emergencies such as fires, explosions, or natural disasters. The contingency plan shall be kept at the facility at all times and shall be accessible to facility operators. The contingency plan shall include:	-(16)(a)	Appendix Q
Designation of persons responsible for implementation of the contingency plan;	-(16)(a)1	Appendix Q
Procedures for notification of appropriate emergency response persons, including the department, the local government, and local fire protection agencies;	-(16)(a)2	Appendix Q
A description of emergency procedures to be followed, including the location of fire-fighting equipment and explanations of how to use this equipment;	-(16)(a)3	Appendix Q
Provisions for the immediate shutting down of those parts of the facility affected by the emergency and notification to customers of the closure of the facility; and	-(16)(a)4	Appendix Q
Procedures for notification of neighbors and local government officials of the potential impacts of the emergency, and provisions to minimize those impacts.	-(16)(a)5	Appendix Q
Requirement	**FAC Reference 62-701-300**	**Document Section**
Prohibitions	All	Section 11.2
Requirement	**FAC Reference 62-701.710**	**Document Section**
Application. A permit application for a waste processing facility shall be submitted on Form 62-701.900(4), Application to Construct, Operate, or Modify a Waste Processing Facility, effective date February 15, 2015. The form shall indicate whether the facility will operate as a materials recovery facility, transfer station, some other type of processing facility, or some combination thereof, and shall be signed and sealed by a professional engineer. Subsections 62-701.320(5), (6), and paragraph (8)(a), F.A.C., apply to such applications. The application must meet the requirements of subsection 62-701.320(7), F.A.C., except for paragraphs (e) and (h) and subparagraphs (7)(f)4. and 5., and must also include the following:	-(2)	Section 1.0
A description of the operation of the facility including: 1) The types of materials, i.e., wastes, recyclable materials or recovered materials, to be managed or processed; 2) The expected daily average and maximum weights or volumes of materials to be managed or processed; 3) How the materials will be managed or processed; 4) How the materials will flow through the facility including locations of the loading, unloading, sorting, processing and storage areas; 5) The types of equipment that will be used; 6) The maximum time materials will be stored at the facility; 7) The maximum amounts of wastes, recyclable materials, and recovered materials that will be stored at the facility at any one time; and 8) The expected disposition of materials after leaving the facility.	-(2)(a)1-8	Sections 4.0 through 6.0

Solid Waste Regulatory Cross-Reference

Requirement	FAC Reference 62-701.710	Document Section
A site plan, of a scale not greater than 200 feet to the inch, which shows the facility location, total acreage of the site, and any other relevant features such as water bodies or wetlands on or within 200 feet of the site and potable water wells on or within 500 feet of the site;	-(2)(b)	Figure 2
A boundary survey and legal description of the property;	-(2)(c)	Figure 9
A construction plan, including engineering calculations, that describes how the applicant will comply with the design requirements of subsection 62-701.710(3), F.A.C.;	-(2)(d)	Figure 18
An operation plan that describes how the applicant will comply with subsection 62-701.710(4), F.A.C., and the recordkeeping requirements of subsection 62-701.710(8), F.A.C.;	-(2)(e)	Section 5.4 & Appendix F
A closure plan that describes how the applicant will comply with subsection 62-701.710(6), F.A.C.;	-(2)(f)	Section 9.0 & Appendix O
A contingency plan that describes how the applicant will comply with subsection 62-701.320(16), F.A.C. and	-(2)(g)	Section 8.0 & Appendix Q
The financial assurance documentation required by subsection 62-701.710(7), F.A.C.	-(2)(h)	Section 10.0 & Appendix P
Design requirements. Minimum design requirements for waste processing facilities are as follows:	-(3)	
Tipping, processing, sorting, storage and compaction areas that are not enclosed shall be equipped with litter control devices.	-(3)(a)	Section 6.1
The facility shall be designed with a leachate control system to prevent discharge of leachate and avoid mixing of leachate with stormwater, and to minimize the presence of standing water.	-(3)(b)	Sections 6.2 & 7.0
Provisions shall be made for evaluating the quantity of all incoming solid waste and recovered materials. Storage areas shall be designed to hold the expected volume of materials until they are transferred for disposal or recycling.	-(3)(c)	Sections 5.2.2, 5.2.3 & 6.2
Operational Requirements	-(4)	
All operations shall be conducted in accordance with the approved Operation Plan. The Department shall be notified before any substantial changes or revisions to the approved Operation Plan are implemented in order to determine whether a permit modification is required.	-(4)(a)	Section 5.4 & Appendix F
Stored putrescible wastes shall not be allowed to remain unprocessed for more than 48 hours; however, if the operation plan includes provisions to control vectors and odors, putrescible wastes may be stored for up to seven days. Any other unauthorized waste received by the facility shall be segregated and transported to an authorized disposal or recycling facility within 30 days of receipt.	-(4)(b)	Appendix F
Operators and spotters shall be trained in accordance with Rule 62-701.320(15), F.A.C.	-(4)(c)	Appendix F
A trained operator shall be on duty whenever the facility is operating. Operating hours shall be posted at the facility.	-(4)(c)1	Appendix F
At least one trained spotter shall be on duty at all times that waste is received at the site to inspect the incoming waste. All incoming waste shall be inspected, and any unauthorized waste shall be removed from the waste stream and placed into appropriate containers for disposal at a permitted facility in accordance with a schedule submitted as part of the operation plan.	-(4)(c)2	Appendix F & Appendix J

Solid Waste Regulatory Cross-Reference

Requirement	FAC Reference 62-701.710	Document Section
The facility shall be operated to control objectionable odors in accordance with Rule 62-296.320(2), F.A.C.	-(4)(d)	Appendix F
Adequate fire protection shall be available at all times.	-(4)(e)	Appendix F & Appendix Q
Access to the facility shall be controlled during the design period of the facility by fencing or other effective barriers to prevent disposal of unauthorized solid waste.	-(4)(f)	Appendix F & Appendix Q
All drains and leachate conveyances shall be maintained so that leachate flow is not impeded.	-(4)(g)	Sections 6.2 & 7.0
If any regulated hazardous wastes are discovered to be improperly deposited at the facility, the facility operator shall promptly notify the Department, the person responsible for shipping the wastes to the facility, and the generator of the wastes, if known. The area where the wastes are deposited shall immediately be cordoned off from public access. If the generator or hauler cannot be identified, the facility operator shall assure the cleanup, transportation, and disposal of the waste at a permitted hazardous waste management facility.	-(4)(h)	Appendix F & Appendix J
If the facility has reached its permitted capacity for storage of wastes or recyclable materials, the permittee shall not accept additional waste for processing until sufficient capacity has been restored.	-(4)(i)	Section 6.2 & Appendix F
Certification. Certification of construction completion shall be done in accordance with paragraph 62-701.320(9)(b), F.A.C. Record drawings of relevant construction details shall be submitted along with the certification.	-(5)	Provided Upon Construction Completion
Closure Requirements	-(6)	
The owner or operator shall notify the Department in writing prior to ceasing operations, and shall specify a closing date. No waste shall be received by the facility after the closing date.	-(6)(a)	Section 9.0 & Appendix O
Within 30 days after receiving the final solid waste shipment, the owner or operator shall remove or otherwise dispose of all solid waste or residue in accordance with the approved closure plan. Stored putrescible wastes shall continue to be managed in accordance with paragraph 62-701.710(4)(b), F.A.C.	-(6)(b)	Section 9.0 & Appendix O
Closure must be completed within 180 days after receiving the final solid waste shipment. Closure will include removal of all recovered materials from the site, as well as performing any contamination evaluation required by subparagraph 62-701.710(1)(d)2., F.A.C. The owner or operator shall certify in writing to the Department when closure is complete.	-(6)(c)	Section 9.0 & Appendix O

Solid Waste Regulatory Cross-Reference

Requirement	FAC Reference 62-701.710	Document Section
Financial Assurance	-(7)	
The owner or operator of a waste processing facility shall provide the Department with proof of financial assurance issued in favor of the State of Florida in the amount of the closing cost estimates for the facility. The closing cost estimates shall be submitted to the Department as part of the permit application for the facility. Proof of financial assurance shall be submitted at least 60 days prior to the initial receipt of waste at the facility. Proof of financial assurance shall consist of one or more of the following financial instruments which comply with the requirements of subsection 62-701.630(6), F.A.C.: trust fund; surety bond guaranteeing payment; surety bond guaranteeing performance; irrevocable letter of credit; insurance; and financial test and corporate guarantee. If the owner or operator of the facility is a local government, an escrow account which complies with the requirements of subsection 62-701.630(5), F.A.C., may be used to provide proof of financial assurance. Financial documents shall be submitted on Form 62-701.900(5)(a), (b), (c), (d), (e), (f), (g), or (h), as appropriate.	-(7)(a)	Section 10.0, Appendix O & Appendix P
Closure cost estimates and annual updates thereof shall comply with the provisions of subsections 62-701.630(3) and (4), F.A.C., except that long-term care costs need not be included, and the costs shall be based upon compliance with this section.	-(7)(b)	Appendix O & Appendix P
If a local government requires financial assurance for closure, which is at least as stringent as that required by this rule, the Department will attempt to establish a cooperative mechanism with the local government and thereby avoid duplicative financial requirements.	-(7)(c)	NA
Recordkeeping	-(8)	
Operational records shall be maintained to include a daily log of the quantity of solid waste received, processed, stored, and removed from the site for recycling or disposal, and the county of origin of the waste, if known. These records shall include each type of solid waste, recovered materials, residuals, and unacceptable waste which is processed, recycled, and disposed. Such records shall be compiled on a monthly basis and shall be available for inspection by the Department. Records shall be retained at the facility for three years.	-(8)(a)	Section 5.4
The owner or operator of any facility which recycles construction and demolition debris shall submit an annual report to the Department on Form 62-701.900(7), Annual Report for a Construction and Demolition Debris Facility, effective date January 6, 2010. This report shall include a summary of the amounts and types of wastes disposed of or recycled. The county of origin of materials which are recycled, or a statement that the county of origin is unknown, shall be included in the report. The report shall be submitted no later than February 1 of each year, and shall cover the preceding calendar year.	-(8)(b)	Section 5.4

APPENDIX F

Solid Waste Operation Plan

US ECOLOGY TAMPA, INC.
SOLID WASTE PROCESSING FACILITY
OPERATION PLAN

This Operation Plan has been prepared for the US Ecology Tampa, Inc. (USET) facility located in Tampa, Florida as required by 62-701.710, F.A.C. It includes information on facility operations, staff responsibilities, standard operating procedures, startup and shut down procedures, inspections, training, safety, and fire and security control methods.

Operations Summary

Solid waste management operations conducted at the USET facility include processing, staging, storage and management of non-RCRA regulated solid wastes. Processing includes segregation, decanting, filtration, transfer, or solidification. No onsite disposal will occur. All wastes managed will be sent offsite to other permitted facilities for ultimate disposal or recycling.

Wastes will be received and stored in closed containers such as the manufacturer's original container, 5-gallon pails with lids, 55-gallon drums, one-ton bags and boxes, tote tanks, dump trailers, roll-off boxes, or tankers. Wastes may be separated or consolidated. The primary goal of all onsite processing is to configure wastes for efficient off-site shipment and/or disposal. Recyclable materials such as scrap metals, used oils, and lead-acid batteries will be separated, segregated and/or consolidated for shipment to an offsite recycling facility.

Hours of Operation

Normal facility operations occur between 6:00 a.m. and 11:00 p.m. The facility may operate up to three shifts (24 hours) daily (including Saturday and Sunday) if it is necessary to process the waste within desired periods. Operations occurring during non-daylight hours will only take place where sufficient electrical lighting is provided. Operating hours are posted at the facility.

Staffing

The USET Operations Manager reports to the Regional Manager who is located offsite. The Operations Manager has authority for USET facility operations. Operations, Transportation, Field, and Lab Supervisors report to the USET Operations Manager and direct and manage all operations (hazardous and non-hazardous) at the USET facility. The USET Compliance Manager directs and manages all environmental, health and safety compliance, regulatory, and permitting activities. USET also employs operators, technicians, chemists, and coordinators at the facility.

Operating Procedures

Operations conducted at the USET facility consist of shipping and receiving wastes, moving wastes, transferring wastes, storing containers of waste, and processing waste. Equipment used to perform these activities includes transportation vehicles and equipment (trucks, tankers, etc.), storage containers (drums, totes, roll-offs, etc.), material handling equipment (forklifts, backhoes/loaders, pumps, etc.), and processing equipment (filters and solidification units).

Site-specific Standard Operating Procedures (SOPs) have not been prepared for the transportation vehicles and equipment, storage containers, or material handling equipment as these are industry standard equipment that will be used and operated in accordance with generally accepted practices, and where applicable, manufacture's recommendations and appropriate regulatory standards.

SOPs have been prepared for the solidification unit at the facility as these items are more unique to this facility. The current versions of these SOPs and the daily facility inspection log are attached at the end of this Operation Plan.

Procedures for Start-up Operations, and Scheduled and Unscheduled Shutdown of Operations

All operations and processing at the USET facility are conducted on a batch basis. There are no continuous operations utilized for solid waste management. All operations and processes require a startup and shutdown.

Waste receiving, storage, and shipping require no special startup or shutdown procedures. Solid waste processing activities consisting of segregating, decanting, and filtering involve no specific startup or shutdown procedures. Specific startup and shutdown procedures have been established for waste processing activities consisting of solidification and are contained in the SOP that is attached at the end of this Operation Plan.

Inspections

Each waste shipment, upon arrival at the facility, will be inspected, sampled, and analyzed as set forth in the Waste Analysis Plan (WAP) provided in **Appendix J** in **Volume 3 of 3**. USET personnel must classify the waste as being "off-specification" if it is significantly different in waste type from the information shown in the waste profile, the pre-acceptance evaluation, or on the manifest. Wastes found to be in non-conformance may be rejected. They may be re-evaluated for possible acceptance by the facility despite the non-conformance or they may be shipped to an alternate off-site facility if the proper treatment method is available at that location.

Training

All USET operations personnel involved in any waste handling, transportation, emergency response, storage or treatment operations will successfully complete a program of training that teaches them to perform their duties in a safe manner that ensures facility compliance with the requirements of 40 CFR Part 264.16.

A trained Operator will be on duty whenever the facility is operating. The term “Operator” means a person who is in charge of the actual operation, supervision, and maintenance of the facility and includes the on-site person in charge of a shift or period of operation during any part of the day. All USET personnel that fulfill the duties of an Operator will be trained in accordance with Rule 62-701.320(15)(b)2., F.A.C., in that they will complete 16 hours of initial training and pass an examination as part of that training. Within three years after passing the examination, and every three years thereafter, Operators will complete an additional 8 hours of continued training.

Training documentation will be kept at the facility and made available for inspection by Department staff upon request.

Access Control, Security, and Public Safety

A seven-foot-high security fence surrounds the entire USET facility. The fence includes six foot of chain link fabric and a one-foot barbed wire parapet. Entry is controlled at all times through closed lockable gates. The entry control gates consist of lockable pedestrian gates and automatic and lockable vehicle gates. The vehicle gates may remain open for no longer than one (1) hour during normal operations in which trailers will be changed out. Warning signs with the legend "Danger - Unauthorized Personnel Keep Out” are posted on the fence surrounding the facility. The legend is written in English and Spanish and is legible from a distance of at least 25 feet.

The Container Storage Building (CSB) is monitored by an automatic fire alarm system for fire. The fire alarm automatically notifies the City of Tampa Fire Department upon activation. **Figure 14** show details of the security measures present at the USET facility.

Fire Control Methods

USET also operates a permitted hazardous waste facility at the site. Significant care and precautions have been taken to prevent fires and chemical reactions at the facility. The CSB has automatic fire sprinkler systems. Ignitable and reactive hazardous wastes are stored in a separate enclosed area in Bay 2 of the CSB. This ignitable/reactive bay has smoke, flame, and lower explosive limit monitors for detection of fires and reactions. All fixtures in this bay are intrinsically safe (explosion proof). Halon (or equivalent) extinguishers are in Bay 2 as well as an automatic foam fire suppression system and an alarm system to the Tampa Fire Department. Additionally, there are two fire extinguishers and two fire hoses each in Bays 1 and 3. These bays also have fire alarm systems to the Tampa Fire Department. The Improved Secondary Containment Area (ISCA) is protected by an automatic fire sprinkler system and portable fire extinguishers. In addition, the fire hoses in Bays 1 and 3 of the CSB reach into the ISCA for water suppression, if needed. A fire department connection is also available on the northeast corner of the facility property and a fire hydrant is located across the street on the south side of Ninth Avenue. Further, the Tampa Fire Department and Hazmat teams (as well as several other agencies) have copies of the USET Contingency Plan and are periodically invited for familiarity tours of the facility. Facility operations personnel receive basic fire training.

The Waste Processing Building (WPB) is equipped with portable fire extinguishers and fire sand. It also has a small water line to extinguish small fires that may take place. Hazardous waste treatment activities completed in the WPB include the decharacterization and solidification of characteristic wastes, specifically waste codes D002 (corrosive wastes) and D004 thru D011 (inorganic wastes), and listed waste K062 (spent pickle liquor). The waste treated is brought to the WPB on an on-demand basis and is stored on the floor here as each specific batch is being treated. As such, there is minimal risk of fire related to the on-ground hazardous waste treatment tank.

Care and precautions have also been taken for the non-RCRA regulated waste facility operations. The USET non-RCRA regulated solid waste management facility will manage waste with only a low potential of ignitability. The most combustible material routinely managed, as non-RCRA regulated waste is used oil for recycling. The flash point of used oil is above 140°F, the level above which is considered ignitable.

Fire prevention controls begin before any waste is received. Waste is profiled and approved prior to receipt. Waste streams are inspected, sampled and quality control screened upon receipt per the USET WAP prior to acceptance. This will ensure potentially combustible wastes are properly identified and managed.

In the event of a fire at the facility, no waste will be accepted or managed until the fire emergency is terminated. Depending on the extent of the fire damage to the facility, waste receipt may be suspended, and waste will be redirected to other facilities.

Waste and waste residue generated due to a fire in the facility will be inspected and profiled according to the type of wastes known to be stored in the area prior to the fire. This will determine if the waste should be managed as hazardous or non-hazardous waste. If the fire-generated waste has been determined to be non-hazardous, the waste can be loaded onto tractor-trailers or roll-offs for transportation to a permitted offsite disposal facility. If the fire-generated waste has been determined to be hazardous, it will be packaged

and transported to a permitted hazardous waste treatment and/or disposal facility in accordance with RCRA regulations and the USET hazardous waste permit.

US ECOLOGY TAMPA, INC.
SOLID WASTE PROCESSING FACILITY
OPERATION PLAN

SUPPORTING DOCUMENTATION

&

OPERATING PROCEDURES

US Ecology Tampa, Inc. Daily Inspection Log
Container Storage Building (CSB)

Date: _____ Inspector: _____

Time: _____ Approved By: _____

		SATISFACTORY	UNSATISFACTORY
1.	Containers		
1.1	Condition, Closure, Compatibility & Leaks		
1.2	Proper Labeling		
1.3	Over 1 Year Accumulation Start Date		
1.4	Proper Storage Location		
1.5	Aisle Space, Exits & Housekeeping		
2.	Safety Equipment		
2.1	Fire Extinguishers		
2.2	Telephone & Air Horns		
2.3	Safety Showers & Eye Washes		
2.4	Acid, Caustic, Solvent & Mercury Spill Kits		
2.5	Emergency Exits		
2.6	Safety Supply Lockers		
2.7	Fire Suppression System, LEL Meter & Sensors		
2.8	Signage		
3.	Vehicle Unloading Area & Improved Secondary Containment Area (ISCA)		
3.1	Structural Integrity (cracks, damage, etc.)		
3.2	Leaks, Spills & Standing Water		
3.3	Trench Sumps (cracks, leaks, etc.)		
4.	Consumer Products Consolidation Platform		
4.1	Structural Integrity (cracks, damage, etc.)		
4.2	Leaks, Spills & Standing Water		
4.3	Trench Sumps (cracks, leaks, etc.)		
5.	Stormwater System		
5.1	Trenches		
5.2	Sump & Filter System		
5.3	Lock Out Box Installed		
5.4	Retention Pond		
5.5	Outfall No. #1		

Waste Inventory		Total
Bay 1	Class 9	0
Bay 1	Acids	0
Bay 2	Flam Liquids	0
Bay 2	Flam Solids	0
Bay 2	Reactives	0
Bay 2	Aerosols	0
RM-WPB	Reactives	0
ISC	Flam Liquids	0
ISC	Aerosols	0
ISC	Flam Solids	0
Bay 3	Oxidizers	0
Bay 3	Alkalines	0
Bay 3	Poisons	0
Bay 3	Non-Regs	0
CPCP	Various	0
Outbound Staging		0
Inbound Bulk Staging		0
Inbound Staging		0
10-Day Transfer Facility		0
TOTAL HAZARDOUS WASTE IN STORAGE		
0		**GALLONS**

6. Additional Comments & Information: _____

7. Remedial actions necessary for unsatisfactory items: _____

8. Remedial actions corrected and completed on: _____
Date

_____ _____
Print Name Signature

The electronic version of this document is the controlled version. Each user is responsible for ensuring that any document being used is the current version.

US Ecology Tampa, Inc. Daily Inspection Log
Bulk Container Storage Area (BCSA)
Waste Processing Building (WPB)
10-Day Transfer AND Inbound/Outbound (I/O)Staging

Date: _____ Inspector: _____
Time: _____ Approved By: _____

			SATISFACTORY	UNSATISFACTORY
1.	Stormwater System			
	1.1	Building Drains and Piping		
	1.2	Retention Ponds & Overflows		
	1.3	Inlet Pipe		
	1.4	Outlet Pipe, Housing & Snorkel		
	1.5	Outfall No. 2		
2.	10-Day Transfer AND Inbound/Outbound (I/O) Staging			
	2.1	No Leaks		
	2.2	Secondary Containment Integrity		
	2.3	Placarding & Identification Tags		
	2.4	Lot Integrity (cracks, gaps, etc.)		
3.	Bulk Container Storage Areas (BCSAs)			
	3.1	No Leaks		
	3.2	Bulk Container Integrity (tarps, bows, etc.)		
	3.3	Placarding & Identification Tags		
	3.4	Lot Integrity (cracks, gaps, etc.)		
4.	Container Storage (WPB)			
	4.1	No Leaks		
	4.2	Condition & Closure		
	4.3	Proper Labeling		
	4.4	Aisle Space (2 ft. min.) & Housekeeping		
	4.5	Proper Storage Location (compatibility, etc.)		
	4.6	Over 1 Year Accumulation Start Date		
5.	Waste Processing Building (WPB) Containment			
	5.1	Berm Structural Integrity (cracks, leaks, etc.)		
	5.2	Leaks, Spills & Standing Water		
6.	Hazardous Waste Treatment Tank			
	6.1	Structural Integrity (cracks, leaks, etc.)		
	6.2	Interstitial Inspection Ports		
7.	Hazardous Waste Treatment Tank Ramp			
	7.1	Structural Integrity (cracks, damage, etc.)		
	7.2	Leaks, Spills, Standing Water		
	7.3	Trench Sumps		
8.	Non-Hazardous Waste Solidification Tank			
	8.1	Structural Integrity (cracks, leaks, etc.)		
9.	Non-Hazardous Waste Solidification Tank Ramp			
	9.1	Structural Integrity (cracks, damage, etc.)		
	9.2	Leaks, Spills, Standing Water		
	9.3	Trench Sumps		

US Ecology Tampa, Inc. Daily Inspection Log
Bulk Container Storage Area (BCSA)
Waste Processing Building (WPB)
10-Day Transfer AND Inbound/Outbound (I/O)Staging

Date: _____ Inspector: _____
Time: _____ Approved By: _____

10. Safety Equipment

10.1	Fire Extinguishers		
10.2	Air Horns		
10.3	Safety Shower & Eye Wash		
10.4	Spill Kit		
10.5	Shredder Fire Suppression System		
10.6	Signage		

11. Reactives Magazine

11.1	Structural Integrity (cracks, damage, etc.)		
11.2	Locked		

12. Additional Comments & Information: _____

13. Remedial actions necessary for unsatisfactory items: _____

14. Remedial actions corrected and completed on:

Date	Print Name	Signature

WPB Inventory	Gallons
Hazardous Waste - Acids	0
Hazardous Waste - Alkalines	0
Hazardous Waste - Class 9	0
Non-Hazardous Solid Waste	0
Total Hazardous Waste =	**0**
Total Non-Hazardous Solid Waste =	**0**
Total WPB Inventory =	**0**

BCS Inventory	Cubic Yards
Hazardous Waste	0
Non-Hazardous Waste	0
Total BCS Inventory =	**0**

Standard Operating Procedure (FL)

Document Number:	OPS-OP-031-FLA	Issue Date:	12/3/07
Approving Authority:	Stuart Stapleton	Revision Date:	8/22/23
Job Title:	EHS Manager	Department:	OPS
		Review Date:	

TITLE: Solidification

PURPOSE: To safely and efficiently consolidate incoming material into the solidification unit for final disposal.

SCOPE: This procedure applies to Republic Services offices and jobsites.

RESPONSIBILITIES:

Operations Manager:
The Operations Manager is responsible for ensuring the success of this procedure and for all operations under his control.

The Operations Manager or his/her designee shall monitor the employees periodically to ensure they provide their employees with sufficient training and equipment to allow them to both understand and comply with this procedure.

EHS Manager:
The EHS Manager is responsible for providing technical information and ensuring a safe and healthy working environment.

Employees:
Employees are responsible for compliance with the requirements of this procedure.

DEFINITIONS:

PROCEDURE:

1. General

1.1. The following hazardous waste codes are permitted for non-hazardous waste solidification area:

1.1.1. **None**

1.2. The following treatment groups are permitted for non-hazardous waste solidification area:

1.2.1. **1026** ASolid-Bulk-Sub D

1.2.2. **1145** KNon Haz-Dpack-Sub D

1.2.3. **1203** NAsbest-Transhipp-Sub D

1.2.4. **1209** NIsocyan-Solidify-Sub D

1.2.5. **1218** NLiq-Solidify-Sub D

1.2.6. **1230** NRCRA MT-Solidify-Sub D

1.2.7. **1246** NSol-Tranship-WTE

1.2.8. **1446** NSol-Solidify-Sub D

1.2.9. **1480** KNon Haz-Solidify-Sub D

1.2.10. **1906** KAcid Sol-Solidify-Sub D

1.2.11. **1907** KBase Sol-Solidify-Sub D

1.2.12. **1924** NAcid Sol-Solidify-Sub D

1.2.13. **1925** NBase Sol-Solidify-Sub D

1.2.14. **1962** NLiq-Solidify-Sub D

1.2.15. **1963** NSol-Solidify-Sub D

1.2.16. **1997** RScrap-Transship-SCP

1.2.17. **2157** NLiqCont-Solidify-Sub D

1.3. The Personal Protective Equipment Program (EHS-PR-019-COR) and the Respiratory Protection Program (EHS-PR-029-COR) must be adhered to for all solidification operations. At a minimum the following levels are required for the following solidification operations:

1.3.1. Sampling – Level D

1.3.2. Processing Containers – Level D

1.3.3. Solidification – Level D

1.3.4. Off-loading bulk containers into solidification tank – Level D

1.3.5. Loading bulk containers after solidification – Level D

1.3.6. Housekeeping - Level D

1.3.7. Off-loading container trailers – Level D

1.3.8. Daily Inspection – Level D

1.4. The waste processing area and solidification tank must be inspected daily using the Waste Processing Building Inspection Log (OPS-FM-017-FLA).

2. Container Selection and Preparation

2.1. Candidate containers of non-hazardous waste potentially amenable for solidification in the non-hazardous waste solidification tank are selected from the current inventory and reviewed by the Operations Manager or designee prior to compatibility and bench testing in the on-site lab.

2.2. Collect a representative sample from each of the selected candidate containers and forward them to the lab for compatibility and bench testing.

2.2.1. Liquids – 100% of each wastestream's containers; and

2.2.2. Solids – 100% of each wastestream's containers unless otherwise specified by the Operations Manager or designee.

2.3. Complete the Solidification Container Log (OPS-FM-099-FLA) for each selected container. The Solidification Container Log includes the following information:

2.3.1. Shipping Name;

2.3.2. Trailer Number;

2.3.3. Start Date;

2.3.4. Stock or Receipt Number;

2.3.5. Approval Number;

2.3.6. Weight;

2.3.7. Size;

2.3.8. Treatment Group; and

2.3.9. Technician Initials.

2.4. Using an approved scanner, scan each container's barcode and enter the container's data into a newly created staging row in EQAI.

2.4.1. The Batch Tracking ID # shall be used when naming newly created staging rows.

2.4.2. Count the containers and verify that the count matches all containers identified on the treatment log and the new staging row.

2.5. Additional requirements for Treatment Trailers Coming from the Container Storage Building

2.5.1. Load the containers onto the designated trailer for transportation to the Waste Processing Building.

2.5.2. Count the containers on the trailer and verify that the count matches all of the containers identified on the Solidification Container Log(s) and the new staging row.

2.5.3. Attach the Solidification Trailer ID Tag (OPS-FM-118-FLA) on the front of the trailer indicating the following:

2.5.3.1. Trailer #; and

2.5.3.2. Start Date.

2.5.4. The Operations Manager, or designee, must review and approve the Solidification Container Log(s) prior to releasing the trailer for transportation to the Waste Processing Building.

2.5.5. When the Operations Manager or designee releases the Solidification Trailer, complete the Solidification Trailer ID Tag with the following:

2.5.5.1. Container Count; and

2.5.5.2. Total Gallons

3. Staging and Verification

3.1. After the Operations Manager, or designee, has released the trailer, move the trailer to the Waste Processing Building.

3.2. Off-load the trailer and stage the containers in the Waste Processing Building.

3.2.1. Once the containers have been staged.

3.2.2. Verify the count of the containers unloaded into the storage are in the Waste Processing Building.

3.3. The Waste Processing Building Lead Coordinator or designee creates a batch in EQAI.

3.3.1. A Chemical Process Operator, shall scan each container's barcode and enter the container's data into the newly created batch in EQAI.

3.3.1.1. EQAI will give an error message for any treatment groups and/or waste codes that are not permitted to be processed.

3.3.1.2. Containers that trigger an error are isolated and sent back to the Container Storage Building for review.

3.3.2. The Waste Processing Building Lead Coordinator, or designee, shall print a copy of the EQAI Batch Detail Report once the data has been entered.

3.3.3. Count the off-loaded containers and verify that the count matches the containers identified on the Solidification Container Log(s) and the printed EQAI Batch Detail Report.

3.4. The Waste Processing Lead Coordinator, or designee, must review the following documents prior to approving the batch containers for solidification:

3.4.1. Solidification Container Log(s); and

3.4.2. The EQAI Batch Detail Report.

3.5. Once the batch has been approved for solidification, the Waste Processing Lead Coordinator, or designee, must sign the Solidification Container Log(s) acknowledging their review.

4. Bench Testing

4.1. The bench testing determines waste compatibility. During this process a Solidification Testing Log (LAB-FM-055-FLA) is completed to track Temperature and description of the reaction, if any.

4.2. The bench testing results shall be distributed by the QA/QC Chemist or designee to the Operations Manager, EHS Manager, and Waste Processing Lead Coordinator for review.

4.3. Based on the bench test results the batch will be cleared for solidification.

4.4. The approved Solidification Container Log(s) is forwarded to the Waste Processing Building Lead Coordinator or designee for processing.

5. Processing

5.1. If the Red Flashing Light is on prior to the start of processing, the use of proper PPE in the Waste Processing Building, which will include Level C in accordance with PPE Program.

5.2. Begin the solidification process. Starting with solids, thick sludges, and liquids, mix the material using the excavator adding solidification agent with the front-end loader.

5.2.1.1. In order to reduce safety risks, liquids and sludges in container that are difficult to pour off with the use of a forklift will be pumped into solidification tank using an air powered 2-inch double diaphragm pump as indicated in the Diaphragm Pump Operation Work Instruction (OPS-WI-027-FLA)

5.2.1.2. The solidification tank should not be filled greater than approximately 40 yards of waste and solidification agent, as to prevent overflow or spillage when mixing.

5.2.1.3. Empty containers will be crushed to at least 75% of their original volume capacity as to comply with landfill regulations to ensure that no liquids remain.

5.2.2. Fugitive particulate air emissions while handling dusty materials may be controlled using the following methods;

5.2.2.1. Water can be added to the mixing container prior to materials being introduced, water can be added to the containers prior to introduction to the mixing container, or a fine spray mist over the non-hazardous solidification tank when charging the batch. Dusty wastes should be introduced and mixed in a manner that helps reduce the amount of dust emission. During high winds of 12 mph sustained or 25 mph gusts, where particulate matter is not feasible to control, processing should cease for 30 minute intervals.

5.3. The solidification process is complete when, the material has been mixed thoroughly, and all free liquids have been removed.

5.3.1. The solidified waste is removed from the solidification tank and placed into roll-off boxes and / or dump trailers.

5.3.2. Roll-off boxes and / or dump trailers must be lined prior to loading the solidified waste into them.

5.3.3. Roll-off boxes and / or dump trailers must be properly tarped prior to exiting the Waste Processing Building and being placed in storage in the Solid Waste Operations Area.

6. Non-Hazardous Transship Process

6.1. Non-Hazardous waste containers that are not solidified, such as used oil, oily water, food grade (putrescible) materials, etc., will be managed in the same manner under Section 2 of this SOP.

6.2. Form used in Section 2.3 will be replaced with Transship Container Log (OPS-FM-113-FLA).

6.3. Form used in Section 2.5.3 & 2.5.5 will be replaced with Transship Trailer ID Tag (OPS-FM-120-FLA)

6.4. The following hazardous waste codes are permitted for non-hazardous waste transship:

6.4.1. **None**

6.5. The following treatment groups are permitted for non-hazardous waste transship:

6.5.1. **1223** NLiq-Tranship-TSD

6.5.2. **1229** ROilFilt-Consolidat-RCY

6.5.3. **1237** RRPP-Tranship-RCY

6.5.4. **1298** RGlycol-Tranship-GLY

6.5.5. **1308** RUsed Oil-Bulk-OMK

6.5.6. **1309** RUsed Oil-Consolidat-OMK

6.5.7. **1312** RUsed Oil-Transfer-OMK

6.5.8. **1314** RUsed Oil-Tranship-OMK

6.5.9. **1699** RUsed Oil-Consolidat-TSD

6.5.10. **1712** NL COD-Tranship-WWT

6.5.11. **1909** RGlycol-Tranship -RCY

7. Record Retention

7.1. All records associated with this SOP shall be collected, scanned into EQAI, and / or filed in the Waste Processing Lead Coordinator's office and made available for review upon request.

- **DEFINITIONS:**

  Solidification Agents: Sawdust is the only approved solidification agent.

REFERENCES:

ASSOCIATED DOCUMENTS:

OPS-FM-017-FLA Waste Processing Building Inspection Log

OPS-OP-029-FLA Roll-off Sampling

OPS-FM-099-FLA Solidification Container Log

OPS-FM-113-FLA Transship Container Log

OPS-FM-118-FLA Solidification Trailer ID Tag

OPS-FM-120-FLA Transship Trailer ID Tag

OPS-WI-027-FLA Diaphragm Pump Operation Work Instruction

LAB-FM-055-FLA Solidification Testing Log

EHS-PR-019-COR Personal Protective Equipment Program

EHS-PR-029-COR Respiratory Protection Program

RECORDS: The cited records are retained in a manner that supports the requirements of the various local, State, and federal regulatory agencies to which Republic Services adheres.

History of SOP Revisions:

Date	Approver	Change	Training required	
			Yes	No
11/15/16	SW	Change Author Approving Authority Updated Revision Date. Added - History of Revisions table.		X
3/7/23	KSD	Logo and Language		X
3/7/23	KSD	Added treatment groups allowable		X
8/22/23	KSD	Removed shredder language. Added language to section 2.5. Updated formatting.	X	

APPENDIX G

Waste Storage & Containment Calculations

WASTE STORAGE AND CONTAINMENT CALCULATIONS

FACILITY STRUCTURE/ AREA [1]	CONTAINMENT					STORAGE	STAGING	STORE/STAGE	ACTIVITIES							
	Length (Ft.)	Width (Ft.)	Depth (Ft.)	Total Containment (Cu. Ft.)	Total Containment (Gal.)	Total Storage (Gal)	Total Staging (Gal)	Largest Single Container	Receiving	Unloading	Loading	Storage	Staging	Transfer	Processing	Segregation
	A	B	C	D=AxBxC	E=Dx7.4805											
CONTAINER STORAGE BUILDING (CSB)								Tank 500-gal	X	X	X	X		X	X	X
CSB Sump #1	8.5	3.5	4.5	133.9	1001.5											
CSB Sump #2	8.5	3.5	4.5	133.9	1001.5											
CSB Sump #3	8.5	3.5	4.5	133.9	1001.5											
CSB Sump #4	8.5	3.5	4.5	133.9	1001.5											
CSB Sump #5	8.5	3.5	4.5	133.9	1001.5											
Container Storage Building Total [2]	-	-	-	669.4	**5,007.3**	**50,000**										
IMPROVED SECONDARY CONTAINMENT AREA (ISCA)								25-CY Roll Off Box 5050-gal	X	X	X	X		X	X	X
Area A-West of Trench (pool does not extend to canopy) (sloped area) (total depth 0.25 ft)	20	20	0.125	50.0	374.0											
Area A-East of Trench (total depth 0.25 ft)	20	20	0.25	100.0	748.1											
Area B-West of Trench (pool does not extend beyond canopy) (sloped area) (total depth 0.79 ft)	26	38.4	0.395	394.4	2950.1											
Area B-East of Trench (total depth 0.79 ft)	20	38.4	0.79	606.7	4538.6											
Area C-West of Trench (pool extends 15 ft beyond canopy) (sloped area) (total depth 0.79 ft)	41	45	0.395	728.8	5451.6											
Area C-East of Trench (total depth 0.79 ft)	20	45	0.79	711.0	5318.6											
Trench	64.8	1.6	0.4	41.5	310.2											
6 Inch Pipe	38.4	π x 0.25^2		7.5	56.4											
Sump	8	4.3	5.1	175.4	1312.4											
Improved Secondary Containment Area Total [2][3]	-	-	-	-	**21,060.0**	**50,000**										
CONSUMER PRODUCTS CONSOLIDATION PLATFORM (CPCP)								275-gal Tote	X	X	X	X		X	X	X
No specific structural containment. Leachate production prevented by operational practices.																
Consumer Product Consolidation Platform Total [2]	-	-	-	0.0	0.0	**2,000**										
10-DAY TRANSFER AREA								25-CY Roll Off Box 5050-gal	X			X				
No specific structural containment. Leachate production prevented by operational practices.																
10-Day Transfer Area Total [4]	-	-	-	0.0	0.0	**20,000**										
INBOUND/OUTBOUND (I/O) STAGING AREA								25-CY Roll Off Box 5050-gal					X			
No specific structural containment. Leachate production prevented by operational practices.																
Inbound/Outbound Staging Area Total [2][5]	-	-	-	0.0	0.0		**20,000**									
WASTE PROCESSING BUILDING (WPB) - Includes original building & 2010 expansion								Haz Treatment Tank 14,063-gal	X	X	X	X		X	X	X
Area Storage: 30x25 CY Roll-Off Boxes @ 5050 gallons/Roll-Off Box						151,500										
180x55 Gallon Haz Waste Drums (90 x 55 Double-Stacked) [6]						9,900										
Non-Haz Solidification Unit ((21 x 21 x 3) x 7.4805)						9,897										
Haz Waste Treatment Tank ((20 x 20 x 4.7) x 7.4805)						14,063										
Subtracting Reagent Storage Roll-off ((23.5 x 8 x 4.5) x 7.4805) [7]						0										
2,450 Sq. Ft. Original Waste Processing Building [8]	31.66667	68.3333	0.58333	1262.3	9442.4											
5,600 Sq. Ft. Building Expansion [9]	78.66667	69.3333	0.58333	3181.6	23800.2											
Sump in original building	4.5	1	1.58333	7.1	53.3											
Sump in building expansion area	4	1	1.5	6.0	44.9											
New proposed sump in buildng expansion area	7	0.91667	1.16667	7.5	56.0											
Subtracting the Non-Hazardous Solidification Unit Footprint	21	21	0.58333	257.3	1924.4											
Subtracting the Hazardous Treatment Tank Footprint	20	20	0.58333	233.3	1745.5											
Subtracting the Reagent Storage Roll-off Footprint [7]	23.5	8	0.58333	0.0	0.0											
Subtracting the Shredder Footprint [10]	3	9.5	0.58333	0.0	0.0											
Subtracting the Shredder Motor Controller Footprint [10]	2.16	2.66	0.58333	0.0	0.0											
Subtracting the Elevated Dock Area Footprint	8	20	0.58333	93.3	698.2											
Waste Processing Building Total				3,880.6	**29,028.8**	**185,360**										
SOLID WASTE OPERATIONS AREA								25-CY Roll Off Box 5050-gal				X	X	X		
No specific structural containment. Only solidified wastes are stored in this area. Area is covered to prevent stormwater contact.																
Solid Waste Operations Area Total				0.0	0.0		**20,200**									
BULK CONTAINER STORAGE AREAS (BCSA) (Three Total)								20-CY Roll Off Box 4040-gal				X	X	X		
No specific structural containment. Only solidified wastes are stored in this area. Roll off boxes are kept covered to prevent stormwater contact.																
Bulk Container Storage Areas Total				0.0	0.0	**161,600**										
MAXIMUM VOLUME OF WASTE *STORAGE* ON-SITE AT ANY ONE TIME						**457,160**										
MAXIMUM VOLUME OF WASTE *STORAGE* requiring structural 2y Containment						**235,360**										
VOLUME OF STRUCTURAL 2y CONTAINMENT REQUIRED			10%			**23,536**										
VOLUME OF STRUCTURAL 2y CONTAINMENT PROVIDED (not counting BMPs, Pop-ups, etc.)						**55,096**										
STRUCTURAL 2y CONTAINMENT Capacity Meets or Exceeds Requirement?						**Yes**										

NOTES:

(1) Storage/staging capacity for all areas is determined based on physical structural dimensions and capacity to hold waste containers, except as discussed in notes 2, 4, 5, and 6 below.
(2) Total combined storage capacity of CSB, ISCA, CPCP, and I/O Staging Area is limited to 50,000 gallons by Hazardous Waste Permit.
(3) The following applies to the contanment calculations for the ISCA:
- Spill containment is evaluated by calcualting the avalable volume at a constant elevation of the top of the pool. The elevation is set at the top of the curbing at the entrance to Area B.
- Volumes west of the trench drain are calculated based on 1/2 of the total depth to account for the sloped surfaces.
(4) The maximum permitted storage capacity of the 10-day transfer area is 20,000 gallons.
(5) The maximum permitted inbound staging capacity is 20,000 gallons.
(6) The maximum permitted storage capacity in the WPB is 9,900 gallons.
(7) Reagent storage roll-off is no longer present in the WPB and no longer considered in these calculations.
(8) Building dimensions are 35 feet by 70 feet less 20 inches of curb on three sides. Does not account for space occupied by building footers.
(9) Building dimensions are 80 feet by 70 feet less 8 inches of curb on three sides. Does not account for space occupied by building footers or roll over ramps.
(10) Industrial shredder was removed from the WPB in September 2023 and is no longer considered in these calculations.

APPENDIX H

Facility Supplemental Emergency & Safety Equipment

US ECOLOGY TAMPA, INC.

SUPPLEMENTAL EMERGENCY AND SAFETY EQUIPMENT

1. Hand-Held Air Horns (5)
2. Telephones (1)
3. Emergency Lights (6)
4. Pull Alarms (7)
5. Fire Extinguishers (22)
6. Emergency Exits (6)
7. Containment Sumps (5)
8. Spill Kits (Acid, Alkaline, Solvent) (1 each)
9. Fire Hoses (4)
10. Safety Equipment Cabinets (2)
11. UV Smoke and Flame Detectors (3)
12. Heat Sensors (4)
13. LEL Sensors (2)
14. LEL Meter (1)
15. SCBA Respirator (2)
16. Eye Washes (4)
17. Safety Shower (4)
18. Sprinkler Systems (2)
19. Foam System (1)
20. Intrusion Alarm System (1)
21. Fire Alarm System (2)

(Supplemental emergency and safety equipment which may not be referenced in the PPP/CP)

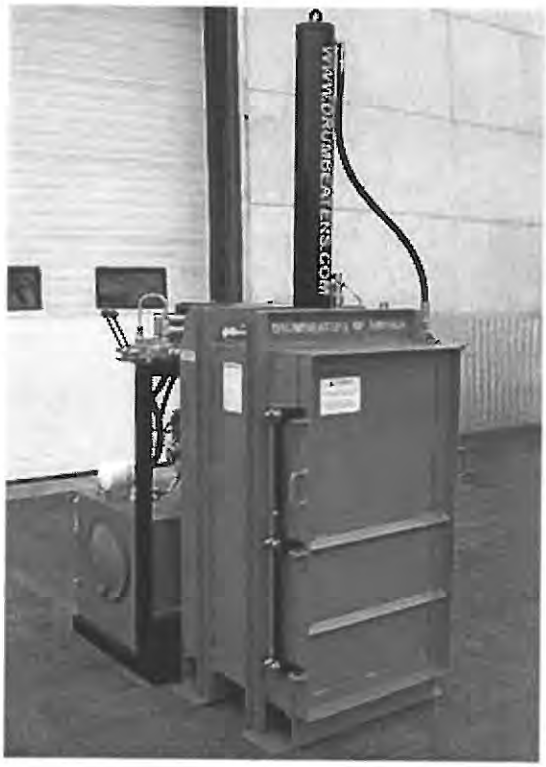
APPENDIX I

Facility Equipment Specifications

Drumbeaters of America Inc.

Drum Crushers
Drum Washers
Drum Washers Crushers
Tote Washers
Drum Cleaning Solutions

Drum Crusher Model# DC5000-10 Electric



The Model DC5000-10 is used to crush unlimited drums. This system will crush a 55 gallon drum down to 4" in height greatly reducing storage space requirements and transport fees.

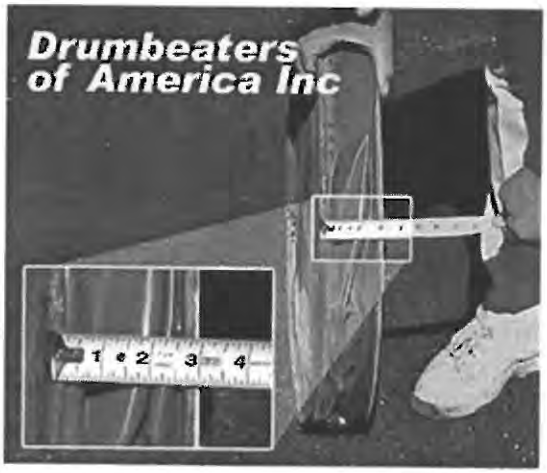
The unit comes complete with fused electrical controls, hydraulic door safety switch, and an oil sight gauge with temperature indicator. Heavy duty construction, all structural components are made with heavy steel plate.

Standard Features:

-10hp electric motor
-Compaction force 60,000 pounds at 3000 psi
-Crush 55 gallon steel drum down to 4"
-Cycle time of 35 seconds
-40 gallon hydraulic tank
-Heavy Duty Steel construction
-Directional Control Valve
-Drum ring locator, keep the drum aligned
-Safety interlocks door, prevent operation while door is open
-Electrical disconnect box
-Portability with Fork Lift Truck
-Electrical control box NEMA- 1
-Safety features to comply with OSHA

Additional Options:

Explosion Proof System	When you have a hazardous area
Drip Pan for Liquid Containment	Under the crushing chamber to collect any fluids inadvertently not removed prior to crushing the drum
One step control valve	Causes the equipment to go through a full cycle without holding the lever down through the entire crushing cycle



Shipping dimensions:

H: 75" W: 40" D: 65" Weight: 2,500 lbs

We sell directly from Elburn IL, USA
We have worldwide distribution
We ship to all countries

Drumbeaters of America Inc.
215 West Nebraska St.
Elburn, IL 60119 USA

Jim Popp:
Phone: (630)365-5527 ext 3006
Fax: (630)365-9928

Mary Brown:
Phone: (630)365-5527 ext 3003
Fax: (630)365-9928

General Sales:
Phone: (630)365-5527 ext 0
Fax: (630)365-9928

http://www.drumbeaters.com

TEEMark CORPORATION

TEEMARK CORPORATION

Model PCC1J-X

EXPLOSION PROOF ELECTRIC PRODUCTION CAN CRUSHER

With Can Ejector Option

CARE & USE INSTRUCTIONS

SERIAL NO. 10283

DATE MFG. 7/99

HC7 Box 14-T • Aitkin, MN 56431
218-927-2200 • 800-428-9900 • FAX 218-927-2333

TEEMark PCC1J PAINT CAN CRUSHER WITH CAN EJECTOR

Pierces, drains, crushes and ejects one-gallon cans!

Typically empty by EPA definition.

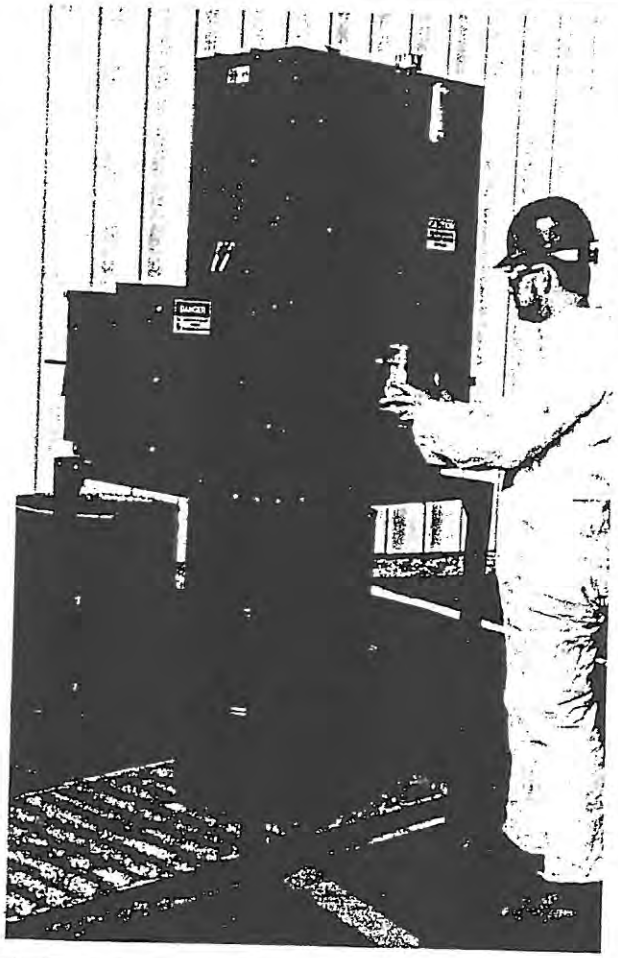
No need to remove lids from one-gallon cans.

HYDRAULICS

d hydraulic pump
ovides 30,000 pounds of
ushing force.

RECYCLE CHECK NOW AVAILABLE!

is option sorts out crushed
ns that retain too much
int for recycling.



PCC1J *AUTOMATICALLY EJECTS* CRUSHED CANS & PAILS

One-gallon cans are crushed and ejected by the PCC1J. Ejection system *proven on millions of cans.*

SAFE, EXPLOSION PROOF

Units will not operate with door open. These crushers are completely explosion proof and are suitable for use with solvent based paints and other flammable liquids.

RESULTS!

With no need to remove lids, PCC1J crushers can process 300 cans per hour. Leaving the lids on also reduces labor costs and the risk of personal injury.

TeeMark PCC1J SPECIFICATIONS

CRUSHING FORCE: 30,000 pounds
CRUSHING CHAMBER: one gallon
CYCLE TIME: 10 seconds or less
POWER SYSTEM ALTERNATIVES:

- 1-1/2 hp* 115/230V 1 Ph 20/10A w/starter, 10 sec cycle
- 3 hp* 208-230/460V 3ph 11-10/5A w/o starter, 6 sec cycle

*Explosion Proof Class 1, Group D

- 1-1/2 hp 80 psi Air @ 40 SCFM, 10 sec cycle

EJECTION SYSTEM: Requires 80 psi air from 1/4 inch air line or a one-horse compressor
DIMENSIONS: 37"w x 37"d x 90"h
CLEARANCE UNDER STAND: 41"
APPROXIMATE SHIPPING WEIGHT: 1160 lbs.
WARRANTY: 1 year on all materials and workmanship

pints to 110 gallons, TeeMark Crushers help prepare containers and their contents for recyling or disposal.

TeeMark Corporation • Aitkin, MN 56431 • **1-800-428-9900** • FAX 218-927-2333 • e-mail teemark@aitkin.com
Crusher Homepage: www. aitkin.com/teemark

EXPLOSION PROOF ELECTRIC PRODUCTION CAN CRUSHER

Model PCC1J-X
With Can Ejector Option

INITIAL START UP

Congratulations on choosing a **TeeMark PCC1J-X Production One Gallon Can Crusher**. Your crusher has been thoroughly tested before leaving the factory.

ASSEMBLY

Follow the instructions on the assembly diagram to mount the crusher, drip pan, and stand. The crusher can be lifted by the lifting eye on the top of the cylinder. It weighs about 900 pounds.

The assembled unit is somewhat top heavy so we recommend that the stand legs be properly anchored to the floor using 3/8" anchor bolts. There is enough clearance under the stand for a 55 gallon drum on a standard 2 inch roller conveyor or drum dolly.

ELECTRICAL CONNECTION

The explosion proof motor, motor controls, and connections on your PCC1X-J are UL listed and CSA certified for Class 1, Group D, Hazardous locations. Forty feet of rubber electrical cord is supplied without an end connector. It is up to the purchaser to install the equipment to comply with the appropriate local and national electrical codes.

The motor is 1-1/2 hp, 115/230 VAC 16/8 FLA single phase. Thermal protection is built into the motor and resets automatically.

***** CAUTION *****
THE MOTOR HAS AUTOMATIC THERMAL PROTECTION.
AFTER A TRIP IT WILL RESTART WITHOUT WARNING.
DO NOT PERFORM MAINTENANCE WITH THE POWER ON.

The motor is connected for use with 115 volts from the factory unless arrangements were made prior to shipping. A minimum 20 amp service should be used to avoid nuisance tripping of the circuit breaker.

See wiring diagram for conversion to 230 VAC.

INITIAL START UP - continued

HYDRAULIC FLUID

The hydraulic reservoir should be kept full to within 1 inch of the top of the tank when the ram is fully raised. Use a premium grade antiwear hydraulic iol, 150 viscosity grade 32 (e.g. Mobile #DTE24 or equal). This is the same antiwear hydraulic fluid that is typically used in farm tractors and dump trucks. It should be available in auto supply stores. Total fluid capacity is 3-1/2 gallons. Oil should be at a level that is visible in the temperature sight gauge throughout the complete ram cycle.

OIL FILTER

A standard 20 GPM 10 micron cellulose oil filter is used to filter the hydraulic oil. It should be changed after the first 100 hours of operation or 2 months, whichever comes first, then every 500 hours of operation thereafter.

VALVE SETTINGS

The pressure relief valve and squeeze (detent) pressure have been preset at the factory for optimum performance. **DO NOT INCREASE THESE SETTINGS** as this will exceed the capacity of the equipment and cause damage. Lowering the squeeze valve detent pressure below the factory setting of 3000 psi is permissible. See **DETENT ADJUSTMENT** instructions.

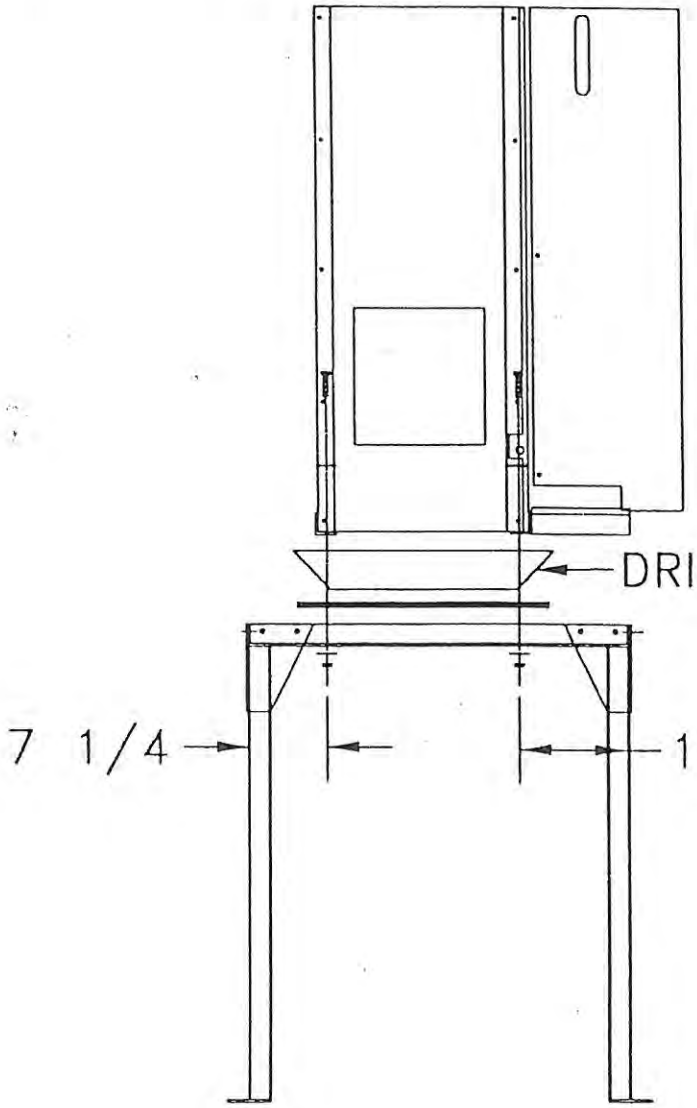
NOTES

1. THE DRIP PAN BRACKETS GET BOLTED BETWEEN THE STAND AND THE CRUSHER
2. THE DRIP PAN IS TO BE INSTALLED AFTER ASSEMBLY AND CAN BE REMOVED FOR CLEANING

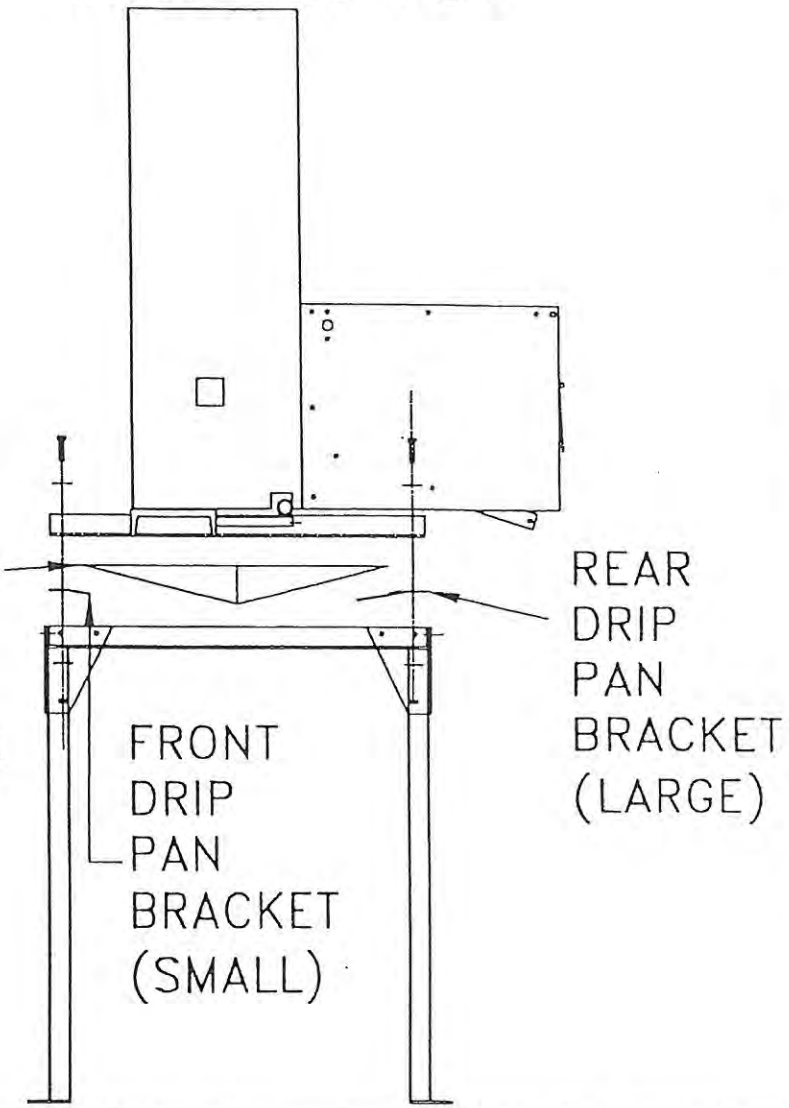
NOT SCALE

ANSI Y 14.5M – 1994 APPLIES

FRONT VIEW



RIGHT SIDE VIEW



ITEM	QTY	DESCRIPTION

REV	DESCRIPTION	AUTH	DATE

TOLERANCES UNLESS OTHERWISE SPECIFIED.
DIM'S ARE IN INCHES

FRACTIONAL	±1/32
1 PLC. DEC.	±.015
2 PLC. DEC.	±.010
3 PLC. DEC.	±.005
ANGULAR	±1°

DRN KKN

DATE 9/11/97

CUSTOMER ASSEMBLY
PCC1-J

TeeMark Corp
AITKIN MINNESOTA 56431 218-927-2200

CAD. REF. C028-085

PART NO. C028-085

OPERATING INSTRUCTIONS

ONE GALLON CAN CRUSHING

Pull the **"STOP"** button to start the motor of the PCC1X Production Can Crusher. As a safety feature, the hydraulic power will not run when the door is open.

> ***** CAUTION *****
> ALWAYS TURN THE POWER OFF WHEN SERVICING
> THE CRUSHER OR WHEN NOT IN USE.

Place an open topped 55 gallon drum or other container under the crusher to collect the liquid extracted from the cans. There is enough clearance to position the drum on a 2 inch roller conveyor.

Place the can to be crushed into the crushing chamber until it contacts both locating stop pins. This centers the can for proper piercing and crushing.

Swing the door shut and pull the two hydraulic valve handles toward you until they reach the detent position and lock in place. The crushing cycle will begin. The PCC1 has two piercers that slit the sidewall of the can as it is crushed.

At the bottom of the stroke the ram automatically stops and returns to the up position. If the door is opened at any time during the cycle, the ram will stop. The ram can be manually retracted by throwing the left valve handle to the neutral position.

If the valve handles are not returning automatically or if they return too soon, see the **DETENT ADJUSTMENT** instructions.

SMALLER CANS

Cans smaller than one gallon may also be crushed in the PCC1 but they will not be pierced. To crush smaller cans, place the can in the center of the chamber and proceed as above. Since small cans are not pierced they may rupture with a popping sound. The cabinet is designed to contain the spray when this happens.

CANS WITH SEMI-SOLID CONTENTS

The PCC1 is designed to handle the nastiest of contents. All but the driest, hardest material will be squeezed from the can.

PIERCER SHARPENING AND ADJUSTMENT

Each piercer is attached with two bolts. They can be removed and sharpened with a power grinder or sander.

CAN EJECTOR OPTION

INTRODUCTION - The Can Ejector option on the PCC1J-X is an air powered system that interlocks with the operating system of the crusher. The primary features of the ejector are a pneumatic cylinder, a can "tosser", and a door in the rear of the unit that opens to allow the crushed can to be ejected. Compressed air is used to dislodge the can from the ram after crushing is completed. This blast of air prevents the can from sticking to the crusher face.

AIR REQUIREMENTS - Electric PCC1 units with the ejector option need a ¼ inch air line for the ejector. Air volume requirements are minimal and can be provided by a ¾ hp compressor. The air line should be equipped with a dryer and oiler that is set to provide one drop of oil every ten crusher operating cycles.

OPERATION - The ejector must be connected to a supply of compressed air and the air valve must be opened to provide power to the ejector air cylinder.

If a can is not crushed completely, or gets hung up inside the machine, the operator may need to remove the can by hand. Air pressure to the ejector system is cut off and vented when the operator opens the main door of the crusher. With the main door open, the ejector arm and the ejector door at the rear of the crusher can easily be moved by hand to free a stuck can.

SMALLER CONTAINERS - The ejector is designed for one gallon cans. The crusher is also very effective on smaller cans and oil filters but the ejector should be turned off when they are crushed. When crushing of small containers is finished, the ejector air supply should be turned back on and the crusher should be cycled 2 or 3 times to clear wet paint from the air jet holes in the crusher face.

*** ***CAUTION*** ***

KEEP HANDS FREE OF THE CRUSHING CHAMBER AND
REAR EJECTION CHUTE WHENEVER THE MACHINE IS CYCLING.
In the event of a jam or malfunction, be certain all power is off before clearing.

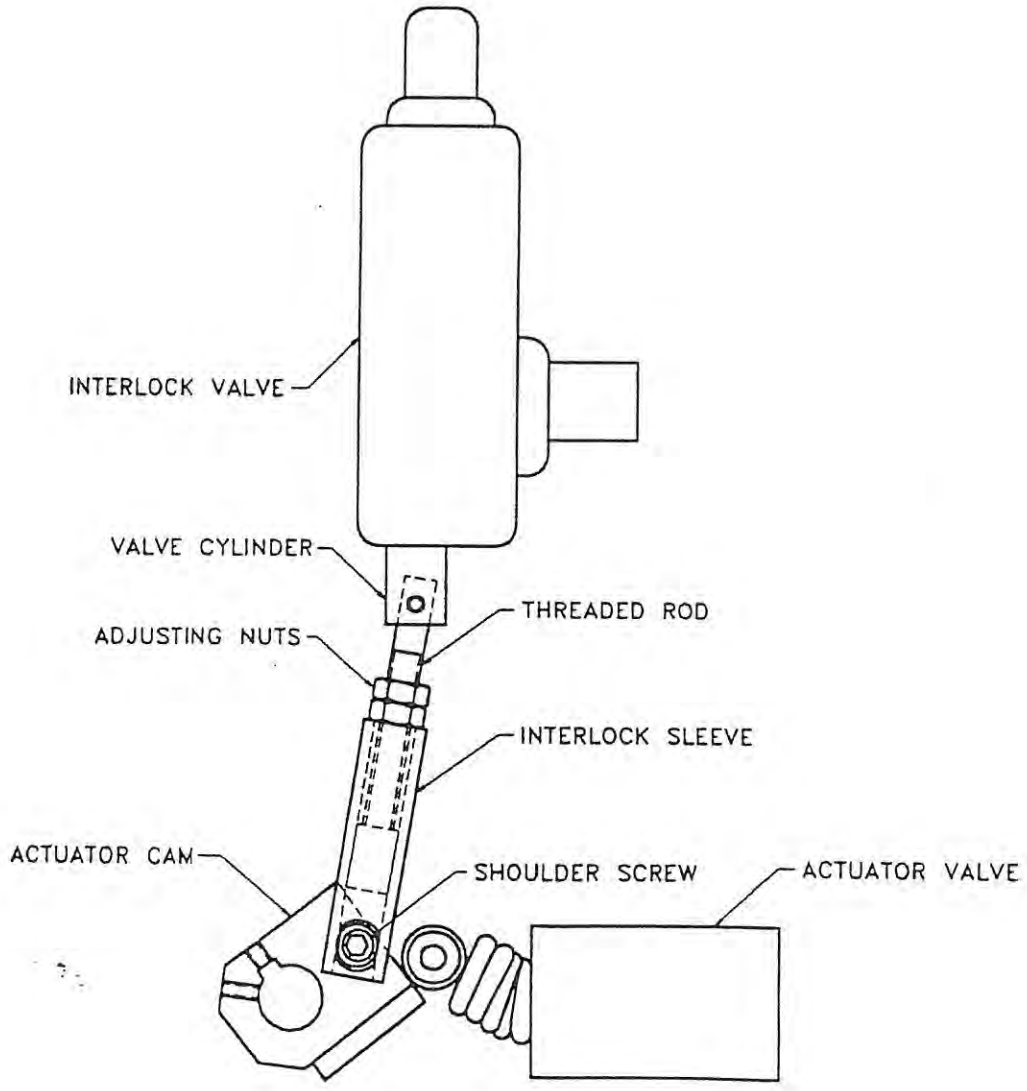
THE PROTECTIVE SHIELD ON THE EJECTION CHUTE MUST BE IN PLACE
WHEN THE CRUSHER IS OPERATING.

DO NOT RAISE THE SHIELD OR LOOK INTO THE EJECTION CHUTE
WHEN THE CRUSHER IS OPERATING.
Cans are ejected from the crusher with considerable force and speed.

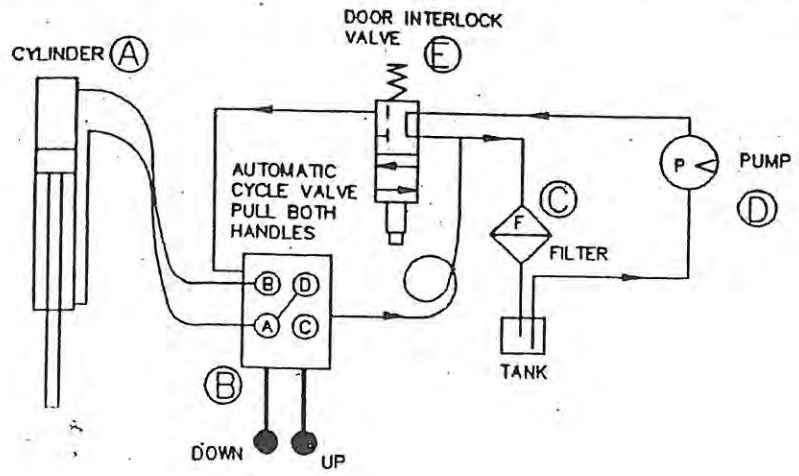
DOOR INTERLOCK VALVE AND LINKAGE

The safety door interlock valve is a hydraulic valve installed so the crusher cannot operate when the door is open. This interlock valve is adjusted at the factory. This valve can come out of adjustment after a lot of use. If this valve comes out of adjustment then your crusher will not cycle.

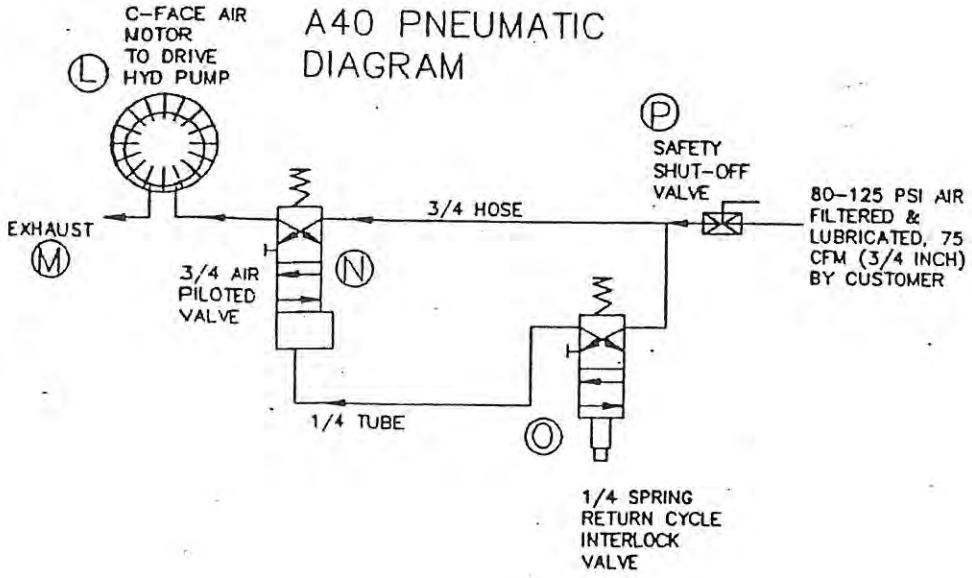
To adjust the door interlock valve you must adjust the door interlock linkage. You adjust the linkage with the two adjustable nuts on the threaded rod. (See drawing below.) Use two 9/16" wrenches to break the nuts apart. Now adjust the adjusting nuts down so when you close the door the valve cylinder moves up a ¼". The valve cylinder is the silver part connected to the top of the threaded rod. Start the machine and try cycling it. If the machine cycles tighten the nuts together. If the machine doesn't cycle move the bottom nut down 2-3 turns and try cycling it again. If the machine still won't cycle call TeeMark at 800-428-9900 for help.



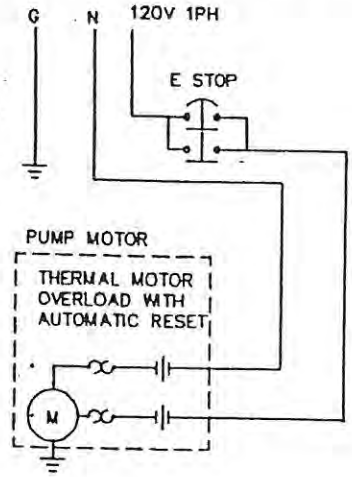
HYDRAULIC POWER SUPPLY WITH HYDRAULIC DOOR INTERLOCK VALVE



A40 PNEUMATIC DIAGRAM

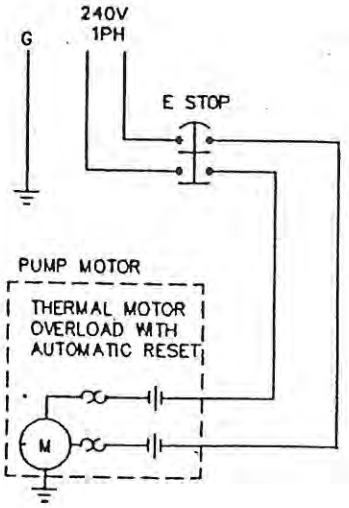


1 PH ELECTRICAL DIAGRAM CLASS 1 GROUP D EXPLOISION PROOF



WIRING DIAGRAM
120 V 1 PH
MODELS W/ HYD
DOOR INTERLOCK
MODELS SUPER 6-X,
SUPER 6P-X, PCC1-X

NOTE:
THE MOTOR IS WIRED FOR 120V FROM THE FACTORY UNLESS NOTED OTHERWISE. MOTOR WIREING MUST BE CHANGED TO RUN ON 240VAC 1 PH



WIRING DIAGRAM
240 V 1 PH
MODELS W/ HYD
DOOR INTERLOCK
MODELS SUPER 6-X,
SUPER 6P-X, PCC1-X

NOTE:
THE MOTOR IS WIRED FOR 120V FROM THE FACTORY UNLESS NOTED OTHERWISE. MOTOR WIREING MUST BE CHANGED PER MOTOR PLATE AND AS SHOWN FOR 240VAC OPERATION.

TeeMark Corp
AITKIN MINNESOTA 56431 218-927-2200

AIR, HYDRAULIC, ELECTRIC SCHEMATICS
MODELS SUPER 6, 6P, & PCC1 CanDoo!

DESIGNED	DATE	SCALE	PLOT SCALE
TEE			
CAD REF	DWG NO		
CXRSCHEM	SK5030601		

TEEMARK CORPORATION

WARRANTY

TeeMark manufactured products are warranted free of original defects in material and workmanship for a period of one year from the date of shipment to first user.

TeeMark's obligation is to repair or replace free of charge any part that its inspection shows to be defective. Except as it may otherwise specifically agree in writing, TeeMark shall not be liable for transportation, labor or other charges for adjustments, repairs, replacement parts, or other work which may be done upon or in connection with such products. TeeMark shall not be liable for loss of time, manufacturing costs, removal and installation costs, loss of profits, consequential damages, direct or indirect, because of defective products, whether due to rights arising under the contract of sale or independently thereof, and whether or not such claim is based on contract, tort or warranty.

Written permission for any warranty claim repair or return must be first obtained from authorized TeeMark personnel. Any part or parts of a product to be repaired or replaced under this warranty must be returned to the factory f.o.b.

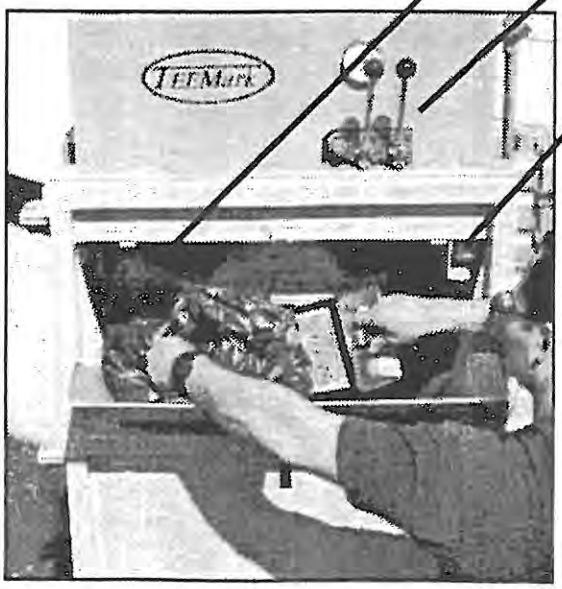
Any modification to any TeeMark product without TeeMark's prior approval and consent, is at the user's sole risk and responsibility. TeeMark disclaims any and all liability, obligation, or responsibility for the modified product and for any claims, demands, or causes of action for damage or for personal injuries resulting from the modification and/or use of such a modified TeeMark product.

THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

(This warranty voids all previous issues.)
(Effective Date: January 1, 1996)

DRUM CRUSHERS, WASTE COMPACTORS

Disposal of one drum of hazardous waste can cost up to $1,000!
Compaction can reduce disposal volume and cost by 30-80%.



TeeMark manufactures a variety of drum crushers and drum packer/crushers. Our packer/crushers use up to 150,000 pounds of adjustable hydraulic force to crush drums as large as 110 gallons. They also pack waste material into drums. Special waste management features and/or options on these units include:

DRUM HOLD DOWN
Holds drum in place while compaction head is withdrawn from drum.

COMPACTION HEAD
Reaches into drum, forcing materials to the bottom.

REMOVABLE PALLET
Fork lift pockets in pallet allow easy handling of full drums.

LOCKABLE DOOR CHUTE
Allows material to be added to the collection drum without opening main door.

EXPLOSION-PROOF CONTROLS
Explosion-proof controls are standard and explosion-proof motors and motor controls are available.

INTERLOCK SAFETY
Door chute and main door are both equipped with safety interlocks. Unit will not operate while either door is open.

With the easily-attached crushing head in place, and up to 150,000 pounds of crushing force, these units can turn those drum liabilities into assets. Clean crushed drums are recyclable, and are a valuable commodity in the scrap market.

For more information, call us:

TOLL FREE 800/428-9900

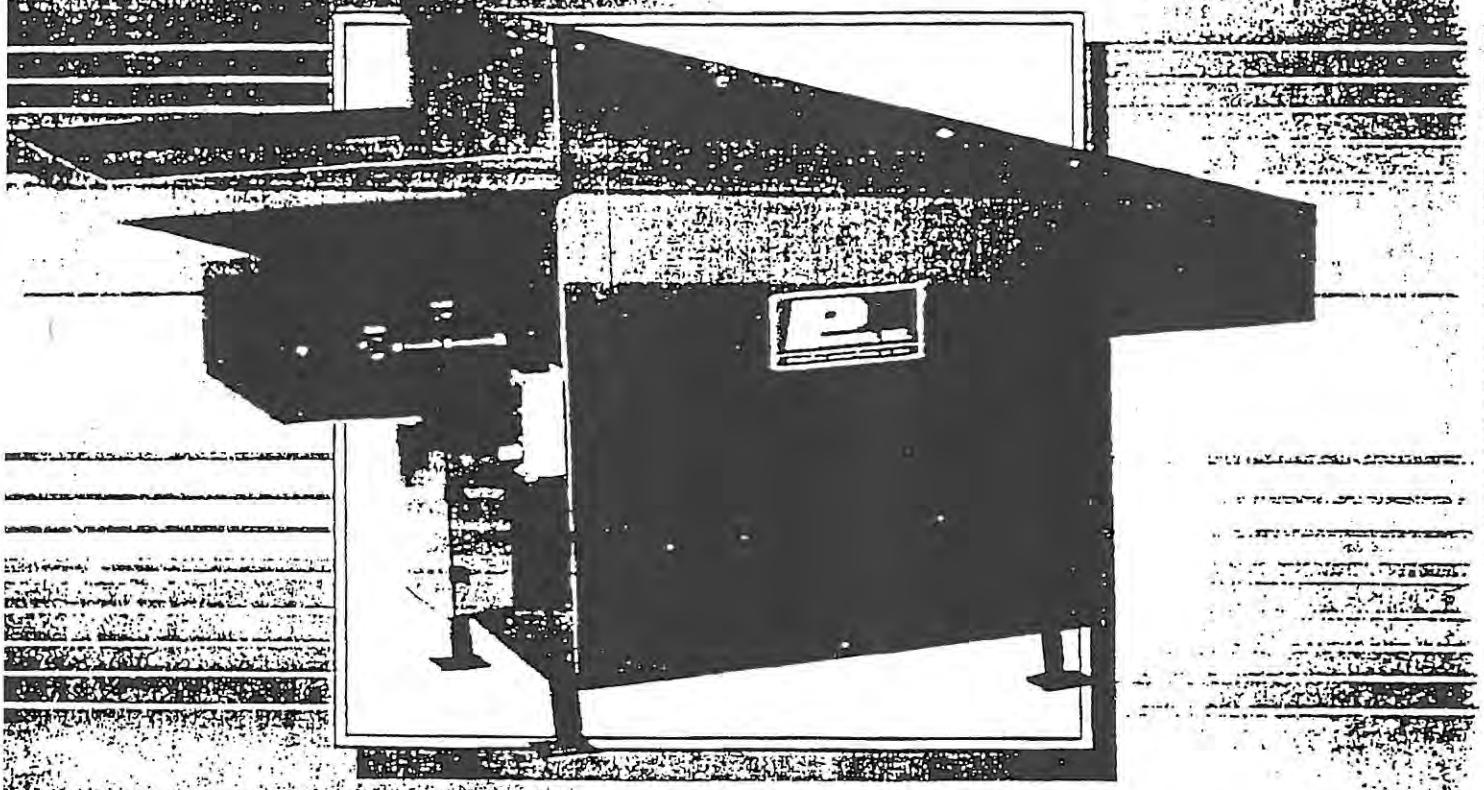
TEEMark CORPORATION
Aitkin, Minnesota 56431
1-800/428-9900
home page: http://aitkin.com/teemark
FAX 218/927-2333 • e-mail: teemark@aitkin.com

From half pints to 110 gallons, TeeMark Crushers help prepare containers and their contents for recycling or disposal. See other side for **can crushing** information.

PRODEVA

CAN & GLASS CRUSHER

MODEL 270

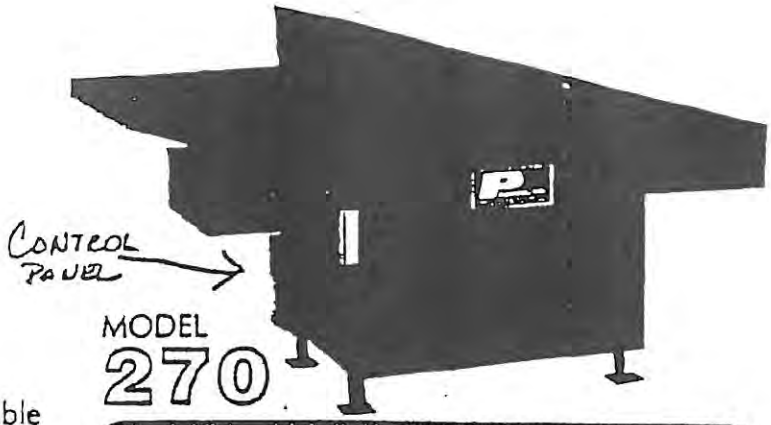


- Rated capacities of Model 270:
  - 2500 lbs. of Aluminum cans per hour
  - 5000 lbs. of Steel cans per hour
  - 1.5 ton of Glass per hour
- Safety engineered throughout.
- Factory direct parts and service.
- Overload compression springs to prevent jamming.
- Model 270 will crush cans and glass up to and including 5 gallon.

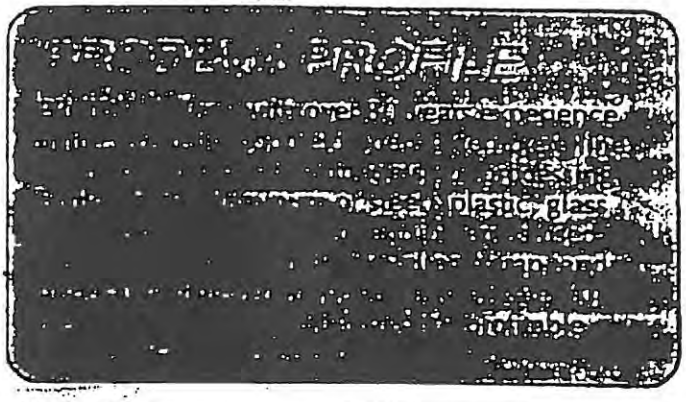
A proven PRODEVA performer in our line for over 34 years. Unit is ideal for can manufacturers, recycling centers, bottlers and breweries. In fact anywhere glass containers, beverage cans or food containers are a problem. Model 270 is user friendly; easy to maintain and requires no change in machine set-up to crush cans or glass. Built for hard use and trouble-free operation with minimal maintenance or up-keep. Backed by PRODEVA's proven experience in manufacturing quality size-reduction equipment.

PRODEVA

Crusher MODEL 270

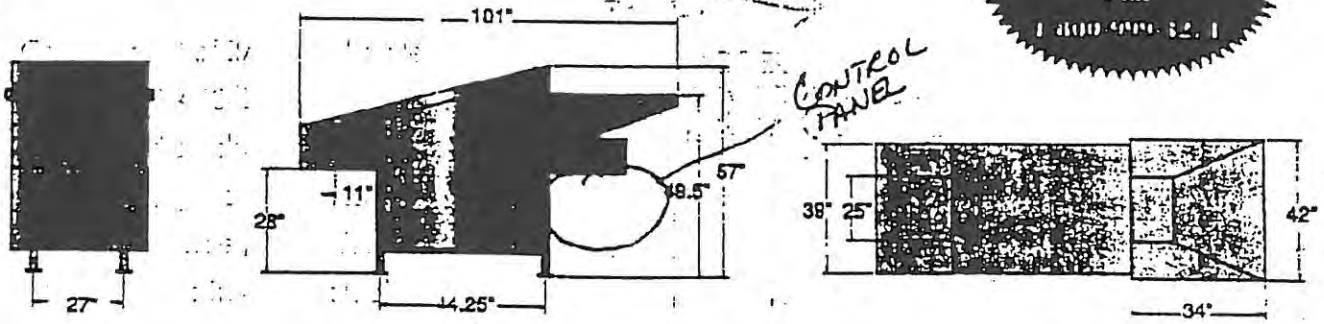


- Constructed of 3/8" steel plate
- 10 HP 230/460/60/3
- Infeed and discharge conveyors are available
- All moving parts enclosed
- Removable side panels for easy maintenance
- Crushes glass into recyclable cullet
- Flattens cans, and crushes plastic bottles
- Available with casters
- Available with blowers for aluminum and bi-metal cans



STANDARD SPECIFICATIONS

Overnight Parts Service Call 1-800-999-32[illegible]



END VIEW SIDE VIEW TOP VIEW

1 Year Written Warranty

All Prodeva brand equipment carries a warranty on workmanship and materials, provided equipment is used for its intended use and maintained properly.

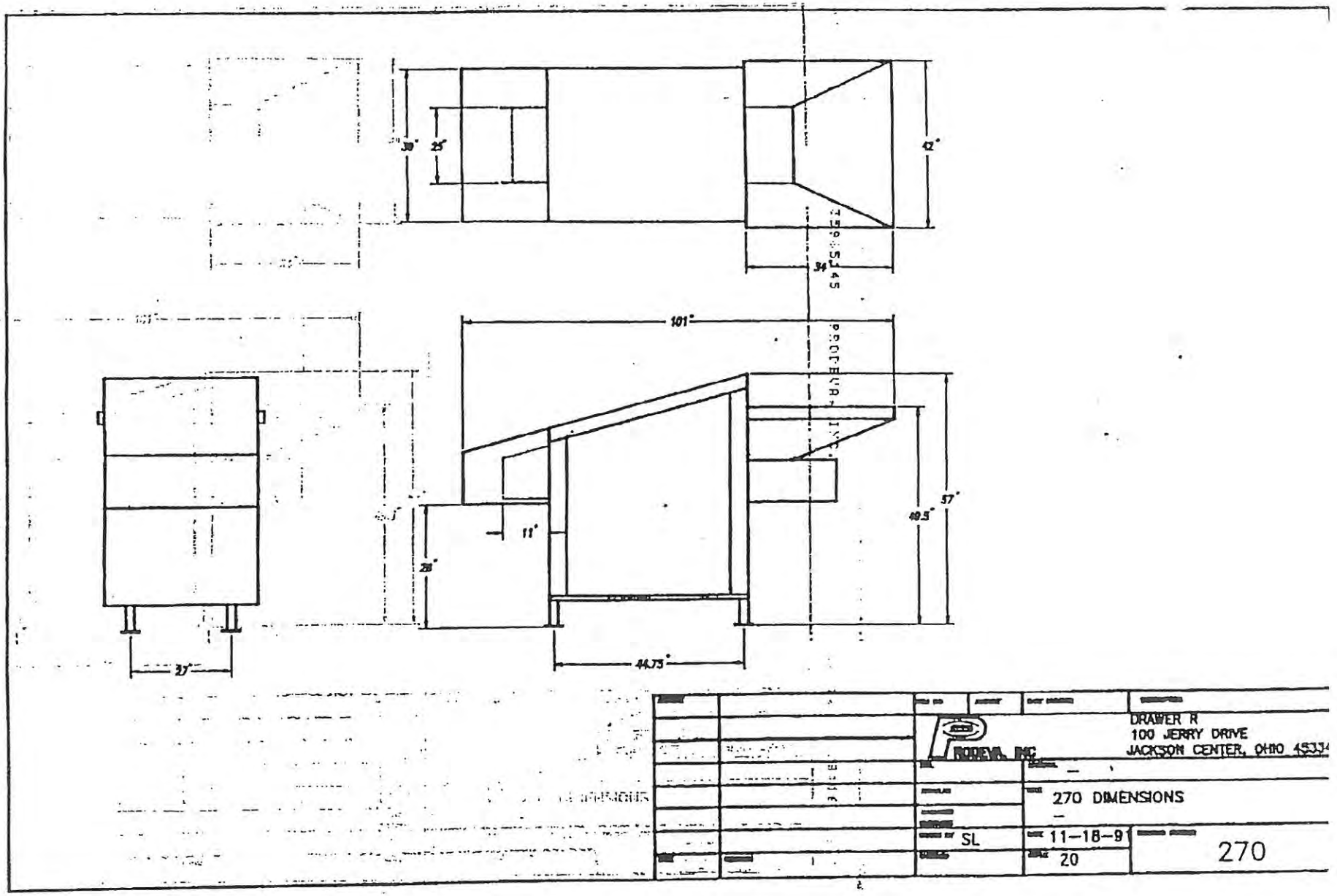
We reserve the right to repair or replace parts at our option. Ask for further details. Prodeva, Inc., also, reserves the right to improve or alter products without prior notice.

Call Prodeva for help or further information.

Should you have any questions about the above Model's operating features and its suitability for your needs.

PRODEVA

100 Jerry Drive, Jackson Center, Ohio 45334
Phones: 1-800-999-3271 FAX 513-596-5145
513-596-6713



			RODEVA, INC.	DRAWER R 100 JERRY DRIVE JACKSON CENTER, OHIO 4533
				270 DIMENSIONS
			SL	11-18-9
				20
				270

MANUAL OF INSTRUCTIONS FOR MODELS 250 & 270 PRODEVA CRUSHERS

"Prodeva" Model 250 or 270 Crusher has been thoroughly tested to the rigid
cification of all "Prodeva" products. By following these simple
ons, you will have a trouble free unit for many years to come.

ICAL:

Make the electrical connections to the magnetic starter with the proper sized wire for the full load current of the motor. Be sure the voltage supplied to the machine is the same voltage that is indicated on the nameplate. If the conveyor runs backward, when the Forward button is depressed, reverse any two leads in the starter.

ABLE RESTRICTOR:

Set the opening above the conveyor (on the hopper end) high enough to permit an even flow of material through the crushing area of the machine. Too much material going through the machine at one time will jam the unit.

ABLE CRUSHER PLATE:

All Model 250's & 270's are equipped with an adjustable crusher plate. This new feature permits you to set the discharge opening to the desired height. To adjust the discharge opening remove the bolts that hold the shaft to the crusher plate and add shims for less opening. Do not flatten material any more than necessary, as this puts an undue load on the machine.

OR CLUTCH:

The conveyor clutch located at the discharge end of the conveyor should be tightened just tight enough to carry the load through the machine. The conveyor chain MUST BE ABLE TO STOP WHEN UNDER LOAD, and the crusher plate is in the down position. This means there will be intermittent stop-start of the conveyor chain when the clutch has the proper tension.

OR CHAIN:

The conveyor chain should have approximately 1-1/2" of SAG on the bottom side. To adjust the conveyor, loosen the lock nut on the adjusting screw on the conveyor take-up unit. The take-up units are located at the hopper end of the crusher.

ATION:

Remove the side covers of the machine and grease the bearings at least once a month. The bearings in the drive arms should be greased at least every ten (10) hours. The oil in the Gear Reducer should be changed every six (6) to eight (8) months or (2500) operational hours. Fill with SAE 140 Gear Oil.

L OVERLOAD PROTECTION:

When the machine is overloaded or jammed the motor will automatically shut off. The motor and controls are protected by Thermal Overload Heater Coils, located in the Magnetic Starter. In the event the motor does shut off, correct the cause of the overload and wait a few minutes until the starter has cooled, then the starter can be re-set by depressing the reset button located in the cover of the Magnetic Control.

ING:

When liquids are to be run through the crusher, leveling bolts should be used. The hopper end of the crusher should be slightly higher than the discharge end to insure proper drainage of the liquid.

CTIVE HINGED COVER:

When crushing glass, filled cans and aerosols, the hinged cover located at the discharge end of the crusher MUST be in the closed or down position for protection against splashing of liquids and flying fragments of glass.

ING:

When crushing cans or bottles with the contents the crusher should be cleaned at the end of the day with hot water, steam or a commercial solvent. The crusher chamber is sealed so that the machine can be cleaned in this manner. Care should be taken - DO NOT DIRECT A WATER SPRAY AT THE ELECTRICAL CONTROLS!

NG: No solid material such as blocks of wood, iron bars, etc., should be fed into the crusher. This may cause damage to the crusher.

April 16, 2018 (Revision of August 10, 2015)

PPG 888 (AMERCOAT® 888) ANTI-SKID ADDITIVE

DESCRIPTION

Aluminum oxide non-skid aggregate

PRINCIPAL CHARACTERISTICS

- Hard aluminum oxide aggregate with excellent abrasion resistance
- Suitable for marine and offshore for main decks, helidecks, walkways and other areas with heavy traffic
- Suitable for use in combination with flooring products
- Provides a heavy non-skid surface
- Blend of 16 and 36 mesh aluminum oxide (average 24 mesh - 0.7 mm)

COLOR AND GLOSS LEVEL

- Aluminum gray

BASIC DATA

Data for mixed product	
Number of components	One
Shelf life	At least 60 months when stored cool and dry

INSTRUCTIONS FOR USE

- Add to mixed units of AMERLOCK 2/400GF or broadcast into the applied film
- Add slowly to products under mechanical agitation
- Mix frequently to avoid settling
- Apply with a mastic spray gun or a short nap roller
- Alternatively, sprinkle (openly or fully) into wet film of the epoxy or flooring product
- A layer of sealer or more durable topcoat can be applied on top of the anti-skid layer for a better aesthetic appearance and a more moderate profile
- Refer to the PDS of the specific flooring product for more detailed information on application

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

REFERENCES

• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411

PPG 888 (AMERCOAT® 888) ANTI-SKID ADDITIVE

WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgpmc.com. The English text of this sheet shall prevail over any translation thereof.

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AMERLOCK® SEALER

DESCRIPTION

Two-component, penetrating epoxy primer sealer

PRINCIPAL CHARACTERISTICS

- Solvent-free
- Compatible with damp surfaces
- Wicking action penetrates rusted steel and concrete surfaces
- Surface tolerant for applications where abrasive blasting is not an option
- Accepts broad range of topcoats
- Excellent tie coat for many existing coatings

COLOR AND GLOSS LEVEL

- Clear
- Gloss

Note: Epoxies will characteristically chalk and fade with exposure to sunlight. Light colors are prone to ambering

BASIC DATA AT 68°F (20°C)

Data for mixed product	
Number of components	Two
Mass density	Base/hardener: 1.1 kg/l (9.0 lb/US gal)
Volume solids	100%
VOC (Supplied)	max. 0.9 lb/US gal (approx. 109 g/l)
Temperature resistance (Continuous)	To 200°F (93°C)
Temperature resistance (Intermittent)	To 250°F (121°C)
Recommended dry film thickness	1.0 - 2.0 mils (25 - 50 µm) depending on system
Theoretical spreading rate	1604 ft²/US gal for 1.0 mils (40.0 m²/l for 25 µm)
Shelf life	Base: at least 36 months when stored cool and dry Hardener: at least 36 months when stored cool and dry

Notes:
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time
- Color will drift at elevated temperatures
- Intermittent temperature resistance should be less than 5% of the time, and maximum 24 hours

AMERLOCK® SEALER

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is, in general, proportional to the degree of surface preparation
- Use of this product provides a viable options for coating projects where abrasive blasting is not possible, but it is not a performance substitute for abrasive blasting in many circumstances

Steel

- Remove all rust, dirt, moisture, grease or other contaminants from the surface
- Power tool clean in accordance with SSPC SP-3 or hand tool clean to SSPC SP-2 requirements. Alternately, abrasive blast to SSPC SP-7 requirements. Abrasive blasting to SSPC SP-6 or better is also allowable and will give the best possible system performance
- This product may be applied over waterjetted surfaces as well

Aluminum

- Remove all rust, dirt, moisture, grease or other contaminants from the surface
- Treat with conversion coatings or phosphatizing agents. Applicable over surface treatments such as MIL-C-5541. Alternately, lightly abrasive blast with fine abrasive to produce a uniform and dense anchor profile of 1.0 – 3.0 mils (25 – 75 µm) in accordance with SSPC SP-16.

Galvanizing

- Remove oil or soap film with detergent or emulsion cleaner, then use a phosphatizing conversion coating
- Alternately, power tool clean to uniformly abrade the surface or lightly abrasive blast with a fine abrasive to produce a uniform and dense anchor profile of 1.0 – 3.0 mils (25 – 75 µm)
- Galvanizing that has had at least 12 months of exterior weathering may be coated after power washing to remove all contaminants and white rust
- Galvanized surfaces that have been passivated with a chromate treatment must be abrasive blasted. Coatings may not adhere to chromate sealed galvanizing if the chromates are not completely removed.

Concrete

- Existing Concrete – Water cured concrete or existing structures must be cured for a minimum of 14 days and have attained 80 percent of its final strength. When cured, the surface must be either prepared per ASTM D 4259 or ASTM D 4260 with
  muriatic acid using equal parts of acid to water by volume. Surface should be free of any oil, grease, embedded chemicals, laitance, water repellants, previous sealants, form release compounds, and effluoresence. The surface should be
  checked for moisture transmission in accordance with ASTM F1869 (calcium chloride test) or by ASTM D4253 (plastic sheet test). The maximum recommended moisture transmission rate is 3 lbs / 1,000 ft2 / 24 hours
- A suitably finished surface must have a uniform surface texture exposing fine aggregate resembling coarse sandpaper. If required, repeat acid etching or abrasive blasting until the surface texture is uniform
- Concrete surfaces cured with conventional curing compounds or contaminated with form oils must be completely cleaned by ASTM D4259. Acid etching is not acceptable as it will not normally remove these compounds

AMERLOCK® SEALER

Substrate temperature and application conditions

- Surface temperature during application should be between 40°F (4°C) and 120°F (49°C)
- Surface temperature during application should be at least 5°F (3°C) above dew point
- Ambient temperature during application and curing should be between 40°F (4°C) and 120°F (49°C)

SYSTEM SPECIFICATION

- Primers: Direct to substrate
- Topcoats: AMERCOAT 100A, NOVAGUARD 840, PSX 758, AMERCOAT 450 Series Polyurethanes, AMERSHIELD, PSX 700, AMERCOAT 229T, AMERCOAT Epoxies, AMERLOCK Epoxies, PITTGUARD Epoxies

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 50:50 (1:1)

- Add hardener to base and agitate with a power mixer for 1 to 2 minutes until completely mixed

Induction time

Mixed product induction time	
Mixed product temperature	**Induction time**
40°F (4°C)	15 minutes
50°F (10°C)	15 minutes

Pot life

1 hour at 70°F (21°C)

Note: See ADDITIONAL DATA – Pot life

Application

- Area should be sheltered from airborne particulates and pollutants
- Avoid combustion gases or other sources of carbon dioxide that may promote amine blush and ambering of light colors
- Ensure good ventilation during application and curing
- Provide shelter to prevent wind from affecting spray patterns

Material temperature

Material temperature during application should be between 40°F (4°C) and 90°F (32°C)

AMERLOCK® SEALER

Air spray

- Use standard conventional equipment
- Separate air and fluid pressure regulators and a moisture and oil trap in the main air supply line are recommended.

Recommended thinner
THINNER 21-06 (AMERCOAT 65) (xylene)), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C))

Volume of thinner
0 - 20%

Nozzle orifice
Approx. 0.070 in (1.8 mm)

Airless spray

- 30:1 pump or larger

Recommended thinner
THINNER 21-06 (AMERCOAT 65) (xylene)), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C))

Volume of thinner
0 - 5%, depending on required thickness and application conditions

Nozzle orifice
0.013 – 0.015 in (approx. 0.33 – 0.38 mm)

Brush/roller

- Use a high quality natural bristle brush and/or solvent resistant, 1/4" nap roller. Ensure brush/roller is well loaded to avoid air entrainment. Multiple coats may be necessary to achieve adequate film-build

Recommended thinner
AMERCOAT 65 (Xylene)| AMERCOAT 101 (recommended for >90°F (32°C))

Volume of thinner
Up to 5% THINNER can be added if desired

Cleaning solvent
AMERCOAT 12 CLEANER or AMERCOAT 65 THINNER (xylene)

AMERLOCK® SEALER

ADDITIONAL DATA

Overcoating interval for DFT up to 2.0 mils (51 µm)				
Overcoating with...	**Interval**	**50°F (10°C)**	**70°F (21°C)**	**90°F (32°C)**
recommended topcoats	Minimum	30 hours	24 hours	18 hours
	Maximum	30 days	30 days	14 days

Notes:

- Dry times are dependent on air and surface temperatures as well as film thickness, ventilation, and relative humidity. Maximum recoating time is highly dependent upon actual surface temperatures – not simply air temperatures. Surface temperatures should be monitored, especially with sun-exposed or otherwise heated surfaces. Higher surface temperatures shorten the maximum recoat window
- Surface must be clean and dry. Any contamination must be identified and removed. A detergent wash with PREP 88 or equivalent is required prior to application of topcoats after 30 days of exposure. However, particular attention must be paid to surfaces exposed to sunlight where chalking may be present. In those situations, a further degree of cleaning may be required. PPG Technical Service can advise on suitable cleaning methods. If maximum recoat/topcoat time is exceeded, then roughen surface.

Curing time for DFT up to 2.0 mils (51 µm)		
Substrate temperature	**Dry to touch**	**Dry hard**
50°F (10°C)	18 hours	36 hours
70°F (21°C)	12 hours	28 hours
90°F (32°C)	8 hours	22 hours

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
50°F (10°C)	100 minutes
70°F (21°C)	60 minutes
90°F (32°C)	30 minutes

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

AMERLOCK® SEALER

REFERENCES

• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SAFETY INDICATIONS	INFORMATION SHEET	1430
• SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD	INFORMATION SHEET	1431

WARRANTY

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Packaging: Available in 2-gallon kits; (2-gallon kits have 1 full gallon of base in a 3-gallon container and 1 full gallon of hardener)

Product code	Description
AK-0A	Base
AK-0B	Hardener

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AMERSHIELD™

DESCRIPTION

Two-component, polyester-acrylic aliphatic polyurethane topcoat

PRINCIPAL CHARACTERISTICS

- Outstanding weather resistance with excellent color and gloss retention
- High solids, low VOC
- Tough, flexible and abrasion resistant
- Resistant to splash of mineral and vegetable oils, paraffins, aliphatic petroleum products and mild chemicals
- Direct-to-metal or concrete for ISO 12944 C1 and C2 environments
- Meets SSPC Paint 36 Level 3

COLOR AND GLOSS LEVEL

- Standard and custom colors
- Gloss

Notes:

- Certain colors, especially red, orange, and yellow may require additional coats for adequate hiding, especially if applied over primers with a significant color contrast
- Yellow, red, and orange colors will fade faster than other colors due to the replacement of lead-based pigments with lead free pigments in these colors

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.3 kg/l (10.8 lb/US gal)
Volume solids	73 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 207.0 g/kg UK PG 6/23(92) Appendix 3: max. 185.0 g/l (approx. 1.5 lb/US gal) EPA Method 24: 264.0 g/ltr (2.2 lb/USgal)
Temperature resistance (Continuous)	To 94°C (200°F)
Temperature resistance (Intermittent)	To 121°C (250°F)
Recommended dry film thickness	75 - 150 µm (3.0 - 6.0 mils) depending on system
Theoretical spreading rate	7.3 m^2/l for 100 µm (293 ft^2/US gal for 4.0 mils)
Dry to touch	2.5 hours
Overcoating Interval	Minimum: 8 hours Maximum: 7 days
Full cure after	4 days

AMERSHIELD™

Data for mixed product	
Shelf life	Base: at least 36 months when stored cool and dry Hardener: at least 24 months when stored cool and dry

Notes:
- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time
- For compliance with regulations which require VOC less than 100 g/L, AMERSHIELD VOC can be specified interchangeably
- AMERSHIELD VOC is available only in US and Canada

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is proportional to the degree of surface preparation. Refer to the application instructions for specific primers and intermediate coats for application and curing procedure. All previous coats must dry and free of contaminants. Adhere to all minimum and maximum topcoat times for specific primers and intermediate coats

Substrate conditions

- Steel; blast cleaned to ISO-Sa2½ or minimum SSPC SP-6, blasting profile 30 – 75 µm (1.2 – 3.0 mils)
- Aluminum; lightly abrasive blast with a fine abrasive
- Concrete / Masonry; see specific primer
- Previous coat (epoxy or polyurethane) must be dry and free from any contamination

Substrate temperature and application conditions

- Substrate temperature during application and curing down to -5°C (23°F) is acceptable
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
- Relative humidity during application and curing should not exceed 85%
- Premature exposure to early condensation and rain my cause color and gloss change

SYSTEM SPECIFICATION

- Primers: Direct to substrate, AMERCOAT 68 Series, SIGMAZINC Series, AMERLOCK Series, AMERCOAT Epoxies & SIGMA Epoxies
- For products not listed above, contact your PPG representative

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 80:20 (4:1)

- Pre-mix base component with a pneumatic air mixing at moderate speeds to homogenize the container. Add hardener to base and agitate with a power mixer for 2-3 minutes until completely dispersed
- The temperature of the mixed base and hardener should be above 10°C (50°F), otherwise extra thinner may be required to obtain application viscosity
- Thinner should be added after mixing the components
- Adding too much thinner results in reduced sag resistance

AMERSHIELD™

Induction time
None

Pot life
2.5 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Air spray

Recommended thinner
Global standard : THINNER 60-15, US and Canada Only : THINNER 50-48 (AMERCOAT 923), THINNER 21-06 (AMERCOAT 65), THINNER 60-12 (AMERCOAT 911) and THINNER 21-25 (AMERCOAT 101) (recommended for > 90 °F (32°C))

Volume of thinner
5 - 15%, depending on required thickness and application conditions

Nozzle orifice
1.0 - 1.5 mm (approx. 0.040 - 0.060 in)

Nozzle pressure
0.3 - 0.4 MPa (approx. 3 - 4 bar; 44 - 58 p.s.i.)

Airless spray

Recommended thinner
Global standard : THINNER 60-15, US and Canada Only : THINNER 50-48 (AMERCOAT 923), THINNER 21-06 (AMERCOAT 65), THINNER 60-12 (AMERCOAT 911) and THINNER 21-25 (AMERCOAT 101) (recommended for > 90 °F (32°C))

Volume of thinner
3 - 5%, depending on required thickness and application conditions

Nozzle orifice
Approx. 0.43 – 0.48 mm (0.017 – 0.019 in)

Nozzle pressure
20.0 MPa (approx. 200 bar; 2901 p.s.i.)

AMERSHIELD™

Brush/roller

- Use a high-quality, well-loaded, solvent-resistant, low-nap (0.25 in – 0.375 in/ 64 mm – 95 mm) roller. AMERCOAT 851 flow control additive may be used to enhance flow and leveling of brush strokes and roller stipple
- Multiple coats may be required to achieve proper film build and hiding with roller application

Recommended thinner

Global standard : THINNER 60-15, US and Canada Only : THINNER 50-48 (AMERCOAT 923), THINNER 21-06 (AMERCOAT 65), THINNER 60-12 (AMERCOAT 911) and THINNER 21-25 (AMERCOAT 101) (recommended for > 90 °F (32°C))

Volume of thinner

0 – 5%

Cleaning solvent

THNNER 90-53, THINNER 90-58 (AMERCOAT 12) OR THINNER 21-06 (AMERCOAT 65)

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
75 µm (3.0 mils)	9.7 m²/l (390 ft²/US gal)
100 µm (4.0 mils)	7.3 m²/l (293 ft²/US gal)
125 µm (5.0 mils)	5.8 m²/l (234 ft²/US gal)
150 µm (6.0 mils)	4.9 m²/l (195 ft²/US gal)

Overcoating interval for DFT up to 150 µm (6.0 mils)						
Overcoating with...	**Interval**	**-5°C (23°F)**	**0°C (32°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**
itself	Minimum	N/A	N/A	48 hours	8 hours	4 hours
	Maximum	N/A	N/A	7 days	4 days	12 hours
itself + PPG 866M(AMERCOAT 866M) accelerator	Minimum	16 hours	8 hours	4 hours	2 hours	1.5 hours
	Maximum	4 days	48 hours	24 hours	12 hours	6 hours

AMERSHIELD™

Curing time for DFT up to 150 µm (6.0 mils)		
Substrate temperature	**Dry to touch**	**Dry to handle**
-5°C (23°F)	8 hours	16 hours
0°C (32°F)	4 hours	10 hours
10°C (50°F)	1.5 hours - 4 hours	6 hours - 36 hours
20°C (68°F)	45 minutes - 2.5 hours	3 hours - 10 hours
30°C (86°F)	25 minutes - 1 hour	2 hours - 5 hours

Notes:
- Range indicates drying time without and with PPG 866M(Amercoat 866M) accelerator, respectively
- -5°C and 0°C data is only with PPG 866M (AMERCOAT 866M) accelerator
- Adequate ventilation must be maintained during application and curing
- Premature exposure to early condensation and rain may cause color and gloss change

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
10°C (50°F)	4 hours
20°C (68°F)	2.5 hours
30°C (86°F)	1 hour

Notes:
- Times are proportionally shorter at higher temperature and longer at lower temperatures
- PPG 866M (AMERCOAT 866M) accelerator will reduce pot life to half

Product Qualifications
- Compliant with USDA Incidental Food Contact Requirements
- Nuclear Service Level 2 (partial)
- NFPA Class A Flame Spread

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes
- Contains a toxic polyisocyanate curing agent
- Avoid at all times inhalation of aerosol spray mist

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

AMERSHIELD™

REFERENCES

• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
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• DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434
• CLEANING OF STEEL AND REMOVAL OF RUST	INFORMATION SHEET	1490
• SPECIFICATION FOR MINERAL ABRASIVES	INFORMATION SHEET	1491
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

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April 16, 2018 (Revision of August 29, 2017)

NOVAGUARD™ 840

DESCRIPTION

Two-component, solvent-free, amine-cured novolac phenolic epoxy coating

PRINCIPAL CHARACTERISTICS

- Suitable for heavy H2S wastewater environments
- Suitable for use on primed steel or direct to concrete/masonry
- Good visibility due to light color
- Glossy and smooth appearance
- Reduced explosion risk and fire hazard
- Suitable for storage of unleaded gasolines
- Good chemical resistance against a wide range of chemicals and solvents
- Clear version for glass-mat reinforced, solvent-free tank bottom system (see SYSTEM SHEET 4145)
- Excellent resistance to crude oil up to 120°C (250°F)
- Can be applied by heavy-duty, single-feed, airless spray equipment (60:1)
- Meets the requirements of EI 1541 2.2 (coating systems for aviation fuel storage tanks and pipes)
- Meets NSF/ANSI Standard 61 for potable water when applied and used as described on www.http://www.nsf.org/

COLOR AND GLOSS LEVEL

- Green, cream, clear
- Gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.3 kg/l (10.8 lb/US gal)
Volume solids	100%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 106.0 g/kg max. 142.0 g/l (approx. 1.2 lb/US gal) EPA Method 24: 73.0 g/ltr (0.6 lb/USgal)
Recommended dry film thickness	300 - 600 µm (12.0 - 24.0 mils) depending on system
Theoretical spreading rate	3.3 m^2/l for 300 µm (134 ft^2/US gal for 12.0 mils)
Dry to touch	6 hours
Overcoating Interval	Minimum: 24 hours Maximum: 2 months
Full cure after	5 days

NOVAGUARD™ 840

Data for mixed product	
Shelf life	Base: at least 24 months when stored cool and dry Hardener: at least 24 months when stored cool and dry

Notes:
- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Carbon steel

- Steel; blast cleaned to a minimum of SSPC-SP10 or ISO-SA2½ , blasting profile 50 – 125 µm (5.0 mils) (2.0 – 5.0 mils)
- Steel with suitable primer (NOVAGUARD 260 or PHENGUARD 930) must be dry and free from any contamination

Concrete

- Remove grease, oil and other penetrating contaminants according to ASTM D4258
- Abrade the surface per ASTM D4259 to remove all chalk and surface glaze or laitance. Achieve surface profile - ICRI CSP 3 to 5
- NOVAGUARD 840 with PPG 884 Additive or AMERCOAT 114A may be used as a pit filler for certain applications. Check with PPG Technical Service for guidance on chemical resistance
- Maximum recommended moisture transmission rate is 3 lbs / 1,000 ft2 / 24 hours by moisture transmission test (ASTM F1869, calcium chloride test or by ASTM D4263, plastic sheet test)
- Moisture content should not exceed 4% (ASTM D4944, Calcuim Carbide Gas method)

Substrate temperature and application conditions

- Substrate temperature during application and curing should be above 5°C (41°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 80:20 (4:1)

- The temperature of the mixed base and hardener should preferably be at least 20°C (68°F)
- At lower temperature, the viscosity will be too high for spray application
- No thinner should be added
- For recommended application instructions, see working procedure

Induction time

None

NOVAGUARD™ 840

Pot life
1 hour at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Airless spray
- Use heavy-duty, single-feed, airless spray equipment, preferably 60:1 pump ratio and suitable high-pressure hoses/in-line heating or insulated hoses may be necessary to avoid cooling down of paint in hoses at low air temperature
- Length of hoses should be as short as possible

Recommended thinner
No thinner should be added

Nozzle orifice
Approx. 0.53 mm (0.021 in)

Nozzle pressure
At 20°C (68°F) paint temperature min. 28.0 MPa (approx. 280 bar; 4061 p.s.i.). At 30°C (86°F) min. 22.0 MPa (approx. 220 bar; 3191 p.s.i.)

Brush/roller
- Brush: for stripe coating and spot repair only

Recommended thinner
No thinner should be added

Cleaning solvent
THINNER 90-53 or THINNER 90-83

Notes:
- Paint inside the spraying equipment must be removed before the pot life has been expired
- All application equipment must be cleaned immediately after use

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
300 µm (12.0 mils)	3.3 m^2/l (134 ft^2/US gal)
600 µm (24.0 mils)	1.7 m^2/l (67 ft^2/US gal)

Note: Maximum DFT when brushing: 150 µm (6.0 mils)

NOVAGUARD™ 840

Measuring wet film thickness

- A difference is often obtained between the measured apparent WFT and the real applied WFT. This is due to the thixotropy and the surface tension of the paint, which retards the release of air, trapped in the paint film for some time
- Recommendation is to apply a WFT, which is equal to the specified DFT plus 60 µm (2.4 mils)

Measuring dry film thickness

- Because of low initial hardness the DFT cannot be measured within some days, due to the penetration of the measuring device into the soft paint film
- The DFT should be measured using a calibration foil of known thickness placed in between the coating and the measuring device

Overcoating interval for DFT up to 300 µm (12.0 mils)					
Overcoating with...	**Interval**	**5°C (41°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**
itself	Minimum	3.5 days	36 hours	24 hours	16 hours
	Maximum	3 months	3 months	2 months	1 month

Note: Surface should be dry and free from any contamination

Curing time for DFT up to 300 µm (12.0 mils)			
Substrate temperature	**Dry to handle**	**Minimum cure time for purely aliphatic petroleum product (see note)**	**Minimum cure time for all other chemicals**
5°C (41°F)	60 hours	10 days	15 days
10°C (50°F)	30 hours	5 days	7 days
20°C (68°F)	16 hours	60 hours	5 days
30°C (86°F)	10 hours	36 hours	3 days
40°C (104°F)	6 hours	18 hours	48 hours

Notes:

- Gasoline or gasoline/alcohol blends are not included in purely aliphatic petroleum products, please contact your PPG representative for further details
- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
10°C (50°F)	2 hours
20°C (68°F)	1 hour
30°C (86°F)	45 minutes

Note: Due to exothermic reaction, temperature during and after mixing may increase

NOVAGUARD™ 840

Product Qualifications

- Qualified for ANSI/NSF Standard 61 (potable water). For NSF application instructions, please visit the following website: http://www.nsf.org/certified-products-systems/

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- Although this is a solvent-free paint, care should be taken to avoid inhalation of spray mist, as well as contact between the wet paint and exposed skin or eyes
- Ventilation should be provided in confined spaces to maintain good visibility
- If workers are exposed to concentrations above the exposure limit, they must use appropriate personal protective equipment (PPE).

WORLDWIDE AVAILABILITY

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NOVAGUARD™ 840

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ARMAG®
CORPORATION

24' x 8' x 8' Type 2 magazine with 2 sets of double doors

Standard Type 2 Magazines

All Armag Corporation type 2 magazines have been manufactured since 1969 to meet or exceed ATF specs. The exterior is 1/4" ASTM A-36 prime steel and the interior is lined with 3" of hardwood. Two lock staples are shrouded by 1/4" steel hoods. We include hinge side door protection to prevent the door from being opened in the event the hinges are defeated and each door has an attached grounding strap to transfer static electricity back to the main structure. The magazine is properly vented and is mounted on 6" wide flange beams to keep the bottom off the ground. The unit is commercially sandblasted and painted with 8 mils of high solids urethane to protect the structure from the elements.

5' x 4' x 7' Type 2 magazine with attached 24" x 24" x 24" Type 4 cap box

Interior view of 24' x 8' x 8' Type 2 magazine

4' x 4' x 4' Type 2 ATF spec magazine

Numerous options are available including explosion proof lights and heat/AC, attached cap boxes and attached magazines, interior divider walls, and double doors. Standard size magazines range from 3' x 3' x 3' (LWH) to 40' x 8' x 10'.

Call us to discuss your storage needs or visit our website for a complete listing of standard sizes.

WWW.ARMAGCORP.COM • (502) 348-3987 • TOLL FREE: 1 (800)443-9994 • FAX: (502) 348-4801

STRUCTURAL NOTES

I. GOVERNING CODES:

This design is based on the following codes:

A. 40 CFR Part 264, Subpart J - Tank Systems
B. Florida Building Code, 2010 EDITION.
C. Specification for the Design, Fabrication, and Erection of Structural Steel for Building, ASD Design method.
D. Structural Welding Code D1.1

II. DISCREPANCIES BETWEEN DRAWINGS & EXISTING CONDITIONS:

These drawings were prepared based on field data gathered during the design process. However, as the demolition of the existing structure allows for better views of the existing structure, there may be discrepancies between the drawings & the actual conditions. These discrepancies should be brought to the attention of the engineer immediately. Please confirm all dimensions to the existing structure before ordering, purchasing, or installing any new work.

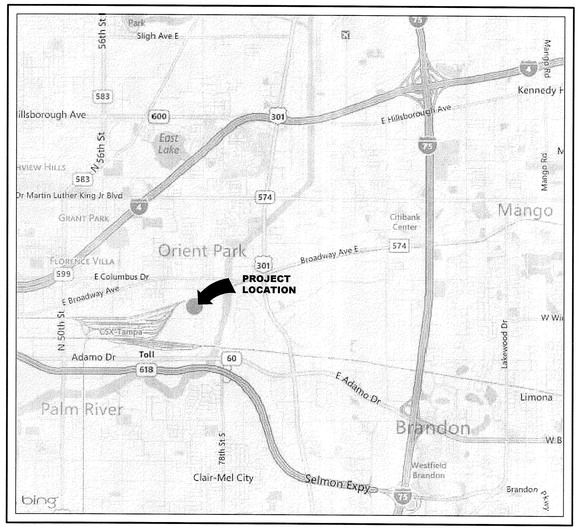
III. DRAWINGS AND SPECIFICATIONS:

A. Do not scale these drawings for dimensions not given. Verify all field conditions and confirm column locations in respect to building wall alignment prior to the start of work.
B. These construction documents have been prepared from the most complete information available to the engineer. All data on existing construction conditions are approximate & shall be verified prior to commencing work.
C. The contractor shall comply with the manufacturer's instructions & recommendations to the extent-printed information are more detailed or stringent than the requirements contained in the plans.
D. The plans show the location of all fixtures & equipment & are intended to convey the general intent of the work in scope & layout. They are not intended to show in minute detail every & all of the accessories intended for the purpose of execution of the work, but it is understood that such details are part of this work.
E. The Contractor shall perform no portion of the work at any time without Contract Documents or, where required, approved shop drawings, product data or supplemental details for such portion of the work.
F. The Contractor is responsible for means and methods of construction to ensure the safety of the building until the structural system is completed. The structural system is unstable until all connections have been made and all concrete has reached the minimum design strength as specified in these drawings.

IV. STRUCTURAL STEEL:

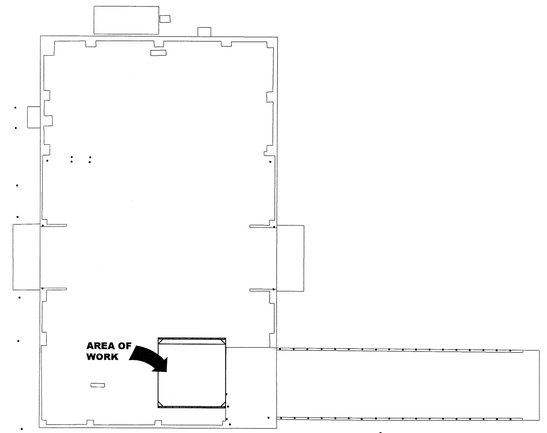
A. Fabrication and erection of structural steel shall be in accordance with AISC "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings" (latest edition).
B. Structural steel shapes (used as beams and columns) shall conform to ASTM A572 Grade 50 KSI unless otherwise noted on the contract drawings.
C. Plates, channels, rods, anchor bolts and angles shall conform to ASTM A36 unless otherwise noted of the contract drawings.
D. Steel pipe shall conform to ASTM A53 Grade B or ASTM A501.
E. Structural tubing shall conform to ASTM A500 Grade B (46 KSI minimum).
F. All bolts (except anchor bolts) shall be high strength (HSB) shall conform to ASTM A325, 3/4" diameter unless noted otherwise. High strength bolts shall be used unless specifically noted on the drawings.
G. All welding shall be performed by certified welders in accordance with AWS "Code for Arc and Gas Welding in Building Construction" (latest edition). The minimum electrode used shall be E70xx Low Hydrogen electrodes unless otherwise specified.
H. All beams shall be fabricated and erected natural camber up
I. Splicing of structural steel where not detailed is not permitted with out prior written approval of the structural engineer.

VICINITY MAP



ABBREVIATIONS (NOT ALL ARE USED)

AB	ANCHOR BOLT	LL	LIVE LOAD
AFF	ABOVE FINISH FLOOR	LLBB	LONG LEG BACK-TO-BACK
ARCH	ARCHITECT(URAL)	LLH	LONG LEG HORIZONTAL
BLDG	BUILDING	LLV	LONG LEG VERTICAL
BRDG	BRIDGING		
BRG	BEARING	OC	ON CENTER
CJ	CONSTRUCTION JOINT (OR CONTROL JOINT)		
CL	CENTERLINE	PAF	POWDER-ACTUATED FASTENER(S)
CMU	CONCRETE MASONRY UNIT	PL	PLATE
CONC	CONCRETE	PLF	POUNDS PER LINEAR FOOT
CONN	CONNECTION	PNL	PANEL
CONT	CONTINUOUS	PSF	POUNDS PER SQUARE FOOT
COORD	COORDINATE	PSI	POUNDS PER SQUARE INCH
DIA	DIAMETER	REQD	REQUIRED
DL	DEAD LOAD		
DWG	DRAWING	SDI	STEEL DECK INSTITUTE
		SIM	SIMILAR
EA	EACH	SJI	STEEL JOIST INSTITUTE
ENG	ENGINEER	SOG	SLAB ON GRADE
EL	ELEVATION	SPECS	SPECIFICATIONS
EQ	EQUAL	SQ	SQUARE
EW	EACH WAY	STD	STANDARD
EXT	EXTERIOR	STL	STEEL
FBC	FLORIDA BUILDING CODE	T&B	TOP AND BOTTOM
FF	FINISHED FLOOR	TRANS	TRANSVERSE
FS	FAR SIDE	TYP	TYPICAL
FTG	FOOTING		
		UNO	UNLESS NOTED OTHERWISE
ga	GAUGE		
GC	GENERAL CONTRACTOR	VIF	VERIFY IN FIELD
		VERT	VERTICAL
HC	HOLLOW-CORE		
HORIZ	HORIZONTAL	WWF	WELDED WIRE FABRIC
HS	HEADED STUD	W/	WITH
HSS	HOLLOW STRUCTURAL SECTION		
INT	INTERIOR		



BUILDING KEY PLAN

SCALE: NTS

N

STRUCTURAL NOTES

REVISIONS

1	2	3	4	5

THE AVANTI GROUP INC
consulting engineers
1095 E. Brandon Blvd.
Brandon, Florida 33511
P (813) 655-2884
F (813) 655-2886
www.avantitampa.com
FLORIDA CERTIFICATE OF AUTHORIZATION No. 26537

CLIENT:
KCI TECHNOLOGIES, INC
10401 HIGHLAND MANOR DR SUITE 120
TAMPA, FL 33610

PROPOSED TANK SYSTEM FOR:
EQ FLORIDA
7202 EAST 8TH AVE
TAMPA FL 33619

DAVID W. SCHONACKER LICENSE No. 63131 STATE OF FLORIDA PROFESSIONAL ENGINEER
JULY 24, 2013
REGISTERED PROFESSIONAL ENGINEER
NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED ENGINEER

I CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE DRAWINGS & SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES

SCALE:	AS SHOWN
DRAWN BY:	ALH
CHECKED BY:	DMS
ISSUE DATE	07-24-13
PROJECT:	13-098

SHEET NUMBER
S001

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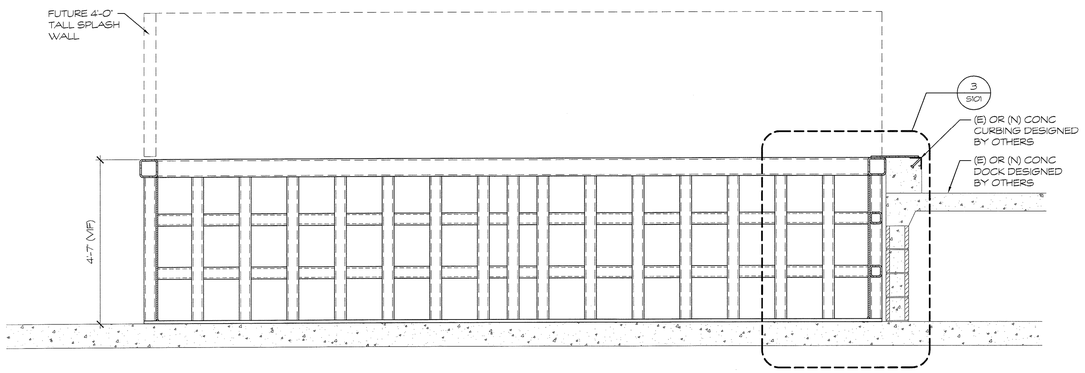
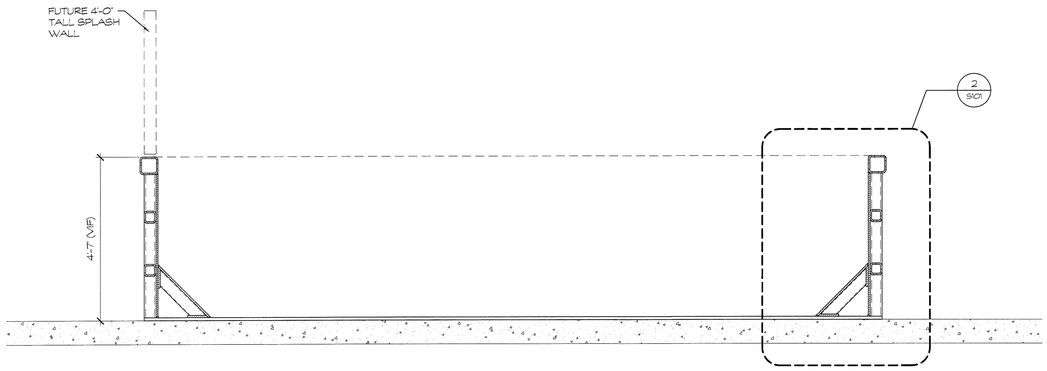


TANK SOUTH ELEVATION

SCALE: 1/2" = 1'-0"

FILE_NAME

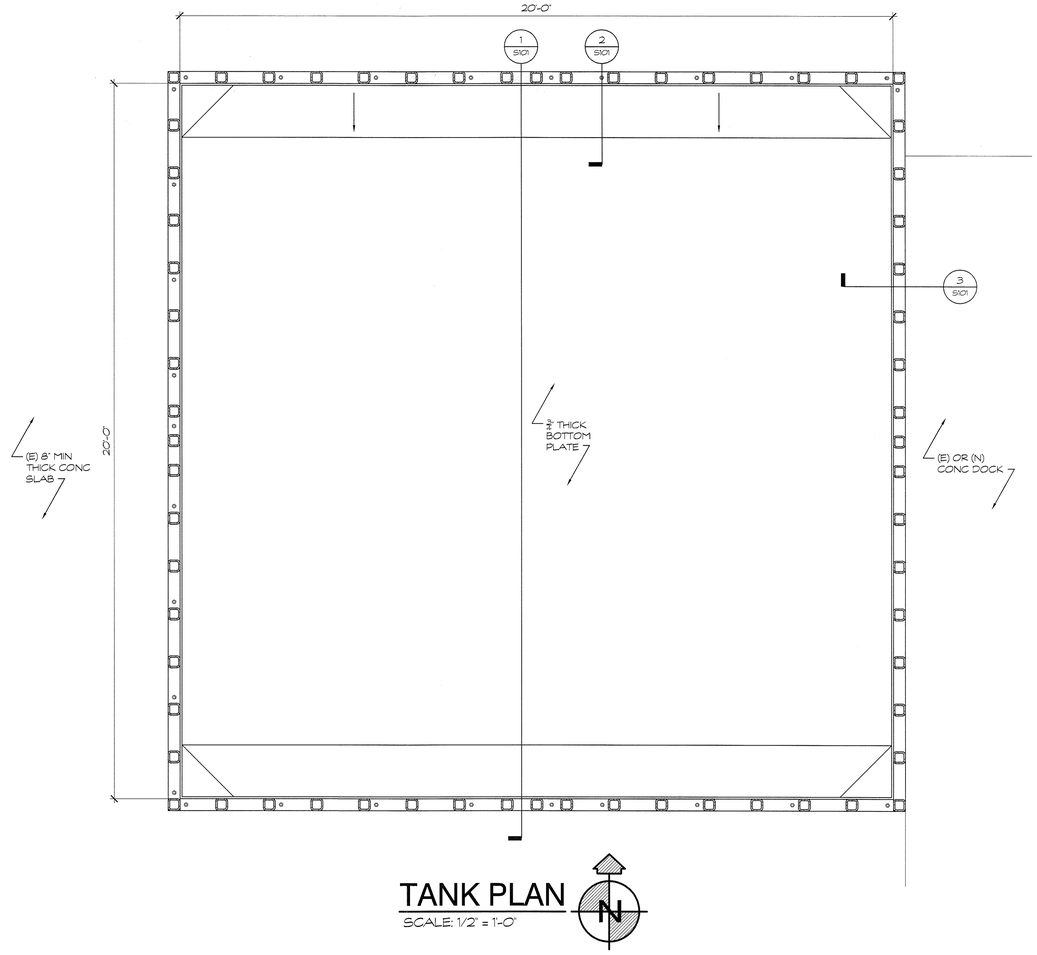


1 S101 TANK SECTION

SCALE: 1/2" = 1'-0"

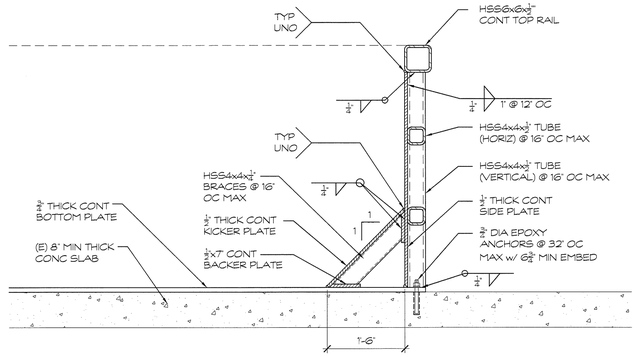
NOTE:

I HAVE REVIEWED THE REQUIREMENTS IN 40 CFR PART 264, SUBPART J-TANK SYSTEMS AND THE TREATMENT TANK DESIGN WAS BASED ON CONSIDERATION OF THESE REQUIREMENTS AS WELL AS THE APPLICABLE GOVERNING CODES AND STRUCTURAL STEEL NOTES PROVIDED IN THE STRUCTURAL NOTES SECTION ON SHEET S001. IN MY PROFESSIONAL OPINION, THE TANK SYSTEM HAS SUFFICIENT STRUCTURAL INTEGRITY AND IS ACCEPTABLE FOR STORING AND TREATING HAZARDOUS WASTE. FURTHER, THE FOUNDATION, STRUCTURAL SUPPORT, BEAMS AND CONNECTIONS ARE ADEQUATELY DESIGNED AND THE TANK HAS SUFFICIENT STRUCTURAL STRENGTH, COMPATIBILITY WITH THE WASTES TO BE STORED OR TREATED, AND CORROSION PROTECTION TO ASSURE THAT IT WILL NOT COLLAPSE, RUPTURE, OR FAIL.



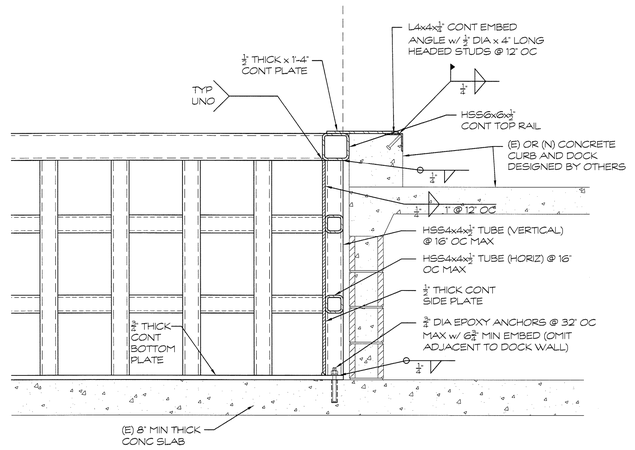
TANK PLAN

SCALE: 1/2" = 1'-0"



2 S101 SECTION AT NORTH WALL (PULL)

SCALE: 3/4" = 1'-0"



3 S101 SECTION AT EAST WALL (DOCK)

SCALE: 3/4" = 1'-0"

REVISIONS

1	
2	
3	
4	
5	

THE AVANTI GROUP consulting engineers
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I CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE DRAWINGS & SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES

SCALE:	AS SHOWN
DRAWN BY:	ALH
CHECKED BY:	DMS
ISSUE DATE:	07-24-13
PROJECT:	13-098

SHEET NUMBER

S101

TANK PLAN, ELEVATION & DETAILS

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PT125512

MTL'S:

- 40mil. LLDPE
- 12"x12" ALUMINUM L BRACKETS

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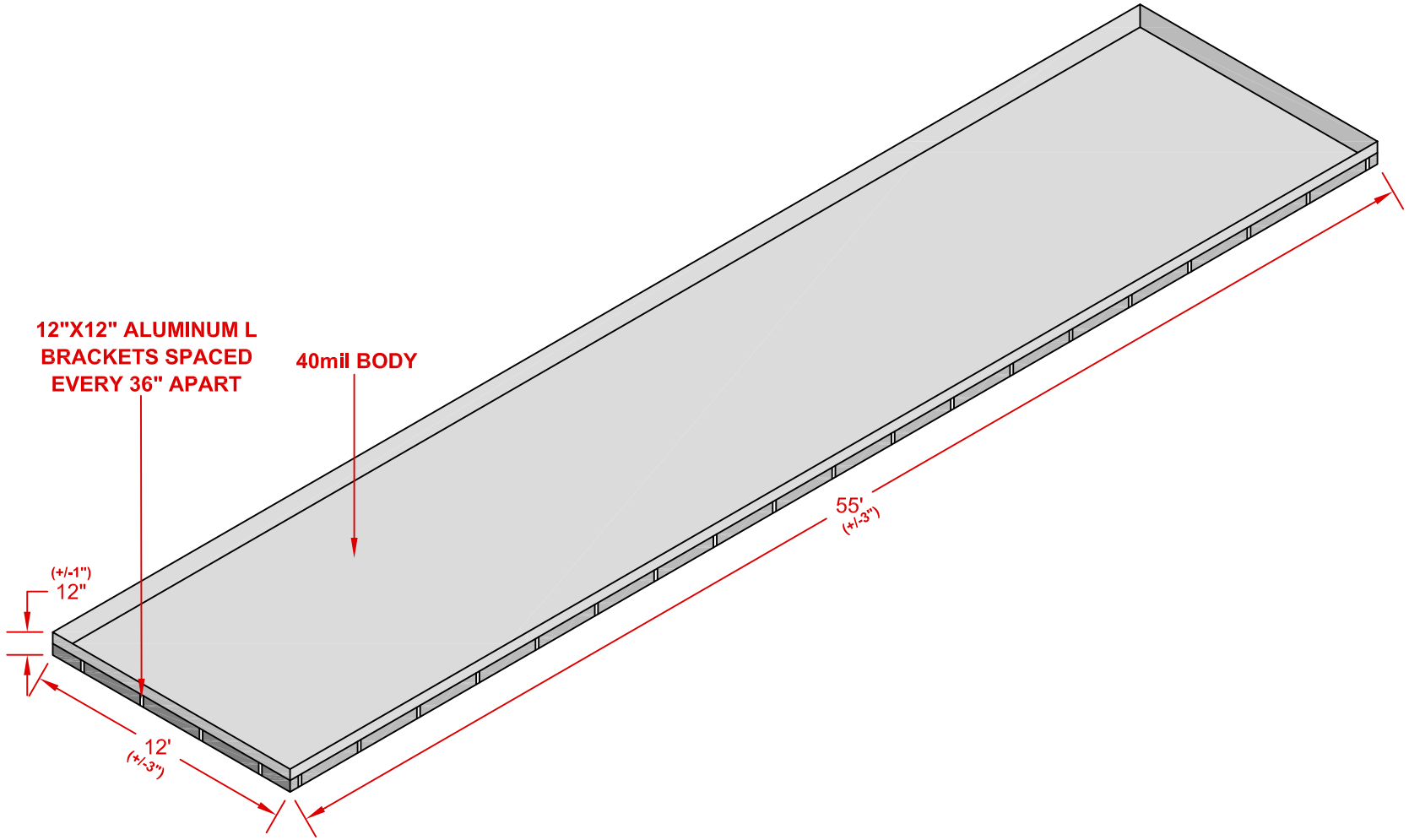
BRITISH PATENT # GB2453305



FINISHED

PACTEC

PacTec, Inc.

1-(800)-272-2832

CUSTOMER APPROVAL

SIGNATURE _____ DATE _____

CONTACT INFORMATION

NAME _____ PHONE # _____

Proprietary & Confidential

CUSTOMER NAME: US ECOLOGY OF TAMPA

PACTEC ITEM CODE– PT125512

DESCRIPTION PT125512

SIZE	SCALE	DWG NO.
A		PT125512

DRAWN BY	DATE DRAWN	REVISION	SHEET	OF
DWF	02/19/15	0.0	1	1

P.O. Box 8069 Clinton, LA 70722 (800) 272-2832 www.pactecinc.com

40 Mil Polyethylene Chemical Resistance

Use this Chart as a General Guide Only. Test each chemical first before storing in plastic. The first letter of each pair represents the resistance rating at 20 degrees Celsius; the second at 50 degrees Celsius.

E – No Damage after 30 days of constant exposure.

G – Little or no damage after 30 days of constant exposure.

F – Some effect after seven days of constant exposure. Depending on the plastic, the effect may be cracking, crazing, and loss of strength or discoloration. Solvents may cause softening, swelling and permeation losses with HDPE; the solvent effects on these materials are normally reversible.

N – Not recommended for continuous use. Immediate damage may occur. Depending on the plastic, the effect will be severe cracking, crazing, loss of strength, discoloration, deformation, dissolution or permeation loss.

EFFECTS OF CHEMICALS ON PLASTICS

Chemicals can affect the weight, strength, color, dimensions, flexibility and surface appearance of plastics. The basic models of interaction that cause these changes are: (1) chemical attack on the polymer chain, with resultant reduction in physical properties, including oxidation reaction of functional groups in, or on, the chain, with resultant reduction in physical properties, including oxidation; reaction of functional groups, in or on the chain; and depolymerization; (2) physical change, including absorption of solvents, resulting in softening and swelling of the plastic; permeation of solvent through the plastic; or dissolution in a solvent; and (3) stress-cracking from the interaction of a “stress-cracking agent” with molded-in or external stresses.

The reaction combination of compounds of two or more classes may cause a synergistic or undesirable chemical effect. Other factors affecting chemical resistance include temperature, pressure, internal or external stresses (such as centrifugation), and length of exposure to and concentration of the chemical. As temperature increases, resistance to attack decreases.

Acetaldehyde	GF
Acetamide, sat.	EE
Acetic Acid 5%	EE
Acetic Acid 50%	EE
Acetone	NN
Acetonitrile	EE
Acrylotnitrile	EE
Adipic Acid	EE
Alanine	EE
Allyl Alchohol	EE
Aluminum Hydroxide	EE
Aluminum Salts	EE
Amino Acids	EE
Ammonia	EE
Ammonium Acetate, sat	EE
Ammonium Glycolate	EE
Ammonium Hydroxide 5%	EE
Ammonium Hydroxide 30%	EE
Ammonium Oxalate	EE
Ammonium Salts	EE
n-Amyl Acetate	EG
Amyl Chloride	FN
Aniline	EG
Banzaldehyde	EE
Benzene	NN
Benzoic Acid, sat.	EE
Benzyl Acetate	EE
Benzyl Alcohol	FN
Bromine	FN
Bromobenzene	FN
Bromoform	NN
Butadiene	FN
n-Butyl Acetate	EG
n-Butyl Alcohol	EE
sec-Butyl Alcohol	EE
tert-Butyl Alcohol	EE
Butyric Acid	FN
Calcium Hypochlorite, Sat.	EE
Cabazole	EE
Carbon Disulfide	NN
Carbon tetrachloride	GF
Cedarwood Oil	FN
Cellosolve Acetate	EE
Chlorine 10% in air	EF
Chlorine 10% (moist)	GF
Chloroacetic Acid	EE
p-Chloroacetophenone	EE
Chloroform	FN
Chromic Acid 10%	EE
Chromic Acid 50%	EE
Cinnamon Oil	FN
Citric Acid 10%	EE
Cresol	DN
Cyclohexane	DN
DeCalin	EG
o-Dichlorobenzene	FF
p-Dichlorobenzene	DF
Diethyl Benzene	FN
Diethyl Ether	FN
Diethyl Ketone	NN
Diethyl Malonate	EE
Diethylene Glycol	EE
Diethylene Glycol Ethyl Ether	EE
Dimethyl Formamide	EE
Dimethylsulfoxide	EE
1,4 Dioxane	GG
Dipropylene Glycol	EE
Ether	FN
Ethyl Acetate	EE
Ethyl Alcohol (absolute)	EE
Ethyl Alcohol 40%	EE
Ehyl Benzene	GF
Ethyl Benzoate	GG
Ethyl Butyrate	GF
Ethyl Chlorode, liquid	FN
Ethyl Cyanoacetate	EE
Ethyl Lactate	EE
Ethylene Chloride	GF
Ethylene Glycol	EE
Ethylene Glycol Methyl Ether	EE
Ethylene Oxide	GF
Fluoride	EE
Flourine	GN
Formaldehyde 10%	EE
Formaldehyde 40%	EE
Formic Acid 3%	EE
Formic Acid 50%	EE
Formic Acid 98-100%	EE
Freon TF	EG
Fuel Oil	GF
Gasoline	GG
Glacial Acetic Acid	EE
Glycerine	EE
n-Heptane	GF
Hydrochloric Acid 1-5%	EE
Hydrochloric Acid 20%	EE
Hydrochloric Acid 35%	EE
Hydrofluoric Acid 4	EE
Hydrofluoric Acid 48%	EE
Hydrogen Peroxide 3%	EE

Hydrogen Peroxide 30%	EE
Osobutyl Alcohol	EE
Isopropyl Acetate	EG
Isopropyl Alcohol	EE
Osopropyl Benzene	GF
Kerosene	GG
Lactic Acid 3%	EE
Lactic Acid 85%	EE
Methoxyethyl Oleate	EE
Methyl Alcohol	EE
Methyl Ethyl Ketone	NN
Methyl Isobutyl Ketone	NN
Methyl Propyl Ketone	EG
Methylene Chloride	FN
Mineral Oil	EE
Nitric Acid 1-10%	EE
Nitric Acid 50%	GN
Nitric Acid 70%	GN
Perchloroethylene	NN
Phenol, Chrystals	GF
Phosphoric Acid 1-5%	EE
Phosphoric Acid 85%	EE
Pine Oil	EG
Potassium Hydroxide 1%	EE
Potassium Hydroxide conc.	EE
Propane Gas	FN
Propylene Glycol	EE
Propylene Oxide	EE
Resorcinol sat.	EE
Resorcinol 5%	EE
Salicylaldehyde	EE
Salicylic Acid, powder	EE
Salicylic Acid, sat.	EE
Salt Solutions, metallic	EE
Siver Acetate	EE
Sodium Nitrate	EE
Sodium Acetate, sat.	EE
Sodium Hydroxide 1%	EE
Sodium Hydroxide 50% to sat.	EE
Sodium Hypochlorite 15%	EE
Stearic Acid, crystals	EE
Sulfuric Acid 1-6%	EE
Sulfuric Acid 20%	EE
Sulfuric Acid 60%	EE
Sulfuric Acid, 98%	GG
Sulfur Dioxide, liq., 46psi	FN
Sulfuric Dioxide, wet or dry	EE
Sulfur Salts	GF
Tartarci Acid	EE
Tetrahydrofuran	GF
Thionyl Chloride	NN
Toluene	GG
Tributyl Citrate	EG
Trichloroethane	FN
Trichloroethylene	FN
Triethylene Glycol	EE
Tripropylene Glycol	EE
Trupentine	GG
Undecyl Alcohol	EG
Urea	EE
Vinyllidene Chloride	FN
Xylene	GF
Zinc Stearate	EE

The information contained herein is typical and to the best of our knowledge accurate and indicative of the results that can be obtained by testing in an accredited laboratory. The buyer or user of these products is solely responsible for determining whether these products are suitable for any intended use and for its proper installation and use.

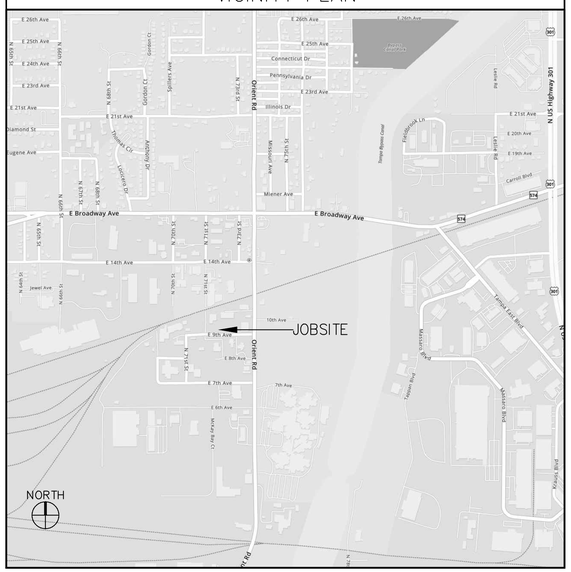
P.O. Box 8069 Clinton, LA 70722 (800) 272-2832 www.pactecinc.com

40 mil

Product Properties	Specification (Metric)	Test Method (ASTM)
Weight	28.6 oz/yd^2 (970g/m^2)	D751
Thickness	41 mils (1.0 mm)	D751
Puncture Resistance	89 lbs (396 N)	D4833
Ball Burst	269 lbs (1200 N)	D751
Trap Tear	MD – 133 lbs (592 N) TD – 107 lbs (476 N)	D4533
Hydrostatic Resistance	233 psi (1600 kPa)	D751, Procedure A
Pyramid Puncture	100 lbs (445 N)	D5494
Tensile Property - Break Strength	MD – 405 lbs (1800 N) TD – 385 lbs (1700 N)	D751, Procedure A
Tensile Property - Elongation	MD – 1007% TD – 964%	D751, Procedure A
Abrasion	>40000 cycles	D3884
Low Working Temp	-106°F (-77°C)	D746
High Working Temp	160°F (71°C)	

The information contained herein is typical and to the best of our knowledge accurate and indicative of the results that can be obtained by testing in an accredited laboratory. The buyer or user of these products is solely responsible for determining whether these products are suitable for any intended use and for its proper installation and use.

VICINITY PLAN


JOBSITE
NORTH
E Broadway Ave
Orient Rd
N 56th St
N 50th St
N 40th St
N 22nd St
N 15th St
N 7th St
E 26th Ave
E 25th Ave
E 24th Ave
E 23rd Ave
E 21st Ave
E 20th Ave
E 19th Ave
E 14th Ave
E 10th Ave
E 9th Ave
E 8th Ave
E 7th Ave
E 6th Ave
Connecticut Dr
Pennsylvania Dr
Illinois Dr
Meiner Ave
Diamond St
Eugene Ave
Jewel Ave
Gordon Ct
Gordon Cir
Spiller Ave
Rockdale Dr
Rockdale Ct
Jerry Rosser Blvd
Tampa Lakes Blvd
Carmen Blvd
Fairbanks Ln
Lenox Rd
Lenox Ln
Lenox Dr
Lenox Pl
Lenox Ct
Lenox Cir
Lenox Way
Lenox Park Dr
Lenox Park Ct
Lenox Park Cir
Lenox Park Way
Lenox Park Pl
Lenox Park Ln
Lenox Park Rd
Lenox Park Blvd
Lenox Park Ave

1-SUB-BLD-22-0496402-PLANS-10-03-2022

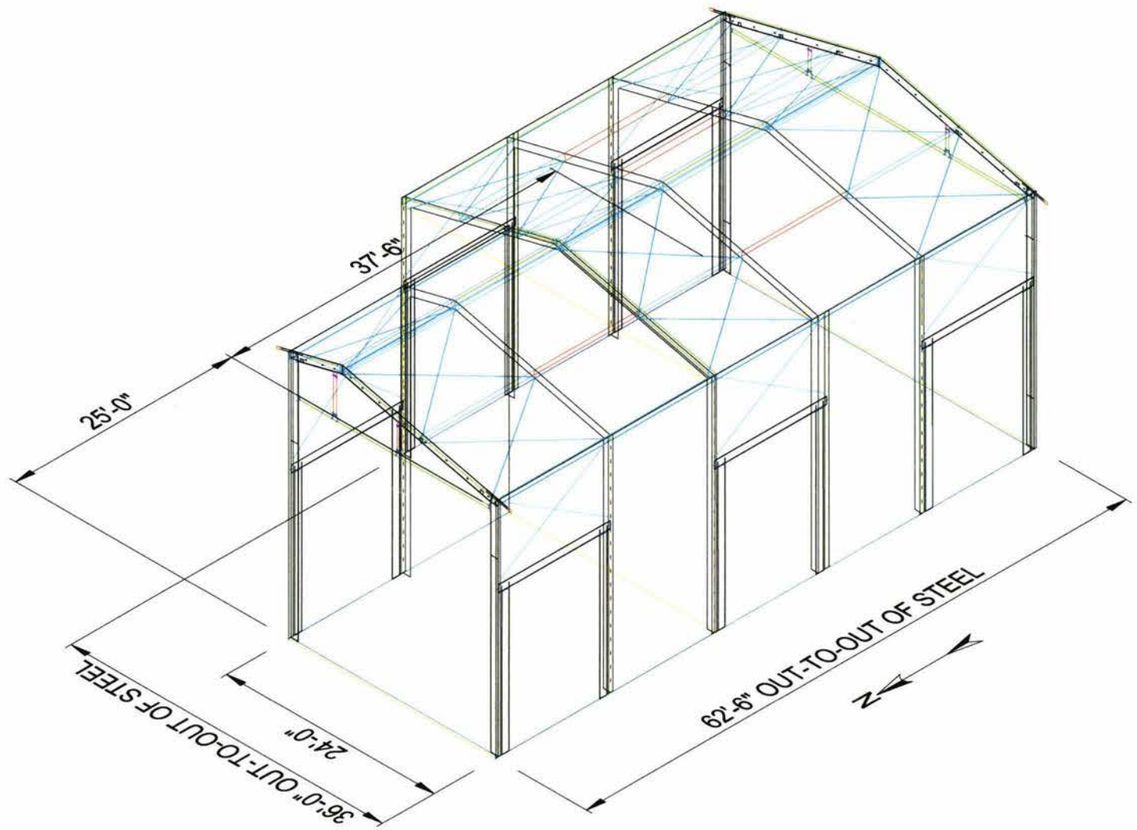
COMMERCIAL

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-22-0496402 12/2/2022
THIS SET OF PLANS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make changes or alterations without written approval from the City of Tampa Construction Services Division.
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

S0	INDEX & COVER PAGES
	S0.0 - SHEET INDEX
	S0.1 - BUILDING SPECS.
	S0.3 - BUILDING REACTIONS
	S0.4 - BUILDING REACTIONS
	S0.5 - 3D VIEW 1
	S0.6 - 3D VIEW 2
S1	ANCHOR BOLT PLAN
	S1.0 - BASE PLATE PLAN
	S1.1 - BASE PLATE DETAILS
S2	RIGID FRAME SECTIONS
	S2.1 - RIGID FRAME PROFILE: FRAME LINE 1 @ BAY 1
	S2.2 - RIGID FRAME PROFILE: FRAME LINE 2 @ BAY 2
	S2.3 - RIGID FRAME PROFILE: FRAME LINE 3 @ BAY 3
	S2.4 - RIGID FRAME PROFILE: FRAME LINE 4 & 5 @ BAY 4
	S2.5 - RIGID FRAME PROFILE: FRAME LINE 6 @ BAY 5
S3	RIGID FRAME LAYOUT
	S3.0 - ROOF FRAMING PLAN
	S3.1 - SIDE WALL FRAMING ELEVATIONS
S4	END WALL FRAMING
	S4.0 - END WALL FRAMING ELEVATIONS: FRAME LINE 1
	S4.1 - END WALL FRAMING ELEVATIONS: FRAME LINE 6
S5	SECTIONS & DETAILS
	S5.0- STANDARD CONNECTION DETAILS
	S5.1 - STANDARD CONNECTION DETAILS
S8	GUTTER DETAILS
	S8.0 - GUTTER DETAILS

DOCKZILLA US ECOLOGY
36'-0" X 37'-6" W/ 24'-0" X 25'-0"

7202 E 8TH AVE
TAMPA, FL 33619



LEGACY BUILDING SOLUTIONS
www.LegacyBuildingSolutions.com
877-259-1528

DOCKZILLA US ECOLOGY
36'-0" X 37'-6" W/ 24'-0" X 25'-0"
TAMPA, FL

Legacy Building Solutions
19500 County Rd 142
South Haven, MN 55382
p. 320-258-0500

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U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

SHEET INDEX

DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN-HOUSE REVIEW	8/12/2022
IN-HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/12/2022

Project No: 2022-61
Date: 9/12/2022
Drawn/Checked By: BLL / MT

Sheet Number

S0.0

Dwayne Moore
9-23-22

BUILDING LOADS / DESCRIPTION:

WIDTH: 24 LENGTH: 25 HEIGHT: 28.88 / 25.88
(BUILDING DIMENSIONS ARE NOMINAL. REFER TO PLANS).

WIDTH: 36 LENGTH: 37.5 HEIGHT: 25.88 / 25.88
(BUILDING DIMENSIONS ARE NOMINAL. REFER TO PLANS).

THIS STRUCTURE IS DESIGNED UTILIZING THE LOADS INDICATED AND APPLIED AS REQUIRED BY : FBC 20 / IBC 18 .
FABRIC DESIGN UTILIZING THE LOADS INDICATED UNDER CSA S367-12
THE CONTRACTOR IS TO CONFIRM THAT THESE LOADS COMPLY WITH THE REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT.

ROOF DEAD LOAD:	2.000	PSF
COLLATERAL LOAD:	1	PSF
ROOF LIVE LOAD:	20.00	PSF
ROOF SNOW LOAD (Ps):	0	PSF
GROUND SNOW LOAD:	0	PSF
BASIC/ULTIMATE WIND SPEED:	141	MPH
SEISMIC DESIGN CATEGORY:	A	
IMPORTANCE FACTORS:		
WIND LOAD:	1.00	
SNOW LOAD:	1.0000	
SEISMIC LOAD:	1.00	

LEGACY BUILDING SOLUTIONS(LBS) FOLLOWS THE GUIDELINES OUTLINED IN THE AISC AND MBMA CODES OF STANDARD PRACTICE. LBS STANDARD PRODUCT SPECIFICATIONS, DESIGN, FABRICATION, AND QUALITY CRITERIA SHALL GOVERN ALL WORK UNLESS STIPULATED OTHERWISE IN CONTRACT DOCUMENTS. IN CASE OF DISCREPANCIES BETWEEN LBS STRUCTURAL PLANS AND PLANS FOR OTHER TRADES LBS PLANS SHALL GOVERN.

IT IS THE RESPONSIBILITY OF THE OWNER TO OBTAIN APPROVALS AND PERMITS FROM ALL GOVERNING AGENCIES AND JURISDICTIONS AS REQUIRED. APPROVAL OF LBS DRAWINGS CONSTITUTES THE ACCEPTANCE OF LBS INTERPRETATION OF THE CONTRACT PURCHASE ORDER. UNLESS SPECIFIC DESIGN CRITERIA CONCERNING INTERFACE DESIGN AND DETAILS ARE FURNISHED AS PART OF THE CONTRACT, LBS DESIGN ASSUMPTIONS SHALL GOVERN.

LBS ENGINEERS ARE NOT PROJECT ENGINEERS OR ENGINEER OF RECORD FOR THE OVERALL PROJECT. LBS ENGINEERING SUPPLIES SEALED ENGINEERING DESIGN DATA AND DRAWINGS FOR LBS SUPPLIED MATERIAL AS PART OF THE OVERALL PROJECT FOR USE BY OTHERS TO OBTAIN PERMITS, APPROVALS, AND COORDINATE WITH OTHER TRADES. THE OWNER OR A/E FIRM ARE RESPONSIBLE FOR THE OVERALL PROJECT COORDINATION INCLUDING COORDINATION WITH APPROPRIATE INSPECTION AND TESTING AGENCIES. ALL INTERFACE AND/OR COMPATIBILITY OF ANY MATERIALS NOT FURNISHED BY LBS ARE TO BE CONSIDERED AND COORDINATED BY THE OWNER OR A/E FIRM.

GENERAL

THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE, QUALITY WORKMANSHIP IN ERECTING THE BUILDING IN CONFORMANCE WITH THIS DRAWING. DETAILS REFERENCED IN THIS DRAWING AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION INCLUDING THE USE OF TEMPORARY BRACING.

LBS IS NOT RESPONSIBLE FOR ANY ERRORS OR DAMAGE IN THE ERECTION OF THE COMPONENTS IN THIS DRAWING, NOR THE INSPECTION OF THE ERECTED COMPONENTS TO DETERMINE THE SAME.

THIS CERTIFICATION AND ENGINEERING SEAL APPLIES ONLY TO PRODUCTS DESIGNED AND FABRICATED BY LBS OR ITS AFFILIATE COMPANIES FOR THE LOADING CONDITIONS DESIGNATED ON THESE DRAWINGS. CONCRETE FOUNDATIONS, STEEL COMPONENTS BY OTHERS AND ERECTION SUPERVISION ARE NOT THE RESPONSIBILITIES OF LBS OR THE CERTIFYING ENGINEER.

ERECTION

THE ERECTOR MUST PROVIDE SAFE WORKING CONDITIONS AND PRACTICES CONFORMING TO ALL SAFETY REGULATIONS. ALL LIFTING DEVICES ARE TO BE DESIGNED TO LIFT THE VARIOUS BUILDING COMPONENTS. SLINGS AND SPREADER BARS ARE TO BE USED TO PREVENT PERMANENT DEFORMATION OF ALL STRUCTURAL COMPONENTS.

ERECTION MUST START AT A BRACED BAY. ERECT AND TEMPORARILY SUPPORT RIGID FRAMES. USE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY OF THE FRAMES. INSTALL PURLINS AND CROSS BRACING. PLUMB AND SQUARE RIGID FRAMES IN ACCORDANCE WITH CSA S16-1 AND OSHA 29 CFR PART 1926-SAFETY STANDARD FOR STEEL ERECTION.

ENSURE ALL PURLINS REMAIN PARALLEL AND ALL STRUCTURAL FRAMING MEMBERS ARE PLUMB LEVEL AND ALIGNED.

FIELD MODIFICATIONS

MODIFICATIONS TO THIS BUILDING FROM DETAILS AND INSTRUCTIONS CONTAINED ON THESE DRAWINGS MUST BE APPROVED IN WRITING BY LBS BUILDING ENGINEERS. THIS INCLUDES, BUT IS NOT LIMITED TO, REMOVAL OF ROOF OR WALL COVERING, REMOVING OR MOVING STRUCTURAL PURLINS OR SUPPORTS, REMOVING OR MOVING STRUCTURAL CROSS BRACING OR FLANGE BRACING, OR CORRECTION OF FABRICATION ERRORS, ETC. THE OWNER/ERECTOR SHALL NOT IMPOSE LOADS TO THIS STRUCTURE BEYOND WHAT IS SPECIFIED FOR THE BUILDING IN THE CONTRACT DOCUMENTS. LBS ACCEPTS NO RESPONSIBILITY FOR THE CONSEQUENCES OF ANY UNAUTHORIZED ADDITIONS, ALTERATIONS, OR ADDED LOADS TO THIS STRUCTURE.

LEGACY BUILDING SOLUTIONS (LBS) RESERVES THE RIGHT TO PROCURE MATERIALS FROM VENDORS OF THEIR CHOOSING BOTH FOREIGN AND DOMESTIC

IT IS THE RESPONSIBILITY OF THE ERECTOR TO ENSURE THE PROPER BOLT TIGHTNESS IN ACCORDANCE WITH APPLICABLE REGULATIONS. SEE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS. SEE TABLE 4.1 FOR SUMMARY OF CONNECTIONS. TABLES 8.1 AND 8.2 FOR INSTALLATION REQUIREMENTS AND SECTIONS 9.1-3 FOR DETAIL INSPECTION REQUIREMENTS.

WHEN BOLT INSPECTIONS ARE NOT SPECIFICALLY REQUIRED, A325 BOLTS IN PRIMARY FRAMING AND BRACING CONNECTIONS MAY BE "SNUG TIGHT" EXCEPT AS FOLLOWS; 1) PRETENSION A325 BOLTS IF BUILDING SUPPORTS A CRANE GREATER THAN 5 TON CAPACITY. 2) PRETENSION A325 BOLTS IF BUILDING SUPPORTS MACHINERY THAT CREATES VIBRATION, IMPACT, OR STRESS REVERSALS ON CONNECTIONS. 3) PRETENSION A325 BOLTS IF LOCATED IN HIGH SEISMIC AREAS. FOR IBC BASED CODES; HIGH SEISMIC IS DESIGN CATEGORIES D, E OR F. 4) IF FOR ANY OTHER REASON A BOLT INSPECTION IS REQUIRED, USE AN APPROVED TIGHTENING METHOD PER THE RCSC.

ALL A490 BOLTS SHALL BE PRE-TENSIONED JOINTS

ALL OTHER HEX BOLTS SHALL CONFORM TO SAE GR.5 OR EQUAL U.N.O.

IN CANADA, ALL A325 AND A490 BOLTS SHALL BE "PRE-TENSIONED", EXCEPT FOR SECONDARY MEMBERS.

SECONDARY MEMBERS ARE ALWAYS SNUG TIGHT, UNLESS INDICATED OTHERWISE IN ERECTION DRAWING DETAILS.

FOUNDATION

FOUNDATION MUST BE LEVEL, SQUARE AND SMOOTH. ANCHOR BOLTS MUST BE PLACED AS SHOWN ON DRAWINGS

ANCHOR BOLTS

ANCHOR DIAMETERS, LENGTHS, AND PROJECTIONS TO BE DETERMINED BY FOUNDATION ENGINEER

ANCHOR BOLT PROJECTIONS BASED ON NO GROUT ARE $2\frac{1}{2}$" MIN TO 4" MAX.

MATERIAL SPECIFICATIONS

3 PLATE WELDED SECTIONS	
A529, A572, A1011	GRADE 55
MISC. STEEL SHAPES	
A36	GRADE 36
MISC. STEEL SHAPES	
A529, A572, A588, A709, A992	GRADE 50
COLD FORMED MEMBERS	
ASTM A1003, A653	GRADE 50
HSS MEMBERS	
A500 GRADE B	46 KSI

EPOXXISHIELD STANDARD:
BRUSH-OFF BLAST SP7 SINGLE COAT OF PPG 370 EPOXY. - 5 MILS TOTAL THICKNESS. BOLTS & CABLES - HDG OR ZINC PLATED.

CROSS BRACING - PER PLANS

ROOF ALUMINUM EXTRUSION ALLOY 6061-T6, ROCKWELL A HARDNESS 40, TENSILE STRENGTH (ULTIMATE 45KSI, YIELD 40KSI) AND ELONGATION 12%.

SIDEWALL ALUMINUM EXTRUSION ALLOY 6005A-T5, ROCKWELL E HARDNESS (83-98), TENSILE STRENGTH (ULTIMATE 38KSI, YIELD 31KSI) AND ELONGATION 7%.

ROOF PLAN NOTES

USE OF BOLTS SPECIFIED IN DRAWING DETAILS IS REQUIRED FOR ALL CONNECTIONS
CABLE/ROD AND PURLIN BRACING ARE INTEGRAL PARTS OF THE STRUCTURAL SYSTEM AND SHOULD BE PROPERLY INSTALLED PRIOR TO ERECTION OF ROOF FABRIC AND END PANELS. REMOVAL OR ALTERATION OF ANY BRACING WITHOUT PRIOR AUTHORIZATION FROM LBS ENGINEERING IS PROHIBITED

MATERIAL STORAGE

HDG, ALUMINIZED, AND COLORED MATERIALS ARE SUBJECT TO CORROSION AND DISCOLORATION IF THEY ARE IMPROPERLY STORED. SHORT TERM SITE STORAGE OF STEEL COMPONENTS MAY BE TOLERATED PROVIDED CARE IS TAKEN TO KEEP MATERIALS DRY AT ALL TIMES. IF STEEL IS STORED OUTSIDE PROPER DRAINAGE MUST BE PROVIDED. IN ADDITION STEEL SHOULD NEVER BE STORED IN DIRECT CONTACT WITH GROUND AND SHOULD BE SET ON BLOCKING AT ALL TIMES

FABRIC/LINER NOTES

EXTERIOR FABRIC IS AN INTEGRAL PART OF THE BUILDING ENVELOPE, REMOVAL OR ALTERATION WITHOUT PRIOR AUTHORIZATION IS PROHIBITED. ALL TEARS MUST BE REPAIRED IMMEDIATELY TO AVOID POTENTIAL LOSS

ExxoTec Elite H5873-0286	
Base Fabric	100% Polyester
Coating Material	PVC
Total Weight	28 oz/yd²
Grab Tensile ASTM D-5034	696/745 lbs
Strip Tensile (W/F) ASTM D-751	527/507 lbs/in
Tear Resistance (W/F) ASTM D-751	74/126 lbs
Weld Adhesion ASTM D 751	19 lbs/in
Flex Resistance DIN 53359 A	At least 100,000 bends
Translucency PA 2001/41	*12%
Hydrostatic Resistance ASTM D 751- Procedure A EN13501-1, DIN 4102-1, NF P 92-503ff, UNI 9177, BS 7837	psi. 670 lbs
Low Temperature ASTM D 2136	-40 - 158° F -40 - 70° C

*VALUE SHOWN IS FOR WHITE ONLY

FR Performance
This product meets the requirements of SIS 620082, Cal. T19, NFPA 701, ASTM E84, CAN/ULC S109, CAN/ULC S102.

Dwaye Moore
9-23-22

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-22-0496402 12/2/2022
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DOCKZILLA US ECOLOGY

36'-0" X 37'-6" W/ 24'-0" X 25'-0"
TAMPA, FL

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U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

BUILDING SPECS

DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN-HOUSE REVIEW	8/12/2022
IN-HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/2/2022

Project No: 2022-07
Date: 9/12/2022
Drawn/Checked By: BLL / MT

Sheet Number

S0.1

City of Tampa
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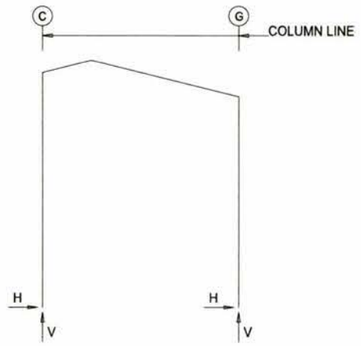
BUILDING BRACING REACTIONS

Wall Loc	Wall Line	Col Line	± Reactions(k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel_Shear (lb/ft) Wind	Seis	Note
L_EW	1								(h)
F_SW	G	1,2	1.2	2.2	0.1	0.3			
R_EW	3								(h)
B_SW	C	2,1	1.3	2.6	0.1	0.3			

(h)Rigid frame at endwall

FRAME LINES: 1 2



RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick
1*	C	3	0.6	4.2	5	-0.7	-15.5	4	0.750	8.000	10.50	0.500
		1	0.3	14.2								
1*	G	4	0.4	1.1	2	-0.5	2.7	4	0.750	8.000	10.50	0.500
		1	0.1	11.4	5	-0.3	-11.5					
1*	Frame lines:	1 2										

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	-----Dead---- Horiz	Vert	--Collateral- Horiz	Vert	-----Live---- Horiz	Vert	--Wind_Left1- Horiz	Vert	-Wind_Right1- Horiz	Vert	--Wind_Left2- Horiz	Vert
1*	C	0.0	0.9	0.0	0.2	0.2	2.7	-0.6	-4.1	-0.6	-4.1	-0.9	-2.3
1*	G	0.0	0.9	0.0	0.2	-0.2	2.7	-0.2	-2.2	-0.2	-2.2	-0.7	-0.9

Frame Line	Column Line	-Wind_Right2- Horiz	Vert	--Wind_Long1- Horiz	Vert	--Wind_Long2- Horiz	Vert	-Seismic_Left Horiz	Vert	Seismic_Right Horiz	Vert	-Seismic_Long Horiz	Vert
1*	C	0.9	2.3	-1.2	-26.8	0.5	-15.0	0.0	-0.1	0.0	0.1	0.0	-0.3
1*	G	0.7	0.9	-0.4	-20.1	0.2	-13.7	0.0	0.1	0.0	-0.1	0.0	-0.3

Frame Line	Column Line	--Wind_Left3- Horiz	Vert	-Wind_Right3- Horiz	Vert
1*	C	-1.0	-3.9	0.4	-0.2
1*	G	-0.6	-1.8	0.5	-0.4

1* Frame lines: 1 2

NOTES FOR REACTIONS

Building reactions are based on the following building data:

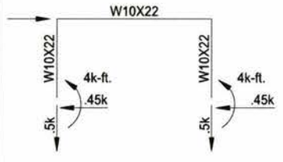
Width (ft)	=	24.0
Length (ft)	=	25.5
Eave Height (ft)	=	28.9/ 25.9
Roof Slope (rise/12)	=	3.0/ 3.0
Dead Load (psf)	=	2.0
Collateral Load (psf)	=	1.0
Roof Live Load(psf)	=	20.0
Frame Live Load(psf)	=	17.9
Wind Speed (mph)	=	141.0
Wind Code	=	FBC 20 (IBC 18)
Exposure	=	C
Closed/Open	=	O
Importance Wind	=	1.00
Importance Seismic	=	1.00
Seismic Zone	=	A
Seismic Coeff (Fa*Ss)	=	0.09

ID	Description
1	Dead+0.6Wind_Long2R
2	Dead+Collateral+0.75Live+0.45Wind_Left2
3	Dead+Collateral+0.75Live+0.45Wind_Right2
4	0.6Dead+0.6Wind_Right2
5	0.6Dead+0.6Wind_Long1L

ANCHOR BOLT SUMMARY

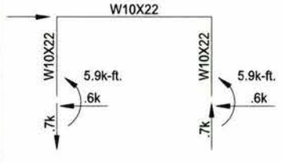
Qty	Locate	Dia (in)
⊕ 32	Frame	3/4"

PORTAL REACTIONS



GRID LINE C

PORTAL REACTIONS



GRID LINE G

Duane Moore
9-23-22

DOCKZILLA US ECOLOGY
36'-0" X 37'-6" W/ 24'-0" X 25'-0"
TAMPA, FL

LEGACY BUILDING SOLUTIONS
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U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

BUILDING REACTIONS

DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN-HOUSE REVIEW	8/12/2022
IN-HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/12/2022

Project No 2022-93
Date 9/12/2022
Drawn/Checked By BJL - MT

Sheet Number

S0.3

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-22-0496402 12/2/2022
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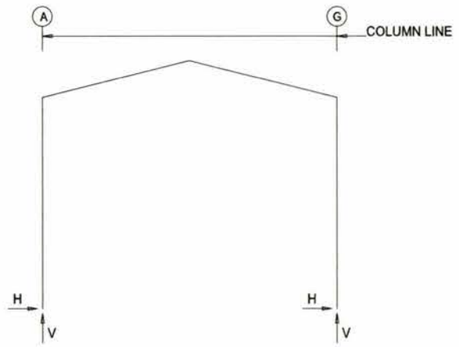
REVIEWED FOR CODE COMPLIANCE

BUILDING BRACING REACTIONS

Loc	Wall Line	Col Line	± Reactions(k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel_Shear (lb/ft) Wind	Seis	Note
L_EW	3								(h)
F_SW	G	3,4	0.9	1.8	0.1	0.3			
		5,6	0.9	1.6	0.1	0.3			
R_EW	6								(h)
B_SW	A	6,5	0.9	1.7	0.1	0.3			
		4,3	0.9	1.8	0.1	0.3			

(h)Rigid frame at endwall

FRAME LINES: 3 4 5 6



RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick
3*	A	1	0.8	0.1	3	-1.3	-4.4	4	0.750	8.000	10.50	0.500
		2	0.8	11.4	5	-0.8	-12.6					
3*	G	4	1.3	-4.4	1	-0.8	0.2	4	0.750	8.000	10.50	0.500
		2	-0.8	11.4	5	0.8	-12.6					
3*	Frame lines:	3 4 5 6										

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	-----Dead---- Horiz	Vert	--Collateral- Horiz	Vert	-----Live---- Horiz	Vert	--Wind_Left1- Horiz	Vert	-Wind_Right1- Horiz	Vert	--Wind_Left2- Horiz	Vert
3*	A	0.1	1.2	0.0	0.2	0.5	3.4	-1.1	-9.1	-1.6	-8.9	-2.3	-8.5
3*	G	-0.1	1.2	0.0	0.2	-0.5	3.4	1.6	-8.9	1.1	-9.1	0.4	-9.4

Frame Line	Column Line	-Wind_Right2- Horiz	Vert	--Wind_Long1- Horiz	Vert	--Wind_Long2- Horiz	Vert	-Seismic_Left Horiz	Vert	Seismic_Right Horiz	Vert	-Seismic_Long Horiz	Vert
3*	A	-0.4	-9.4	-1.4	-22.1	0.6	-8.5	0.0	-0.1	0.0	0.1	0.0	-0.3
3*	G	2.3	-8.5	1.4	-22.1	-0.6	-8.5	0.0	0.1	0.0	-0.1	0.0	-0.3

3* Frame lines: 3 4 5 6

NOTES FOR REACTIONS

Building reactions are based on the following building data:

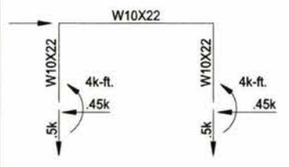
Width (ft)	=	36.0
Length (ft)	=	37.5
Eave Height (ft)	=	25.9/ 25.9
Roof Slope (rise/12)	=	3.0/ 3.0
Dead Load (psf)	=	2.0
Collateral Load (psf)	=	1.0
Roof Live Load(psf)	=	20.0
Frame Live Load(psf)	=	15.3
Wind Speed (mph)	=	141.0
Wind Code	=	FBC 20 (IBC 18)
Exposure	=	C
Closed/Open	=	O
Importance Wind	=	1.00
Importance Seismic	=	1.00
Seismic Zone	=	A
Seismic Coeff (Fa*Ss)	=	0.09

ID	Description
1	Dead+Collateral+0.75Live+0.45Wind_Long2L
2	Dead+Collateral+0.75Live+0.45Wind_Long2R
3	0.6Dead+0.6Wind_Left2
4	0.6Dead+0.6Wind_Right2
5	0.6Dead+0.6Wind_Long1L

ANCHOR BOLT SUMMARY

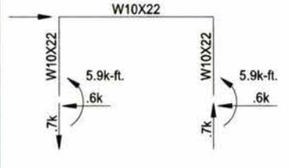
Qty	Locate	Dia (in)
⊕ 64	Frame	3/4"

PORTAL REACTIONS



GRID LINE A

PORTAL REACTIONS



GRID LINE G

Duoye Moua
9-23-22

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U.S. PATENTS
9,038,349; 9,334,653
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BUILDING REACTIONS

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IN HOUSE REVIEW	8/12/2022
IN HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/18/2022
STAMPED DRAWINGS	9/12/2022

Project No: 2022-63
Date: 9/12/2022
Drawn/Checked By: B.J. / M.T.

Sheet Number

S0.4

City of Tampa
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PLAN APPROVAL
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NOTE:

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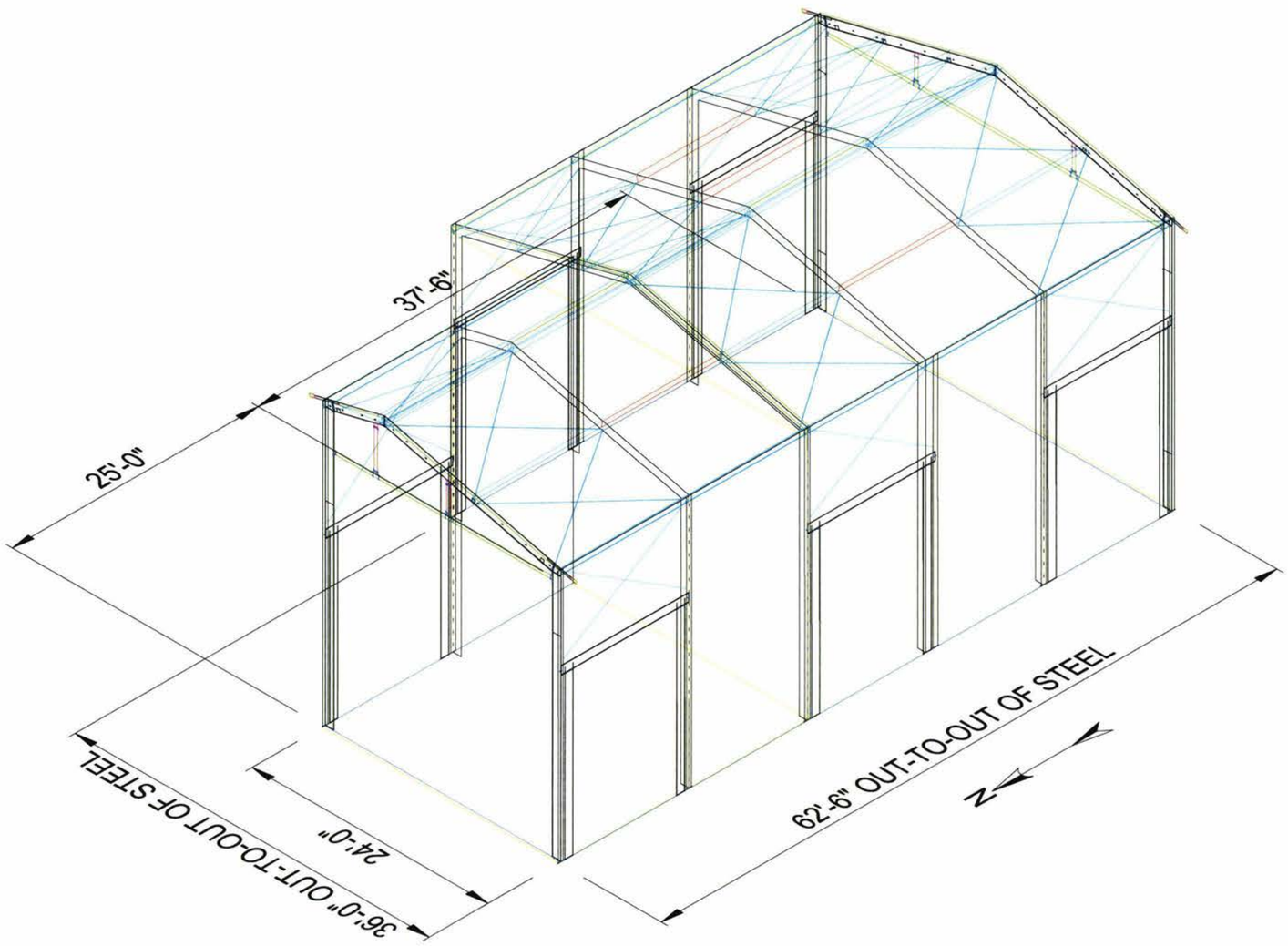

Dwayne Moore
9-23-22

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3D VIEW 1

DRAWING SET	DATE
BP & REACTIONS	8/9/2022
IN-HOUSE REVIEW	8/12/2022
IN-HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/12/2022

Project No: 2022-40
Date: 9/12/2022
Drawn/Checked By: BLL - MT

Sheet Number

S0.5

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-22-0496402 12/2/2022
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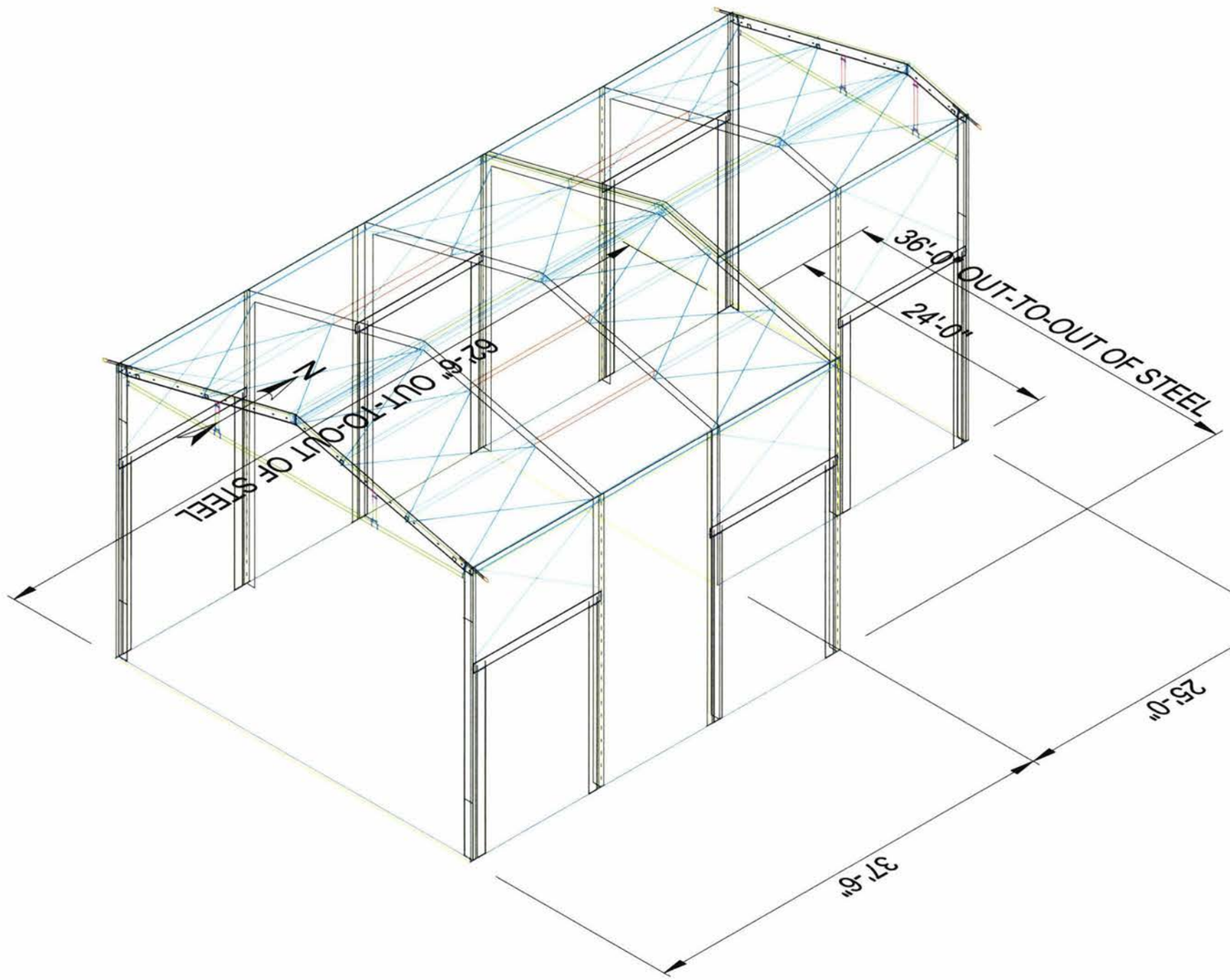
REVIEWED FOR CODE COMPLIANCE

NOTE:

THIS DRAWING IS A GRAPHICAL REPRESENTATION OF THE BUILDING AND SHOULD NOT BE USED FOR MODELING OR DIMENSIONING. REFER TO BUILDING PLAN AND ELEVATION VIEWS FOR TECHNICAL INFORMATION.



Dwayne Moord
9-23-22

LEGACY BUILDING SOLUTIONS
www.LegacyBuildingSolutions.com
877-259-1528

DOCKZILLA US ECOLOGY

36'-0" X 37'-6" W/ 24'-0" X 25'-0"
TAMPA, FL

Legacy Building Solutions
19500 County Rd 142
South Haven, MN 55382
p. 320-258-0500

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U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

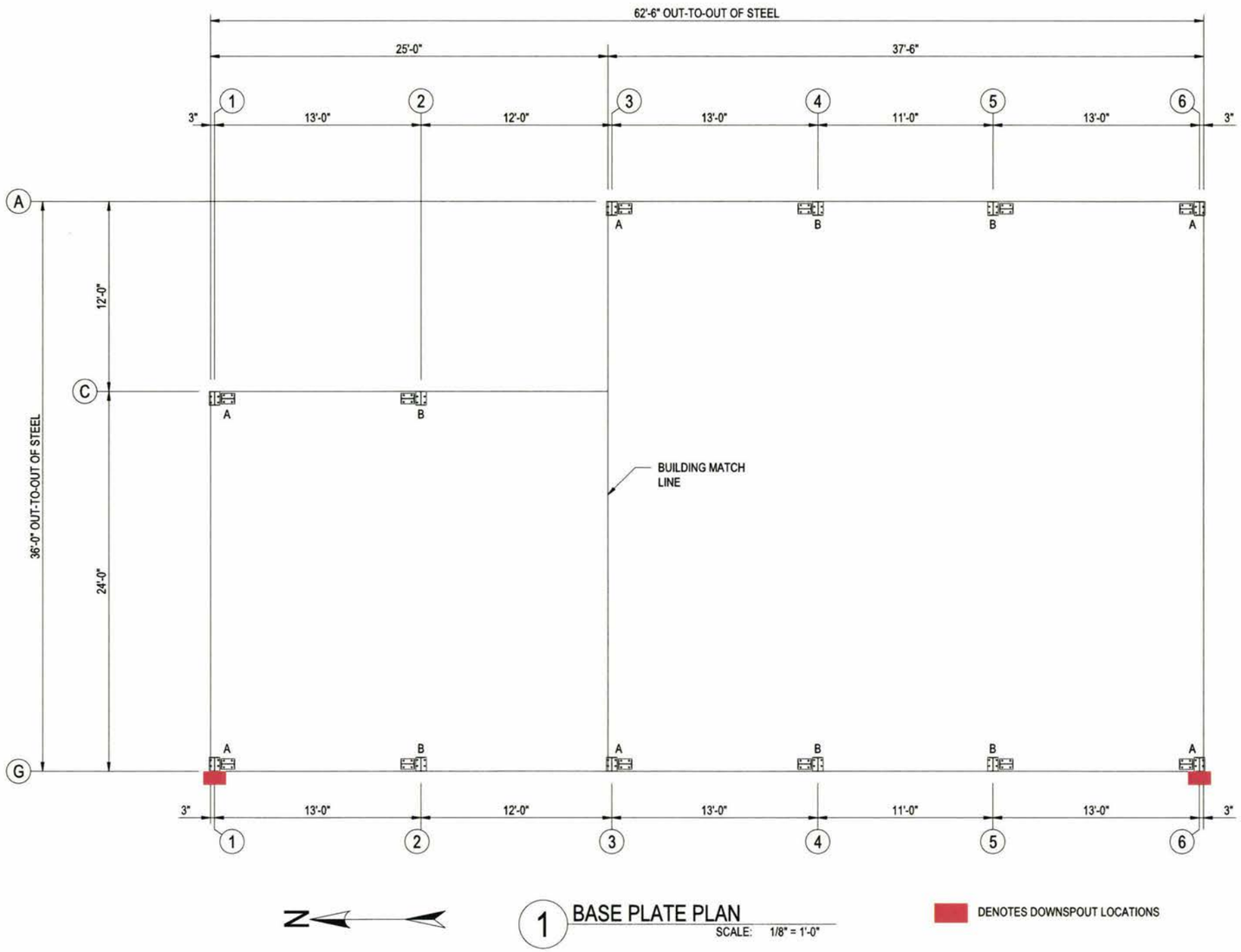
3D VIEW 2

DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN HOUSE REVIEW	8/12/2022
IN HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/12/2022

Project No: 2022-401
Date: 9/12/2022
Drawn/Checked By: BJ / MT

Sheet Number:

S0.6



1 BASE PLATE PLAN
SCALE: 1/8" = 1'-0"

DENOTES DOWNSPOUT LOCATIONS

Dwayne Moord
9-23-22

City of Tampa
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U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

BASE PLATE PLAN

DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN HOUSE REVIEW	8/12/2022
IN HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/12/2022

Project No: 2022-61
Date: 9/12/2022
Drawn/Checked By: BJL / MT

Sheet Number

S1.0

APPROVED
By Joseph Cermak at 11/30/2022 7:30:34 AM

CITY OF TAMPA

Tree Permit Placard

Permit Number: TRE-22-0001273 **Issue Date:**

Project Location: 2002 Orient Rd, Tampa, Florida 33619

Issued to: Kacy Keeffe ARBOR BAY INC

Inspector: Sarah Arnold **Phone:** (813) 274-3100, Option 4

Inspector Comments:

approved removal of C9 9" and 10" line oaks on south side of lot. approved pruning as specified in permit description. No cuts larger than 4" diameter on live branches and no more than 30% of foliage removed from an individual branch unless scientifically stated otherwise in scope of work provided. Dead wood/dry of over 4" diameter may occur. All pruning shall be done in accordance with the ANSI Z 133 safety standards and the ANSI A300 pruning standards.

GENERAL CONDITIONS:

1. Tree removal and/or pruning work activities, approved as part of this Permit, shall be completed in accordance with Chapter 13, City of Tampa Code.
2. Required replacement trees, if applicable, shall be installed in accordance with Specific Condition(s) of this Permit and Chapter 13, City of Tampa Code.
3. In-kind contributions to the Tree Trust Fund, if applicable, shall be made in accordance with Chapter 13, City of Tampa Code.

This Permit Card Must Be Posted and Properly Maintained In A Conspicuous Location at the Job Site Throughout the Construction Project

Planning and Development Department
306 E. Jackson St.
Tampa FL 33602
Phone (813) 274-3100
www.tampagov.net/permits

TREE PROTECTION FOR GRAND TREE

8.5"X11" cardboard warning with 2" hgt. black lettering. Sign to be laminated in a plastic material to be waterproof, and fastened to fence with plastic zipties or equivalnet to prevent sagging. Locate one (1) sign every 50' along fence.

Crown spread/drip line or other limit of Tree Protection

Tree Protection fence: 6'-8' hgt. Chain Link fence sections in Metal Frame sections; mount with Stanchions or Steel posts on Movable Core Drilled Concrete Blocks, installed at 8' on center.

2" x 8' steel posts or approved equal

3" thick layer of mulch (eucalyptus or City approved equivalent); no closer than 1' from trunk

6'-8'

KEEP OUT TREE PROTECTION AREA

20' minimum measured from edge of trunk

20' minimum measured from edge of trunk

Maintain existing natural grade with the tree protection fence unless otherwise indicated on the plans

Root pruning shall be performed to ANSI A300 standards; must be clean, severed cuts (not jagged, frayed, etc.) performed with a handsaw or Dosko Root Pruner or approved equivalent equipment

NOTES:
1- Pruning shall be performed to ANSI A300 standards.
2- No equipment shall operate inside the protective fencing including during fence installation and removal.

Crown spread/drip line or other limit of Tree Protection area.

NOTES:
1- Pruning shall be performed to ANSI A300 standards.
2- No equipment shall operate inside the protective fencing including during fence installation and removal.

Tree Protection fence: High Density Polyethylene Fencing with 3.5"x1.5" openings; color orange; attach to steel or wood posts installed at 6'-8' on center.

2" x 4' to 8' steel posts or approved equal

3" thick layer of mulch (eucalyptus or City approved equivalent); no closer than 1' from trunk

4'-6'

10' min (tree ≤24"DBH) measured from edge of trunk

10' min (tree ≥24"DBH) measured from edge of trunk

10' min (tree ≤24"DBH) measured from edge of trunk

15' min (tree ≥24"DBH) measured from edge of trunk

Maintain existing natural grade with the tree protection fence unless otherwise indicated on the plans

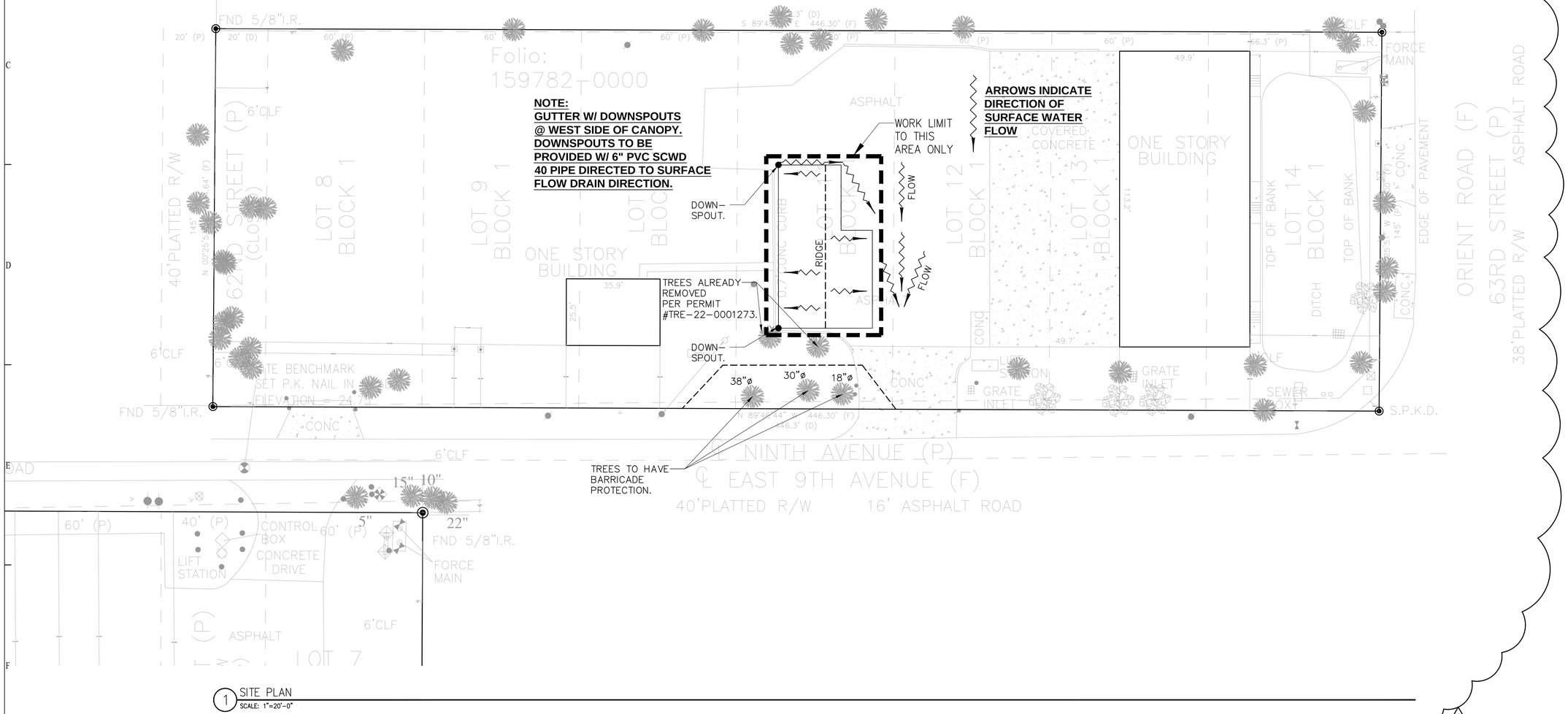
Root pruning shall be performed to ANSI A300 standards; must be clean, severed cuts (not jagged, frayed, etc.) performed with a handsaw or Dosko Root Pruner or approved equivalent equipment

TREE PROTECTION FOR LARGE ORNAMENTAL, SHADE, AND CONIFER TREES

15' MINIMUM PROTECTIVE ROOT ZONE APPLIES TO SPECIMEN TREES.

ASSUMED NORTH

NOTES:
1) INSPECTION BY AN ISA CERTIFIED ARBORIST TO BE COMPLETED POST DEMOLITION.
2) ANY DEMOLITION WITHIN BARRICADE TO BE DONE BY HAND.
3) SEE CANOPY PLANS FOR ROOF DOWNSPOUT LOCATIONS.



1 SITE PLAN
SCALE: 1"=20'-0"

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
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FINAL INSPECTION APPLIANCE

Florida Technical, Inc.
THOMAS CHEEVER, P.E.
114 WEST DAVIS BLVD.
TAMPA, FLORIDA 33606
813 - 765 - 0264
PE # 36054 (FL) CA # 4455 (FL) PE # 74587 (PA)

OWNER/CLIENT:

US ECOLOGY - DOCK-ZILLA
TAMPA, FL 33619

PROJECT/TENANT:

US ECOLOGY - DOCK-ZILLA
2002 NORTH ORIENT ROAD
TAMPA, FL 33619

CONSULTANT:

Florida Technical, Inc.
114 West Davis Boulevard
Tampa, Florida 33606
Phone: 813.251.5948
C.A.# 4455
P.E.# 36054
Contact: Thomas E. Cheever, P.E.

ENGINEERING SEAL:

THOMAS E CHEEVER LICENSE No. 36054 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Thomas Cheever
Date: 2022.11.14 17:14:39 -05'00'

CONSULTANT:

CONSULTANT:

REVISIONS

NO	DATE	DESCRIPTION	BY
1	11/08/22	PLAN REVIEW COMMENTS	TD

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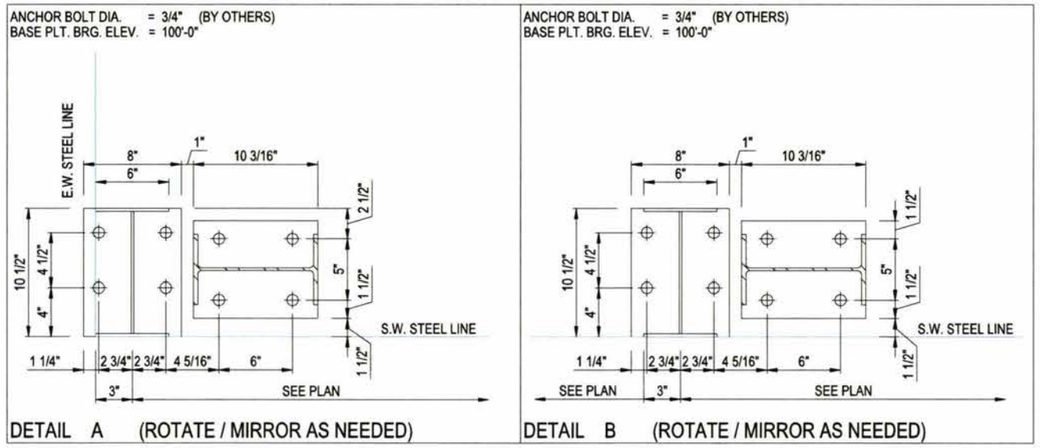
DRAWN BY:	DATE: 17 SEPTEMBER 2022
CHECKED BY:	PROJECT NO.: US ECOLOGY
SCALE: AS INDICATED	PROPOSAL NO.: N/A
FLOOR: N/A	

SHEET NAME

SITE PLAN

SHEET NUMBER

S1



Dwayne Moore
9-23-22

City of Tampa
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U.S. PATENTS
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OTHER PATENTS PENDING

BASE PLATE DETAILS

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Project No: 2022-83
Date: 9/12/2022
Drawn/Checked By: BLL - MT

Sheet Number

S1.1

GENERAL CONSTRUCTION NOTES

1.) THERE SHALL BE NO DEVIATION FROM THESE PLANS WITHOUT PRIOR APPROVAL FROM FLORIDA TECHNICAL, INC.

2.) THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS OF THE JOB SITE & REPORT ANY DISCREPANCIES OR CONDITIONS THAT ARE UNSAFE OR UNSATISFACTORY BEFORE PROCEEDING W/ THE WORK.

3.) THE CONTRACTOR SHALL PROVIDE FOR THE SAFETY & PREVENTION OF INJURY TO ALL PERSONS AT THE SITE. HE SHALL BE RESPONSIBLE FOR DAMAGE DUE TO THE WORK, TO MATERIAL OR EQUIPMENT AND OTHER PROPERTY AT OR NEAR THE SITE. HE SHALL MAINTAIN THE SITE & ADJACENT SITE IN A CLEAN & ORDERLY CONDITION THROUGHOUT THE PROJECT.

4.) THE CONTRACTOR SHALL DO ALL WORK IN STRICT CONFORMANCE TO THE PLANS, CODES & ORDINANCES, MANUFACTURERS RECOMMENDATIONS & ACCEPTABLE TRADE PRACTICES. IN CASE OF CONFLICT THE STRONGEST REQUIREMENT SHALL GOVERN THE WORK.

5.) ANY CHANGE MADE PRIOR TO APPROVAL BY OWNER & ENGINEER ARE DISALLOWED AS EXTRAS & THE CONTRACTOR MAY HAVE TO RESTORE TO CONFORM TO PLAN WITHOUT ADDITIONAL COMPENSATION.

6.) SHOP DRAWINGS OF ALL PREFABRICATED STRUCTURAL SYSTEMS & MECHANICAL SYSTEMS SHALL BEAR THE SEAL OF A FLORIDA REGISTERED PROFESSIONAL ENGINEER & SHALL BE SUBMITTED TO THE ENGINEER OF THE RECORD BY THE CONTRACTOR FOR APPROVAL.

7.) CONTRACTOR SHALL NOT SCALE DRAWINGS. ANY INFORMATION THAT HE CANNOT OBTAIN FROM DIMENSIONS, DETAILS OR SCHEDULES, HE SHALL COORDINATE WITH ENGINEER OF RECORD.

8.) GENERAL CONTRACTOR SHALL CHECK & COORDINATE WORK OF VARIOUS TRADES TO PREVENT ANY CONFLICTS.

9.) CONTRACTOR SHALL PROVIDE ALL SUB-CONTRACTORS W/ A COMPLETE SET OF PLANS.

10.) PLUMBING & AIR CONDITIONING SHALL CONFORM TO THE FLORIDA ENERGY CODE.

11.) ELECTRICAL WORK SHALL CONFORM TO NATIONAL ELECTRICAL CODE & COUNTY CODE.

12.) PROVIDE PLASTIC SLEEVES IN MASONRY, PARTITIONS, FOUNDATIONS, ETC. AS REQUIRED FOR UTILITY SERVICES.

13.) ALL BOLTS, CLIPS, HANGERS, ETC., SHALL BE GALVANIZED.

14.) ALL TIMBER CONSTRUCTION SHALL CONFORM TO AITC, LATEST. (FB = 1500 PSI)

15.) MASONRY BEARING PARTITIONS SHALL BE REINFORCED WITH A STEEL WIRE TRUSSED TYPE REINFORCING EVERY OTHER COURSE.

16.) PROVIDE & INSTALL SMOKE DETECTORS.

17.) CAST-IN-PLACE CONCRETE SHALL BE PER ACI-310, ACI 301 & THE FLORIDA BUILDING CODE. (F'C = 4 KSI IN 28 DAYS.)

18.) NO PIPE, CONDUIT, OR JUNCTION BOXES TO BE PLACED IN THE SLAB OR COLUMNS UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS.

19.) REINFORCING STEEL SHALL BE PER ACI-615, GRADE 60 FOR MAIN BARS, GRADE 40 OF FOR STIRRUPS AND TIES, (NOTE: #2 BARS CAN ONLY BE USED IN TIE-COLUMN & TIE-BEAMS IN A MASONRY WALL). COVER SHALL BE 2 (TWO) INCHES, ALL BARS IN WOOD OR METAL FORMS, 3 (THREE) INCHES WHERE ROCK OR SOIL IS USED IN FORMS.

20.) THE SIDES OF ALL AUGER HOLES IN ROCK SHALL BE WASHED & CLEANED BEFORE PLACING CONCRETE.

21.) CONCRETE SHALL NOT BE MIXED-IN-PLACE IN AN AUGER HOLE.

22.) THE CONCRETE MIX SHALL BE PROPORTIONED & PRODUCED TO HAVE A 4 (FOUR) INCH SLUMP IF CONSOLIDATION IS TO BE BY VIBRATION, & 5 (FIVE) INCH SLUMP IF BY MEANS OTHER THAN VIBRATION. THE MIX SHALL BE PLACED WITHIN 1 (ONE) HOUR OF BATCHING & IF THE MIX BEGINS TO SET, NO ATTEMPT TO RE-TEMPER IT WITH WATER SHALL BE MADE & THE BATCH SHALL BE DISCARDED. IF A TRUCK ARRIVES IN GOOD TIME FROM THE PLANT & THE MIX HAS LESS THAN THE 4 (FOUR) OR 5 (FIVE INCH SLUMP, WATER MAY BE ADDED TO BRING THE MIX COMPLIANCE WITH THE REQUIRED SLUMP, OTHERWISE, DO NOT ADD WATER AT JOB SITE, EXCEPT FOR SURFACE FINISHING. IN NO EVENT SHALL CONCRETE BE PUMPED WITH LESS THAN A 4 (FOUR) INCH DIAMETER PUMP.

FOUNDATION & CONCRETE NOTES

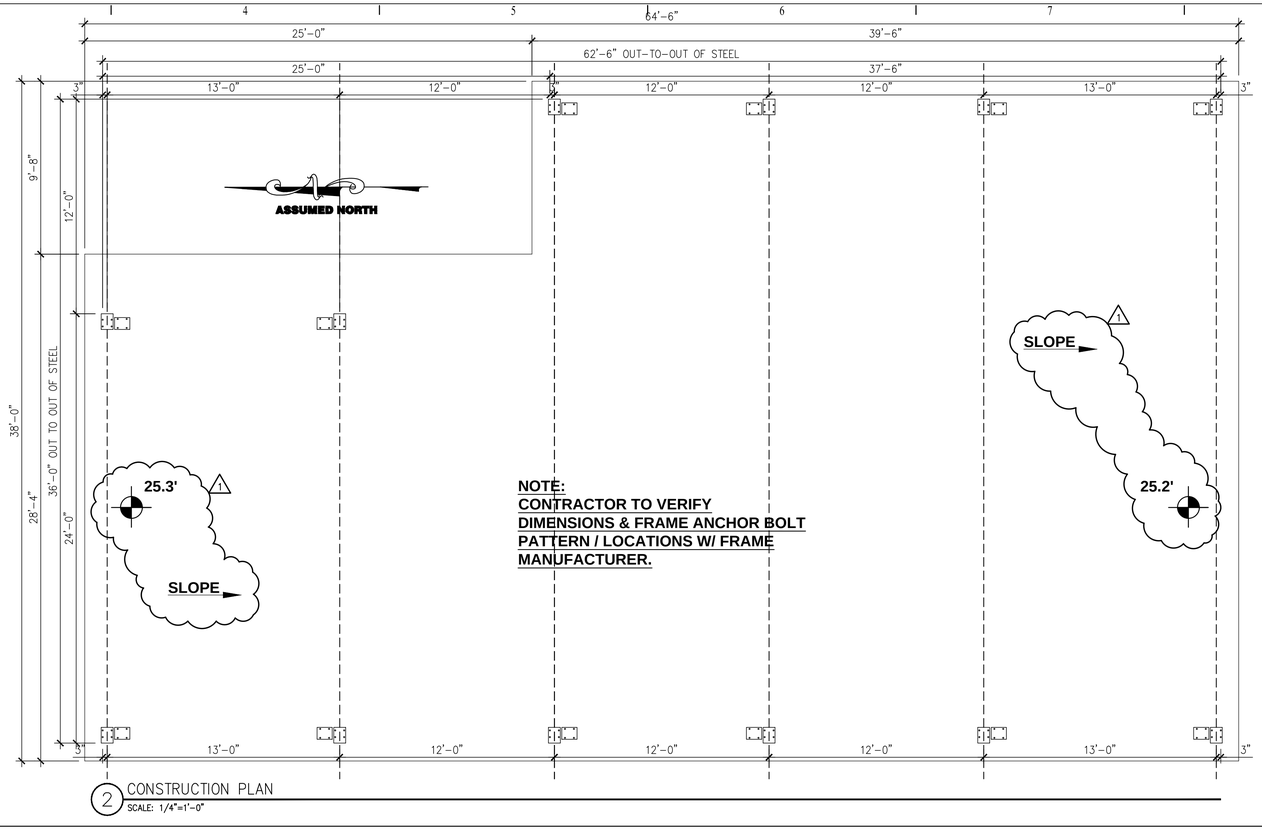
1. ALL FOOTINGS ARE TO BE PLACED ON FIRM, UNDISTURBED, NATURAL ROCK UNLESS OTHERWISE NOTED.
2. AUGER PILE DIAMETERS AND EMBEDMENT INTO ROCK SHALL BE NO LESS THAN 16" DIAMETER NOR LESS THAN 3' INTO ROCK UNLESS OTHERWISE NOTED. CONCRETE SHALL NOT BE MIXED IN PLACE IN A WET AUGER HOLE.
3. CENTER ALL FOOTINGS UNDER WALLS, COLUMNS OR GRID LINES UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL FURNISH FIELD DENSITY TESTS ON COMPACTED FILL UNDER FOOTINGS AND SLABS PRIOR TO PLACING CONCRETE. A MINIMUM OF 3 REPRESENTATIVE TESTS SHALL BE TAKEN FOR EACH FOOTING AND SLAB POUR.
5. ALL CAST-IN-PLACE CONCRETE SHALL BE MADE WITH TYPE I PORTLAND CEMENT, STONE AGGREGATE AND SHALL DEVELOP AT LEA5T 5000 PSI COMPRESSIVE STRENGTH IN 28 DAYS. (UNLESS OTHERWISE NOTED.)
6. SLABS, TOPPING, FOOTINGS, BEAMS AND WALLS SHALL NOT HAVE JOINTS IN THE HORIZONTAL PLANE. ANY STOP IN CONCRETE WORK MUST BE MADE AT THE CENTER OF SPAN WITH VERTICAL BULKHEADS AND SHEAR KEYS, UNLESS OTHERWISE NOTED. ALL CONSTRUCTION JOINTS SHALL BE AS DETAILED OR OTHERWISE APPROVED BY THE ENGINEER.
7. ALL CONCRETE WORK AND REINFORCING DETAILS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 318. EXPOSED EDGES OF CONCRETE SHALL HAVE 1/2" CHAMFER. USE STANDARD HOOKS ON DOWELS UNLESS OTHERWISE NOTED.
8. CONCRETE FORMS SHALL BE WETTED IMMEDIATELY PRIOR TO PLACING CONCRETE.
9. MIXING, PLACING AND CURING OF ALL CONCRETE MUST BE IN ACCORDANCE WITH ACI 305R, HOT WEATHER CONCRETING. NEW CONCRETE EXPOSED TO DIRECT SUNLIGHT SHALL BE SPRAYED OR MOPPED WITH A CURING COMPOUND TO SEAL IN MOISTURE AFTER THE FINISH HAS SET, OR THE CONCRETE COVERED AND SPRAYED.
10. PROVIDE PLASTIC SLEEVES IN MASONRY PARTITIONS AND CONCRETE FOUNDATIONS AS INDICATED AND REQUIRED FOR UTILITY SERVICES. NO OTHER PIPE, CONDUIT OR ACCESSORY SHALL BE PLACED IN STRUCTURAL SLABS, COLUMNS OR BEAMS UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS.
11. PROVIDE MASONRY FILLED CELL OR CONCRETE COLUMN WITH (1) #6 REBAR FROM BEAM TO BEAM ON BOTH SIDES OF ALL EXTERIOR OPENINGS.
12. ALL REINFORCING SHALL BE HIGH STRENGTH DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 60.
13. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND SHALL BE LAPPED ONE FULL MESH AND AT SIDE AND END SPLICES AND WIRED TOGETHER.
14. REINFORCEMENT COVERAGE SHALL BE 211 MINIMUM WHEN FORMS ARE USED AND 3" MINIMUM WHEN POURED AGAINST EARTH, UNLESS OTHERWISE NOTED.
15. LAP SPLICES SHALL BE A MINIMUM OF 48 BAR DIAMETERS. MAKE ALL BARS CONTINUOUS AROUND CORNERS.
16. PROVIDE ALL ACCESSORIES NECESSARY TO SECURE REINFORCING IN PROPER POSITION AS INDICATED ON THE DRAWINGS AND IN ACCORDANCE WITH ACI 318. ALL ACCESSORIES TO BE GALVANIZED.
17. ALL UNIT MASONRY CONSTRUCTION AND DETAILS SHALL BE IN ACCORDANCE WITH ACI 530.
18. CONCRETE BLOCK SHALL CONFORM WITH ASTM C90. MORTAR SHALL BE TYPE S, ASTM C270.
19. ANCHOR BOLTS, NUTS AND WASHERS SHALL BE MINIMUM 5/8" GALVANIZED STEEL AND EMBEDDED MINIMUM 7" INTO CONCRETE AND SPACED MAXIMUM 4' CC.
20. MANUFACTURED STRAPS AND ANCHORS SHALL BE GALVANIZED AND SHALL BE FASTENED PER THE MANUFACTURER RECOMMENDATIONS. IN NO EVENT SHALL A STRUCTURAL MEMBER SUCH AS PIER, SILL, JOIST, PLATE, RAFTER OR TRUSS BE WITHOUT ANCHORAGE DEVICES FOR HURRICANE PROTECTION, UNLESS SPECIFICALLY NOTED AND ADDRESSED BY OTHER MEANS.

NOTE:

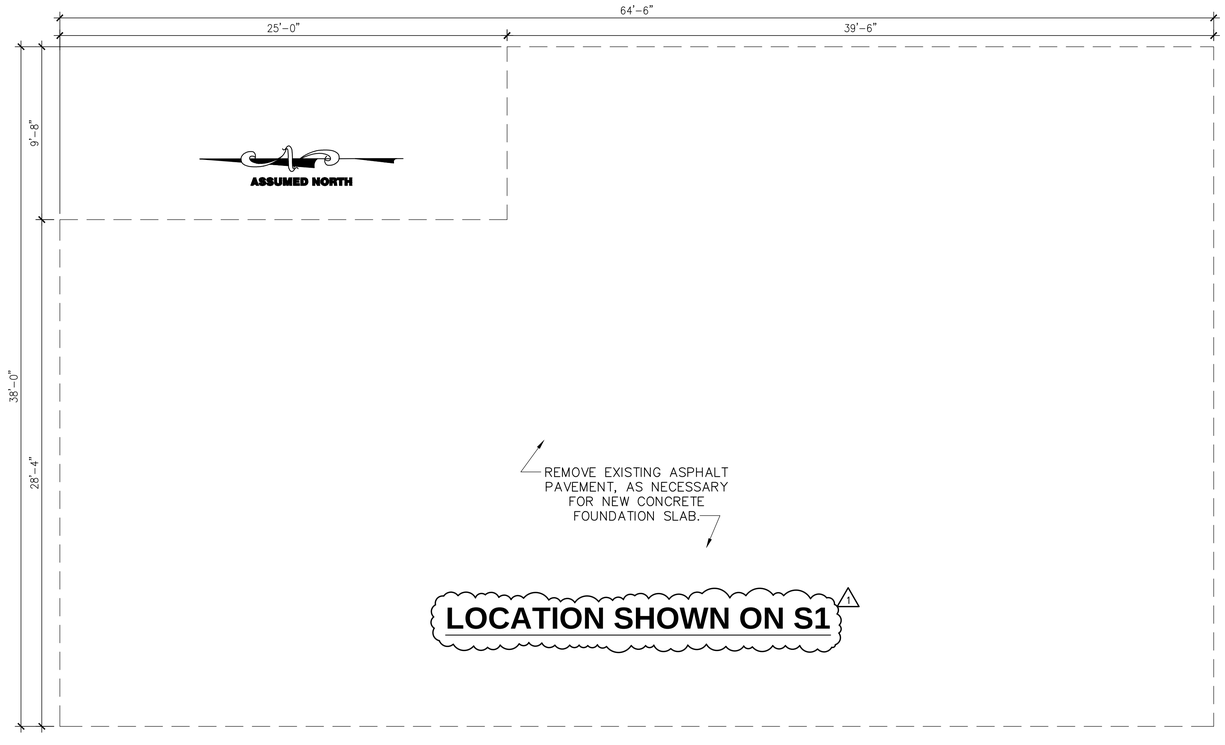
FIELD VERIFY DIMENSIONS TO EXISTING STRUCTURES.

NOTE:

FIELD VERIFY DIMENSIONS OF EXISTING CONCRETE SLAB PRIOR TO CONSTRUCTION.



2 CONSTRUCTION PLAN
SCALE: 1/4"=1'-0"



1 DEMOLITION PLAN
SCALE: 1/4"=1'-0"

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CONSTRUCTION SERVICES DIVISION
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THOMAS CHEEVER, P.E.
114 WEST DAVIS BLVD.
TAMPA, FLORIDA 33606
813 - 765 - 0264
PE # 36054 (FL) CA # 4455 (FL) PE # 74587 (PA)

OWNER/CLIENT:

US ECOLOGY - DOCK-ZILLA
TAMPA, FL 33619

PROJECT/TENANT:

US ECOLOGY - DOCK-ZILLA
2002 NORTH ORIENT ROAD
TAMPA, FL 33619

CONSULTANT:

Florida Technical, Inc.
114 West Davis Boulevard
Tampa, Florida 33606
Phone: 813.251.5948
C.A.# 4455
P.E.# 36054
Contact: Thomas E. Cheever, P.E.

ENGINEERING SEAL:

THOMAS E. CHEEVER LICENSE No. 36054 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Thomas Cheever
Date: 2022.11.14 17:14:20 -05'00'

CONSULTANT:

CONSULTANT:

REVISIONS

NO	DATE	DESCRIPTION	BY
1	11/08/22	PLAN REVIEW COMMENTS	TD

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CHECKED BY:	PROJECT NO.: US ECOLOGY
SCALE: AS INDICATED	PROPOSAL NO.: N/A
FLOOR: N/A	

SHEET NAME

DEMOLITION & CONSTRUCTION PLANS

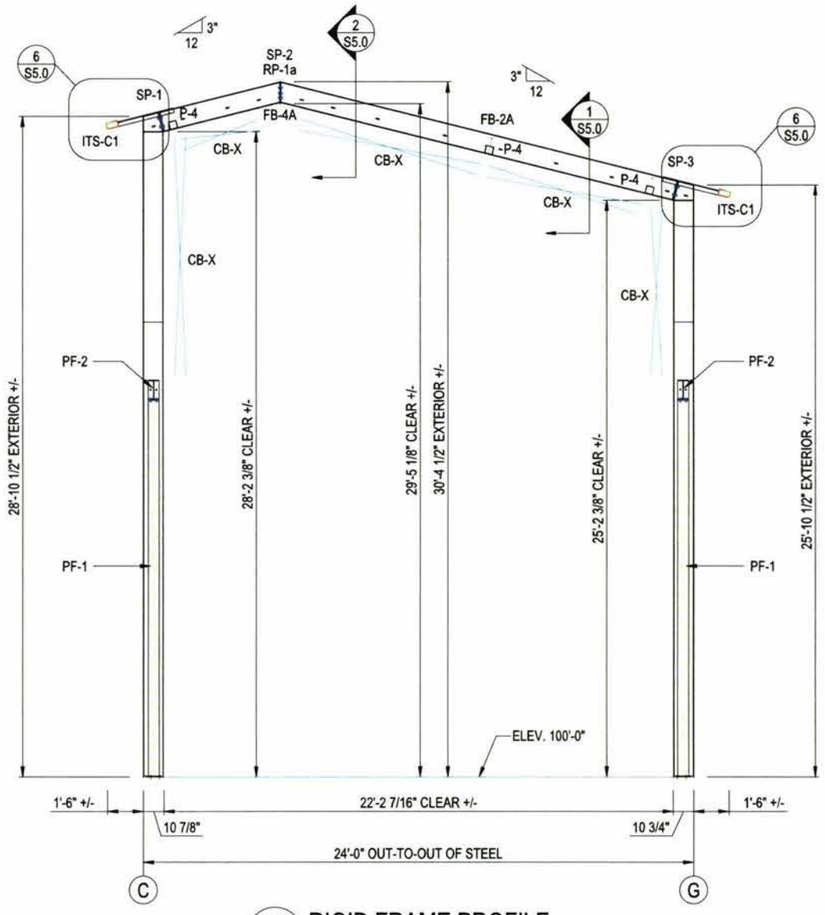
SHEET NUMBER

S2

SPLICE BOLT TABLE						
	QTY					
MARK	TOP	BOT	INT	TYPE	DIA	LENGTH
SP-1	2	2	0	A325	0.750	2.75
SP-2	2	2	2	A325	0.750	2.50
SP-3	2	2	0	A325	0.750	2.50

*ALL A325 BOLTS TO RECEIVE (2) WASHERS & TURN OF THE NUT INSPECTION REQUIRED

MEMBER TABLE RIGID FRAME ELEVATIONS		
MARK	PART	LENGTH
P-4	HSS 4x4x14ga	12'-11 1/16"
RP-1a	4" ROUND x 11ga	12'-11 3/4"
CB-X	3/8" CBL	TBD
FB-2A	L2x2x3/16"	5'-0"
FB-4A	L1.5x1.5x1/8"	3'-0"
ITS-C1	HSS 6x3x11ga	12'-8"
PF-1	W10X22	16'-6"
PF-2	W10X22	12'-11 1/2"



1 RIGID FRAME PROFILE

FRAME LINE 1 @ BAY 1 SCALE: 5/32" = 1'-0"

City of Tampa
CONSTRUCTION SERVICES DIVISION
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9,038,349; 9,334,653
OTHER PATENTS PENDING

RIGID FRAME PROFILE
FRAME LINE 1 @ BAY 1

DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN-HOUSE REVIEW	8/12/2022
IN-HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/18/2022
STAMPED DRAWINGS	9/12/2022

Project No: 2022-83
Date: 9/12/2022
Drawn/Checked By: BLL - MT

Sheet Number

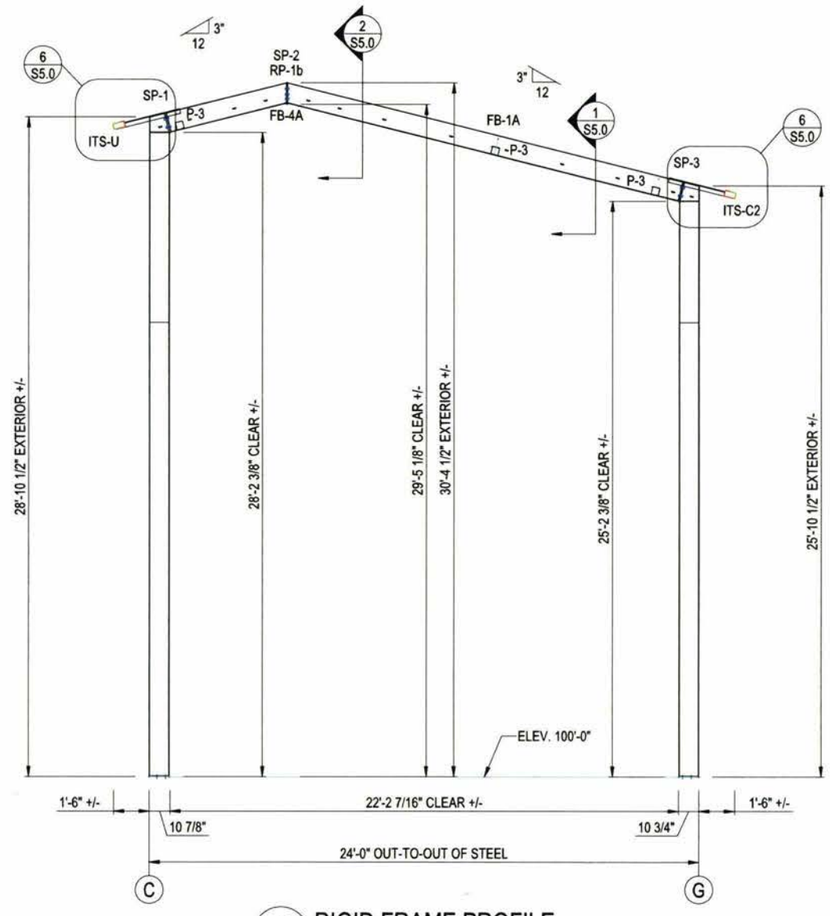
S2.1

Duane Moond
9-23-22

SPLICE BOLT TABLE						
	QTY					
MARK	TOP	BOT	INT	TYPE	DIA	LENGTH
SP-1	2	2	0	A325	0.750	2.75
SP-2	2	2	2	A325	0.750	2.50
SP-3	2	2	0	A325	0.750	2.50

*ALL A325 BOLTS TO RECEIVE (2) WASHERS &
TURN OF THE NUT INSPECTION REQUIRED

MEMBER TABLE RIGID FRAME ELEVATIONS		
MARK	PART	LENGTH
P-3a	HSS 3x3x14ga	11'-11 1/16"
RP-1b	4" ROUND x 11ga	11'-11 3/4"
FB-1A	L1.5x1.5x1/8"	3'-0"
FB-4A	L1.5x1.5x1/8"	3'-0"
ITS-C2	HSS 6x3x11ga	11'-8"
ITS-U	HSS 6x3x11ga	11'-6"



1 RIGID FRAME PROFILE
FRAME LINE 2 @ BAY 2 SCALE: 5/32" = 1'-0"

Dwayne Moore
9-23-22

City of Tampa
CONSTRUCTION SERVICES DIVISION
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DOCKZILLA US ECOLOGY

36'-0" X 37'-6" W/ 24'-0" X 25'-0"
TAMPA, FL

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U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

RIGID FRAME PROFILE
FRAME LINE 2 @ BAY 2

DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN-HOUSE REVIEW	8/12/2022
IN-HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/12/2022

Project No 2022-41
Date 9/12/2022
Drawn/Checked By B.L. / MT

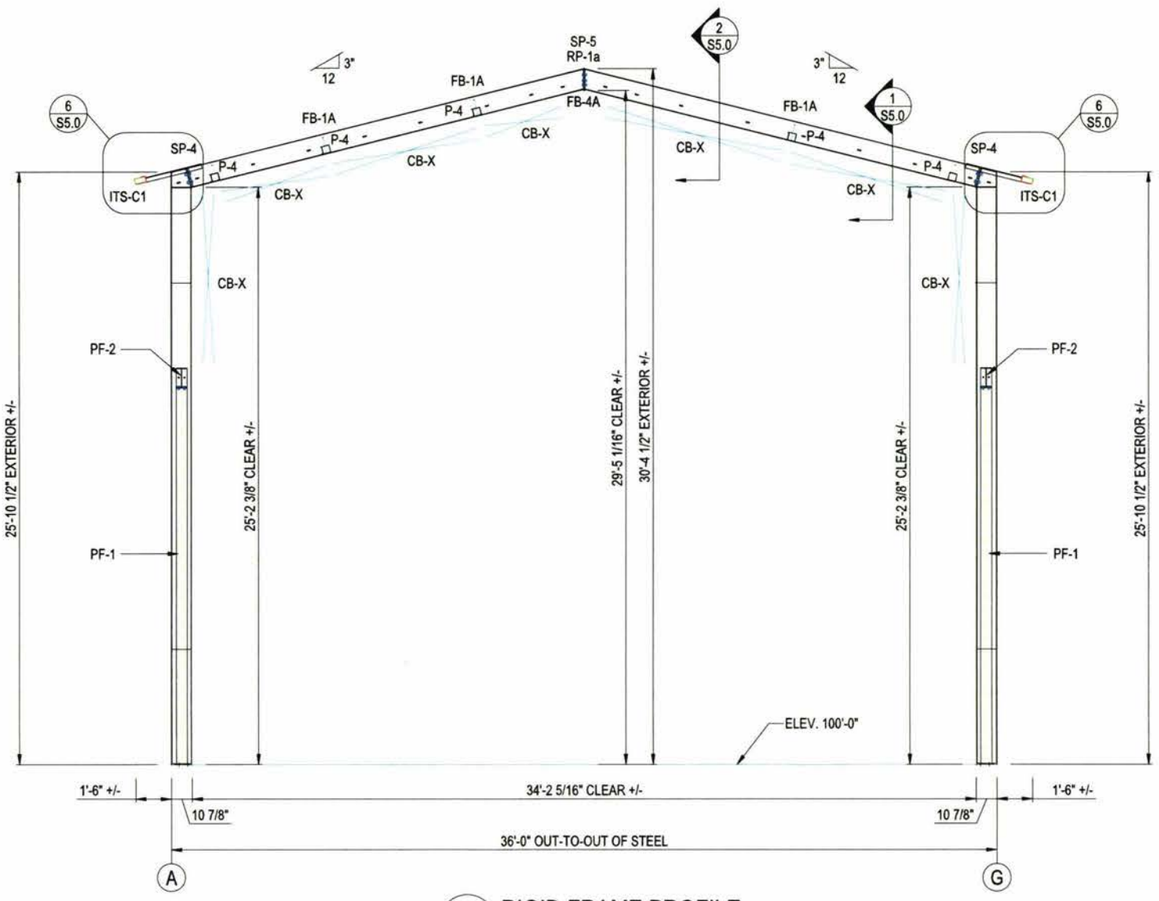
Sheet Number

S2.2

SPLICE BOLT TABLE						
	QTY					
MARK	TOP	BOT	INT	TYPE	DIA	LENGTH
SP-4	2	2	0	A325	1.000	3.00
SP-5	2	2	2	A325	0.750	2.75

*ALL A325 BOLTS TO RECEIVE (2) WASHERS & TURN OF THE NUT INSPECTION REQUIRED

MEMBER TABLE RIGID FRAME ELEVATIONS		
MARK	PART	LENGTH
P-4	HSS 4x4x14ga	12'-11 1/16"
RP-1a	4" ROUND x 11ga	12'-11 3/4"
CB-X	3/8" CBL	TBD
FB-1A	L1.5x1.5x1/8"	3'-0"
FB-4A	L1.5x1.5x1/8"	3'-0"
ITS-C1	HSS 6x3x11ga	12'-8"
PF-1	W10X22	16'-6"
PF-2	W10X22	12'-11 1/2"



1 RIGID FRAME PROFILE
FRAME LINE 3 @ BAY 3 SCALE: 5/32" = 1'-0"

Dwyn Moore
9-23-22

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U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

RIGID FRAME PROFILE
FRAME LINE 3 @ BAY 3

DRAWING SET	DATE
BP & REACTIONS	8/9/2022
IN-HOUSE REVIEW	8/12/2022
IN-HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/13/2022

Project No 2022-97
Date 9/12/2022
Drawn/Checked By BJL / MT

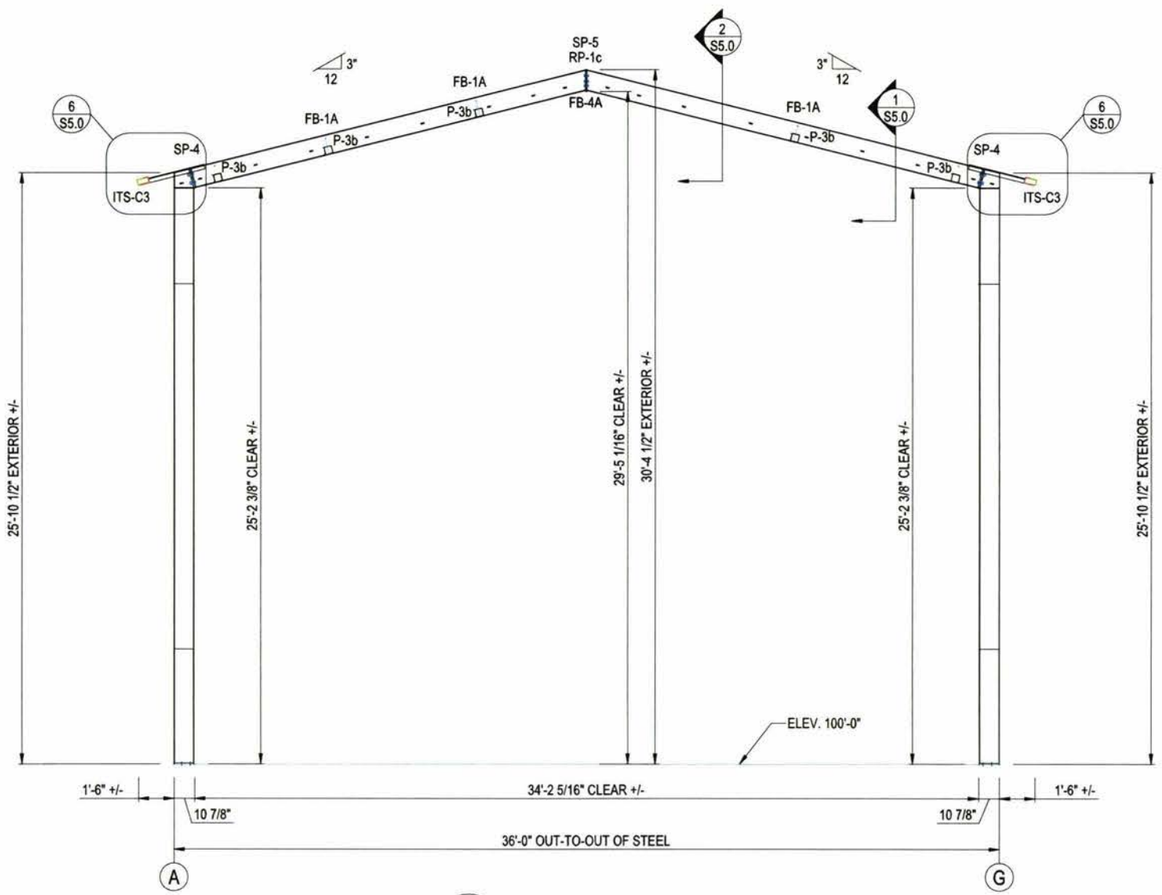
Sheet Number

S2.3

SPLICE BOLT TABLE						
	QTY					
MARK	TOP	BOT	INT	TYPE	DIA	LENGTH
SP-4	2	2	0	A325	1.000	3.00
SP-5	2	2	2	A325	0.750	2.75

*ALL A325 BOLTS TO RECEIVE (2) WASHERS & TURN OF THE NUT INSPECTION REQUIRED

MEMBER TABLE RIGID FRAME ELEVATIONS		
MARK	PART	LENGTH
P-3b	HSS 3x3x14ga	10'-11 1/16"
RP-1c	4" ROUND x 11ga	10'-11 3/4"
FB-1A	L1.5x1.5x1/8"	3'-0"
FB-4A	L1.5x1.5x1/8"	3'-0"
ITS-C3	HSS 6x3x11ga	10'-8"



1 RIGID FRAME PROFILE
FRAME LINE 4 & 5 @ BAY 4 SCALE: 5/32" = 1'-0"

Duane Moench
9-23-22

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U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

RIGID FRAME PROFILE
FRAME LINE 4 & 5 @ BAY 4

DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN HOUSE REVIEW	8/12/2022
IN HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/12/2022

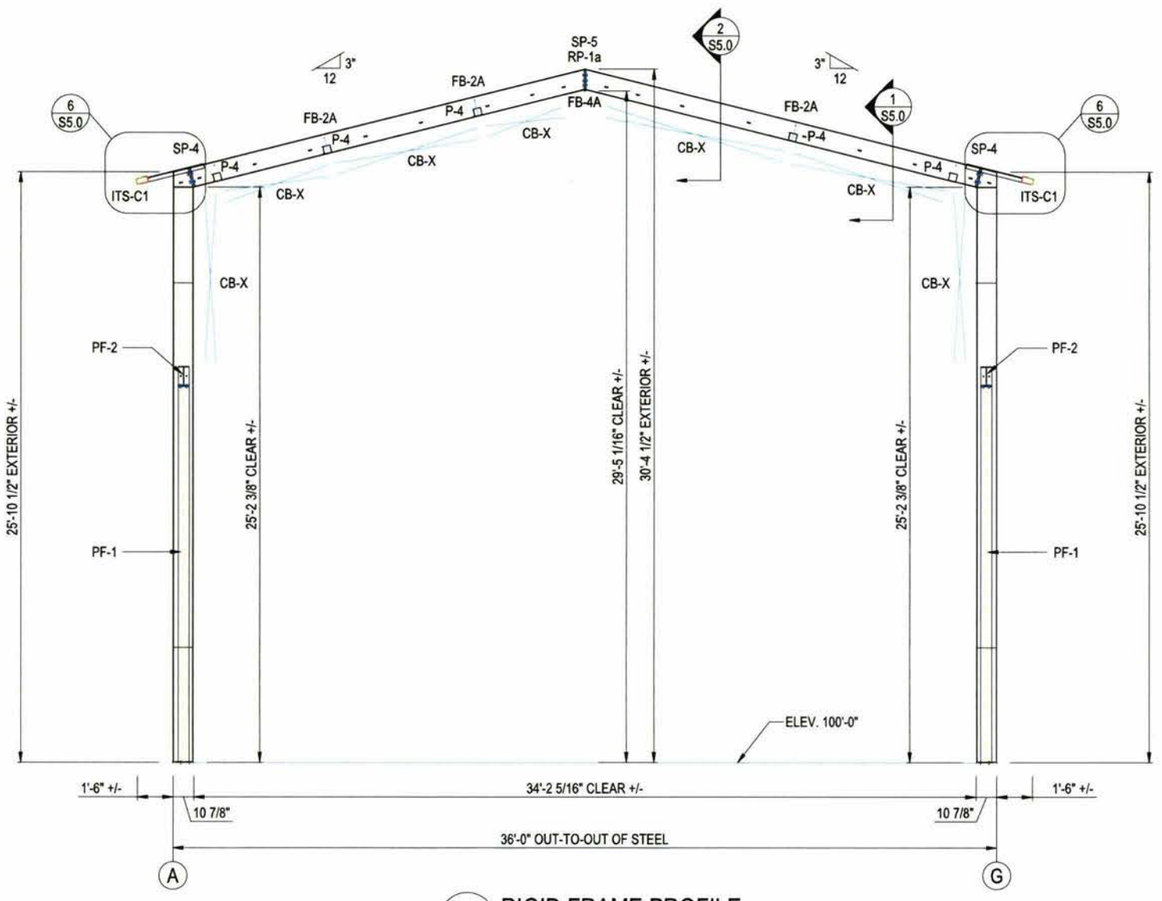
Project No 2022-60
Date 9/12/2022
Drawn/Checked By BLL / MT

Sheet Number
S2.4

SPLICE BOLT TABLE						
MARK	QTY TOP	BOT	INT	TYPE	DIA	LENGTH
SP-4	2	2	0	A325	1.000	3.00
SP-5	2	2	2	A325	0.750	2.75

*ALL A325 BOLTS TO RECEIVE (2) WASHERS & TURN OF THE NUT INSPECTION REQUIRED

MEMBER TABLE RIGID FRAME ELEVATIONS		
MARK	PART	LENGTH
P-4	HSS 4x4x14ga	12'-11 1/16"
RP-1a	4" ROUND x 11ga	12'-11 3/4"
CB-X	3/8" CBL	TBD
FB-2A	L2x2x3/16"	5'-0"
FB-4A	L1.5x1.5x1/8"	3'-0"
ITS-C1	HSS 6x3x11ga	12'-8"
PF-1	W10X22	16'-6"
PF-2	W10X22	12'-11 1/2"



1 RIGID FRAME PROFILE
FRAME LINE 6 @ BAY 5 SCALE: 5/32" = 1'-0"

Dwayne Moond
9-23-22

City of Tampa
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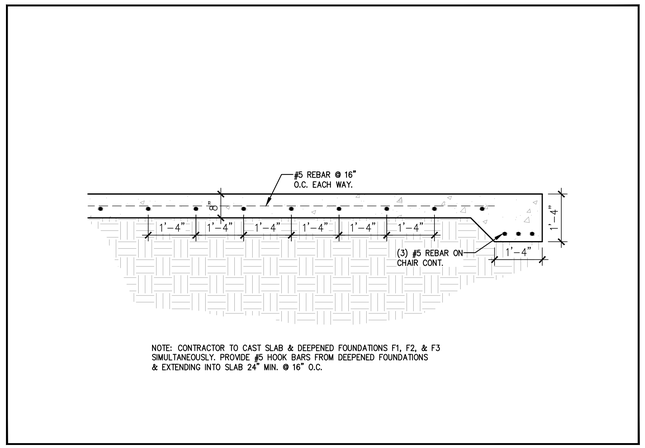
U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

RIGID FRAME PROFILE
FRAME LINE 6 @ BAY 5

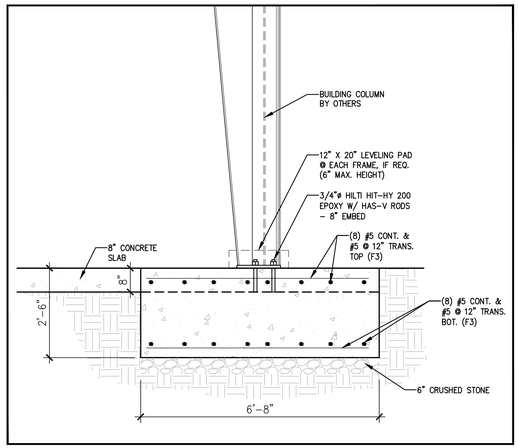
DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN HOUSE REVIEW	8/12/2022
IN HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/12/2022

Project No 2022-67
Date 9/12/2022
Drawn Checked By BLL MT

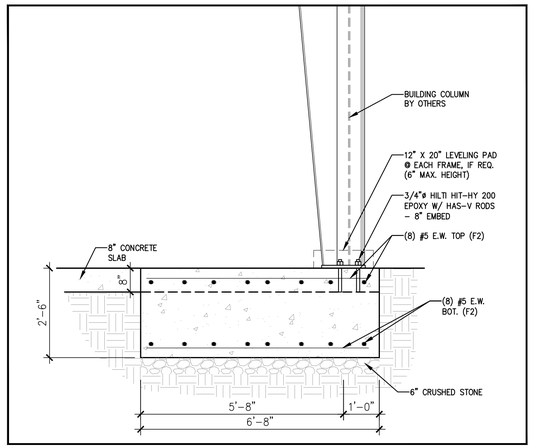
Sheet Number
S2.5



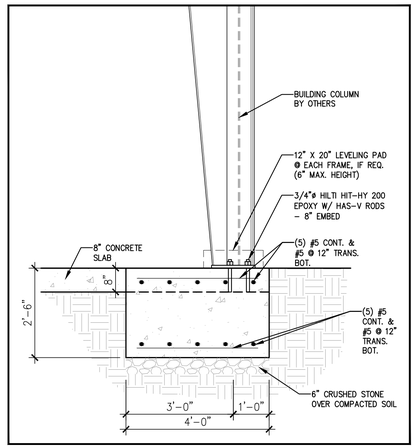
5 8" CONCRETE SLAB SECTION
SCALE: 1/2"=1'-0"



4 F3 – SECTION
SCALE: 1/2"=1'-0"



3 F2 – SECTION
SCALE: 1/2"=1'-0"



2 F1 – SECTION
SCALE: 1/2"=1'-0"

NOTE:
CONTRACTOR TO PROVIDE A 3/4" WATER LINE TO SERVE ONE HOSE BIBB FROM EXISTING WATER SERVICE. COORDINATE LOCATION W/ OWNER.

1 FOUNDATION PLAN
SCALE: 1/4"=1'-0"

City of Tampa
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SUBSTANTIAL COMPLIANCE

Florida Technical, Inc.
THOMAS CHEEVER, P.E.
114 WEST DAVIS BLVD.
TAMPA, FLORIDA 33606
813 - 765 - 0264
PE # 36054 (FL) CA # 4455 (FL) PE # 74587 (PA)

OWNER/CLIENT:

US ECOLOGY - DOCK-ZILLA
TAMPA, FL 33619

PROJECT/TENANT:

US ECOLOGY - DOCK-ZILLA
2002 NORTH ORIENT ROAD
TAMPA, FL 33619

CONSULTANT:

Florida Technical, Inc.
114 West Davis Boulevard
Tampa, Florida 33606
Phone: 813.251.5948
C.A.# 4455
P.E.# 36054
Contact: Thomas E. Cheever, P.E.

ENGINEERING SEAL:

THOMAS E. CHEEVER LICENSE No. 36054 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Thomas Cheever
Date: 2022.11.14 17:13:58 -05'00'

CONSULTANT:

CONSULTANT:

REVISIONS

NO	DATE	DESCRIPTION	BY

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DRAWN BY:	DATE: 17 SEPTEMBER 2022
CHECKED BY:	PROJECT NO.: US ECOLOGY
SCALE: AS INDICATED	PROPOSAL NO.: N/A
FLOOR: N/A	

SHEET NAME

FOUNDATION PLAN & DETAILS

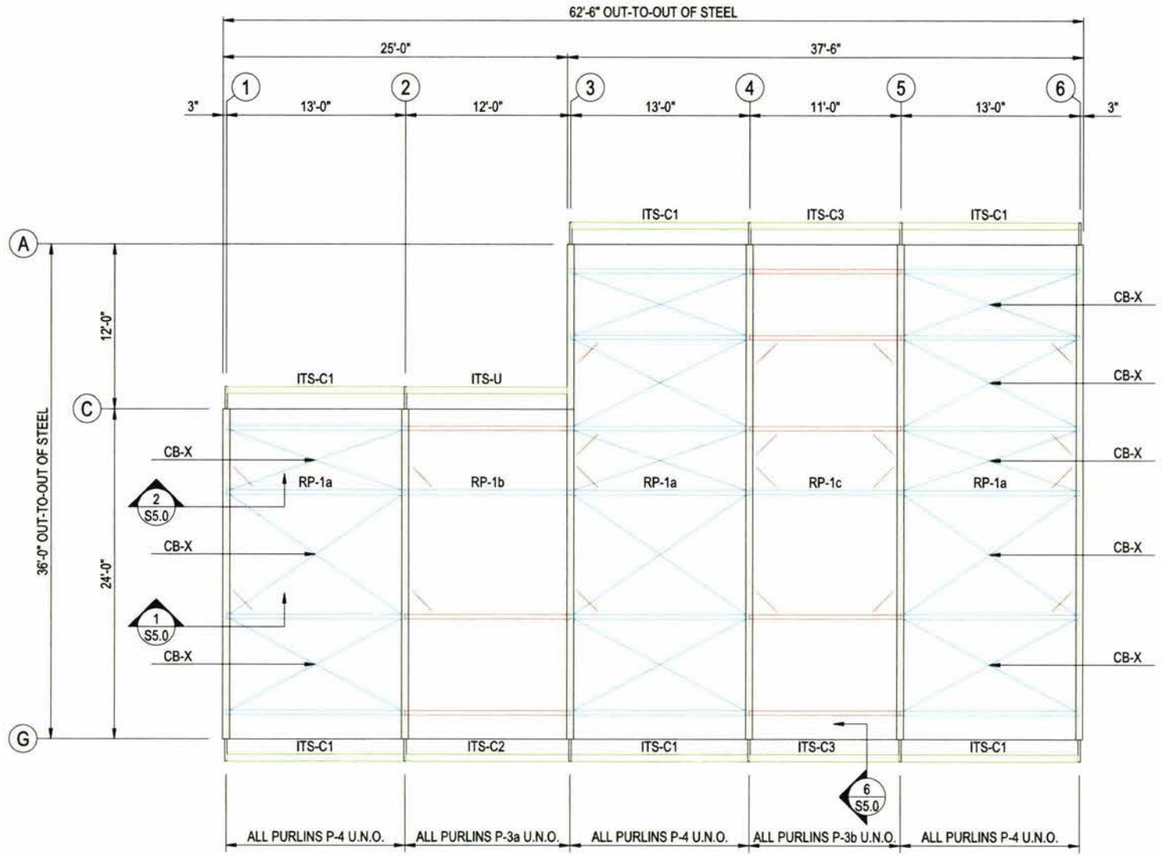
SHEET NUMBER

S3

MEMBER TABLE RIGID FRAME ELEVATIONS		
MARK	PART	LENGTH
P-3a	HSS 3x3x14ga	11'-11 1/16"
P-3b	HSS 3x3x14ga	10'-11 1/16"
P-4	HSS 4x4x14ga	12'-11 1/16"
RP-1a	4" ROUND x 11ga	12'-11 3/4"
RP-1b	4" ROUND x 11ga	11'-11 3/4"
RP-1c	4" ROUND x 11ga	10'-11 3/4"
CB-X	3/8" CBL	TBD
FB-1A	L1.5x1.5x1/8"	3'-0"
FB-2A	L2x2x3/16"	5'-0"
FB-4A	L1.5x1.5x1/8"	3'-0"
ITS-C1	HSS 6x3x11ga	12'-8"
ITS-C2	HSS 6x3x11ga	11'-8"
ITS-C3	HSS 6x3x11ga	10'-8"
ITS-U	HSS 6x3x11ga	11'-6"

NOTE:
ALL TOP FLANGES OF RIGID FRAME MUST BE BRACED WITH FLANGE BRACE OR SUPPORT PURLINS AT ALL NOTED PURLIN LOCATIONS

/ - DENOTES FLANGE BRACE LOCATION



1 ROOF FRAMING PLAN
SCALE: 3/32" = 1'-0"

N

Dwayne Mount
9-23-22

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U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

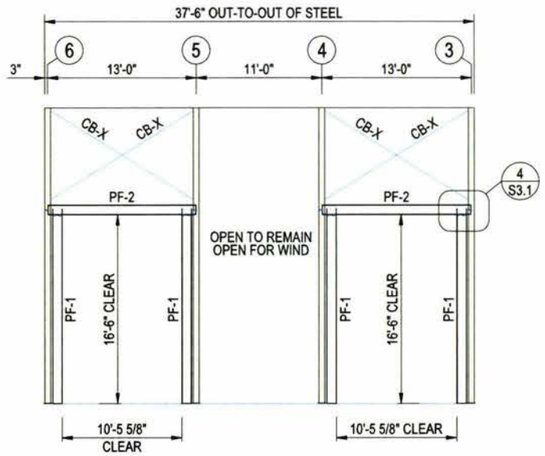
ROOF FRAMING PLAN

DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN-HOUSE REVIEW	8/12/2022
IN-HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/18/2022
STAMPED DRAWINGS	9/12/2022

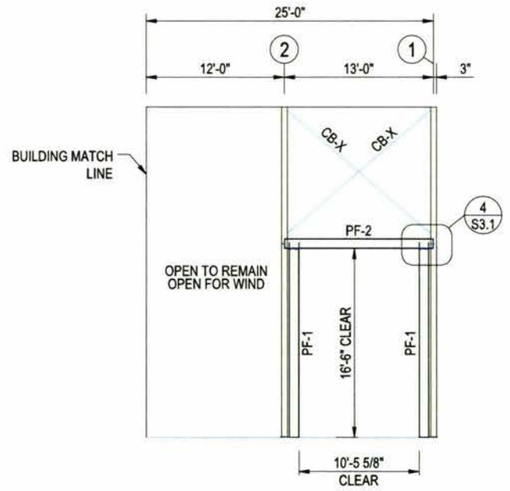
Project No: 2022-67
Date: 9/12/2022
Drawn Checked By: B.L. M.T.

Sheet Number

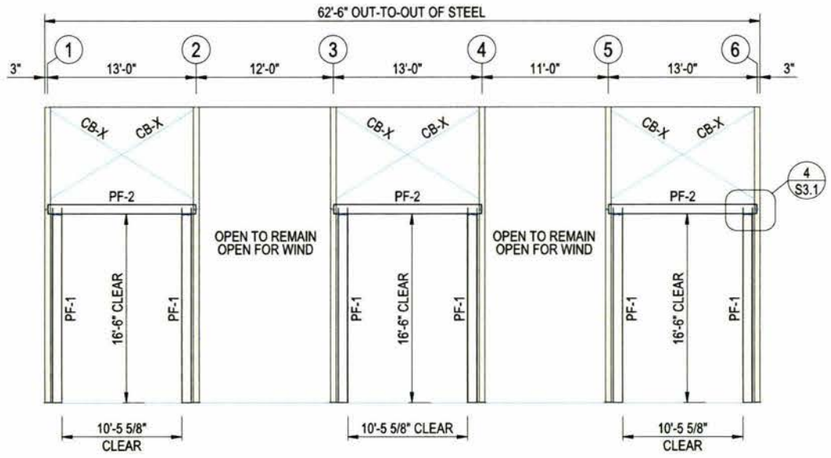
S3.0



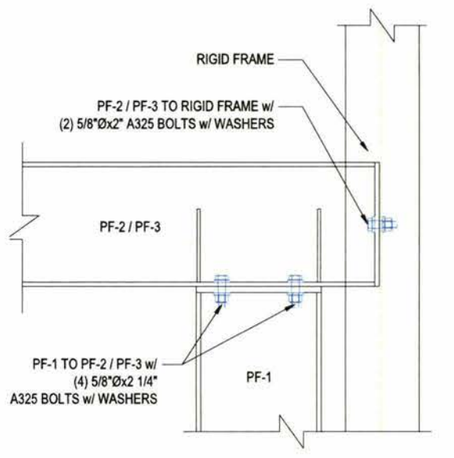
1 SIDE WALL FRAMING ELEVATIONS
GRID LINE A SCALE: 5/64" = 1'-0"



2 SIDE WALL FRAMING ELEVATIONS
GRID LINE C SCALE: 5/64" = 1'-0"



3 SIDE WALL FRAMING ELEVATIONS
GRID LINE G SCALE: 5/64" = 1'-0"



4 PORTAL FRAME DETAIL
SCALE: 1" = 1'-0"

NOTE:
ALL TOP FLANGES OF RIGID FRAME MUST BE BRACED WITH FLANGE BRACE OR SUPPORT PURLINS AT ALL NOTED PURLIN LOCATIONS

/ - DENOTES FLANGE BRACE LOCATION

MEMBER TABLE		
MARK	PART	LENGTH
CB-X	3/8" CBL	TBD
PF-1	W10X22	16'-6"
PF-2	W10X22	12'-11 1/2"

Dwaye Mond
9-23-22

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U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

SIDE WALL FRAMING ELEVATIONS

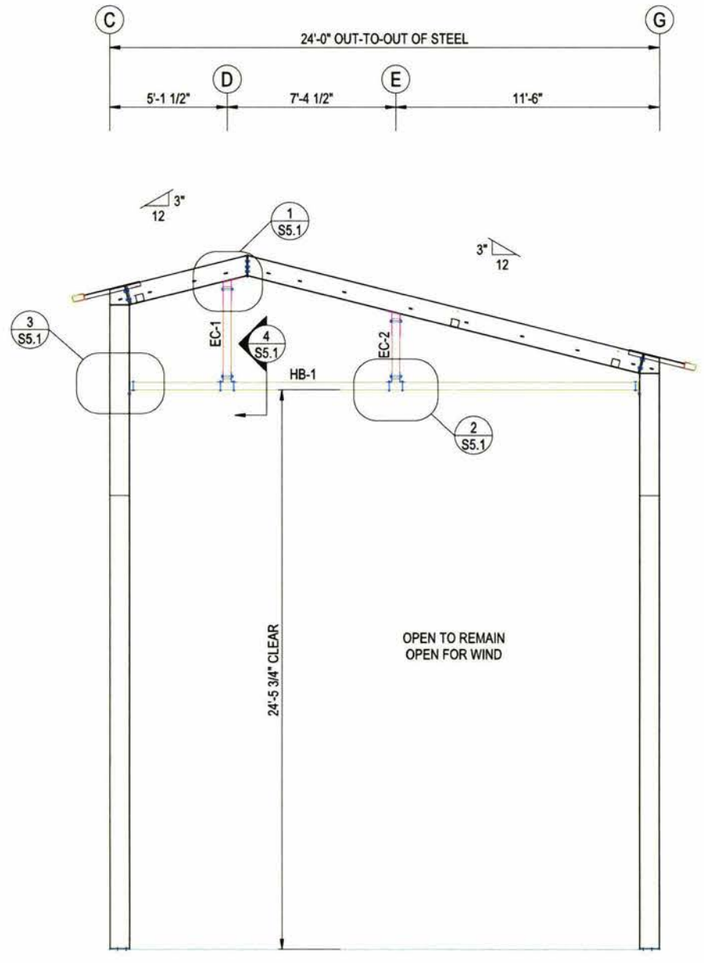
DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN HOUSE REVIEW	8/12/2022
IN HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/12/2022

Project No: 2022-91
Date: 9/12/2022
Drawn/Checked By: BLL MT

Sheet Number
S3.1

BOLT TABLE FRAME LINE 1	* ALL A325 BOLTS TO RECEIVE (2) WASHERS		
LOCATION	QUAN	DIA	LENGTH
EC-1 To Rigid Frame	4	3/4"	2"
	2	3/4"	6"
EC-1 To Anchor Clip	2	3/4"	6"
EC-2 To Rigid Frame	4	3/4"	2"
	2	3/4"	6"
EC-2 To Anchor Clip	2	3/4"	6"

MEMBER TABLE FRAME LINE 1		
MARK	PART	LENGTH
EC-1	HSS 6x4x3/16"	4'-0 11/16"
EC-2	HSS 6x4x3/16"	2'-7 13/16"
HB-1	HSS 6x4x3/16"	22'-2 1/2"



1 END WALL FRAMING ELEVATIONS
FRAME LINE 1 SCALE: 5/32" = 1'-0"

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U.S. PATENTS
9,038,349; 9,334,653
OTHER PATENTS PENDING

END WALL FRAMING ELEVATIONS
FRAME LINE 1

DRAWING SET	DATE
BP & REACTIONS	8/8/2022
IN-HOUSE REVIEW	8/12/2022
IN-HOUSE APPROVALS	8/15/2022
CUSTOMER APPROVALS	8/16/2022
STAMPED DRAWINGS	9/12/2022

Project No: 2022-63
Date: 9/12/2022
Drawn/Checked By: BLL / MT

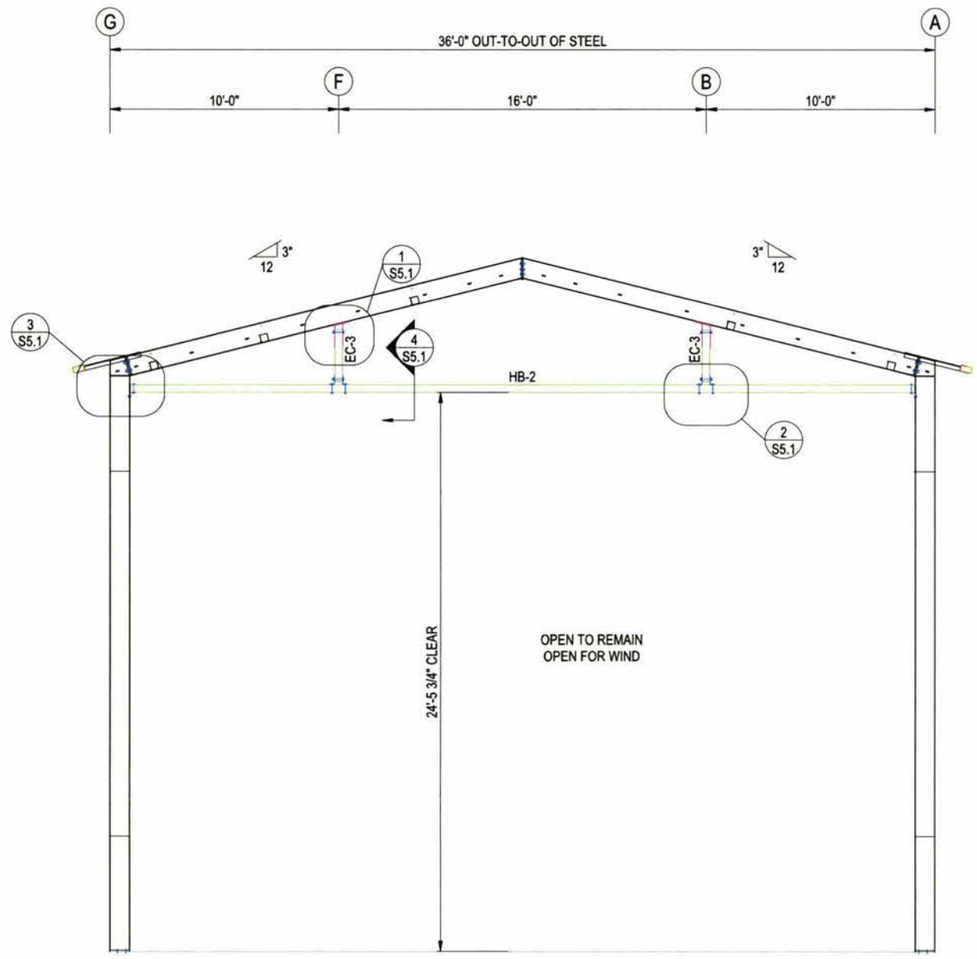
Sheet Number

S4.0

Dwayne Moench
9-23-22

BOLT TABLE FRAME LINE 6	* ALL A325 BOLTS TO RECEIVE (2) WASHERS		
LOCATION	QUAN	DIA	LENGTH
EC-3 To Rigid Frame	4	3/4"	2"
	2	3/4"	6"
EC-3 To Anchor Clip	2	3/4"	6"

MEMBER TABLE FRAME LINE 6		
MARK	PART	LENGTH
EC-3	HSS 6x4x3/16"	2'-3 5/16"
HB-2	HSS 6x4x3/16"	34'-2 1/2"



1 END WALL FRAMING ELEVATIONS
FRAME LINE 6 SCALE: 5/32" = 1'-0"

Duane Mead
9-23-22

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-22-0496402 12/2/2022
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DOCKZILLA US ECOLOGY
36'-0" X 37'-6" W/ 24'-0" X 25'-0"
TAMPA, FL

Legacy Building Solutions
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p. 320-258-0500

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END WALL FRAMING ELEVATIONS
FRAME LINE 6

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Date: 9/12/2022
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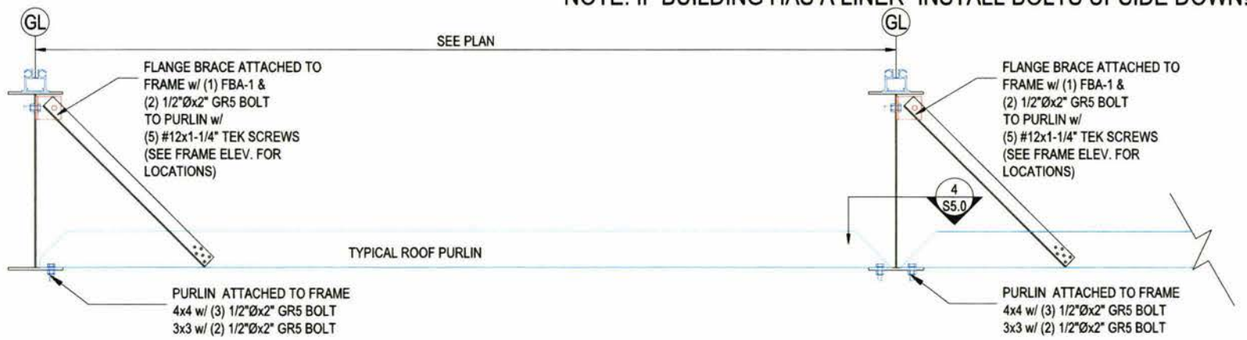
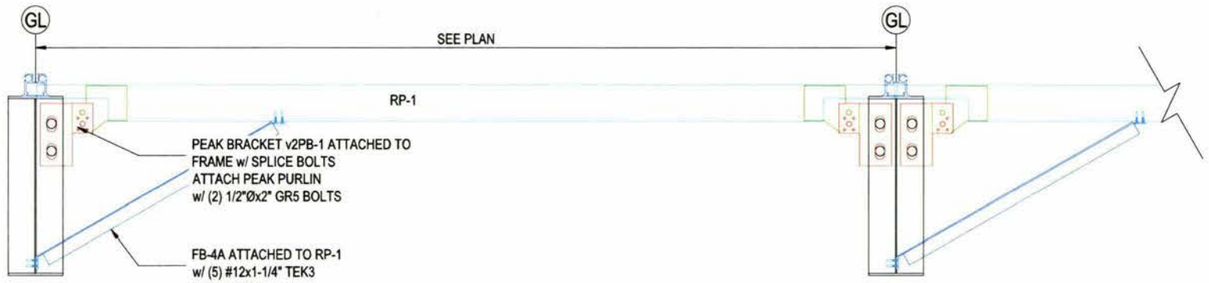
Sheet Number

S4.1

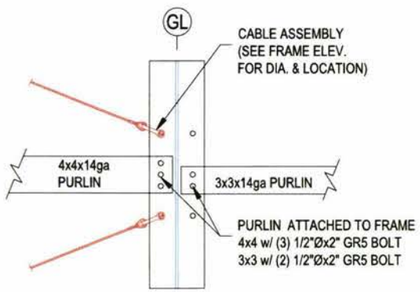
NOTE: IF BUILDING HAS A LINER- INSTALL BOLTS UPSIDE DOWN!



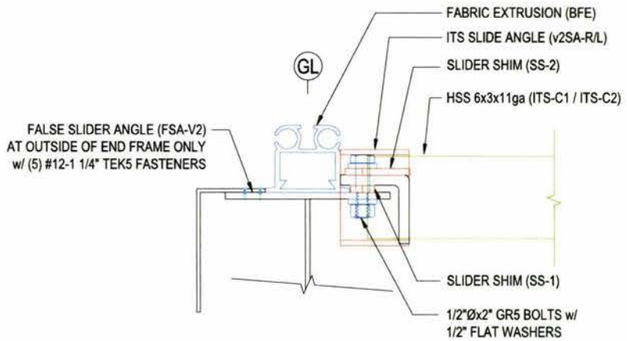
1 TYPICAL PURLIN BRACE DETAIL
SCALE: 3/4" = 1'-0"



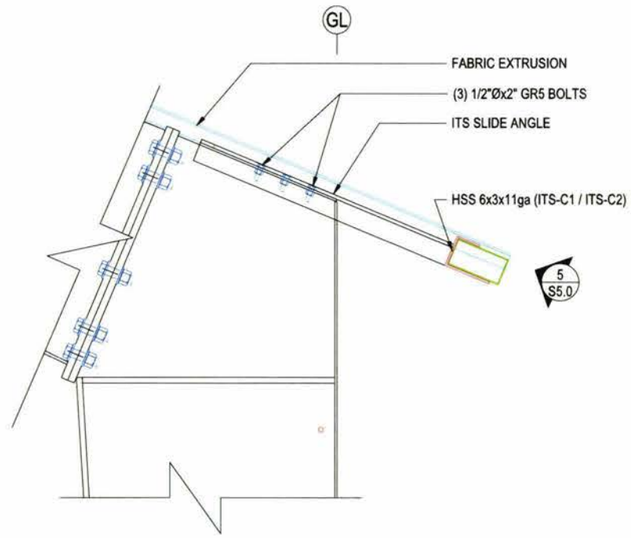
2 TYPICAL RP-1 BRACE DETAIL
SCALE: 3/4" = 1'-0"



4 BRACING ATTACHMENT DETAIL
SCALE: 3/4" = 1'-0"



5 ITS CONNECTION END VIEW
AT 6" FLANGES SCALE: 3/4" = 1'-0"



6 TYPICAL EAVE/SOFFIT DETAIL
SCALE: 3/4" = 1'-0"

Doug Mood
9-23-22

City of Tampa
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9,038,349; 9,334,653
OTHER PATENTS PENDING

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Project No: 2022-83
Date: 9/12/2022
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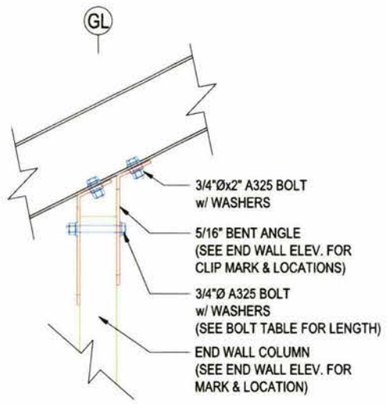
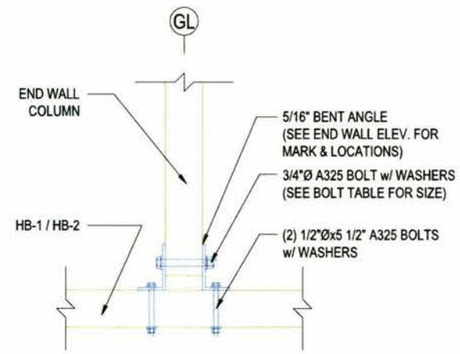
Sheet Number

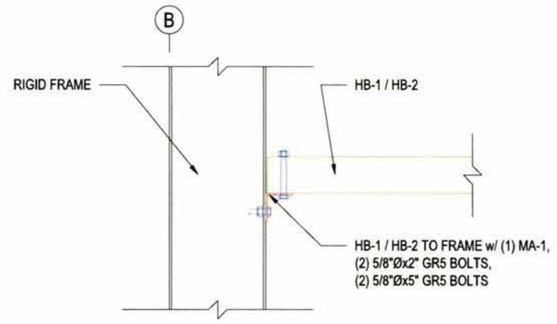
S5.0



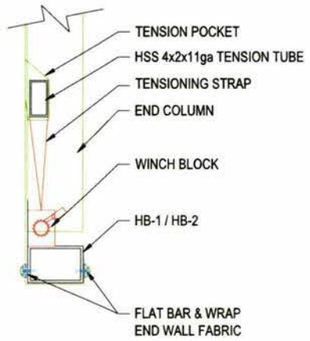
1 COLUMN TOP ATTACHMENT
SCALE: 3/4" = 1'-0"



2 COLUMN BOTTOM ATTACHMENT
SCALE: 3/4" = 1'-0"



3 COLUMN TOP ATTACHMENT
SCALE: 3/4" = 1'-0"



4 END WALL FABRIC TERMINATION
SCALE: 3/4" = 1'-0"

Duane Moore
9-23-22

City of Tampa
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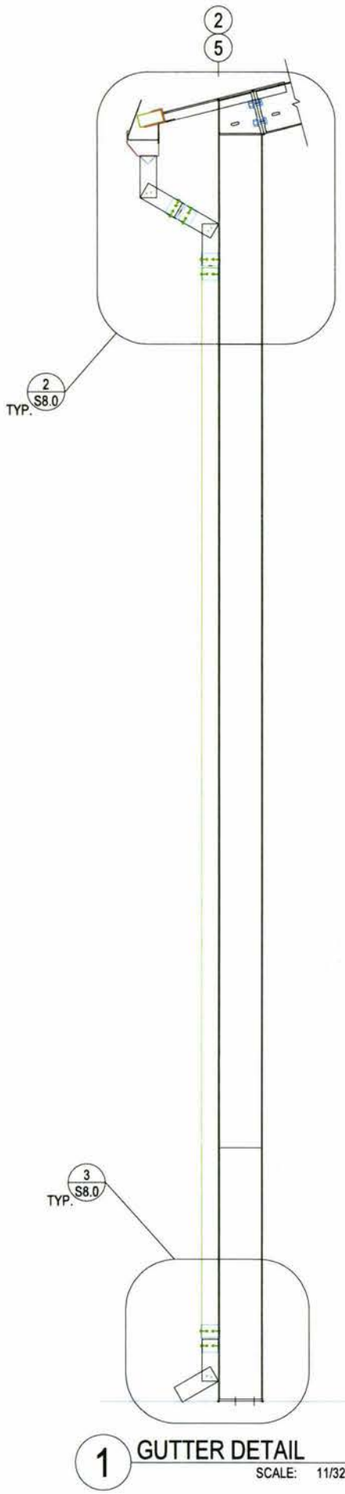
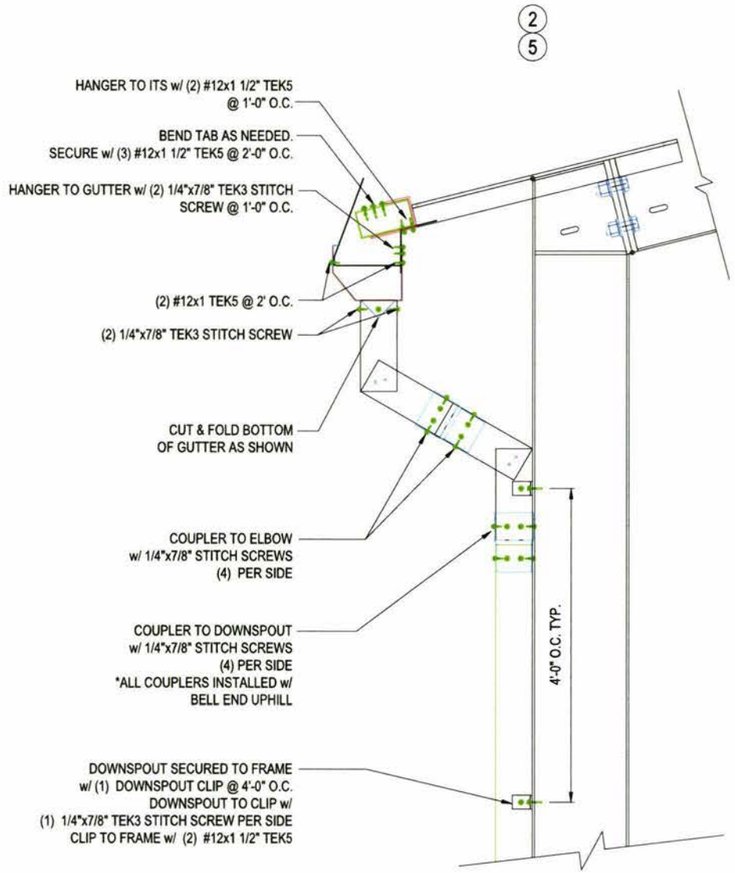
Project No 2022-61
Date 9/12/2022
Drawn Checked By BJL / MT

Sheet Number

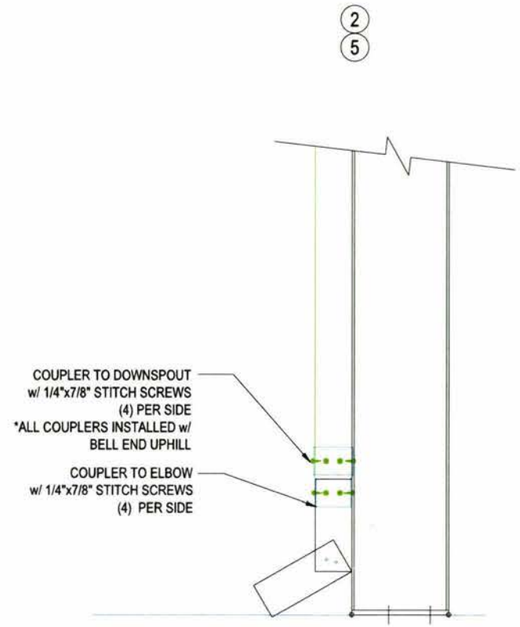
S5.1



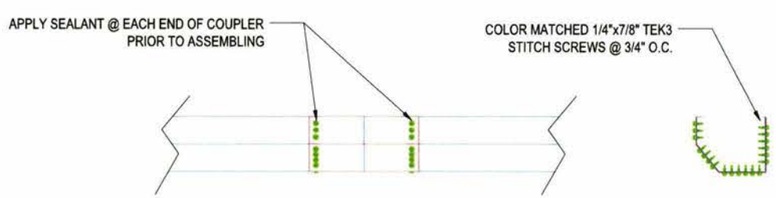
1 GUTTER DETAIL
SCALE: 11/32" = 1'-0"



2 GUTTER CONNECTION @ EAVE
SCALE: 3/4" = 1'-0"



3 GUTTER CONNECTION @ FOUNDATION
SCALE: 3/4" = 1'-0"



Duaye Moen
9-23-22

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Sheet Number
S8.0

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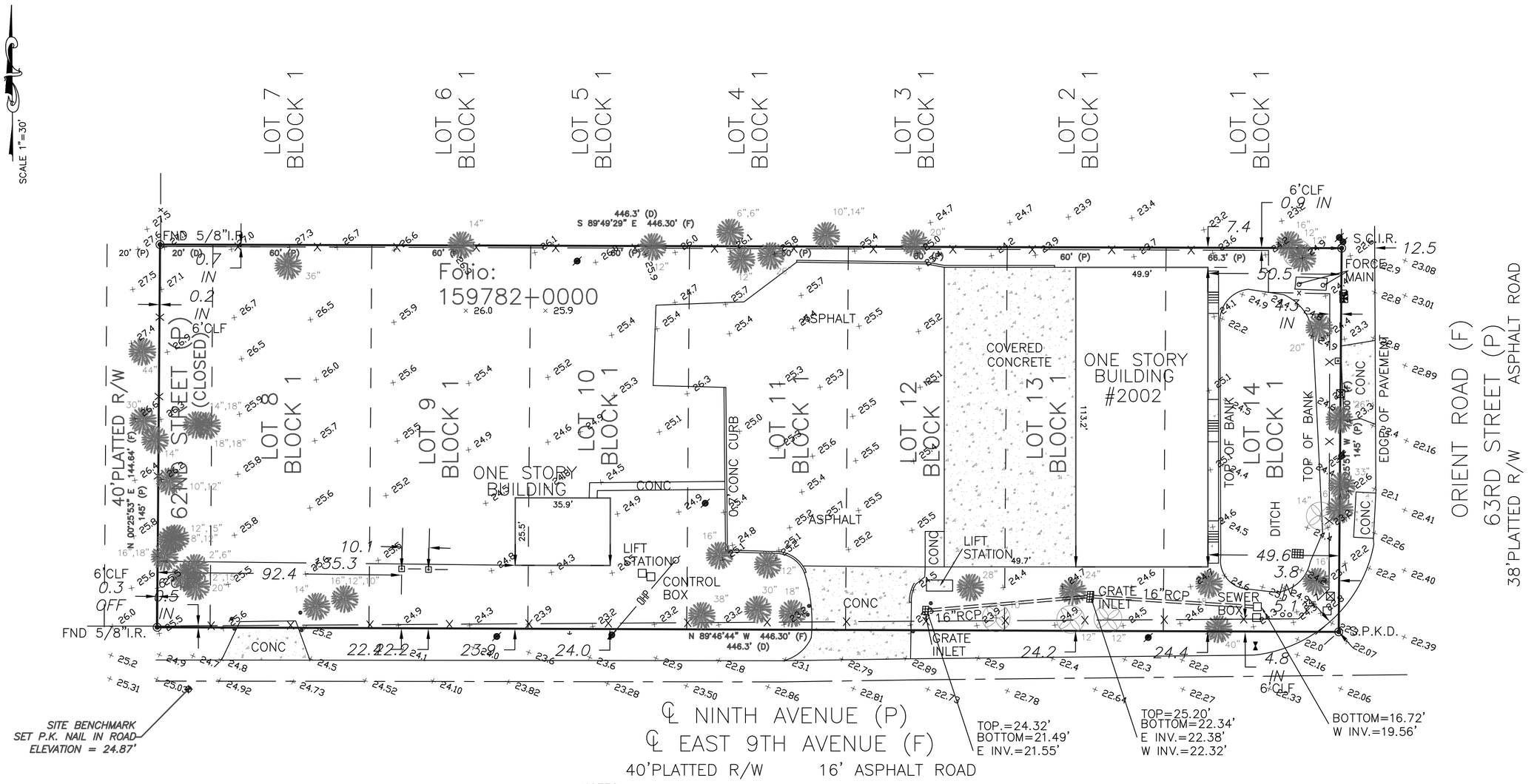
TOPOGRAPHIC SURVEY WITH TREE LOCATION

SECTION 14, TOWNSHIP 29 SOUTH, RANGE 19 EAST
HILLSBOROUGH COUNTY, FLORIDA.

LEGAL DESCRIPTION:
LOTS 8 THROUGH 14, INCLUSIVE, BLOCK 1, ORIENT PARK, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 11, PAGE 7, OF THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY, FLORIDA. TOGETHER WITH THE EAST 1/2 OF VACATED 72ND STREET (62ND STREET PER PLAT), ABUTTING SAID LOT 7 ON THE WEST, BOUNDED ON THE SOUTH BY NINTH AVENUE AND ON THE NORTH BY THE SOUTH BOUNDARY OF LOT 7 EXTENDED.



TREE LEGEND (SIZE AS NOTED)

= OAK TREE = PALM TREE

NOTES:
1) BEARINGS ARE BASED UPON THE SOUTHERLY LINE LOTS 8–14 BLOCK 1, N 89°46'44" W, GRID BEARING
2) PROPERTY APPEARS TO BE IN FLOOD ZONE "X" ACCORDING TO NATIONAL FLOOD PANEL #12057C-0378 SUFFIX "K" INSURANCE RATE MAP. REVISED 10–7–2021
3) ELEVATIONS ARE BASED ON NAVD '88 DATUM
4) LEGAL DESCRIPTION FURNISHED BY TITLE COMPANY
5) ALL MEASUREMENTS ARE IN U.S. FEET
6) THIS SURVEY WAS CONDUCTED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE, THEREFORE, THERE MAY BE OTHER EASEMENTS, RIGHT–OF–WAY, SETBACK LINES, AGREEMENTS, RESERVATIONS, OR OTHER SIMILAR MATTERS OF PUBLIC RECORD, NOT DEPICTED ON THIS SURVEY
7) FENCE LOCATION DOES NOT DETERMINE OWNERSHIP, OFF MEANS THE FENCE IS OFF OF THE PROPERTY, IN MEANS FENCE IS INSIDE THE PROPERTY.

LEGEND:

ASPH = ASPHALT	PVC= PLASTIC VINYL FENCE	(R)= RADIAL
A/C = AIR CONDITIONER	PCP = PERMANENT CONTROL POINT	FHD = FIRE HYDRANT
(C)=CALCULATED	I.P. = IRON PIPE	FND = FOUND
CLF=CHAIN LINK FENCE	I.R. = IRON ROD	(N/R) = NON–RADIAL
C.M. = CONCRETE MONUMENT	LB = LICENSED BUSINESS	(TYP)= TYPICAL
CONC = CONCRETE	O.U. = OVER HEAD UTILITY	W/F =WOOD FENCE
CSW = CONCRETE SIDEWALK	P.K. = PARKER KRYLON	S.P.K.D. = SET P.K. NAIL & DISK LB#6945
(D) = DEED MEASUREMENT	(P) = PLAT	S.I.R.C. = SET 5/8" I.R. & CAP LB#6945
(F) = FIELD MEASURED	PP = POWER POLE	
NO. I.D.= NO IDENTIFICATION	R/W = RIGHT–OF–WAY	
PRM = PERMANENT REFERENCE MONUMENT		
PSM = PROFESSIONAL SURVEYOR AND MAPPER		
RLS/PLS = REGISTERED/PROFESSIONAL LAND SURVEYOR		

SYMBOL LEGEND:

CABLE, GTE	FIBEROPTIC MARKER
CORNER	VERIZON, TECO BOX
WATER METER	WATER VALVE
LP	
PP	MANHOLE
WELL	
METER POLE	FIRE HYDRANT

DONALD L. WILLIAMSON License Number 5649 STATE OF FLORIDA Professional Surveyor and Mapper

NOT VALID WITHOUT SIGNATURE WITH SURVEYOR SEAL

DONALD L WILLIAMSON

DONALD L. WILLIAMSON
PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA REGISTRATION NUMBER 5649
NOT VALID WITHOUT THE ELECTRONIC SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

Digitally signed by DONALD L WILLIAMSON
DN: c=US, o=Florida, dnQualifier=A01410C00000179D203D430000178D3, cn=DONALD L WILLIAMSON
Date: 2022.09.27 09:32:07-04'00'

CERTIFICATION

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE FLORIDA MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS. THE SEAL AND UNIQUE SIGNATURE APPEARING ON THIS DOCUMENT IS AUTHORIZED BY DONALD L. WILLIAMSON PSM 5649 AND IS COMPLIANT WITH F.S.61G17–7.0025(3) (a) (b) (c) (d)

FIELD WORK BY:	BPIII	DATE: 03–24–2021		
DRAWN BY:	B.P.	DATE: 03–28–2021	JOB # 21–328D	

Certificate of Authorization "LB #6945"

CERTIFIED TO:

EQ FLORIDA INC

DON WILLIAMSON & ASSOCIATES, INC.
PROFESSIONAL SURVEYORS & MAPPERS LB # 6945
5020 GUNN HIGHWAY SUITE 220 A
TAMPA, FL 33624
(813) 265–4795
FAX (813) 264–6062

ELECTRICAL CONSTRUCTION NOTES

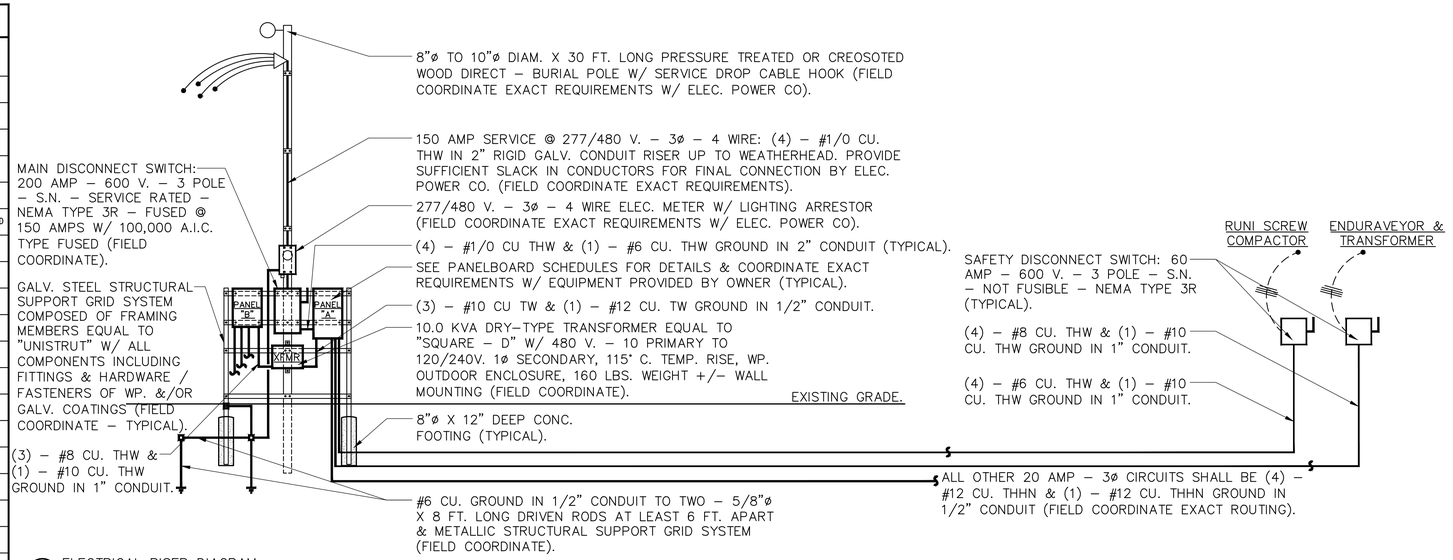
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC), LATEST EDITION, AND APPLICABLE STATE AND LOCAL ORDINANCES. EACH PIECE OF ELECTRICAL EQUIPMENT INSTALLED SHALL BEAR A.U.L. LABEL. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) LATEST EDITION.
2. THE ELECTRICAL CONTRACTOR SHALL ARRANGE AND PAY FOR ALL PERMITS, FEES, INSPECTIONS, ETC., AND CARRY ALL INSURANCE AS REQUIRED BY LAW PRIOR TO STARTING CONSTRUCTION.
3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS, TRANSPORTATION, RIGGING, TOOLS, STORAGE, ETC., FOR ALL WORK INDICATED AND REQUIRED FOR A COMPLETE INSTALLATION.
4. THE ELECTRICAL WORK SHALL INCLUDE COMPLETE TESTING OF ALL EQUIPMENT AND WIRING. WORKMANSHIP SHALL BE THE HIGHEST QUALITY AS ESTABLISHED BY TRADE STANDARDS.
5. ELECTRICAL CONTRACTOR SHALL KEEP A MASTER SET OF BLUE LINES THAT ARE TO BE MARKED UP TO REFLECT "AS BUILT" CONDITIONS ON A DAILY BASIS. THESE "AS BUILT" MARK UPS MAY BE REVIEWED BY THE ARCHITECT, ENGINEER OR OWNER'S REPRESENTATIVE AT THEIR REQUEST WITHOUT PRIOR NOTIFICATION. THESE "AS BUILT" MARK UPS WILL BE REVIEWED BY THE ENGINEER AND TURNED OVER TO THE OWNER AT THE CONCLUSION OF THE PROJECT.
6. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COMMUNICATION WITH THE LOCAL BUILDING DEPARTMENT AND INSPECTION PERSONNEL TO REVIEW CONTRACT DOCUMENTS PRIOR TO INSTALLATION.
7. THE OWNER WILL NOT BE HELD LIABLE FOR FIELD CHANGES THAT ARISE FROM CONTRACTOR ERROR OR OMISSION OF MATERIALS OR WORKMANSHIP IN WORK PERFORMANCE.
8. THE ELECTRICAL CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS WITH THE LOCAL POWER COMPANY FOR SERVICE AND SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL UTILITIES AND THE PLACEMENT LOCATION OF THE ELECTRICAL SERVICE AND EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PAY ALL NECESSARY CHARGES TO THE POWER COMPANY PRIOR TO CONSTRUCTION.
9. ALL ELECTRICAL EQUIPMENT, MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE.
10. IN GENERAL, PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. CO-ORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES, (PLUMBING, HVAC, ETC.) SO AS NOT TO CONFLICT IN LOCATIONS OR PERFORMANCE OF OTHER SYSTEMS.
11. NECESSARY, OBVIOUSLY REQUIRED ELECTRICAL ITEMS THAT ARE NOT SHOWN ON THE DRAWINGS, DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO INSTALL A COMPLETE AND SAFE ELECTRICAL SYSTEM.
12. THE ELECTRICAL CONTRACTOR SHALL CO-ORDIANTE WITH OTHER TRADES SO THAT INTERFERENCE BETWEEN CONDUITS, RACEWAYS, DUCTS, PIPING AND STRUCTURAL MEMBERS WILL BE AVOIDED.
13. THE ELECTRICAL CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT ALL WIRING IN ACCORDANCE WITH THE WIRING DIAGRAMS FOR POWER AND CONTROL OF ALL AIR CONDITIONING, HEATING AND VENTILATING EQUIPMENT AS PROVIDED BY THE HVAC CONTRACTOR.
14. WIRE AND CABLE SHALL BE 600 VOLT MINIMUM AWG. #12. ALL WIRING SHALL BE TYPE TW, THN OF THHN AS NECESSARY TO MEET ALL APPLICABLE CODES.
15. ALL WIRE AND CABLE SHALL BE IN A CONDUIT, MINIMUM SIZE 1/2" WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC. ALL SERVICE AND PANELBOARD FEEDER CONDUITS, CONDUITS IN OR BELOW FLOOR, IN DAMP AND WET LOCATIONS, IN CONCRETE AND LARGER THAN TWO INCHES SHALL BE RIGID GALVANIZED STEEL.

    ALL CONDUCTORS, UNLESS OTHERWISE NOTED, SHALL BE COPPER RUN IN APPROVED METAL RACEWAY. METAL RACEWAY PENETRATING FLOORS AND FIRE RATED PARTITIONS SHALL BE SEALED AIR TIGHT WITH MATERIAL RATED EQUAL TO THE PENETRATED MATERIAL.

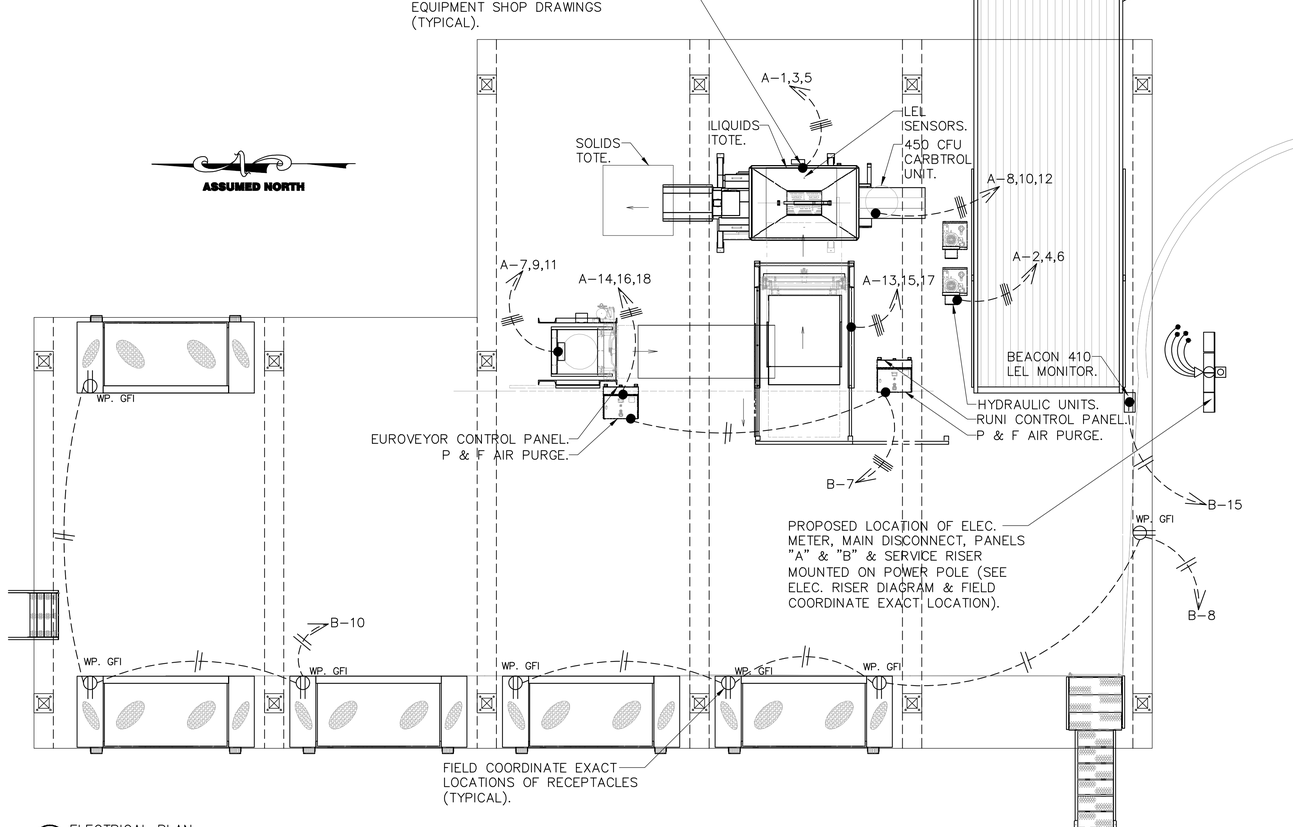
    FURNISH AND INSTALL ALL BRANCH CIRCUITS. CIRCUITS SHALL BE #12 WIRE IN 1/2" CONDUIT UNLESS OTHERWISE NOTED. THESE ARE MINIMUM WIRE AND CONDUIT SIZES. ALL WIRE SHALL BE COPPER. NO ALUMINUM CONDUCTORS WILL BE PERMITTED.
16. ALL NEW RACEWAYS / CONDUITS SHALL BE METALLIC MINIMUM SIZE 1/2"; SUPPORTED AT INTERVALS NOT TO EXCEED EIGHT (8) FEET; ALL FITTINGS SHALL BE COMPRESSION TYPE, NO SET SCREW TYPE FITTINGS WILL BE PERMITTED.
17. IN NO CASE MAY EMT OR FLEXIBLE CONDUIT BE RUN FROM FIXTURE TO FIXTURE WITHOUT THE USE OF OUTLET BOXES.
18. FLEXIBLE CONDUIT CAN ONLY BE USED FOR SHORT (MAXIMUM SIX FEET) FINAL CONNECTIONS TO INTERIOR LIGHTING FIXTURES AND EQUIPMENT.
19. THE ELECTRICAL CONTRACTOR SHALL FOLLOW THE SAME COLOR CODE IDENTIFICATION FOR EACH PHASE THROUGHOUT THE SYSTEM FROM SERVICE SWITCH OR TRANSFORMER THROUGH ALL BRANCH CIRCUITS.
20. ALL SLAB OR ROOF PENETRATIONS SHALL BE WITH APPROVED FIRE RATED AND SMOKE BARRIER FITTINGS. PROVIDE ACCESSORIES (PITCH, POCKETS, CONCRETE, ETC.) AS REQUIRED.
21. ALL CONDUITS SHALL BE RUN CONCEALED WHERE POSSIBLE. EXPOSED CONDUITS SHALL BE RUN PARALLEL AND /OR PERPENDICULAR TO BUILDING CONSTRUCTION.
22. CONDUIT MAY NOT BE RUN IN DUCTWORK.
23. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A 3/4" EMPTY CONDUIT FROM EACH TELEPHONE OUTLET TO THE OWNER'S TELEPHONE BOARD, WITH PULL WIRE. PROVIDE ALL REQUIRED CONDUIT FROM OWNER'S TELEPHONE BOARD TO BUILDING'S TELEPHONE ROOM. PROVIDE PULL BOXES AND PULL WIRE AS REQUIRED. VERIFY EXACT LOCATION OF EXISTING TELEPHONE SERVICE AND CONDUITS. CO-ORDINATE ALL WORK WITH OTHER TRADES AND TELEPHONE COMPANY.
24. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDUIT, BOXES, FITTINGS, PULL WIRE, ETC., REQUIRED FOR ALL MISCELLANEOUS SYSTEMS PER OWNER'S REQUIREMENTS. CO-ORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH OWNER.
25. ALL COMMUNICATION AND CONTROL WIRING SHALL BE IN CONDUIT.
26. FURNISH AND INSTALL PANELBOARDS OF AMPACITIES SHOWN ON PLANS. PANELS SHALL BE CIRCUIT BREAKER TYPE, WITH MAIN LUGS AND BRANCH CIRCUIT BREAKERS AS SCHEDULED. ALL ELECTRICAL PANELS AND EQUIPMENT SHALL BE U.L. LISTED AND APPROVED FOR SUCH USE. PANELS SHALL BE BOLT-ON TYPE AS MANUFACTURED BY SQUARE D OR APPROVED EQUAL.
27. ALL EQUIPMENT SHALL BE PROPERLY GROUNDED IN ALL RACEWAYS, BRANCH CIRCUITS & FEEDERS, PER LOCAL ELECTRICAL CODES AND THE NEC.
28. THE ELECTRICAL CONTRACTOR SHALL CO-ORDINATE ALL RECEPTACLE AND OUTLET LOCATIONS WITH ARCHITECTURAL DRAWINGS AND GENERAL CONTRACTOR BEFORE ROUGH IN.
29. ALL LIGHTING FIXTURES SHALL BE SELECTED BY THE OWNER AND INSTALLED BY THE ELECTRICAL CONTRACTOR. (LIGHTING FIXTURES INDICATED ON DRAWINGS AND SCHEDULES ARE FOR REFERENCE ONLY. FIXTURES OF EQUAL QUALITY MAY BE USED AS DIRECTED.)
30. ALL TEMPORARY ELECTRICAL SERVICE REQUIRED FOR CONSTRUCTION SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. FOLLOWING CONSTRUCTION, ALL TEMPORARY WIRING AND EQUIPMENT SHALL BE REMOVED WHEN DIRECTED BY THE GENERAL CONTRACTOR. ELECTRIC OUTLETS, CORDS, LIGHTS, LIGHTING LEVELS, ETC., SHALL CONFORM TO O.S.H.A AND LOCAL ORDINANCES.
31. ALL ELECTRICAL EQUIPMENT EXPOSED TO WEATHER SHALL BE WEATHERPROOF AND ALL CONDUIT EXPOSED TO WEATHER SHALL BE HEAVY WALL GALVANIZED STEEL.
32. SUBMIT SIX COMPLETE COPIES OF SHOP DRAWINGS AND PRODUCT DATA TO LIGHTING FIXTURES, ELECTRICAL PANELS, SERVICE EQUIPMENT, WIRING DEVICES AND DISCONNECT SWITCHES.

ELECTRICAL LEGEND

3	2'X4' L.E.D. LIGHT FIXTURE – "3" DENOTES QUANTITY OF LAMPS
	2'X1' L.E.D. LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	RECESSED MOUNTED CEILING LIGHT FIXTURE
	SURFACE MOUNTED CEILING LIGHT FIXTURE
J	JUNCTION BOX
	DISCONNECT SWITCH – SIZE AND TYPE AS NOTED
	DUPLEX RECEPTACLE – 20 A. – 125 V. W/ GROUND
WP. GFI	DUPLEX RECEPTACLE WEATHERPROOF / GROUND FAULT INTER.
	CONDUIT – CONCEALED IN WALL OR CEILING
	HOMERUN TO PANELBOARD
	FLEXIBLE CONDUIT
	ELECTRICAL PANEL
$	SINGLE POLE SWITCH
AHU	AIR HANDLER UNIT
CU	CONDENSING UNIT
	TELEPHONE OUTLET
	DATA / TV OUTLET
$3	THREE WAY SWITCH
	ELECTRIC SERVICE METER
	OUTDOOR MOTION SENSOR SECURITY LIGHT
A	CEILING MOUNTED LIGHTING FIXTURE – "A" DENOTES TYPE
	SINGLE RECEPTACLE – 20 A. – 125 V. W/ GROUND
	SPECIAL PURPOSE RECEPTACLE – VERIFY TYPE
	DUPLEX RECEPTACLE – FLOOR MOUNTED
	QUADRAPLEX RECEPTACLE – 20 A. – 125 V.
$V	VARIABLE SPEED FAN CONTROL SWITCH
$D	DIMMER SWITCH SIZE AS REQUIRED
	80 W. L.E.D. LIGHT FIXTURE
	BATH EXHAUST FAN
	CEILING FAN
SD	SMOKE / CARBON MONOXIDE DETECTOR
	30 W. L.E.D. FLOOD LIGHT FIXTURE



2 ELECTRICAL RISER DIAGRAM
SCALE: NOT TO SCALE



1 ELECTRICAL PLAN
SCALE: 1/4"=1'-0"

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-22-0486402 12/2/2022
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Acceptance of this plan shall not be held to permit or approve the violation of any City Codes
APPROVED FOR COMPLIANCE

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114 WEST DAVIS BLVD.
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PE # 36054 (FL) CA # 4455 (FL) PE # 74587 (PA)

OWNER/CLIENT:
US ECOLOGY - DOCK-ZILLA
TAMPA, FL 33619

PROJECT/TENANT:
US ECOLOGY - DOCK-ZILLA
2002 NORTH ORIENT ROAD
TAMPA, FL 33619

CONSULTANT:
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Phone: 813.251.5948
C.A.# 4455
P.E.# 36054
Contact: Thomas E. Cheever, P.E.

ENGINEERING SEAL:
THOMAS E. CHEEVER LICENSE No. 36054 STATE OF FLORIDA PROFESSIONAL ENGINEER
Digitally signed by Thomas Cheever
Date: 2022.11.14 17:13:39 -05'00'

CONSULTANT:

CONSULTANT:

REVISIONS

NO	DATE	DESCRIPTION	BY

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DRAWN BY:	DATE: 17 SEPTEMBER 2022
CHECKED BY:	PROJECT NO.: US ECOLOGY
SCALE: AS INDICATED	PROPOSAL NO.: N/A
FLOOR: N/A	

SHEET NAME
ELECTRICAL PLAN

SHEET NUMBER
E1

ELECTRICAL CONSTRUCTION NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC), LATEST EDITION, AND APPLICABLE STATE AND LOCAL ORDINANCES. EACH PIECE OF ELECTRICAL EQUIPMENT INSTALLED SHALL BEAR A.U.L. LABEL. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) LATEST EDITION.
2. THE ELECTRICAL CONTRACTOR SHALL ARRANGE AND PAY FOR ALL PERMITS, FEES, INSPECTIONS, ETC., AND CARRY ALL INSURANCE AS REQUIRED BY LAW PRIOR TO STARTING CONSTRUCTION.
3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS, TRANSPORTATION, RIGGING, TOOLS, STORAGE, ETC., FOR ALL WORK INDICATED AND REQUIRED FOR A COMPLETE INSTALLATION.
4. THE ELECTRICAL WORK SHALL INCLUDE COMPLETE TESTING OF ALL EQUIPMENT AND WIRING. WORKMANSHIP SHALL BE THE HIGHEST QUALITY AS ESTABLISHED BY TRADE STANDARDS.
5. ELECTRICAL CONTRACTOR SHALL KEEP A MASTER SET OF BLUE LINES THAT ARE TO BE MARKED UP TO REFLECT "AS BUILT" CONDITIONS ON A DAILY BASIS. THESE "AS BUILT" MARK UPS MAY BE REVIEWED BY THE ARCHITECT, ENGINEER OR OWNER'S REPRESENTATIVE AT THEIR REQUEST WITHOUT PRIOR NOTIFICATION. THESE "AS BUILT" MARK UPS WILL BE REVIEWED BY THE ENGINEER AND TURNED OVER TO THE OWNER AT THE CONCLUSION OF THE PROJECT.
6. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COMMUNICATION WITH THE LOCAL BUILDING DEPARTMENT AND INSPECTION PERSONNEL TO REVIEW CONTRACT DOCUMENTS PRIOR TO INSTALLATION.
7. THE OWNER WILL NOT BE HELD LIABLE FOR FIELD CHANGES THAT ARISE FROM CONTRACTOR ERROR OR OMISSION OF MATERIALS OR WORKMANSHIP IN WORK PERFORMANCE.
8. THE ELECTRICAL CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS WITH THE LOCAL POWER COMPANY FOR SERVICE AND SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL UTILITIES AND THE PLACEMENT LOCATION OF THE ELECTRICAL SERVICE AND EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PAY ALL NECESSARY CHARGES TO THE POWER COMPANY PRIOR TO CONSTRUCTION.
9. ALL ELECTRICAL EQUIPMENT, MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE.
10. IN GENERAL, PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. CO-ORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES, (PLUMBING, HVAC, ETC.) SO AS NOT TO CONFLICT IN LOCATIONS OR PERFORMANCE OF OTHER SYSTEMS.
11. NECESSARY, OBVIOUSLY REQUIRED ELECTRICAL ITEMS THAT ARE NOT SHOWN ON THE DRAWINGS, DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO INSTALL A COMPLETE AND SAFE ELECTRICAL SYSTEM.
12. THE ELECTRICAL CONTRACTOR SHALL CO-ORDIANTE WITH OTHER TRADES SO THAT INTERFERENCE BETWEEN CONDUITS, RACEWAYS, DUCTS, PIPING AND STRUCTURAL MEMBERS WILL BE AVOIDED.
13. THE ELECTRICAL CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT ALL WIRING IN ACCORDANCE WITH THE WIRING DIAGRAMS FOR POWER AND CONTROL OF ALL AIR CONDITIONING, HEATING AND VENTILATING EQUIPMENT AS PROVIDED BY THE HVAC CONTRACTOR.
14. WIRE AND CABLE SHALL BE 600 VOLT MINIMUM AWG. #12. ALL WIRING SHALL BE TYPE TW, THN OF THHN AS NECESSARY TO MEET ALL APPLICABLE CODES.
15. ALL WIRE AND CABLE SHALL BE IN A CONDUIT, MINIMUM SIZE 1/2" WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC. ALL SERVICE AND PANELBOARD FEEDER CONDUITS, CONDUITS IN OR BELOW FLOOR, IN DAMP AND WET LOCATIONS, IN CONCRETE AND LARGER THAN TWO INCHES SHALL BE RIGID GALVANIZED STEEL.

    ALL CONDUCTORS, UNLESS OTHERWISE NOTED, SHALL BE COPPER RUN IN APPROVED METAL RACEWAY. METAL RACEWAY PENETRATING FLOORS AND FIRE RATED PARTITIONS SHALL BE SEALED AIR TIGHT WITH MATERIAL RATED EQUAL TO THE PENETRATED MATERIAL.

    FURNISH AND INSTALL ALL BRANCH CIRCUITS. CIRCUITS SHALL BE #12 WIRE IN 1/2" CONDUIT UNLESS OTHERWISE NOTED. THESE ARE MINIMUM WIRE AND CONDUIT SIZES. ALL WIRE SHALL BE COPPER. NO ALUMINUM CONDUCTORS WILL BE PERMITTED.
16. ALL NEW RACEWAYS / CONDUITS SHALL BE METALLIC MINIMUM SIZE 1/2"; SUPPORTED AT INTERVALS NOT TO EXCEED EIGHT (8) FEET; ALL FITTINGS SHALL BE COMPRESSION TYPE, NO SET SCREW TYPE FITTINGS WILL BE PERMITTED.
17. IN NO CASE MAY EMT OR FLEXIBLE CONDUIT BE RUN FROM FIXTURE TO FIXTURE WITHOUT THE USE OF OUTLET BOXES.
18. FLEXIBLE CONDUIT CAN ONLY BE USED FOR SHORT (MAXIMUM SIX FEET) FINAL CONNECTIONS TO INTERIOR LIGHTING FIXTURES AND EQUIPMENT.
19. THE ELECTRICAL CONTRACTOR SHALL FOLLOW THE SAME COLOR CODE IDENTIFICATION FOR EACH PHASE THROUGHOUT THE SYSTEM FROM SERVICE SWITCH OR TRANSFORMER THROUGH ALL BRANCH CIRCUITS.
20. ALL SLAB OR ROOF PENETRATIONS SHALL BE WITH APPROVED FIRE RATED AND SMOKE BARRIER FITTINGS. PROVIDE ACCESSORIES (PITCH, POCKETS, CONCRETE, ETC.) AS REQUIRED.
21. ALL CONDUITS SHALL BE RUN CONCEALED WHERE POSSIBLE. EXPOSED CONDUITS SHALL BE RUN PARALLEL AND /OR PERPENDICULAR TO BUILDING CONSTRUCTION.
22. CONDUIT MAY NOT BE RUN IN DUCTWORK.
23. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A 3/4" EMPTY CONDUIT FROM EACH TELEPHONE OUTLET TO THE OWNER'S TELEPHONE BOARD, WITH PULL WIRE. PROVIDE ALL REQUIRED CONDUIT FROM OWNER'S TELEPHONE BOARD TO BUILDING'S TELEPHONE ROOM, PROVIDE PULL BOXES AND PULL WIRE AS REQUIRED. VERIFY EXACT LOCATION OF EXISTING TELEPHONE SERVICE AND CONDUITS. CO-ORDINATE ALL WORK WITH OTHER TRADES AND TELEPHONE COMPANY.
24. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDUIT, BOXES, FITTINGS, PULL WIRE, ETC., REQUIRED FOR ALL MISCELLANEOUS SYSTEMS PER OWNER'S REQUIREMENTS. CO-ORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH OWNER.
25. ALL COMMUNICATION AND CONTROL WIRING SHALL BE IN CONDUIT.
26. FURNISH AND INSTALL PANELBOARDS OF AMPACITIES SHOWN ON PLANS. PANELS SHALL BE CIRCUIT BREAKER TYPE, WITH MAIN LUGS AND BRANCH CIRCUIT BREAKERS AS SCHEDULED. ALL ELECTRICAL PANELS AND EQUIPMENT SHALL BE U.L. LISTED AND APPROVED FOR SUCH USE. PANELS SHALL BE BOLT-ON TYPE AS MANUFACTURED BY SQUARE D OR APPROVED EQUAL.
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31. ALL ELECTRICAL EQUIPMENT EXPOSED TO WEATHER SHALL BE WEATHERPROOF AND ALL CONDUIT EXPOSED TO WEATHER SHALL BE HEAVY WALL GALVANIZED STEEL.
32. SUBMIT SIX COMPLETE COPIES OF SHOP DRAWINGS AND PRODUCT DATA TO LIGHTING FIXTURES, ELECTRICAL PANELS, SERVICE EQUIPMENT, WIRING DEVICES AND DISCONNECT SWITCHES.

ELECTRICAL LEGEND

Symbol	Description
3	2'X4' L.E.D. LIGHT FIXTURE – "3" DENOTES QUANTITY OF LAMPS
	2'X1' L.E.D. LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	RECESSED MOUNTED CEILING LIGHT FIXTURE
	SURFACE MOUNTED CEILING LIGHT FIXTURE
J	JUNCTION BOX
	DISCONNECT SWITCH – SIZE AND TYPE AS NOTED
	DUPLEX RECEPTACLE – 20 A. – 125 V. W/ GROUND
WP. GFI	DUPLEX RECEPTACLE WEATHERPROOF / GROUND FAULT INTER.
	CONDUIT – CONCEALED IN WALL OR CEILING
	HOMERUN TO PANELBOARD
	FLEXIBLE CONDUIT
	ELECTRICAL PANEL
$	SINGLE POLE SWITCH
AHU	AIR HANDLER UNIT
CU	CONDENSING UNIT
	TELEPHONE OUTLET
	DATA / TV OUTLET
$3	THREE WAY SWITCH
	ELECTRIC SERVICE METER
	OUTDOOR MOTION SENSOR SECURITY LIGHT
A	CEILING MOUNTED LIGHTING FIXTURE – "A" DENOTES TYPE
	SINGLE RECEPTACLE – 20 A. – 125 V. W/ GROUND
	SPECIAL PURPOSE RECEPTACLE – VERIFY TYPE
	DUPLEX RECEPTACLE – FLOOR MOUNTED
	QUADRAPLEX RECEPTACLE – 20 A. – 125 V.
$V	VARIABLE SPEED FAN CONTROL SWITCH
$D	DIMMER SWITCH SIZE AS REQUIRED
	80 W. L.E.D. LIGHT FIXTURE
	BATH EXHAUST FAN
	CEILING FAN
SD	SMOKE / CARBON MONOXIDE DETECTOR
	30 W. L.E.D. FLOOD LIGHT FIXTURE

PANELBOARD SCHEDULE

MAIN PNL. "A" DESIGNATION · A.I.C. 18,000 · VOLTAGE: 240/120 ☐ 208/120 ☐ 480 ☐ 480/277 X · AMPERE RATING 150 · MAIN LUGS ONLY X · MAIN CIRCUIT BREAKER ☐ · NEMA 3R MOUNTING: SURFACE X FLUSH ☐

LOAD SERVICED	CKT. NO.	BRKR. AMPS	A	B	C	BRKR. AMPS	CKT. NO.	LOAD SERVICED
COMPACTOR MOTOR	1	60	32.6 / 1.8			20	2	HYDRAULIC PUMP
24 HP.	3			32.6 / 1.8			4	0.9 HP.
	5				32.6 / 1.8		6	
SIDE DUMPER	7	20	3.4 / 1.4			20	8	CARBTROL UNIT
2 HP.	9			3.4 / 1.4			10	3/4 HP.
	11				3.4 / 1.4		12	
LIFT DUMPER	13	20	11.0 / 25.0			50	14	ENDURAVEYOR
7.5 HP.	15			11.0 / 25.0			16	
	17				11.0 / 25.0		18	
SUB-PANEL "B"	19	20	10.7				20	SPACE
10.0 KVA XFMR.	21			9.2			22	
SPACE	23						24	
	25						26	
	27						28	
	29						30	
TOTAL LOAD PER PHASE (A.)			85.9	84.4	75.2			CONNECTED LOAD 67954 / DESIGN LOAD (V.A.)

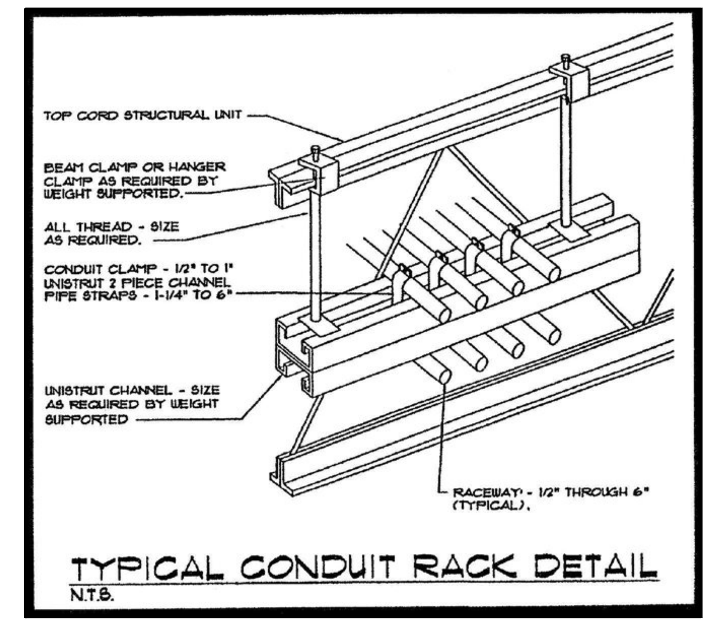
ISOLATED GROUND BUS ☐ · GROUND BUS X · NEUTRAL BUS X

PANELBOARD SCHEDULE

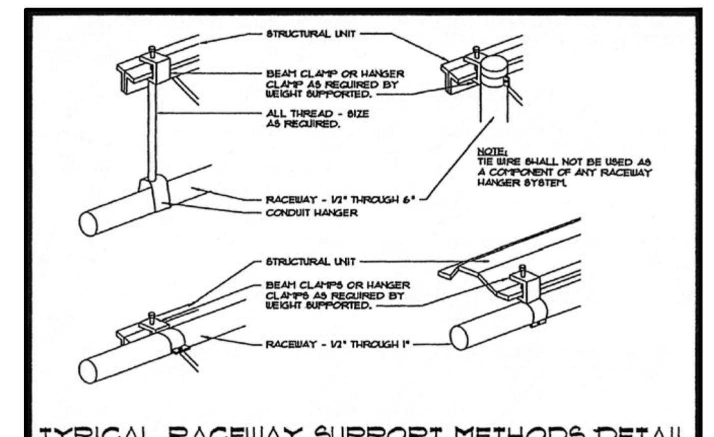
SUB-PNL. "B" DESIGNATION · A.I.C. 10,000 · VOLTAGE: 240/120 X 208/120 ☐ 480 ☐ · AMPERE RATING 60 · MAIN LUGS ONLY ☐ · MAIN CIRCUIT BREAKER X 50 · NEMA 3R MOUNTING: SURFACE X FLUSH ☐

LOAD SERVICED	CKT. NO.	BRKR. AMPS	A	B	BRKR. AMPS	CKT. NO.	LOAD SERVICED
AIR DRYER	1	20	10.0 / 2.0		20	2	DOCK LIGHTS
LEVEL CONTROL	3	20		10.0 / 3.2	20	4	FLOOD LIGHTS
BEACON CONTROL	5	20	5.0 / 3.2		20	6	LOW BAY LIGHTS
(2)-P&F UNITS	7	20		2.0 / 6.0	20	8	(4)-WP. RECEPT.
SPARE	9	20	— / 4.5		20	10	(3)-WP. RECEPT.
"	11	20		—		12	SPACE
SPACE	13					14	
	15					16	
	17					18	
	19					20	
TOTAL LOAD PER PHASE (A.)			24.7	21.2			CONNECTED LOAD 5508 / DESIGN LOAD (V.A.) 4682

ISOLATED GROUND BUS ☐ · GROUND BUS X · NEUTRAL BUS X



TYPICAL CONDUIT RACK DETAIL
N.T.S.

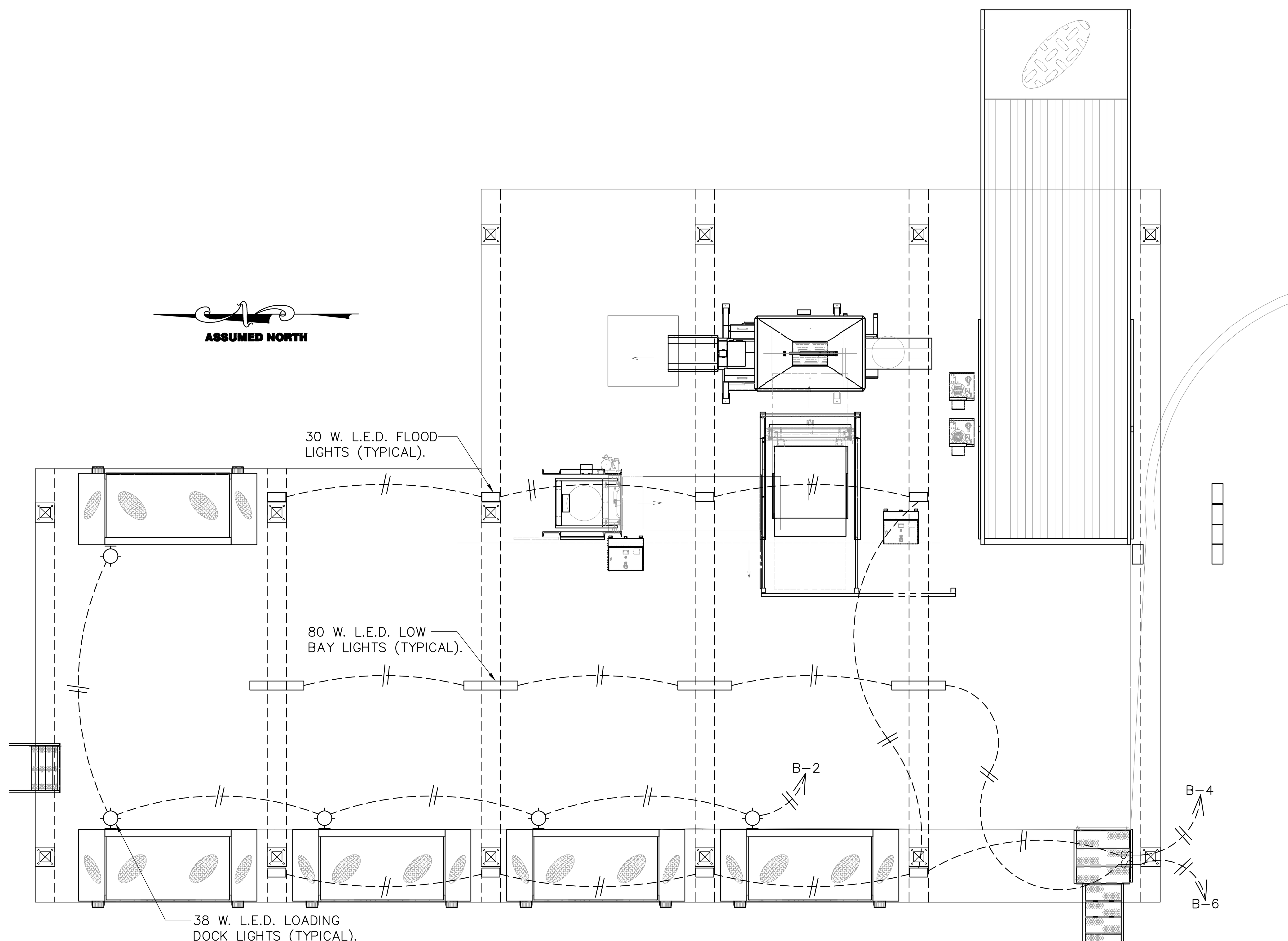


TYPICAL RACEWAY SUPPORT METHODS DETAIL
N.T.S.

MINIMUM CONDUCTOR SIZES

OVERCURRENT RATING	CURRENT CARRYING AND NEUTRAL CONDUCTOR	GROUND CONDUCTOR	MINIMUM CONDUIT SIZE 4W+G	3W+G	2W+G
0 - 20 AMPS	#12	#12	0.75"	0.50"	0.50"
21 - 30 AMPS	#10	#10	0.75"	0.50"	0.50"
31 - 40 AMPS	#8	#10	1"	0.75"	——
41 - 50 AMPS	#8	#10	1"	0.75"	——
51 - 60 AMPS	#6	#10	1.25"	1"	——
61 - 70 AMPS	#4	#8	1.25"	1"	——
71 - 80 AMPS	#4	#8	1.25"	1"	——
81 - 90 AMPS	#3	#8	1.25"	1.25"	——
91 - 100 AMPS	#3	#8	1.25"	1.25"	——

FURNISH CONDUCTORS IN ACCORDANCE WITH THIS SCHEDULE UNLESS OTHERWISE NOTED. ALL WIRES ARE TO BE COPPER, THHN, UNLESS OTHERWISE NOTED. SEE ELECTRIACL NOTES FOR ADDITIONAL CONDUIT AND WIRE INSULATION REQUIREMENTS.



1 LIGHTING PLAN
SCALE: 1/4"=1'-0"

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-22-0496402 12/2/2022
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Contact: Thomas E. Cheever, P.E.

ENGINEERING SEAL:
THOMAS E CHEEVER LICENSE No. 36054 STATE OF FLORIDA PROFESSIONAL ENGINEER
Digitally signed by Thomas Cheever Date: 2022.11.14 17:13:09 -05'00'

CONSULTANT:

CONSULTANT:

CONSULTANT:

REVISIONS

NO	DATE	DESCRIPTION	BY

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DRAWN BY:	DATE: 17 SEPTEMBER 2022
CHECKED BY:	PROJECT NO.: US ECOLOGY
SCALE: AS INDICATED	PROPOSAL NO.: N/A
FLOOR: N/A	

SHEET NAME
LIGHTING PLAN

SHEET NUMBER
E2

APPENDIX J

Waste Analysis Plan & Supporting Documentation/SOPs

US ECOLOGY TAMPA, INC.
WASTE ANALYSIS PLAN

INTRODUCTION

US Ecology Tampa, Inc. (USET) has developed this Waste Analysis Plan (WAP) in accordance with the regulatory requirements set forth in 40 CFR 264.13 (b) and 40 CFR 268.7. The procedures set forth in this plan ensure that this facility will be in compliance with all the requirements of 40 CFR 264.13 and 268.7. A copy of the current plan will be available at the facility.

The purpose of this WAP is to identify and document the necessary sampling methods, analytical techniques and overall procedures that are undertaken for hazardous wastes that enter this facility for treatment or storage. As appropriate, the USET facility will utilize as guidance the following United States Environmental Protection Agency (EPA) final document entitled: "Waste Analysis at Facilities That Generate, Treat, Store and Dispose of Hazardous Wastes: A Guidance Manual" as updated from time to time. In addition, USET has a number of Standard Operating Procedures (SOPs) used internally which are attached hereto.

The USET WAP describes the following:

1. Pre-Acceptance Procedures – Determines the acceptability of a particular waste stream pursuant to facility permit conditions and operating capabilities prior to shipment of that waste to the facility.
2. Incoming Waste Shipment Procedures – Identifies that the delivered waste shipment matches the accompanying manifest, as well as the pre-acceptance description (the profile), and the conditions of the facility permit.
3. Sampling Methods – Ensures that adequate quality control (QC) waste identification samples are properly obtained.
4. Analytical Techniques – Verifies that the waste received at the facility conforms to the properties and characterization approved on the waste profile form so that the appropriate treatment or storage techniques can be utilized.
5. Operational Procedures – Maintains safe and appropriate methods of storage, treatment, and ultimate outbound shipment of wastes.

All RCRA-regulated wastes treated or stored at the facility will be handled in accordance with the WAP. Non-RCRA regulated waste is, by definition, not regulated by RCRA. Non-RCRA regulated waste will be managed at the facility. This will not interfere with the management of hazardous waste at the facility. It is USET's policy to screen non-RCRA regulated waste for hazardous characteristics utilizing the USET WAP. This is to ensure that the facility will be in compliance with all applicable permits and regulations to properly and safely manage all waste.

All forms attached in the documentation section at the end of this WAP are typical forms currently used by the facility. These forms may change or be updated to equivalent forms as regulations, customer needs, operations, or company policy dictates.

PRE-ACCEPTANCE PROCEDURES

USET has developed procedures to determine the acceptability of specific wastes for management at the facility in accordance with safe storage, treatment, and all prohibitions on Land Disposal (40 CFR Part 268). The pre-acceptance procedures dictate what information a potential customer will provide to enable USET to determine the acceptability of the waste for treatment, storage, and ultimate off-site disposal. The

Pre-Acceptance Procedure is the mechanism for deciding to reject or accept a particular type of waste, prior to shipment to the facility, based upon the conditions or limitations of existing permits, applicable land disposal restrictions (LDRs) and its compatibility with other wastes being treated and stored at the facility. USET operations, technical, and field personnel are trained annually in completing waste profiles, DOT regulations (hazard classes, shipping names, and more) manifesting, and LDRs.

The procedures listed below are utilized to review information and approve or reject waste prior to delivery to the facility:

1. The generator will provide USET with a completed Waste Profile Form. A copy of the current USET Waste Profile Form is attached hereto in the documentation section at the end of this WAP. The completed profile provides the following information:

   - General Information;
   - Physical Characteristics;
   - Chemical/Physical Composition;
   - Characteristic Constituents;
   - Reactivity & Other Hazards;
   - Hazardous Characterization;
   - Shipping Information; and
   - Certification.

   At a minimum, the generator supplies all the information needed to treat, store, or dispose of the waste as required by 40 CFR Part 264.13(a)(1).

2. The generator will provide USET with a representative sample, if requested. A copy of the current USET Sample Chain of Custody form is attached hereto in the documentation section at the end of this WAP.

3. The generator will provide USET with other supporting documentation, which may include Safety Data Sheets (SDS), laboratory analysis, and any information concerning LDR of 40 CFR Part 268. A completed LDR form will describe the LDRs that apply to the waste. A copy of the current Land Disposal Restrictions form is attached hereto in the documentation section at the end of this WAP.

4. USET will review information presented on the Profile, analytical data supplied by the generator, SDSs and other applicable documentation as supplied by the generator for:

   - Completeness;
   - Process producing waste;
   - Chemical constituents of waste;
   - Analytical results; and
   - LDR requirements.

   As discussed above, it is USET's policy to screen non-RCRA regulated waste for minimum hazardous characteristics utilizing the USET WAP.

5. USET will determine the acceptability of the waste based on:

   - The permit conditions for the facility;
   - Facility operational requirements;
   - The compatibility of the waste being consolidated or treated;

- The status of waste under current LDRs;
- The available on-site treatment capabilities; and
- The available off-site recycling, reclamation, treatment, or disposal options.

6. The pre-acceptance evaluation will be recertified biennially at a minimum. Recertification or pre-acceptance evaluations will be done when any of the following occur:

   - Biennially (every two years);
   - Waste Generation Process Changes;
   - Waste Analyses or Screening Changes; or
   - Regulatory Changes Related to Waste Analysis.

7. USET may perform necessary annual analysis, dependent on the particular waste stream characteristics, from a representative sample of the waste received to ensure that the initial analysis is accurate and up to date.

8. Samples may be requested when the situation is warranted, such as for waste requiring treatment by solidification in order to perform solidification evaluation testing, or to perform a treatment study when the decharacterization and stabilization of hazardous waste is being requested.

Note: Laboratory Packaged (Lab Pack) wastes are the exception to the above procedures. Lab pack procedures are discussed in the lab pack section of the WAP.

USET TECHNICAL SERVICES

Approval chemists (or equivalent) and approval coordinators are responsible for the pre-acceptance evaluation decision (i.e., whether to accept for storage, treatment, and off-site disposal or reject the waste). The approval chemist or coordinator reviews the profiles for general information, physical characteristics, chemical/physical composition, characteristic constituents, reactivity/other hazards, hazardous characterization, shipping information, and certifications. The chemist or coordinator also reviews the process producing the waste, waste description, EPA waste code identifications, and chemical constituents to determine the facility's ability to safely and properly manage the waste for storage, treatment, and ultimate disposal.

Problems with the profile encountered during the evaluation process, such as EPA waste codes that do not correspond with the process producing waste statement, chemical constituents that do not correspond with analytical data supplied, or analytical data that does not confirm treatment standards have been met for land disposal restricted waste (when applicable), are noted by approval personnel. An attempt to resolve discrepancies will be made by contacting the generator for additional information, documentation, or analytical data. Discrepancies that cannot be resolved will result in the rejection of the waste profile. A Technical Services Manager or equivalent is available to review approval and rejection decisions if necessary.

The pre-acceptance evaluation is concluded with the final decision regarding the acceptability of the waste. Storage, treatment, and disposal decisions are based on, but not limited to:

- Conditions or limitations of existing permits and regulations,
- Capability to safely manage the waste,
- Regulatory requirements,

- Results of compatibility evaluation or treatability tests (as appropriate), and/or
- Management decision.

Waste Characterization

Indicated below are the waste characterizations of the various waste streams managed at the treatment/storage and transfer facility.[1] Actual waste analysis information (if available), waste profile information, supporting lab analytical, QC lab reports, manifests, land ban forms, and the USET computer database information will be retained as part of the facility operating record.

Ignitable Waste (I)

Physical State:	Liquid/Solid/Semi-Solid
Chemical Composition:	Flammable Liquids: Solvents, paints, thinners, alcohols, fuels, oils, etc. Flammable Solids: water-reactive metals, phosphorous, paint sludges, and solid residues, etc. Oxidizers: permanganates, nitrates, nitrites, perchlorates, etc.
Disposal:	Off-site via fuel blending, deactivation, and/or incineration.
Other Data:	Stored in an explosion-proof designed area. Oxidizers must be kept separate from organics.

Corrosive Waste (C)

Physical State:	Liquid/Solid/Semi-Solid
pH:	Less than 2.0 and greater than 12.5
Chemical Composition:	Acids: Hydrochloric, nitric, chromic, phosphoric, sulfuric, etc. Caustics: Sodium hydroxide, potassium hydroxide, etc.
Disposal:	Off-site via neutralization. Alternately, some, or all, of the acceptable materials may be treated on-site in the treatment tank located in the WPB and disposed of at a subtitle D landfill once decharacterized, meets LDRs, and passes the PFT.
Other Data:	Keep acids and caustics separated from each other and do not add water to acids or caustics.

Reactive Waste (R)

Physical State:	Liquid/Solid/Semi-Solid
Chemical Composition:	Cyanides, sulfides, and water-reactive metals, etc.
Disposal:	Off-site via deactivation, and/or incineration.
Other Data:	Stored in an explosion-proof designed area. Cyanides and sulfides must be kept separate from acids. Water reactives are usually immersed in kerosene or mineral oil.

[1] 40 CFR 261.30 indicates the basis for listing the classes or types of wastes listed in 40 CFR 261 Subpart D.

Toxicity Characteristic Waste (E)

Physical State:	Liquid/Solid/Semi-Solid
Chemical Composition:	D004 - D043 wastes.
Disposal:	Off-site via stabilization, incineration, or landfill. Alternately, allowable waste codes may be treated in the treatment tank and disposed of at a Subtitle D facility once decharacterized, meets LDRs, and passes the PFT.

Acute Hazardous Waste (H)

Physical State:	Liquid/Solid/Semi-Solid
Chemical Composition:	Arsenics, carbamates, endrin, lindane, toxaphene, methoxychlor, etc.
Disposal:	Off-site via incineration, stabilization/oxidation and/or Subtitle C facility.
Other Data:	May be an inhalation hazard.

Toxic Waste (T)

Physical State:	Liquid/Solid/Semi-Solid
Chemical Composition:	Acetone, Acetyl Chloride, Acrylonitrile, Aniline, Azaserine, etc.
Disposal:	Off-site via incineration, fuel blending, stabilization/oxidation and/or Subtitle C facility.
Other Data:	May be an inhalation hazard.

SAMPLING METHODS

Sampling is performed at the facility by USET personnel trained to sample incoming materials. The training includes personal protective equipment (PPE), sampling requirements, sampling equipment, and sampling techniques. All sampling personnel are HAZWOPER trained and are expected to follow appropriate health and safety procedures during all sampling and analysis activities. Based on generator knowledge of the waste to be sampled, health and safety procedures will be implemented to assure worker safety. These measures include wearing appropriate safety glasses, gloves, and protective clothing or apron when collecting or handling samples.

Specific sampling procedures are dependent on both the nature of the material and the type of container. This section presents sampling methods to be utilized by USET personnel. The generator provides USET with information concerning the concentration, as well as the nature of the waste components on the profile. The analysis to be performed is a conformance check. Sampling protocols will follow approved sampling methods.

The sampling equipment and procedures described in this WAP represents the facility's recommended sampling protocol for general types of waste materials and containers. Certain waste materials or containers may require different sampling procedures or equipment. Procedures and equipment may be updated and revised as new equipment or procedures become available. In general, the methods utilized for sampling

correspond to those referenced in 40 CFR 261, Appendix I. The general sampling methods and the equipment utilized for waste materials are presented in **Table 1** which follows.

TABLE 1
SAMPLING METHODS AND EQUIPMENT

Sample Material	Sample Method	Sample Equipment	Sample Container
Extremely viscous	ASTM D140-70, E300 (a)	Tubing or thief (b)	Plastic/Glass jar w/screw top
Crushed or powdered material	ASTM D364–75, E300 (a)	Tubing, trier, scoop, or shovel (b)	Plastic/Glass jar w/screw top
Soil material	ASTM D420-69, E300 (a)	Tubing, trier, auger, scoop, or shovel (b)	Plastic/Glass jar w/screw top
Soil-like material	ASTM D1462.65, E300 (a)	Tubing, trier, auger, scoop, or shovel (b)	Plastic/Glass jar w/screw top
Fly ash-like material	ASTM D2234–76 (a)	Tubing, trier, auger, scoop, or shovel (b)	Plastic/Glass jar w/screw top
Containerized Liquids	SW–846 © ASTM E300 (a)	Coliwasa or tubing or sampling rod (b)	Plastic/Glass jar w/screw top

NOTES:
(a) ASTM International. Annual Book of ASTM Standards. Philadelphia, PA. 1982 or most recent edition.
(b) Personal Protection and Safety Training Manual (Cincinnati, OH: USEPA National Training and Operational Technology Center 1981), pp. 3-1 and 3-4.
(c) U.S. Environmental Protection Agency. SW-846-Test Methods for Evaluating Solid Waste. Office of Solid Waste and Emergency Response, Washington, D.C., Third Edition 2009, or most recent edition.

In addition to ASTM International (ASTM), Florida Department of Environmental Protection (FDEP) and EPA sampling procedures, USET has instituted specific methods for ensuring that samples taken from various types of containers are representative. The types of containers to be sampled at the facility vary, but usually are 55-gallon steel drums. Containers may consist of pails, drums, overpacks, totes, tankers, roll-off boxes, the non-hazardous solidification tank, the hazardous waste treatment tank, or other DOT approved containers. The sampling devices are selected, depending on the size and type of containers and on the specific material involved.

Access to a container (e.g., barrel bungs) influence the location within the container from which samples can be taken. Every effort to achieve representative samples will be taken. Sampling of small containers (e.g., drums and pails) varies with the nature of the waste material. For flowable materials, the sampling device of choice is a Coliwasa, tubing or sample rod, to draw a full vertical section. For non-flowable wastes, tubing or a trier is normally used to obtain a sample. As appropriate, the FDEPs SOPs (specifically SOP FS 5000) will be used to supplement the methods and equipment specified in **Table 1** above.

Liquids in large containers are sampled with a Coliwasa, tubing, or sample rod to obtain a vertical section. A composite sample is obtained by taking equal volumes from each applicable port and mixing in a common container. Light, dry powders, granules and heavier solids are sampled by trier or shovel, or by coring with heavy tubing or an auger.

Sampling equipment will be decontaminated by scrubbing with a solution of Alquinox or similar material followed by a distilled water rinse. The sampling equipment will then be allowed to air dry, and any further manufacturer recommended maintenance will be performed. The rinsate collected during decontamination will be containerized and will be added to the next batch of like material to be treated. Because the material will have been decharacterized and meets LDRs, it will no longer be hazardous, and accumulation start dates are not applicable. A further option would be to decant the liquids and dispose of those as wastewater and to treat the accumulated sediments as solid waste in the solid waste treatment unit.

Sampling strategy and techniques are described in more detail in the On-Ground Treatment Tank System narrative (**Section 11.0** of **Volume 1 of 3)**. The integrity of samples collected for internal USET analyses will be documented on the USET Chain of Custody form a sample of which is attached hereto in the documentation section at the end of this WAP. Samples intended for confirmatory analyses by an independent off-site laboratory will be packed and shipped in laboratory provided containers along with proper chain of custodies provided by the laboratory.

ANALYTICAL RATIONALE

Analyses are performed on selected incoming wastes by USET to verify conformance with the approved profile. Analytical methods are classified as "Fingerprint Analyses," "Additional Analyses," and "Supplemental Analyses." This arrangement allows a progressive decision approach to waste identification enabling USET to analyze and to adequately identify the waste and to provide operational controls for the various treatment processes as well as compatibility determinations. In addition, a minimum of 10 percent (considered an industry norm) of all waste received will be Quality Assurance (QA) checked for accuracy of classification. Any sample failing the 10% QA screen will be further analyzed in detail for the particular parameter(s).

All incoming waste shipments are subjected to the Fingerprint Analyses which are sufficient to properly verify that the waste received is the same as the waste that was characterized and identified on the pre-acceptance evaluation (waste profile). This is not designed to characterize the waste. USET may perform other Additional Analyses or Supplemental Analyses to provide further verification of waste characterization. Additional Analyses and/or Supplemental Analyses are performed at the direction of Operations Management to further identify a waste or to make certain proper handling and treatment can be achieved. USET management may select these additional and/or supplemental analyses to perform the annual analysis when fingerprint analyses indicate non-conformance or to provide additional operational control and compatibility determinations. A summary of the analytical parameters within each category and their use is provided below.

Fingerprint Analyses

The "Fingerprint Analyses" include six screening procedures that may be performed to provide a general identification of the waste received. These analyses provide the basis for the conformance check against the profile and manifest in confirming the identity of the waste. Based on a review of the Waste Characterization Report and a visual examination of the waste, the following fingerprint analyses may be performed based on the observations. The parameters and associated rationale of the six Fingerprint Analyses are as follows:

1. Physical Description (i.e., appearance, physical state, layers, etc.) is used to determine the general physical properties of the waste. This facilitates subjective comparison of the sampled waste with prior waste descriptions or samples. It is used to identify obvious differences in waste type. It is also used to identify the presence or absence of free liquid.

2. The pH Screen is undertaken to indicate the pH and, in general, the corrosive nature of the waste. The pH Screen will also aid in the compatibility determinations. pH may not apply to certain waste types (e.g., organic solvent waste, oil waste, or insoluble solid waste).
3. Water Mix is used to determine whether the waste has a potential to vigorously react with water to form gases or other products and to indicate whether it generates extreme heat when mixed with

water. This test does not apply to wastes that are already in contact with excess water, or for which sufficient analytical data exist that indicate no potential reactivity with water.

4. Flammability Potential Screen is used to indicate the ignitability potential of the waste. It is also used to identify obvious differences in waste type, such as waste solvent substituted for a waste acid. This test can be applied to all waste liquids, semi-solids, or solids.

5. Organic Halogen Screen is used to indicate whether or not halogenated organics are present in the waste and the need for further analysis. It is also used to identify obvious differences in waste type such as waste solvent substituted for a waste acid. This test can be applied to all waste liquids, semi-solids, or solids. The Organic Halogen Screen will be used for wastes where halogen information is necessary. For example, hazardous wastes carrying halogen waste codes would not require this screen since it would not provide any useful information. As regards fingerprint analysis of used oil for halogen content, a direct reading halogen detector is used for the initial screen. If halogen is detected, an industry standard quantitative colorimetric test method such as a Dexsil® test kit is used to confirm halogen presence in used oil.

6. Oxidizer Screen is used to indicate whether or not the waste is a potential oxidizer. No EPA test method exists for identifying oxidizers. 40 CFR 261.21(a)(4) identifies oxidizers as defined in 49 CFR 173.151 by DOT. The DOT test involves igniting the material and a known oxidizer for comparison testing. The USET Oxidizer Screen will not involve igniting oxidizers. The USET Oxidizer Screen will be utilized to screen potential oxidizers. For example, obvious organic wastes would not require this screen since they cannot be oxidizers.

Additional Analyses

The applicability of these analyses as described below, are based on procedures and protocol formulated by USET (when determined necessary for proper classification):

1. Solidification Evaluation Test is run to determine whether the waste is amenable to solidification and to determine the ratio of solidification reagent-to-waste required to effect solidification.

2. LDR Stabilization Evaluation Test is run to demonstrate whether or not a Land Disposal Restricted Waste can be stabilized to meet the appropriate treatment standard.

3. Oxidizer Screen is used to determine the presence of organic peroxides or inorganic oxidizers. It is not required if the waste is not suspected of being an oxidizer.

4. Cyanide Screen is used to indicate whether the waste has the potential to produce hydrogen cyanide upon acidification. It is not required if the pH of the waste is less than 6.0 or of the waste is not suspected of containing cyanides.

5. Sulfide Screen is used to indicate whether the waste has the potential to produce hydrogen sulfide upon acidification. It is not required if the pH of the waste is less than 6.0 or if the waste is not suspected of containing sulfides.

6. Peroxide Screen is used to indicate the presence of peroxides. It is not required if the waste is not suspected of containing peroxides.

7. BTU Screen is used on organic material to determine if BTUs are greater or less than 5,000 BTU/lb. for energy recovery by fuels substitution. It is not required for wastes not applicable to fuels substitution. It is also not required for fuels known to have greater than 5,000 BTU/lb.

8. Nitric Acid Screen is used to determine if material contains nitric acid. It is not required if the waste is not acidic or not suspected of containing nitric acid.

9. Radiation Screen is used to screen wastes for radioactivity above background. USET is not permitted to accept radioactive or low-level mixed waste and does not routinely screen for radioactivity. This is an additional test USET can perform using the Geiger Mueller counter if management had reason to suspect that an incoming waste contained radioactive material. It is uncertain what particular instance or set of circumstances would trigger the request, or need, for radiation screening.

10. GC Scan is used to identify separate organic compounds. A GC Scan may be requested by management if they believe it is needed.

11. Metals scan is used to identify toxicity characteristic (TC) and/or underlying hazardous constituents (UHC) metals constituents. A metals scan may be requested by management if they believe it is needed.

12. Consolidated Confirmatory Compatibility Testing. The procedures for this test are contained in the “Liquids Bulking SOP” which is attached hereto at the end of the WAP. Compatibility Testing is performed to determine if materials are compatible prior to consolidation or treatment.

Supplemental Analyses Using Standard Techniques

These test methods are adopted from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Office of Solid Waste SW-846, Updates and Appended Materials) and other EPA approved methods. Other methods may be added as required.

INCOMING WASTE SHIPMENT PROCEDURES

Each hazardous waste shipment, upon arrival at the facility, will be inspected, sampled, and analyzed as defined herein. All RCRA-regulated waste shipments will be sampled and analyzed according to this WAP. This includes bulk shipments manifested to USET even though it may be re-manifested out immediately without entering or not stored at the facility. All shipments received on manifest will be entered into the USET electronic waste tracking system (WTS). This serves two purposes. First, it compares the actual waste shipment identity with that identified in the pre-acceptance phase and that listed on the waste manifest. Second, it ensures the proper management of the waste through final disposal off site.

The Quality Control (QC) sheets or WTS container tracking system tracks the waste through the facility from point of arrival at the receiving area to its final disposal. The current USET QC sheet is attached hereto in the documentation section at the end of this WAP. The identity, quantity, and types of waste from each generator's incoming shipment are tracked and documented by the WTS tracking system and QC sheets. Fingerprint Analysis results are also tracked and documented by this method.

Incoming waste shipment identification verification begins upon arrival of the waste at the facility. The sampling and analysis of the incoming waste will be performed in accordance with the methods described

in this WAP. The shipping papers for the waste are checked and compared to the approved profile. The waste will be accepted (pending quality control verification) if the shipping documents are correct. Shipping document discrepancies are resolved with the generator prior to acceptance (pending quality control verification) of any waste material. Hazardous waste shipments will be sampled and analyzed for at least the mandatory waste fingerprint analyses. This occurs every time a shipment is received. A flow chart of the waste screening process is attached hereto in the documentation section at the end of this WAP.

A minimum of 10 percent of the containers per each waste stream will be selected for sampling of non-lab pack waste. Example, for a shipment of one waste stream of 80 containers, a minimum of 8 samples will be taken. Container samples that are related to one generator and one process may be composited prior to analysis, providing the individual samples are similar in physical appearance. If discrepancies are noted in samples taken from 10 percent of the containers, such as the material approved is a solid and liquids are found, all remaining containers will be opened and inspected (at minimum). Repackaging and consolidation of waste may occur in other containers following inspection provided the waste materials being repackaged or consolidated are compatible.

Certain types of waste are not sampled or analyzed. These are lab packs from facilities such as households (household hazardous waste [HHW]), laboratories and schools, and "empty" containers. A visual inspection of at least 10 percent of the "empty" containers will be performed to ensure the containers are empty as per 40 CFR 261.7(b)(1). Lab pack procedures are described in the Lab Pack section of this WAP. Wastes such as light bulbs, lamps, and batteries are also not sampled.

The general logic utilized by the facility personnel in deciding whether to accept or reject a particular waste load is based on Fingerprint Analyses. Other major decisions regarding waste acceptance are the need for additional analyses, the actual waste identification, and an evaluation of whether a waste found to be off-specification can still be accepted.

The USET chemist or facility manager decides whether additional analyses are required for a particular waste based on the following:

- Results of Fingerprint Analyses,
- Knowledge of generator and/or waste-generating process, or
- Results of pre-acceptance evaluation.

Further testing will be required if the results indicate unexpected presence or absence of screen parameters with respect to pre-acceptance analytical results or if there is reason to suspect that the waste composition has changed. The effectiveness of the waste identification step is dependent on the following components:

- Inspection
- Sampling
- Analytical Results
- Waste Profile
- Any additional documentation supplied by the generator
- LDRs of 40 CFR Part 268
- Waste Manifest
- Pre-Acceptance Analytical Results
- Management Decision

Laboratory personnel must classify the waste as being "off-specification" if it is significantly different in waste type from the information shown in the profile, the pre-acceptance evaluation, or on the manifest. Wastes found to be in non-conformance may be rejected. They may be re-evaluated for possible acceptance by the facility despite the non-conformance or they may be shipped to an alternate TSD facility if the proper treatment method is available. The re-evaluation may be based on the following criteria:

- Permit Authorization
- Discussions with the Generator
- Facility Conditions
- Facility Manager's or Designee's Judgment

Pursuant to 40 CFR Part 265.72, the facility personnel must discuss and attempt to resolve with the generator any discrepancies between the actual waste and that shown on the manifest.

USET does not accept the materials listed below:

1. Regulated Biomedical Waste. If incidental biomedical waste is discovered in the shipment and it is identified by the material being placed in a “red bag” or is clearly labeled as such, the material will be rejected back to the generator. If non-hazardous material, which is not regulated by chapter 64E-16 F.A.C. is discovered, the material will be handled as solid waste.

2. Regulated Radioactive Materials

OPERATIONAL PROCEDURES

Each movement of a waste within the facility during which any change in its type or overall properties occur may make it subject to additional inspection, sampling, and analysis to determine appropriate handling and management of the waste. Many of the analyses needed for the treatment, storage, and disposal functions are performed during incoming shipment identification. These are not repeated unless it is known or believed that the waste identity may have changed during storage or processing. If wastes are to be consolidated, an onsite Consolidated Confirmatory Compatibility Test will be performed on waste materials prior to consolidation, as necessary. The USET Hazardous Waste Treatment OPS-OP-071-FLA and Liquids Bulking OPS-OP-016-FLA SOPs are attached hereto at the end of the WAP.

ANALYSIS OF TREATED HAZARDOUS WASTES

Confirmatory analysis of the treated hazardous waste is conducted in order to confirm that the treated waste no longer exhibits the hazardous waste characteristic(s) (toxicity characteristic leaching procedure [TCLP]) for which it was listed, meets the LDRs, and contains no free liquids (Paint Filter Test). Treatment of characteristic waste (D002 and D004 through D011) and listed waste (K062) must meet 40 CFR 268.40 and UHCs, if required. Additionally, when wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.

A single representative grab sample of the treated material is collected using the sampling protocols listed in **Table 1** above. The Paint Filter Test (as determined by the Paint Filter Test Method 9095B) is initially conducted on a portion of the collected sample in the QA/QC laboratory and the results are known immediately after the test is completed. The remaining portion of the collected sample is then sent off-site

for TCLP analysis by a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory. The results of the TCLP analysis are generally returned to USET from the laboratory within 48-hours of sample submittal. The analytical methods used for the confirmatory analysis are identified below in **Table 2**.

TABLE 2
TREATED WASTE ANALYTICAL METHODS

Waste Code	Constituent of Concern	Analytical Method	Preparation Method	Leachate Method	Paint Filter Test
D004	Arsenic	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
D005	Barium	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
D006	Cadmium	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
D007	Chromium	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
D008	Lead	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
D009	Mercury	EPA 7470	EPA 7470	EPA 1311	EPA 9095B
D010	Selenium	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
D011	Silver	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
K062	Chromium	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
K062	Lead	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
K062	Nickel	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
UHCs (a)	Antimony	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
UHCs (a)	Beryllium	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
UHCs (a)	Nickel	EPA 6010	EPA 3010	EPA 1311	EPA 9095B
UHCs (a)	Thallium	EPA 6010	EPA 3010	EPA 1311	EPA 9095B

NOTES:
(a) Most commonly encountered UHCs

For treatment methods and processes, refer to **Section 11.0** in **Volume 1 of 3** and the USET Hazardous Waste Treatment (OPS-OP-071-FLA) SOP attached hereto at the end of this WAP.

QUALITY CONTROL POLICY

USET intends to follow all sampling and testing criteria set forth in accordance with applicable SW-846 methods. For methods not addressed in SW-846, ASTM or comparably standardized laboratory methods will be used. It is USET's understanding that this will be acceptable since our sampling and analysis at the facility are primarily for Fingerprint Screening of incoming wastes to assure that they meet profiled parameters. If a NELAP accredited laboratory has provided sufficient results, then waste codes may be removed from the sampled containers.

USET has developed a program of quality control practices and procedures to ensure that precision and accuracy are maintained throughout its laboratory. Contract laboratories employed by USET must be NELAP accredited. Data produced for use by FDEP will use applicable FDEP SOPs per the FDEP Quality Assurance Rule, 62-160.210, .240, .300 & .320, F.A.C.

The USET QC Sampling and Analysis Procedures are utilized to verify waste characterization and not to quantitatively analyze the waste. This section does not provide specific performance standards of quality control procedures for individual sampling and analysis techniques. Such specifics can be found in the USET facility Laboratory SOP manual. The specific performance standards are dynamic and are revised as warranted to reflect technological advances in sampling and analytical techniques.

ANALYTICAL PROCEDURES

Fingerprint Analyses

These are analytical procedures designated to identify or screen waste. They have been developed by USET based upon its operating experience as rapid but effective means for establishing key decision parameters pertinent to proper waste management.

1. Physical Description. Samples are inspected and the physical appearance of the waste is recorded Physical State (solid, semi-solid, liquid, etc.)

2. pH Screen. Full-range pH paper or a pH meter is used directly on liquid samples and on the free liquid portion of liquid/solid samples.

3. Water Mix Test. Approximately equal volumes of waste and water are mixed. Water should be added to the waste rather than addition of wastes to water. The following characteristics are noted:

   - Gross Solubility in H_20
   - Gross Specific Gravity (heavier or lighter than water)

   If water reactivity is noted (generation of gases, heat, turbulence, or sudden physical changes such as solidification, thickening or emulsification) record the results.

4. Flammability Potential Screen. A small amount of a liquid waste sample or a solid waste sample is placed into an aluminum-weighing tray (or similar laboratory container). A flame is very briefly applied to the sample. If the sample does not ignite, the result is recorded as a negative flammability potential (e.g., negative). If the sample ignites with the application of a flame, then the result is recorded as positive and may require further investigation. Liquids with a negative flammability potential may be quantified using an approved flash point tester.

Solids may be further investigated (e.g., via review of the Generator's Waste Material Profile Sheet or other supporting documentation) to determine flammability and BTU value for possible fuel blending disposal off site. The investigation will also examine the waste's potential to cause fire through friction, absorption of moisture, or spontaneous chemical changes.

Note: Halogenated solvents typically give off vapors that burn with a yellow (or greenish) smoky (sooty) flame in the presence of an external flame. Wastes with this type of non-sustaining flame are reported as having a negative flammability potential.

Additional Waste Analyses

1. Specific Gravity. This test is performed to aid in determining if an acid or base may be concentrated or to determine the weight of the material.

2. Cyanide Screen. This screening test is performed using Cyantessmo (or equivalent) test paper according to the laboratory operating procedure.

3. Sulfide Screen. This screening test is performed using lead acetate test paper (or equivalent) according to the laboratory operating procedure.

4. Radiation Screen. The sample is placed in a position below the Geiger-Mueller probe (or equivalent) for a period of at least five (5) seconds. An audible alarm and meter reading above the background reading will indicate radioactivity.

5. Oxidizer Screen. This screening test is performed using potassium-iodide starch test paper (or equivalent) according to the laboratory operating procedure. All positive oxidizer screen results will be verified with an ORP test (or equivalent).

6. Consolidated Confirmatory Compatibility Testing. The USET SOP for this test (Liquids Bulking) is attached hereto at the end of this WAP.

ACCEPTANCE OF LAB PACKS

Lab packs from industrial generators consist of virtually any type of chemical acceptable by the USET permit. Lab packs may be USET packed or be "customer" (generator) packed. Lab packs that are USET packed have been packed by USET personnel (chemist or equivalent). The container contents have been reviewed, packed, documented, approved, and verified by a USET chemist or equivalent. Generator packed lab packs have been packed by generator personnel. The generator submits a container contents sheet to USET for review and approval. A copy of the USET lab pack container contents sheet is attached hereto in the documentation section at the end of this WAP.

Lab packs from HHW collection sites consist primarily of paints and paint related material. Other household wastes include cleaners, pool chemicals, pesticides, and lawn chemicals. HHW lab packs may be USET packed or be "customer" (generator) packed. HHW lab packs that are USET packed have been packed by USET personnel (chemist or equivalent). The container contents have been reviewed, packed, documented, approved, and verified by a USET chemist or equivalent. Generator packed HHW lab packs have been packed by generator personnel. The generator submits a container contents sheet to USET for review and approval. A copy of the USET lab pack container contents sheet is attached hereto in the documentation section at the end of this WAP.

The following is a partial example of lab pack guidelines and procedures that are used for lab pack wastes. Complete USET lab pack guidelines are available on site at the USET facility.

Guidelines for Acceptable Lab Packs

Group 1: Alkali (with pH greater than 12.5)

A. Inorganic alkaline chemicals (e.g., sodium hydroxide, calcium hydroxide including alkaline salts, Na3 PO4, sodium borate).

B. Organic bases (e.g., triethanolamine).

Group 2: Acids (with pH less than 2)

A. Inorganic acids (e.g., hydrochloric acid, sulfuric acid) as solids or as liquids.

B. Organic acids (e.g., stearic acid, citric acids, acetic acid).

Group 3: Non-Hazardous - (e.g., plastics, oils)

A. No container larger than 5 gallons to be packed in drum.

B. No more than 50#/containers of solids to be packed without special permission.

C. Maximum quantities per lab pack container are as follows:

a) 20 gallons per 55-gallon drum
b) 11 gallons per 30-gallon drum
c) 2 gallons per 5-gallon drum
d) For solids, use spacing rule (e.g., 2-3 inches between drum walls and materials)
e) Sealed liquid containers should be overpacked in drum with enough compatible absorbent to absorb all liquid if broken.

The above list is not all-inclusive but should be regarded as an example of a basic packing guidelines for lab packs.

Unacceptable Lab Packs

A. Regulated Bio-Hazardous

B. Regulated Radioactive Materials

C. Regulated Explosives (ATF Regulated)

PROCEDURE FOR WASTE ACCEPTANCE

Before containers are shipped to USET, a waste profile form must be submitted to USET, including a complete set of container contents sheets describing the contents of each drum in terms of explicit chemical identification, quantities, concentrations, pH, etc., as applicable. USET Technical Services (chemist or equivalent) will review the profile and the container contents sheets and inform the generator of any materials that are not acceptable, the packing of incompatible materials that are not acceptable, or the packing of incompatible materials within the same drum. When the necessary corrections have been made by the generator, corrected container contents (changes indicated, initialed, and dated) should be sent to USET. After review of the corrections, the generator will be notified that the waste is approved for shipment. When the hazardous waste arrives at USET, a chemist or equivalent will QC check the lab packs. A minimum of 10% of USET packed hazardous waste lab packs will be opened and inspected. Each generator packed hazardous waste lab pack (100%) will be opened and inspected. Refer to the Waste Screening Flow Chart attached hereto in the documentation section at the end of this WAP for further information.

SITE GENERATED WASTE

Site-generated wastes include the following:

- Containment sump liquids and residues
- Spent fluorescent lamps and batteries
- Lab trash, wastes, and rinses
- Samples (when hold time is complete)
- PPE
- Chemical rags

Site-generated wastes are characterized and managed according to applicable requirements and regulations.

US ECOLOGY TAMPA, INC.
WASTE ANALYSIS PLAN

SUPPORTING DOCUMENTATION

REPUBLIC SERVICES

Profile #:

WASTE/MATERIAL PROFILE FORM

Note: Standard templates may be available online for various common waste streams, Universal Waste, Recyclable Goods, and Lab Packs. To see a list of templates click HERE.

A. GENERATOR/CUSTOMER INFORMATION *(If foreign generator, complete Waste Import Supplement)*

1. **Generator:**
2. **Site Address:** **City:** **Phone:** **State:** **Zip:** **Country:**
3. **Mailing Address:** **City:** **State:** **Zip:** **Country:**
4. **Technical Contact:**
5. **Phone:** **Email:**

☐ **Invoicing information is the same as generator mailing address**

☐ **P.O. required for payment?** *If yes, include:*

8. **Invoicing Company:**
9. **Invoicing Address:** **City:** **State:** **Zip:** **Country:**
10. **Customer Contact:**
11. **Phone:** **Email:**

6. **Generator Status:** ◯ SQG ◯ LQG ◯ VSQG/CESQG *(If yes, complete Certification Supplement)* ◯ Not Applicable
7. **EPA ID #:** **NAICS CODE:** **State ID #:** *(If applicable)*

B. WASTE/MATERIAL STREAM *(For assistance completing this document, click HERE)*

1. **Common Name:**

(Please provide a site history for Remediation & IDW sites. Use additional form if necessary.)

2. **Generating Process:**
3. **Source Code:** **Form Code:**

C. SHIPPING/PACKAGING INFORMATION

1. **DOT Hazardous Materials?** ◯ Yes ◯ No **Proper Shipping Name:**
2. **Additional Description:** *(49 CFR 172.203, e.g. "Lead" or "D008")*
3. **RQ:** ◯ Yes ◯ No **RQ Reason:** **RQ Threshold:** **UN/NA #:**
   Packing Group: **ERG #:** **Hazard Class:** Select #1 Select #2 Select #3
4. **DOT Special Permit?** ◯ Yes ◯ No **Permit #:**
5. **24-Hour Emergency Phone:**
6. **DOT Inhalation Hazard?** ◯ Yes ◯ No
7. **Container Type:** ☐ Bulk ☐ Totes ☐ Pallet ☐ Boxes ☐ Drums ☐ Cylinder **Container Size:**
   ☐ Lab Pack *(If 40 CFR 264.316/49CFR 173.12(b) Lab Pack Inventory lists required)*
   ☐ Combination Containers (e.g., inner containers), **Describe:**
   ☐ Other, **Describe:**
8. **Volume/Frequency:** **Volume:** **Units:**
   Frequency: ◯ Year ◯ Quarterly ◯ Monthly ◯ 1 Time ◯ Other, **Describe:**

D. PHYSICAL PROPERTIES *(Use additional form if necessary)*

1. **Physical Description** *(e.g. soil, water, PPE, debris, sorbent, etc. Include 100% of container content. If debris, provide dimensions & weight.)*

Description	Typical (%)	Min (%)	Max (%)

2. **Odor:** ◯ None ◯ Slight ◯ Strong
   Odor Type: ☐ Ammonia ☐ Amines ☐ Mercaptans ☐ Sulfur ☐ Organic Acid ☐ Other, **Describe:**
3. **Physical State:** *(at 70°F)* ☐ Solid ☐ Dust/Powder ☐ Debris ☐ Sludge/Slurry ☐ Liquid ☐ Gas/Aerosol ☐ Varies
4. **Color:** Primary Color Secondary Color
5. **Liquid phases:** ◯ Single ◯ Double Layer ◯ Multi-layer ◯ N/A
6. **Is it solid using the paint filter test?** *(40 CFR Part 264.314(b))* ◯ Yes *(Solid)* ◯ No *(Not Solid)*
   Is there a possibility of incidental liquids from transportation? ◯ Yes ◯ No
7. **pH:** *(If solid, provide estimated pH if mixed 50:50 with water)* ☐ ≤ 2 ☐ 2.1 - 4.9 ☐ 5 - 10 ☐ 10.1 - 12.4 ☐ ≥ 12.5
8. **Flash Point:** °F and/or ☐ < 90°F ☐ 90 - 139°F ☐ 140 - 199°F ☐ ≥ 200°F ☐ Does Not Flash ☐ Flammable Solid
   BTU /lb. Value: and/or ◯ <5000 BTU ◯ ≥5000 BTU
9. **Are there any known handling/treatment issues involving this material? (*i.e. Describe whether the waste stream has ever been the direct or suspected cause of a fire or other reaction, and whether there are any specific controls you use to prevent any adverse reactions?*)**
   ◯ Yes ◯ No *If yes*, **Describe:**

E. CHARACTERIZATION & CHEMICAL COMPOSITION *(Use additional form if necessary)*

1. Robstown Facility Customers - Waste/Material Type: ○ Industrial ○ Non-Industrial ○ N/A **TX State Code:**
Pennsylvania Residual Waste: ○ Yes ○ No **PA State Code(s):**

2. State Waste Codes: ☐ None

3. RCRA Waste Codes: ☐ None

If None, is it exempt from the definition of "Solid Waste" or "Hazardous Waste"? ○ Yes ○ No
If yes, list reference from 40 CFR Part 261.2, 3, or 4:

4. If F006-F009, F012, or F019, are Cyanides used in the process? ○ Yes ○ No *(If yes, Total and Amenable CN (9010/9012) analysis required)*

5. Knowledge is from: ☐ Lab analysis *(requires attachment)* ☐ SDS/MSDS *(requires attachment)* ☐ Process/generator knowledge

6. Chemical Composition *(include all applicable UHC's, TRI Section 313 chemicals, OSHA Hazardous Materials, PFAS Constituents, etc.)*

Constituent	Units	TCLP	Totals	Typical	Min	Max	UHC	Exceeds LDR
	Select	○	○				☐	☐
	Select	○	○				☐	☐
	Select	○	○				☐	☐
	Select	○	○				☐	☐
	Select	○	○				☐	☐
	Select	○	○				☐	☐
	Select	○	○				☐	☐
	Select	○	○				☐	☐

F. ADDITIONAL PROPERTIES ☐ None Apply *(Through Question F23)*

1. Explosive:	○ Yes ○ No	**2. Reactive Sulfides:** ppm	○ Yes ○ No
3. Shock Sensitive:	○ Yes ○ No	**4. Reactive Cyanides:** ppm	○ Yes ○ No
5. Radioactive: *(If yes, complete Radioactive Waste Acceptance Supplement)*	○ Yes ○ No	**6. Reactive Other:** **Describe:**	○ Yes ○ No
7. Medical/Infectious/Biohazard Waste:	○ Yes ○ No	**8. Polychlorinated Biphenyls (PCB):** *(If yes, complete PCB Supplement)*	○ Yes ○ No
9. Dioxins and/or Furans:	○ Yes ○ No	**10. Metal Fines/Powder/Paste:** *(Including Aluminum)*	○ Yes ○ No
11. Pyrophoric:	○ Yes ○ No	**12. Temperature Controlled:** *(For Transportation Only)*	○ Yes ○ No
13. Thermally Unstable:	○ Yes ○ No	**14. Biodegradable Sorbents:**	○ Yes ○ No
15. Compressed Gas: *(If yes, complete Compressed Gas Cylinder Supplement)*	○ Yes ○ No	**16. Used Oil:** (per 40 CFR Part 279) *(If yes, complete Used Oil Supplement)*	○ Yes ○ No
17. Oxidizer: *(List in Section E6)*	○ Yes ○ No	**18. Tires:** *(If yes, must be quartered for landfill)*	○ Yes ○ No
19. Organic Peroxide:	○ Yes ○ No	**20. Beryllium:**	○ Yes ○ No
21. **Ammonia/Ammonia Compounds:**	○ Yes ○ No	22. Per-and Polyfluoroalkyl Substances (PFAS):	○ Yes ○ No

23. Asbestos: ○ Yes ○ No **If Yes:** ○ Friable ○ Non-Friable *(If friable, material must be packaged per 40 CFR Part 61.150)*

24. Hazardous Secondary Material: *(Per 40 CFR Part 260.10)* ○ Yes ○ No
If yes, ☐ I certify that this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR Part 260.43 and/or I am complying with the conditions for generators using one verified recycler exclusion.

25. Are pharmaceutical wastes profiled under this approval subject to a prescription? ○ Yes ○ No ○ N/A
(If yes, complete Pharmaceutical Certification Supplement)

G. REGULATORY INFORMATION

1. Volatile Organic Concentration: *(Per 40 CFR Part 264.1083 & 265.1084)* ◯ <500 ppmw ◯ ≥500 ppmw

2. Has the material been treated after the initial point of generation? ◯ Yes ◯ No *If yes,* **Describe:**

3. If RCRA Hazardous: ◯ None Apply

- ◯ Wastewater *WW=<1% TSS & TOC; 40 CFR Part 268.2*
- ◯ Non-wastewater *TSS/TOC>WW*
- ◯ Alternative Treatment Standards for soil *> 50% soil; 40 CFR Part 268.49*
- ◯ Alternative Treatment Standards for debris *40 CFR Part 268.2(g) & (h); >50% of waste is >2.5 inch size*
  - ☐ I confirm debris cannot reasonably be separated from non-debris by simple physical or mechanical means.
  - ☐ I confirm debris has not been mixed/diluted with non-debris as prohibited in *40 CFR Part 268.3.*
- ◉ Waste meets LDR Treatment Standards

4. Treatment subcategory: *(if applicable)*

5. Is the site or waste/material, subject to NESHAP/MACT standard(s)? ◯ Yes ◯ No
If yes, **Please choose the applicable Part:** ◯ **61** ◯ **62** ◯ **63 Subpart** ____ **of NESHAP/MACT standards** ◯ **N/A**

6. Is the waste/material RCRA Hazardous containing Benzene and originating at a petroleum refinery (SIC 2911), chemical manufacturing plant (SIC 2800 thru 2899) or Coke by-product recovery plant (SIC 3312)?
◯ Yes ◯ No (*If yes, complete the Benzene Waste Operations Supplement and if applicable the Thermal Supplement.*)

H. GENERATOR'S CERTIFICATION

1. Is a specific facility or treatment technology requested? ◯ Yes ◯ No

2. Requested Technology:

3. Thermal processing: ◯ Yes ◯ No *(If yes, complete Thermal Supplement)*

4. Other specific restrictions requested:

5. Requested Facility:

(If Chicago Facility, complete Illinois Disposal Supplement)

I certify that all information (including attachments) is complete, factual and is an accurate representation of the known and suspected hazards pertaining to waste/material described herein. I authorize Republic Services' personnel to add supplemental information to the Waste/Material Profile Form, provided I am contacted and grant permission to do so. Republic Services may require re-submittal of the Waste/Material Profile Form if substantial changes are determined necessary. I authorize Republic Services' personnel to obtain a sample from any waste/material shipment for purposes of verification and confirmation and understand that waste/material that does not conform to specifications described in this Waste/Material Profile Form may be rejected by Republic Services. I certify that I am familiar with the waste/material described herein through analysis and/or process knowledge and that all information is true, accurate, representative and complete and that this Waste/Material Profile Form was completed in accordance with the instructions provided.

If I am an agent acting on behalf of the generator, I also certify that I have permission to sign any and all waste/material characterization paperwork on the generator's behalf and that I can produce such certification in writing upon request.

Print Name: **Signature:**

Title: **Company:**

Date:

US Ecology Tampa, Inc.
CHAIN OF CUSTODY RECORD
Telephone: (813) 319-3400 Internet: www.republicservices.com

To: Republic Services, Tampa Lab
Address: 7202 East 8th Ave
Tampa, FL, 33619
Attention: Terry Hornsby

From: _____
Phone # : _____
Contact: _____
Sampler : _____

Sample ID	*Sample Description*	*Grab/ Comp*	*Date*	*Time*	*# of Containers*	*Container Type*	*Size*	*Matrix*	*Preservation*	*Analysis Required*

Relinquished by: _____ **Date/Time:** _____ **Received by:** _____ **Date/Time:** _____

Relinquished by: _____ **Date/Time:** _____ **Received by:** _____ **Date/Time:** _____

Lab Use Only

Cold Pack	Yes	No
Headspace	Yes	No
Intact	Yes	No

Hazards Associated with Sample

Flammable _____
Corrosive _____
Highly Toxic _____
Other _____

Matrix Code: **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge
Preservation Code: **I** = ice **H** = (HCl) **S** = (H2SO4) **N** = (HNO3) **T** = (Sodium Thiosulfate)

Comments

Land Disposal Restriction & Certification Form

Generator Name: _____ U.S. EPA ID No.: _____

Uniform Manifest No.: _____ LDR Page _____ of _____

Manifest Page No. & Line Item	U.S. EPA Hazardous Waste Code(s)	NWW or WW	LDR Certification (One per Line)	Subcategory	F001-F005 Constitutents (If Applicable)	UHC: Underlying Hazardous Constituents (If Applicable)

I hereby certify that all information submitted on this and all associated documents, is complete and accurate to the best of my knowledge and information.

Generator Signature: _____ **Title:** _____

Printed Name: _____ **Date:** _____

US Ecology Tampa, Inc.
Container Log - Process

Manifest/BOL: _____ **Manifest Line:** _____
Truck No.: _____
Transporter: _____
Generator: _____

_____ **of** _____
(# Container Logs per Truck)

Receipt ID: _____
Date: _____
Arrival Time: _____
Scheduled Time: _____
Non-Bulk Total Quantity: _____
Customer ID/Name:
PO:
Release:

Generating Process:

Approval: **DDVOC:** 0 **CCVOC:** **Containers:** **Quantity:**
Color: **Consistency:** **Air Permit Status:**
Waste Common Name: **Approval Comments:**
Treatment:
Spec Hand Instruct:
Manifest Comments:

C

Waste:
Secondary Waste Codes:
DOT Shipping Description:
Manifest Quantity:
Treatment Comments:

pH	Color	Odor	Phase	Sp. G.	CN	CR6	NH3	RAD < BG	Solid %

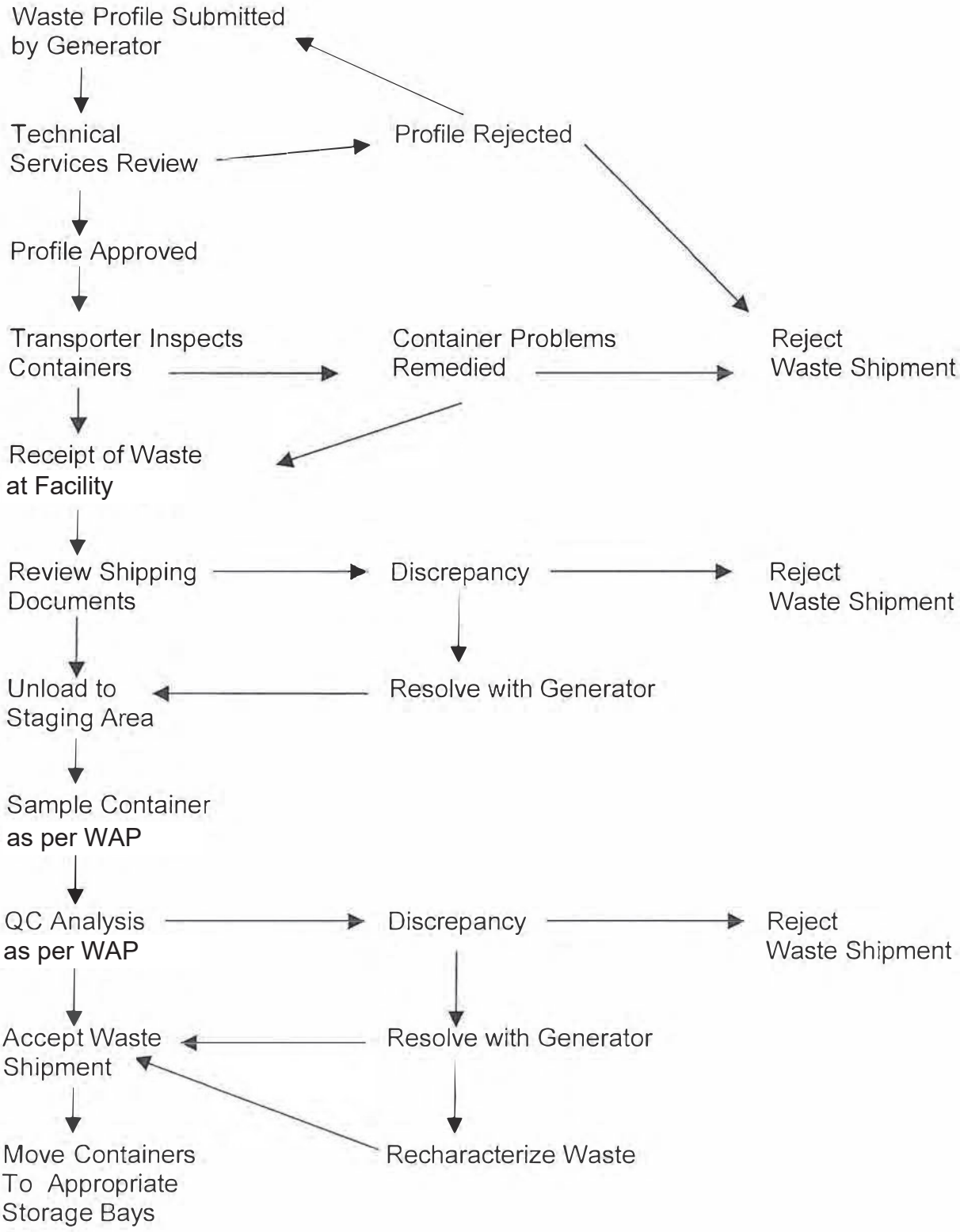
Cont #	Actual Container Received						Plant	Compatibility			Treatment Tank Disposal					[redacted]	
	Size	Type	Weight	Liquid	Solid	CG	Sampler	Tank#	Date	Chemist	Tank#	Qty	Date	Time	Emp.	Comments	BarCode
1																	

UHC #	Constituent	Concentration Typical	Min	Max	UTS Concentration	Converted Max UHC Concentration

Safety Codes:

REPUBLIC SERVICES

US Ecology Tampa, Inc.
Waste Screening Flow Chart



US ECOLOGY TAMPA, INC.
WASTE ANALYSIS PLAN

STANDARD
OPERATING PROCEDURES

Standard Operating Procedure (FL)

Document Number:	LAB-OP-008-FLA	Issue Date:	12/3/07
Approving Authority:	Shane Walker	Revision Date:	5/9/23
Job Title:	Lab Technician	Department:	LAB
		Review Date:	

TITLE: Facility Waste Sampling

PURPOSE: To ensure all incoming containers are properly marked and a representative sample is collected from each container.

SCOPE: This procedure applies to US Ecology Tampa offices and jobsites.

RESPONSIBILITIES:

Operations Manager:
The Operations Manager is responsible for ensuring the success of this procedure and for all operations under his control.

The Operations Manager or his/her designee shall monitor the employees periodically to ensure they provide their employees with sufficient training and equipment to allow them to both understand and comply with this procedure.

EHS Manager:
The EHS Manager is responsible for providing technical information and ensuring a safe and healthy working environment.

Employees:
Employees are responsible for compliance with the requirements of this procedure.

DEFINITIONS:

PROCEDURE:

1.0 Proceed to sampling area with sampling cart and set-up area (be sure drums are diked and separate from incompatibles and appropriate signs are in place per the permit requirements).

2.0 Prepare sample jars by placing one on each drum to be sampled. Mark sample lids and jars with LAB number, DOT hazard class, DATE sampled, and sampler's initials.

3.0 Put on appropriate safety equipment **(Level C)**. Respiratory protection must be worn when opening any container.

4.0 Visually inspect the drums for integrity and proper RCRA, DOT and non-regulated labeling. Document container types and count for any discrepancies.

5.0 **Liquid and sludge sample:**

5.1 Open the drum carefully, and slowly insert the sampling tube vertically until it reaches the bottom of the liquid portion.
5.2 Cover the top of the tube with the thumb and form a vacuum, and carefully withdraw the tube.
5.3 Collect the sample and drain the contents into a sample container.
5.4 When sampling evacuated aerosol liquid drums, open bung(s) slowly and allow drum to vent at least 10 minutes. Use a self-filling Coliwasa, to prevent possible back pressure. Collect sample and let contents drain into sample container.

6.0 **Solid sample:**

6.1 Open the drum, dig down at least two inches and take a sample.

7.0 If the drum contains liquids and solid parts, check the percent solid and liquid using the sampling tube and obtain the percent solids by sampling the

bottom of the drum. The amount of solids and liquid portions should be described in inches.

8.0 Composite samples will be prepared in the drum area from the individual drum samples. Composites will be composed of individual samples, not to exceed 10 sub-samples per composite.

9.0 Poison drums will not be analyzed in our QC lab until a separate system is established. Poison drums should be opened and inspected and checked using a pH test strip.

10.0 Close container immediately after sampling.

11.0 Bring the samples and receiving report to the lab and notify lab personnel of any discrepancies upon delivery of samples.

12.0 Place drums in their appropriate storage location according to hazard class and remove sampling signs.

13.0 If any problems or questions arise, contact your supervisor or the Lab Manager immediately.

14.0 DO NOT START TO BULK / OR LOAD ANY DRUM WITHOUT THE APPROVAL OF THE LAB MANAGER OR FACILITY MANAGER.

15.0 In the event a modification from the above procedure is requested, the Laboratory Manager or the Facility Manager must approve it.

16.0 All samplers using the above procedure must be trained and documented by the Lab Manager or the Facility Manger, or an experienced trainer as designated by the Laboratory Manager.

17.0 If sampling a Tanker, Sludge Box, Vacuum Truck, following above procedure except use a core auger sampler for the taking the sample.

18.0 The following waste types will receive a visual inspection only:

18.1 Propane Cylinders
18.2 Other gas Cylinders
18.3 Aerosol Cans
18.4 State of Florida Universal Waste
18.5 Labpacks
18.6 PCB Waste

19.0 Samples that fail QC will be put on hold in EQAI.

The EQAI Post Inspection Sheet will be used to verify that each receipt/approval is sampled in accordance with this procedure.

REFERENCES:

ASSOCIATED DOCUMENTS:

RECORDS: The cited records are retained in a manner that supports the requirements of the various local, State, and federal regulatory agencies to which Republic Services adheres.

History of SOP Revisions:

Date	Approver	Change	Training required	
			Yes	No
11/9/16	SW	Changed Document Format Changed Plant Manager Operations Manager		X
12/7/17	SW	Changed review date		X
9/28/18	SW	Changed review date		X
12/18/19	SW	Changed review date		X
5/9/23	KD	Changed Logo and edited wording in records section.		X

Standard Operating Procedure (FL)

Document Number:	LAB-OP-012-FLA	Issue Date:	12/6/07
Approving Authority:	Shane Walker	Revision Date:	5/9/23
Job Title:	Lab Technician	Department:	Lab
		Review Date:	

TITLE: Hazcat Procedures

PURPOSE: To properly and safely identify hazard class information on unknown chemicals.

SCOPE: This procedure applies to US Ecology Tampa offices and jobsites.

RESPONSIBILITIES:

Operations Manager:
The Operations Manager is responsible for ensuring the success of this procedure and for all operations under his control.

The Operations Manager or his/her designee shall monitor the employees periodically to ensure they provide their employees with sufficient training and equipment to allow them to both understand and comply with this procedure.

EHS Manager:
The EHS Manager is responsible for providing technical information and ensuring a safe and healthy working environment.

Employees:
Employees are responsible for compliance with the requirements of this procedure.

DEFINITIONS:

DOT – Department of Transportation
HCl – Hydrochloric Acid

PROCEDURE:

1.0 pH Test

1.1 Introduce a drop of sample onto a pH strip
1.2 Compare to the pH chart to obtain the unknown.

2.0 Oxidizer Test

2.1 Wet a Potassium Iodide starch paper with one drop of 10% HCl
2.2 Add one drop of the sample onto the starch paper.
2.3 If the paper turns **purple-black**, oxidizer is present.

3.0 Sulfide Test

3.1 Wet a Lead Acetate starch paper with one drop of 1:1 HCl
3.2 Add one drop of the sample onto the starch paper.
3.3 If the paper turns **brown- black**, sulfide is present

4.0 Cyanide Test

4.1 Place 5 drops of sample into a small test tube.
4.2 Add 5 drops of CN Reagent #1.
4.3 Add 5 drops of CN Reagent #2.
4.4 Add 5 drops of CN Reagent #3.
4.5 Gently, shake the test tube and let it stand for 10 seconds.
4.6 A color change to **pink or red** indicates the present of cyanide.

5.0 Ignition Potential (Flash Point)

5.1 Introduce 2 ml of sample into an aluminum disc.
5.2 Light up a burner or flame source and hold the flame immediately above the test sample without touching the visible flame to the sample for at least 10 seconds.
5.3 If the sample is ignites, the flammability is report as positive.

6.0 Mercury Test

6.1 Add few drops of sample onto aluminum disc.
6.2 Remove a red cap from a MercuryCheck Swabs.
6.3 Crush swab in center of paper sleeve.
6.4 Squeeze until fluid shows on tip.
6.5 Rub test area approximately 30 seconds.
6.6 If the tip turns **purple**, mercury is present.

7.0 Cadmium Test

7.1 Add few drops of sample onto aluminum disc.
7.2 Crush at “A” and “B” of Cadmium Check Swabs.
7.3 Squeeze until purple shows on tip.
7.4 Rub test area approximately 30 seconds.
7.5 If the tip turns **Peach**, Cadmium is present.

8.0 Silver Test

8.1 Obtain one silver strip from Silver Roll.
8.2 Immerse the reaction zones of the test strip in the solution for one second.
8.3 Shake off the excess liquid and compare with the color scale after 30 seconds.

9.0 Iron Test

9.1 Obtain one Iron strip from Iron Roll.
9.2 Immerse the reaction zone in the solution (1-7) for 1 sec.
9.3 Shake off excess liquid from the strip.
9.4 Wait 10 seconds, compare with the color scale, and read off result.

10.0 Chlorine Test

10.1 Obtain one chlorine paper from Chlorine Test Roll.
10.2 Dip about one inch of a test paper in the water to be tested and remove immediately.
10.3 The color turns purple, chlorine is present.

11.0 Peroxide Test

11.1 Obtain one peroxide strip from Peroxide Test Roll.
11.2 Immerse the reaction zone in the solution for 1 second.
11.3 Shake off excess liquid from the strip.
11.4 Compare the color scale after 15 seconds.

12.0 Solubility Test

12.1 Add 5 drops of sample into a test tube.
12.2 Add 5 drops of DI water into the same test tube.
12.3 Mix thoroughly and let it sit for 30 seconds.
12.4 If one layer formed, then it is soluble. If there is more than one layer, then the sample is not soluble in water.

13.0 Classifying DOT Classes

13.1 Performing a pH test on an unknown, if pH is <2.10 or >12.5, give D002 code.
13.2 Perform ignition Potential test, if positive then give an unknown a D001 code.
13.3 If negative then go on for metals test and perform all strip metals

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REFERENCES:

ASSOCIATED DOCUMENTS:

RECORDS: The cited records are retained in a manner that supports the requirements of the various local, State, and federal regulatory agencies to which Republic Services adheres.

History of SOP Revisions:

Date	Approver	Change	Training required	
			Yes	No
11/9/16	Shane Walker	1. Revised Document Format 2. Changed Plant Manager Operations Manager		X
12/19/19	SW	1. Changed revision date		X
5/9/23	KD	Changed logo and wording in records section. Added definitions.		X

Standard Operating Procedure (FL)

Document Number:	OPS-OP-016-FLA	Issue Date:	12/5/07
Approving Authority:	Stuart Stapleton	Revision Date:	5/9/23
Job Title:	EHS Manager	Department:	OPS
		Review Date:	

TITLE: Liquids Bulking

PURPOSE: To safely and correctly consolidate liquids into bulk 55 gal containers for ultimate disposal.

SCOPE: This procedure applies to US Ecology Tampa offices and jobsites.

RESPONSIBILITIES:

Operations Manager:
The Operations Manager is responsible for ensuring the success of this procedure and for all operations under his control.

The Operations Manager or his/her designee shall monitor the employees periodically to ensure they provide their employees with sufficient training and equipment to allow them to both understand and comply with this procedure.

EHS Manager:
The EHS Manager is responsible for providing technical information and ensuring a safe and healthy working environment.

Employees:
Employees are responsible for compliance with the requirements of this procedure.

DEFINITIONS:

EPA – Environmental Protection Agency
DOT – Department of Transportation

PROCEDURE:

1.0 Stage all containers that are going to be processed into a process row.

2.0 Check all EPA waste codes to verify they can go to the outbound disposal facility of container being consolidated into. Using a handheld bar code scanner, scan each container to appropriate staging row.

3.0 Set up Visqueen and solid waste bin at the dock.

- 3.1 Set up an empty drum to pour into.
- 3.2 Place a funnel on top of the drum.
- 3.3 Ground the drum with a grounding cable, if pouring flammables.
- 3.4 Set up a 5-gallon splash pail.

4.0 Don proper protective equipment (Tyvek, gloves & respirator) and open the first container.

5.0 Remove container contents of drum onto a cart and open one container at a time.

6.0 Splash several ounces into a 5-gallon splash pail to ensure compatibility (if incompatible do not pour into drum. See a Chemist or Supervisor for assistance). Once you have ensured compatibility, pour the contents into the drum funnel.

7.0 When the drum is ¾ full, close the container and label with the proper waste and DOT labels.

8.0 Ensure proper closure of container and move the drum to an appropriate storage location. If the container is warm, loosen the bung until the container has cooled off.

9.0 Repeat steps 5 & 6 until task is complete.

REFERENCES:

ASSOCIATED DOCUMENTS:

RECORDS: The cited records are retained in a manner that supports the requirements of the various local, State, and federal regulatory agencies to which Republic Services adheres.

History of SOP Revisions:

Date	Approver	Change	Training required	
			Yes	No
11/14/16	SW	Change Author Approving Authority Updated Revision Date. Added - History of Revisions table.		X
5/9/23	KD	Changed logo and wording in Records section. Changed revision date. Revised wording in procedure section 2.0, 3.3, 3.4, & 4.0. Added definitions	X	

Standard Operating Procedure (FL)

Document Number:	OPS-OP-031-FLA	Issue Date:	12/3/07
Approving Authority:	Stuart Stapleton	Revision Date:	8/22/23
Job Title:	EHS Manager	Department:	OPS
		Review Date:	

TITLE: Solidification

PURPOSE: To safely and efficiently consolidate incoming material into the solidification unit for final disposal.

SCOPE: This procedure applies to Republic Services offices and jobsites.

RESPONSIBILITIES:

Operations Manager:
The Operations Manager is responsible for ensuring the success of this procedure and for all operations under his control.

The Operations Manager or his/her designee shall monitor the employees periodically to ensure they provide their employees with sufficient training and equipment to allow them to both understand and comply with this procedure.

EHS Manager:
The EHS Manager is responsible for providing technical information and ensuring a safe and healthy working environment.

Employees:
Employees are responsible for compliance with the requirements of this procedure.

DEFINITIONS:

PROCEDURE:

1. General

1.1. The following hazardous waste codes are permitted for non-hazardous waste solidification area:

1.1.1. **None**

1.2. The following treatment groups are permitted for non-hazardous waste solidification area:

1.2.1. **1026** ASolid-Bulk-Sub D

1.2.2. **1145** KNon Haz-Dpack-Sub D

1.2.3. **1203** NAsbest-Transhipp-Sub D

1.2.4. **1209** NIsocyan-Solidify-Sub D

1.2.5. **1218** NLiq-Solidify-Sub D

1.2.6. **1230** NRCRA MT-Solidify-Sub D

1.2.7. **1246** NSol-Tranship-WTE

1.2.8. **1446** NSol-Solidify-Sub D

1.2.9. **1480** KNon Haz-Solidify-Sub D

1.2.10. **1906** KAcid Sol-Solidify-Sub D

1.2.11. **1907** KBase Sol-Solidify-Sub D

1.2.12. **1924** NAcid Sol-Solidify-Sub D

1.2.13. **1925** NBase Sol-Solidify-Sub D

1.2.14. **1962** NLiq-Solidify-Sub D

1.2.15. **1963** NSol-Solidify-Sub D

1.2.16. **1997** RScrap-Transship-SCP

1.2.17. **2157** NLiqCont-Solidify-Sub D

1.3. The Personal Protective Equipment Program (EHS-PR-019-COR) and the Respiratory Protection Program (EHS-PR-029-COR) must be adhered to for all solidification operations. At a minimum the following levels are required for the following solidification operations:

1.3.1. Sampling – Level D

1.3.2. Processing Containers – Level D

1.3.3. Solidification – Level D

1.3.4. Off-loading bulk containers into solidification tank – Level D

1.3.5. Loading bulk containers after solidification – Level D

1.3.6. Housekeeping - Level D

1.3.7. Off-loading container trailers – Level D

1.3.8. Daily Inspection – Level D

1.4. The waste processing area and solidification tank must be inspected daily using the Waste Processing Building Inspection Log (OPS-FM-017-FLA).

2. Container Selection and Preparation

2.1. Candidate containers of non-hazardous waste potentially amenable for solidification in the non-hazardous waste solidification tank are selected from the current inventory and reviewed by the Operations Manager or designee prior to compatibility and bench testing in the on-site lab.

2.2. Collect a representative sample from each of the selected candidate containers and forward them to the lab for compatibility and bench testing.

2.2.1. Liquids – 100% of each wastestream's containers; and

2.2.2. Solids – 100% of each wastestream's containers unless otherwise specified by the Operations Manager or designee.

2.3. Complete the Solidification Container Log (OPS-FM-099-FLA) for each selected container. The Solidification Container Log includes the following information:

2.3.1. Shipping Name;

2.3.2. Trailer Number;

2.3.3. Start Date;

2.3.4. Stock or Receipt Number;

2.3.5. Approval Number;

2.3.6. Weight;

2.3.7. Size;

2.3.8. Treatment Group; and

2.3.9. Technician Initials.

2.4. Using an approved scanner, scan each container's barcode and enter the container's data into a newly created staging row in EQAI.

2.4.1. The Batch Tracking ID # shall be used when naming newly created staging rows.

2.4.2. Count the containers and verify that the count matches all containers identified on the treatment log and the new staging row.

2.5. Additional requirements for Treatment Trailers Coming from the Container Storage Building

2.5.1. Load the containers onto the designated trailer for transportation to the Waste Processing Building.

2.5.2. Count the containers on the trailer and verify that the count matches all of the containers identified on the Solidification Container Log(s) and the new staging row.

2.5.3. Attach the Solidification Trailer ID Tag (OPS-FM-118-FLA) on the front of the trailer indicating the following:

2.5.3.1. Trailer #; and

2.5.3.2. Start Date.

2.5.4. The Operations Manager, or designee, must review and approve the Solidification Container Log(s) prior to releasing the trailer for transportation to the Waste Processing Building.

2.5.5. When the Operations Manager or designee releases the Solidification Trailer, complete the Solidification Trailer ID Tag with the following:

2.5.5.1. Container Count; and

2.5.5.2. Total Gallons

3. Staging and Verification

3.1. After the Operations Manager, or designee, has released the trailer, move the trailer to the Waste Processing Building.

3.2. Off-load the trailer and stage the containers in the Waste Processing Building.

3.2.1. Once the containers have been staged.

3.2.2. Verify the count of the containers unloaded into the storage are in the Waste Processing Building.

3.3. The Waste Processing Building Lead Coordinator or designee creates a batch in EQAI.

3.3.1. A Chemical Process Operator, shall scan each container's barcode and enter the container's data into the newly created batch in EQAI.

3.3.1.1. EQAI will give an error message for any treatment groups and/or waste codes that are not permitted to be processed.

3.3.1.2. Containers that trigger an error are isolated and sent back to the Container Storage Building for review.

3.3.2. The Waste Processing Building Lead Coordinator, or designee, shall print a copy of the EQAI Batch Detail Report once the data has been entered.

3.3.3. Count the off-loaded containers and verify that the count matches the containers identified on the Solidification Container Log(s) and the printed EQAI Batch Detail Report.

3.4. The Waste Processing Lead Coordinator, or designee, must review the following documents prior to approving the batch containers for solidification:

3.4.1. Solidification Container Log(s); and

3.4.2. The EQAI Batch Detail Report.

3.5. Once the batch has been approved for solidification, the Waste Processing Lead Coordinator, or designee, must sign the Solidification Container Log(s) acknowledging their review.

4. Bench Testing

4.1. The bench testing determines waste compatibility. During this process a Solidification Testing Log (LAB-FM-055-FLA) is completed to track Temperature and description of the reaction, if any.

4.2. The bench testing results shall be distributed by the QA/QC Chemist or designee to the Operations Manager, EHS Manager, and Waste Processing Lead Coordinator for review.

4.3. Based on the bench test results the batch will be cleared for solidification.

4.4. The approved Solidification Container Log(s) is forwarded to the Waste Processing Building Lead Coordinator or designee for processing.

5. Processing

5.1. If the Red Flashing Light is on prior to the start of processing, the use of proper PPE in the Waste Processing Building, which will include Level C in accordance with PPE Program.

5.2. Begin the solidification process. Starting with solids, thick sludges, and liquids, mix the material using the excavator adding solidification agent with the front-end loader.

5.2.1.1. In order to reduce safety risks, liquids and sludges in container that are difficult to pour off with the use of a forklift will be pumped into solidification tank using an air powered 2-inch double diaphragm pump as indicated in the Diaphragm Pump Operation Work Instruction (OPS-WI-027-FLA)

5.2.1.2. The solidification tank should not be filled greater than approximately 40 yards of waste and solidification agent, as to prevent overflow or spillage when mixing.

5.2.1.3. Empty containers will be crushed to at least 75% of their original volume capacity as to comply with landfill regulations to ensure that no liquids remain.

5.2.2. Fugitive particulate air emissions while handling dusty materials may be controlled using the following methods;

5.2.2.1. Water can be added to the mixing container prior to materials being introduced, water can be added to the containers prior to introduction to the mixing container, or a fine spray mist over the non-hazardous solidification tank when charging the batch. Dusty wastes should be introduced and mixed in a manner that helps reduce the amount of dust emission. During high winds of 12 mph sustained or 25 mph gusts, where particulate matter is not feasible to control, processing should cease for 30 minute intervals.

5.3. The solidification process is complete when, the material has been mixed thoroughly, and all free liquids have been removed.

5.3.1. The solidified waste is removed from the solidification tank and placed into roll-off boxes and / or dump trailers.

5.3.2. Roll-off boxes and / or dump trailers must be lined prior to loading the solidified waste into them.

5.3.3. Roll-off boxes and / or dump trailers must be properly tarped prior to exiting the Waste Processing Building and being placed in storage in the Solid Waste Operations Area.

6. Non-Hazardous Transship Process

6.1. Non-Hazardous waste containers that are not solidified, such as used oil, oily water, food grade (putrescible) materials, etc., will be managed in the same manner under Section 2 of this SOP.

6.2. Form used in Section 2.3 will be replaced with Transship Container Log (OPS-FM-113-FLA).

6.3. Form used in Section 2.5.3 & 2.5.5 will be replaced with Transship Trailer ID Tag (OPS-FM-120-FLA)

6.4. The following hazardous waste codes are permitted for non-hazardous waste transship:

6.4.1. **None**

6.5. The following treatment groups are permitted for non-hazardous waste transship:

6.5.1. **1223** NLiq-Tranship-TSD

6.5.2. **1229** ROilFilt-Consolidat-RCY

6.5.3. **1237** RRPP-Tranship-RCY

6.5.4. **1298** RGlycol-Tranship-GLY

6.5.5. **1308** RUsed Oil-Bulk-OMK

6.5.6. **1309** RUsed Oil-Consolidat-OMK

6.5.7. **1312** RUsed Oil-Transfer-OMK

6.5.8. **1314** RUsed Oil-Tranship-OMK

6.5.9. **1699** RUsed Oil-Consolidat-TSD

6.5.10. **1712** NL COD-Tranship-WWT

6.5.11. **1909** RGlycol-Tranship -RCY

7. Record Retention

7.1. All records associated with this SOP shall be collected, scanned into EQAI, and / or filed in the Waste Processing Lead Coordinator's office and made available for review upon request.

- **DEFINITIONS:**

  Solidification Agents: Sawdust is the only approved solidification agent.

REFERENCES:

ASSOCIATED DOCUMENTS:

OPS-FM-017-FLA Waste Processing Building Inspection Log

OPS-OP-029-FLA Roll-off Sampling

OPS-FM-099-FLA Solidification Container Log

OPS-FM-113-FLA Transship Container Log

OPS-FM-118-FLA Solidification Trailer ID Tag

OPS-FM-120-FLA Transship Trailer ID Tag

OPS-WI-027-FLA Diaphragm Pump Operation Work Instruction

LAB-FM-055-FLA Solidification Testing Log

EHS-PR-019-COR Personal Protective Equipment Program

EHS-PR-029-COR Respiratory Protection Program

RECORDS: The cited records are retained in a manner that supports the requirements of the various local, State, and federal regulatory agencies to which Republic Services adheres.

History of SOP Revisions:

Date	Approver	Change	Training required	
			Yes	No
11/15/16	SW	Change Author Approving Authority Updated Revision Date. Added - History of Revisions table.		X
3/7/23	KSD	Logo and Language		X
3/7/23	KSD	Added treatment groups allowable		X
8/22/23	KSD	Removed shredder language. Added language to section 2.5. Updated formatting.	X	

Standard Operating Procedure (FL)

Document Number:	OPS-OP-071-FLA	Issue Date:	11/14/14
Approving Authority:	Stuart Stapleton	Revision Date:	8/21/23
Job Title:	EHS Manager	Department:	OPS
		Review Date:	

TITLE: Hazardous Waste Treatment

PURPOSE: To ensure proper handling of all materials entering the hazardous waste treatment process and confirm that operations are performed in a safe, compliant, and efficient manner.

SCOPE: The procedure applies to the following activities that take place in the Hazardous Waste Treatment Tank in the Waste Processing Building. Off-loading and staging / storing of hazardous waste, addition of hazardous waste, and chemical reagents into the tank, post process cleaning of the treatment tank and excavator bucket, and sampling and analysis of the completed batch

RESPONSIBILITIES:

Operations Manager: The Operations Manager is responsible for the development, training, implementation, monitoring, and periodic review of this procedure.

The Operations Manager or designee shall monitor all affected employees periodically to ensure proper compliance with this procedure. Employees will be provided with sufficient training and equipment to allow them to both understand and comply with this SOP.

Employees: Employees are responsible for complying with, and following, the hazardous stabilization SOP. Employees must also take an active role in the periodic review and improvement of the procedure.

DEFINITIONS:

PROCEDURE:

1. General

1.1. The following hazardous waste codes are permitted for hazardous waste treatment:

1.1.1. **D002**

1.1.2. **D004**

1.1.3. **D005**

1.1.4. **D006**

1.1.5. **D007**

1.1.6. **D008**

1.1.7. **D009** (Low Mercury as defined in 40 CFR 268 Subpart D)

1.1.8. **D010**

1.1.9. **D011**

1.1.10. **K062**

1.2. The following treatment groups are permitted for hazardous waste treatment:

1.2.1. **1006** AH Min-Neut/Stab-Sub D

1.2.2. **1009** AH Nitric-Neut/Stab-Sub D (K062)

1.2.3. **1012** AL Chrome-Neut/Stab-Sub D

1.2.4. **1014** AL HF-Neut/Stab-Sub D

1.2.5. **1016** AL Min-Neut/Stab-Sub D

1.2.6. **1018** AL Nitric-Neut/Stab-Sub D

1.2.7. **1023** AOrg-Neut/Stab-Sub D

1.2.8. **1035** BLiquid-Neut/Stab-Sub

1.2.9. **1052** CMet Liq-Stab-Sub D

1.2.10. **1057** CMet Sol-Stab-Sub D

1.2.11. **1125** KAcid-Dpack-Sub D

1.2.12. **1129** KBase-Dpack-Sub D

1.2.13. **1156** KToxic-Dpack-Sub D

1.2.14. **1358** ASolid-NuetralSP-Sub D

1.2.15. **1366** BSludge-Neut/Stab-Sub D

1.2.16. **1415** AMix-NuetralSP-Sub D

1.2.17. **1547** BAmmonia-Neut/Stab-Sub D

1.2.18. **1625** BSolid-NeutralSP-Sub D

1.2.19. **1917** AH Chrome-Neut/Stab-Sub D

1.2.20. **2154** ALMinCont-Neut/Stab-Sub D

1.2.21. **2155** BLiqCont-Neut/Stab-Sub D

1.2.22. **2156** CMetLiqCon-Stab-Sub D

1.1. The Personal Protective Equipment Program (EHS-PR-019-COR) and the Respiratory Protection Program (EHS-PR-029-COR) must be adhered to for all treatment operations. At a minimum the following levels are required for the following treatment operations:

1.1.1. Sampling – Level C

1.1.2. Processing Containers – Level C

1.1.3. Treatment – Level C

1.1.4. Off-loading bulk containers into treatment tank – Level C

1.1.5. Loading bulk containers after treatment – Level C

1.1.6. Housekeeping - Level D

1.1.7. Off-loading container trailers – Level D

1.1.8. Daily Inspection – Level D

1.2. The waste processing area and treatment tank must be inspected daily using the Waste Processing Building Inspection Log (OPS-FM-017-FLA).

2. Container Selection and Preparation

2.1. Candidate containers of hazardous waste potentially amenable for treatment in the on-ground hazardous waste treatment tank are selected from the current inventory and reviewed by the Operations Manager or designee prior to compatibility and bench testing in the on-site lab.

2.2. Collect a representative sample from each of the selected candidate containers and forward them to the lab for compatibility and bench testing.

2.2.1. Liquids – 100% of each wastestream's containers; and

2.2.2. Solids – 100% of each wastestream's containers unless otherwise specified by the Operations Manager or designee.

2.3. Complete the Treatment Container Log (OPS-FM-098-FLA) for each selected container. The Treatment Container Log includes the following information:

2.3.1. Shipping Name;

2.3.2. Trailer Number;

2.3.3. Start Date;

2.3.4. Stock or Receipt Number;

2.3.5. Approval Number;

2.3.6. Weight;

2.3.7. Size;

2.3.8. Waste Codes;

2.3.9. Treatment Group; and

2.3.10. Technician Initials.

2.4. Using an approved scanner, scan each container's barcode and enter the container's data into a newly created staging row in EQAI.

2.4.1. The Batch Tracking ID # or WPBHZ shall be used when naming newly created staging row.

2.4.2. Count the containers and verify that the count matches all containers identified on the treatment log and the new staging row.

2.5. Additional requirements for Treatment Trailers Coming from the Container Storage Building

2.5.1. Load the containers onto the designated trailer for transportation to the Waste Processing Building.

2.5.2. Count the containers on the trailer and verify that the count matches all of containers identified on the Treatment Trailer Log and the new staging row.

2.5.3. Attach the Treatment Trailer ID Tag (OPS-FM-087-FLA) on the front of the trailer indicating the following:

2.5.3.1. Trailer #; and

2.5.3.2. Start Date.

2.5.4. The Operations Manager, or designee, must review and approve the Treatment Container Log(s) prior to releasing the trailer for transportation to the Waste Processing Building.

2.5.5. When the Operations Manager or designee releases the Treatment Trailer, complete the Treatment Trailer ID Tag with the following:

2.5.5.1. Container Count; and

2.5.5.2. Total Gallons

3. Staging and Verification

3.1. After Operation Manager, or designee has approved the appropriate trailer/box truck to be offloaded in the Waste Processing Building.

3.2. Off-load the trailer/box truck and stage the containers in the Waste Processing Building, in the hazardous waste storage area.

3.2.1. The containers must be segregated by hazard class, with the labels faces out. There should be a minimum of two feet aisle space separating each container row.

3.2.2. Once the containers have been staged, they must not exceed a total of 9900 gallons and counted toward the storage inventory on the daily inspection.

3.2.3. Verify the count of the containers unloaded into the storage are in the Waste Processing Building.

3.3. The Waste Processing Building Lead Coordinator or designee creates a batch in EQAI.

3.3.1. A Chemical Process Operator, shall scan each container's barcode and enter the container's data into the newly created batch in EQAI.

3.3.1.1. EQAI will give an error message for any treatment groups and/or waste codes that are not permitted to be processed.

3.3.1.2. Containers that trigger an error are isolated and sent back to the Container Storage Building for review.

3.3.2. The Waste Processing Building Lead Coordinator, or designee, shall print a copy of the EQAI Batch Detail Report once the data has been entered.

3.3.3. Count the off-loaded containers and verify that the count matches the containers identified on the Treatment Trailer Log(s) and the printed EQAI Batch Detail Report.

3.4. The Waste Processing Lead Coordinator, or designee, must review the following documents prior to approving the batch containers for treatment:

3.4.1. Treatment Container Log(s); and

3.4.2. The EQAI Batch Detail Report.

3.5. Once the batch has been approved for treatment, the Waste Processing Lead Coordinator, or designee, must sign the Treatment Container Log(s) acknowledging their review.

4. Bench Testing

4.1. The bench testing determines waste compatibility and the prescribed sequence that the waste and reagents are added to the treatment tank in order to ensure complete treatment. This sequence shall be followed

when adding the waste containers to the treatment tank. During this process a Bench Test Log (LAB-FM-050-FLA) is completed to track pH, Reagents added, and description of the reaction.

4.2. The bench testing results shall be distributed by the QA/QC Chemist or designee to the Operations Manager, EHS Manager, Operations Supervisor, and Waste Processing Lead Coordinator for review.

4.3. Based on the bench test results, pH monitoring, and established solubility curves, a Treatment Processing Sheet (OPS-FM-088-FLA) is developed.

4.4. The approved Treatment Processing Sheet is forwarded to the Waste Processing Building Lead Coordinator or designee for processing.

5. Processing

5.1. Prior to the start of processing the Red Flashing Light will be turned on to signal the use of proper PPE in the Waste Processing Building, which will include Level C in accordance with PPE Program.

5.2. The waste and reagents are placed in the treatment tank as prescribed by the approved Treatment Processing Sheet and thoroughly mixed to a uniform and homogenous consistency using an excavator.

5.2.1. In order to reduce safety risks, strong caustics and acids with a concertation >30% will be pumped into hazardous waste treatment tank using an air powered 2-inch double diaphragm pump as indicated in the Diaphragm Pump Operation Work Instruction (OPS-WI-027-FLA)

5.2.2. The treatment tank should not be filled greater than approximately 40 yards of hazardous waste and treatment reagent, as to prevent overflow or spillage when mixing.

5.2.3. Empty containers will be crushed to at least 75% of their original volume capacity as to comply with landfill regulations to ensure that no liquids remain.

5.2.4. Fugitive particulate air emissions while handling dusty materials may be controlled using the following methods;

5.2.4.1. Water can be added to the mixing container prior to materials being introduced, water can be added to the containers prior to introduction to the mixing container, or a fine spray mist over the hazardous waste treatment tank when charging the batch.

5.2.4.2. Dusty wastes should be introduced and mixed in a manner that helps reduce the amount of dust emission. During high winds of 12 mph sustained or 25 mph gusts, where particulate matter is not feasible to control, processing should cease for 30-minute intervals.

5.2.5. Any additional emissions that may arise during processing will be monitored by the Chemical Process Operator's Personal Gas Detector as referenced in the Personal Gas Detector SOP (OPS-OP-080-FLA)

5.2.6. There will also be a 5-Gas Meter located in the excavator being used for the hazardous treatment tank. Refer to the Five Gas Meter WPB Operations Work Instruction (OPS-WI-029-FLA).

5.2.7. In the event when an excavator is out of service, the bucket of the in service excavator shall be decontaminated before use in the solidification tank for non-regulated waste processing according to the Equipment and Tank Decontamination Work Instruction (OPS-WI-022-FLA) and recorded on the Waste Processing Building Excavator Decontamination Log (OPS-FM-105-FLA)

5.3. The treatment process is complete when all of the reagents have been added to the waste according to the recipe outlined on the Treatment Processing Sheet, the material has been mixed thoroughly, and all free liquids have been removed.

5.4. The Waste Processing Building Lead Coordinator, or designee, completes the Batch Processing Sheet (OPS-FM-092-FLA) after treatment in order to track time and material used. The completed Batch Processing Sheet is forwarded to the Operations Manager or designee for review.

5.5. When the treatment is complete, a representative sample of the treated waste is collected and taken to the QA/QC Technician, or designee.

5.5.1. Using the Paint Filter Test Log (LAB-FM-004-FLA), the on-site lab conducts a Paint Filter Test, in accordance with Method 9095B, on the collected sample to demonstrate that the waste has no free liquids remaining in the mixture.

5.5.2. Once the sample is free of liquids, the flashing red light in the Waste Processing Building can be turned off and PPE can be downgraded.

5.6. If the material fails the Paint Filter Test, additional reagent will be added to the mixture to ensure that all free liquids have been removed.

5.6.1. Amend the Batch Processing Sheet to indicate the additional reagent that was added to the mixture.

5.6.2. A new sample of the material shall be collected and retested.

5.7. If the material passes the Paint Filter Test:

5.7.1. The remaining sample is prepared and sent off-site to a NELAP/NELAC certified lab for TCLP and UTS analysis.

5.7.2. The in-house laboratory will do TCLP analysis side by side with the off-site NELAC laboratory.

5.7.3. If the in-house lab's sample results pass, the treated waste is removed from the treatment tank and placed into roll-off boxes (usually 2-4 boxes per batch).

5.7.3.1. Roll-off boxes must be lined prior to loading the treated waste into the roll-off box.

5.7.3.2. Roll-off boxes must be properly tarped prior to exiting the Waste Processing Building and being placed in storage.

5.7.3.3. Each roll-off box is moved from the Waste Processing Building taken to the weigh scale house, after the weight is record, the box is placed into storage within Bulk Container Storage Area (BCSA) (SWMU #20).

5.7.3.4. A Treated Hazardous Waste ID tag (OPS-FM-091-FLA) is applied to each roll-off box in the batch. The ID tag identifies the roll-off box as hazardous waste pending analysis and includes the following information:

5.7.3.4.1. Accumulation start date;

5.7.3.4.2. HazBox Tracking #;

5.7.3.4.3. Roll-off #; and

5.7.3.4.3.1. The roll-off box container count (ex., 1 of X, 2 of X, etc.).

6. Treatment Verification

6.1. When the TCLP results are received from the off-site lab (usually within 2-business days of sample submittal), the Operations Manager or designee must review the analytical results and compared them to the UTS table for inorganic constituents under 40 CFR 268.48. Once reviewed, a determination is made on whether the batch has been de-characterized and have met the Universal Treatment Standards (UTS). Treated K062 waste will be verified in the same manner; the analytical results will be reviewed to determine that the batch no longer exhibits the characteristics of hazardous waste and have met the Universal Treatment Standards (UTS).

6.2. If the analytical results indicate that the batch has failed for either the TCLP or UTS:

6.2.1. The batch and its associated roll-off boxes must maintain their original Treated Hazardous Waste ID tag(s).

6.2.2. If the off-site lab's sample results do not pass the UTS limits, the treated waste is resampled as a composite as follows:

6.2.2.1. All 4 corners,1 foot deep of all roll-off boxes of the treated waste will be sampled with a sampling cup and combined

into 1 sample for resubmission to the laboratory for analysis.

6.2.3. If the resample fails, a re-treatment recipe is developed based on the failed treatment analysis and be treated in accordance with the new recipe.

6.3. If the analytical results of treated characteristic waste (D002 and D004 through D011) indicate that both the TCLP and UTS have been met, further treatment is not required and the Treated Hazardous Waste is now identified as Treated Non-Hazardous Waste. If the analytical results of the treated "listed' waste (K062) indicate that both the TCLP and UTS have been met, further treatment is not required and the Treated Hazardous Waste is now identified as Treated Non-Hazardous Waste.

6.3.1. Two approved designees must sign the Final Disposal Approval form (OPS-FM-089-FLA) to release the waste for final disposal. The Final Disposal Approval form contains the following information:

6.3.1.1. Date;

6.3.1.2. HazBox Tracking #

6.3.1.3. Container #'s

6.3.2. When the signed Final Disposal Approval or written notification, i.e. email, has been received, the original Treated Hazardous Waste ID tags are removed from each roll-off box and replaced with Treated Non-Hazardous Waste ID tag(s) (OPS-FM-096-FLA), which includes the following information:

6.3.2.1. The accumulation start date;

6.3.2.2. HazBox Tracking #

6.3.2.3. Roll-off #; and

6.3.2.4. The roll-off box container count (ex., 1 of X, 2 of X, etc.).

6.4. Generally, all treated non-hazardous waste is shipped off-site to an approved Subtitle D landfill within 10-business days of passing both the TCLP and UTS and being approved for final disposal.

6.5. Treated non-hazardous waste analytical results are supplied to the Subtitle D landfill upon request.

7. Record Retention

7.1. All records associated with this SOP shall be collected, scanned into EQAI, and / or filed in the Waste Processing Lead Coordinator's office and made available for review upon request.

- **DEFINITIONS:**

Treatment Reagents: Includes, but is not limited to, cement kiln dust (CKD), bed ash, fly ash, lime, bleach, water, ferrous sulfate, and sodium sulfide.

REFERENCES: 40 CFR 268 Subpart D – Treatment Standards

SW-846 - Test Methods for Evaluating Solid Waste, Physical/Chemical Methods

Method 9095B – Paint Filter Liquids Test

ASSOCIATED DOCUMENTS:

OPS-FM-017-FLA Waste Processing Building Inspection Log

OPS-FM-098-FLA Treatment Container Log

OPS-FM-087-FLA Treatment Trailer ID Tag

LAB-FM-050-FLA Bench Test Log

OPS-FM-088-FLA Treatment Processing Sheet

LAB-FM-004-FLA Paint Filter Test Log

OPS-FM-091-FLA Treated Hazardous Waste Roll-Off ID Tag

OPS-FM-089-FLA Final Disposal Approval

OPS-FM-096-FLA Non-Hazardous Waste Roll-Off ID Tag

OPS-FM-097-FLA Roll-Off Containment Log

OPS-OP-080-FLA Personal Gas Meter

OPS-WI-029-FLA Five Gas Meter WPB Operations

OPS-WI-027-FLA Diaphragm Pump Operation Work Instruction

OPS-FM-092-FLA Batch Processing Sheet

OPS-FM-093-FLA Batch Retreat Processing Sheet

OPS-WI-022-FLA Equipment and Tank Decontamination

OPS-FM-105-FLA Waste Processing Building Excavator Decontamination Log

RECORDS: The cited records are retained in a manner that supports the requirements of the various local, State, and federal regulatory agencies to which Republic Services adheres.

History of SOP Revisions:

Date	Approver	Change	Training required	
			Yes	No
12/08/16	SW	Update document format Update Revision		X
11/17/17	SW	Remove proposed from section 1.1.10 Added 1917 waste code Changed section 2.2.2 Solids 10% Solids 100% Changed 24 hours 4400 gallons		X
3/7/23	KSD	Logo and Language		X
3/7/23	KSD	Added treatment groups allowable		X
8/21/23	KSD/TH/ES	Added composite resampling in section 6.2.2 Updated formatting Temperature removed from 4.1 Changed 5.2.7 to a note and added Decon WI and Log reference Added note for turning off flashing light	X	

Standard Operating Procedure

Document Number:	OPS-OP-078-FLA	Issue Date:	05/11/16
Approving Authority:	Ken Dean	Revision Date:	07/27/16
Job Title:	Ops. Manager	Department:	OPS
		Review Date:	10/03/23

TITLE: Crack/Gap Program

PURPOSE: To identify and repair all visible cracks and gaps in the asphalt pavement located in the Bulk Container Storage Area (BCSA), 10-Day Transfer Facility, the Inbound/Outbound (I/O) Staging Areas, and the Container Storage Building (CSB).

SCOPE: Applies to the asphalt pavement located in the Bulk Container Storage Area (BCSA), 10-Day Transfer Facility, and the Inbound/Outbound (I/O) Staging Areas and the Container Storage Building (CSB).

RESPONSIBILITIES:

Operations Manager: Responsible for ensuring that daily inspections are completed and indicate any cracks in the Bulk Container Storage Area (BCSA), the 10-Day Transfer Facility the Inbound/Outbound (I/O) Staging Area, and the Container Storage Building (CSB) inspection form.

EHS Manager: Responsible for coordinating the “Cracks & Gaps” program.

DEFINITIONS:

Crack /Gap: A disturbance in the asphalt pavement surface that indicates excessive wear, gouges, pitting, or exposed base. This does not include superficial surface disturbances.

The electronic version of this document is the controlled version. Each user is responsible for ensuring that any document being used is the current version.

PROCEDURE:

1. **Crack/Gap Identification**

    1.1. Indicate the location of the crack/gap on the Bulk Container Storage Area (BCSA), Waste Process Building (WPB), 10-Day Transfer Facility the Inbound/Outbound (I/O) Staging Area, and the Container Storage Building (CSB) inspection form (OPS-FM-017-FLA).

2. **Crack/Gap Repair and Recordkeeping**

    2.1. Repair of identified crack/gap is to be prioritized based on severity, risk to the environment, employee health and safety, and/or asset protection. In some instances (e.g., large surface area, severe damage), asphalt may be replaced.
    2.2. The date and the material used to fill the crack/gap is to be recorded on the inspection form.
    2.3. Each crack/gap in need of repair will have asphalt patch/caulk applied in a sufficient amount to eliminate the crack/gap.

REFERENCES:

ASSOCIATED DOCUMENTS: OPS-FM-017-FLA

RECORDS: The cited records are retained in a manner that supports the requirements of the various local, State, and federal regulatory agencies to which Republic Services adheres.

History of SOP Revisions:

Date	Approver	Change	Training required	
			Yes	No
9/28/16	S. Stapleton	Formatted to new SOP template.		X
10/03/23	KSD	Changed Logo and Language.		X

Work Instruction

Document Number:	OPS-WI-022-FLA	Issue Date:	4/20/16
Author:	Stuart Stapleton	Revision Date:	8/18/23
Job Title:	EHS Manager	Department:	Operations

TITLE: **Process Equipment and Treatment Tank Decontamination**

PURPOSE: To ensure the appropriate steps are taken to decontaminate process equipment and the hazardous waste treatment tank.

SCOPE: All employees responsible for the decontamination of processing equipment and the hazardous waste treatment tank.

RESPONSIBILITIES:

Supervisor: To ensure that all practices and procedure are carried out in Compliance with the protocol.

Operator: To follow all practices and procedures specified in the protocol.

PROCEDURE:

1. Safety – PPE requirements

1.1. Eye and Face Protection: Safety Glasses and Face Shields must be worn unless a full-face respirator is required.

1.2. Protective Clothing: Level C Suit or aprons will be worn when decontaminated from the hazardous waste tank.

1.3. Gloves: Nitrile gloves will be worn as an inner glove. A heavy-duty PVC glove, or equivalent, will be worn as an out glove.

2. **Contaminated Equipment Decontamination**

2.1. Working surfaces must be visually clean. This may be accomplished by:

2.1.1. Scraping using hand tools or power equipment.

2.1.2. Washing and/or power washing with water to effect a clean working surface.

2.1.3. All removed materials, and wash waters, must be processed as hazardous waste.

2.1.4. After decontamination, fill out the decontamination log, OPS-FM-105-FLA.

3. **Treatment Tank Decontamination**

3.1. Working surfaces must be visually clean. This may be accomplished by:

3.1.1. Scraping using hand tools or power equipment.

3.1.2. Washing and/or power washing with water to effect a clean working surface.

3.1.3. All removed materials, and wash waters, must be processed as hazardous waste.

4. **Record Retention**

4.1. All records associated with this WI shall be collected, scanned, and sent to the EHS Compliance Officer or filed in the Waste Processing Lead Coordinator's office, and made available for review upon request.

DEFINITIONS:

Decontamination – The removal of material from process equipment or tanks.

Process Equipment – Any piece of equipment used in the process of handling hazardous waste. This equipment includes but is not limited to: excavator and backhoe buckets.

Treatment Tank – Permitted tank for hazardous waste processing.

REFERENCES: None

ASSOCIATED DOCUMENTS:
OPS-FM-105-FLA Decontamination Log

RECORDS: The cited records are retained in a manner that supports the requirements of the various local, State, and federal regulatory agencies to which Republic Services adheres

Date	Approver	Change
8/18/23	ES	Added Safety information Added section 2.1.4 Added section 4 Added associated document Added records information
8/18/23	KD	Logo Change

APPENDIX K

In-Bound Waste Shipment Records

CY2022 INBOUND CONTAINERS SUMMARY
(By Treatment, Size)

22- US Ecology Tampa, Inc.

00-US Ecology Tampa, Inc.

Treatment: 1006 AH Min-Neut/Stab-Sub D

Container Size	# Containers	Weight
Missing Container Size	24	29,426.000
DM05 Containers	85	3,496.000
DM15 Containers	9	1,172.000
DM30 Containers	9	1,743.000
DM55 Containers	157	70,051.000
DM85 Containers	1	467.000
DM95 Containers	2	489.000
GAL Containers	2	34,220.000
LBS Containers	34	15,019.330
T275 Containers	140	382,706.920
Total # Containers for Treatment 1006 AH Min-Neut/Stab-Sub D:	**463**	**538,790.250**

Treatment: 1009 AH Nitric-Neut/Stab-Sub D

Container Size	# Containers	Weight
DM55 Containers	20	10,046.000
Total # Containers for Treatment 1009 AH Nitric-Neut/Stab-Sub D:	**20**	**10,046.000**

Treatment: 1012 AL Chrome-Neut/Stab-Sub D

Container Size	# Containers	Weight
Missing Container Size	3	1,656.000
DM05 Containers	3	33.000
DM15 Containers	1	146.000
DM30 Containers	1	150.000
DM55 Containers	25	12,750.000
DM85 Containers	1	1,074.000
T275 Containers	35	90,007.000
Total # Containers for Treatment 1012 AL Chrome-Neut/Stab-Sub D:	**69**	**105,816.000**

Treatment: 1014 AL HF-Neut/Stab-Sub D

Container Size	# Containers	Weight
DM55 Containers	14	7,238.000
T275 Containers	10	30,735.000
Total # Containers for Treatment 1014 AL HF-Neut/Stab-Sub D:	**24**	**37,973.000**

Treatment: 1016 AL Min-Neut/Stab-Sub D

Container Size	# Containers	Weight
Missing Container Size	14	11,979.000
DM05 Containers	43	1,215.600
DM15 Containers	15	1,940.000
DM20 Containers	1	109.000
DM30 Containers	52	9,984.000
DM55 Containers	412	139,405.000
DM85 Containers	3	929.000
GAL Containers	1	33,100.000
LBS Containers	569	29,565.600
T275 Containers	195	547,342.000
Total # Containers for Treatment 1016 AL Min-Neut/Stab-Sub D:	**1305**	**775,569.200**

CY2022 INBOUND CONTAINERS SUMMARY
(By Treatment, Size)

Treatment: 1018 AL Nitric-Neut/Stab-Sub D

Container Size	# Containers	Weight
DM05 Containers	15	612.000
DM15 Containers	4	332.000
DM55 Containers	29	12,616.000
T275 Containers	10	26,330.000
Total # Containers for Treatment 1018 AL Nitric-Neut/Stab-Sub D:	**58**	**39,890.000**

Treatment: 1023 AOrg-Neut/Stab-Sub D

Container Size	# Containers	Weight
Missing Container Size	7	1,919.000
DM05 Containers	10	273.000
DM15 Containers	3	241.000
DM30 Containers	3	204.000
DM55 Containers	96	35,082.000
DM85 Containers	2	1,265.000
LBS Containers	111	2,608.100
T250 Containers	1	2,138.000
T275 Containers	1	2,262.000
Total # Containers for Treatment 1023 AOrg-Neut/Stab-Sub D:	**234**	**45,992.100**

Treatment: 1035 BLiquid-Neut/Stab-Sub D

Container Size	# Containers	Weight
Missing Container Size	48	19,075.000
CYB Containers	8	5,251.000
DM05 Containers	90	3,998.100
DM10 Containers	12	460.000
DM15 Containers	11	1,659.000
DM30 Containers	48	10,034.500
DM55 Containers	748	248,860.000
DM75 Containers	1	123.000
DM85 Containers	11	5,251.000
DM95 Containers	2	394.000
LBS Containers	950	163,072.800
T275 Containers	166	440,723.000
TONS Containers	10	56,100.000
Total # Containers for Treatment 1035 BLiquid-Neut/Stab-Sub D:	**2105**	**955,001.400**

Treatment: 1052 CMet Liq-Stab-Sub D

Container Size	# Containers	Weight
Missing Container Size	18	9,480.000
CASE Containers	2	4,262.000
DM02 Containers	31	521.000
DM05 Containers	198	7,404.000
DM15 Containers	8	1,132.000
DM30 Containers	31	7,076.000
DM55 Containers	551	257,070.000
DM85 Containers	2	1,032.000
DM95 Containers	1	479.000
GAL Containers	6	103,800.000
LBS Containers	27	2,495.200
T275 Containers	103	216,512.000
Total # Containers for Treatment 1052 CMet Liq-Stab-Sub D:	**978**	**611,263.200**

CY2022 INBOUND CONTAINERS SUMMARY
(By Treatment, Size)

Treatment: 1057 CMet Sol-Stab-Sub D

Container Size	# Containers	Weight
Missing Container Size	86	25,268.000
CYB Containers	470	456,621.000
DM05 Containers	45	1,293.000
DM10 Containers	7	365.000
DM15 Containers	24	792.000
DM30 Containers	16	1,497.000
DM55 Containers	1795	713,166.000
DM85 Containers	4	1,810.000
LBS Containers	464	9,662.720
PALL Containers	3	583.000
TONS Containers	2	50,620.000
Total # Containers for Treatment 1057 CMet Sol-Stab-Sub D:	**2916**	**1,261,677.720**

Treatment: 1125 KAcid-Dpack-Sub D

Container Size	# Containers	Weight
Missing Container Size	5	0.000
DM05 Containers	242	3,412.500
DM10 Containers	19	652.000
DM12 Containers	1	34.000
DM15 Containers	26	1,816.000
DM20 Containers	16	909.000
DM30 Containers	104	8,498.000
DM55 Containers	289	44,804.970
GAL Containers	32	5,595.000
LBS Containers	133	18,180.000
Total # Containers for Treatment 1125 KAcid-Dpack-Sub D:	**867**	**83,901.470**

Treatment: 1129 KBase-Dpack-Sub D

Container Size	# Containers	Weight
Missing Container Size	5	0.000
DM05 Containers	211	2,475.000
DM10 Containers	17	544.000
DM15 Containers	37	1,519.000
DM20 Containers	9	476.000
DM30 Containers	54	3,448.000
DM55 Containers	377	55,969.130
GAL Containers	58	6,838.000
LBS Containers	166	20,201.000
Total # Containers for Treatment 1129 KBase-Dpack-Sub D:	**934**	**91,470.130**

Treatment: 1156 KToxic-Dpack-Sub D

Container Size	# Containers	Weight
DM05 Containers	20	472.000
DM10 Containers	2	99.000
DM12 Containers	2	143.000
DM15 Containers	2	311.000
DM20 Containers	1	18.000
DM30 Containers	9	609.000
DM55 Containers	10	1,961.000
LBS Containers	4	84.000
Total # Containers for Treatment 1156 KToxic-Dpack-Sub D:	**50**	**3,697.000**

CY2022 INBOUND CONTAINERS SUMMARY
(By Treatment, Size)

Treatment: 1358 ASolid-NeutralSP-Sub D

Container Size	# Containers	Weight
CYB Containers	8	12,780.000
DM05 Containers	4	38.000
DM30 Containers	8	976.000
DM55 Containers	46	17,087.000
LBS Containers	11	699.000
Total # Containers for Treatment 1358 ASolid-NeutralSP-Sub D:	**77**	**31,580.000**

Treatment: 1366 BSludge-Neut/Stab-Sub D

Container Size	# Containers	Weight
DM55 Containers	1	340.000
Total # Containers for Treatment 1366 BSludge-Neut/Stab-Sub D:	**1**	**340.000**

Treatment: 1415 AMixed-NeutralSP-Sub D

Container Size	# Containers	Weight
DM05 Containers	1	5.000
Total # Containers for Treatment 1415 AMixed-NeutralSP-Sub D:	**1**	**5.000**

Treatment: 1547 BAmmonia-Neut/Stab-Sub D

Container Size	# Containers	Weight
Missing Container Size	3	100.000
DM05 Containers	13	159.800
DM30 Containers	5	787.900
DM55 Containers	14	3,534.000
LBS Containers	1563	141,636.380
Total # Containers for Treatment 1547 BAmmonia-Neut/Stab-Sub D:	**1598**	**146,218.080**

Treatment: 1625 BSolid-NeutralSP-Sub D

Container Size	# Containers	Weight
DM05 Containers	17	511.000
DM15 Containers	3	454.000
DM30 Containers	4	503.000
DM55 Containers	52	19,528.000
LBS Containers	29	388.600
Total # Containers for Treatment 1625 BSolid-NeutralSP-Sub D:	**105**	**21,384.600**

Treatment: 1917 AH Chrome-Neut/Stab-Sub D

Container Size	# Containers	Weight
DM55 Containers	4	994.000
Total # Containers for Treatment 1917 AH Chrome-Neut/Stab-Sub D:	**4**	**994.000**
Total Treated Containers:	**11,809**	**4,761,609.150**

APPENDIX L

SWFWMD Well Inventory

SWFWMD WELL INVENTORY [1]

Well Permit No.	Original Well Owner	Current Property Owner	Address	Property Within 500 Feet (yes/no)	Reported Well Use	Well Depth (feet)	Well Completion
318215	Hackett, C.A.	Hillsborough County	1800 N Orient Road, Tampa	No	Domestic	86	07/01/1979
547815	James W Dupree	Prospect Transportation of Florida, Inc.	7110 E 14th Avenue, Tampa	No	Domestic	220	02/28/1994
305163	Stauffer Chemical Co.	Stauffer Management Company, LLC	2009 N Orient Road, Tampa	**Yes**	Industrial	305	03/12/1970
483237 [2]	Universal Waste, Inc.	EQ Florida, Inc.	2002 N Orient Road, Tampa	No	Industrial	200	07/14/1989
687154	Alaric	Sawtooth Land, LLC	2110 N 71st Street, Tampa	**Yes**	Injection Well	440	07/23/2003
467955	Lee A. Levant	Jail Road Venture, LLC	6912 E 9th Avenue, Tampa	**Yes**	Irrigation	57	10/31/1988
490957	Florida Mega-Mix, Inc.	Dailey, Terence P. & Kathleen H.	1902 N 69th Street, Tampa	No	Public Supply	202	01/10/1990

NOTES:

1 - Permitted well inventory within a 1,000-foot buffer of the US Ecology Tampa, Inc. facility, **excluding** plugged, monitoring, and remediation wells and withdrawn or denied permits.

2 - Former industrial well located on the US Ecology Tampa, Inc. property is no longer in service and has been properly abandoned and capped.

1,000-Foot Buffer

September 29, 2023

0 245 490 980 ft

Bob Henriquez, CFA
Hillsborough County Property Appraiser
This map is for assessment purposes only.
It is not a survey.

2021 Aerials

APPENDIX M

Facility Compliance History

US Ecology Tampa Compliance History

DATE	AGENCY	NOTICE	PERMIT #	ALLEGED VIOLATION	STATUS
3/2/2000	FDEP	N/A	34875-HO-007	Minor Training Infractions	Corrected
12/20/2000	FDEP	N/A	34757-001-SO	None	
1/24/2000	FDEP	N/A	34757-001-SO	None	
8/25/2000	FDEP	N/A	34757-001-SO	None	
5/3/2000	FDEP	N/A	34757-001-SO	None	
4/18/2001	FDEP	N/A	34757-001-SO	None	
8/23/2001	FDEP	N/A	34757-001-SO	None	
7/24/2000	FDEP	N/A	34875-HO-007	None	
1/29/2001	FDEP	N/A	34875-HO-007	None	
2/27/2002	FDEP	N/A	34757-001-SO	None	
8/13/2002	FDEP	N/A	34757-001-SO	None	
4/17/2002	FDEP	N/A	34875-HO-007	None	
9/23/2003	FDEP	NOV	34875-HO-007	Failure to determine if the total halogen content of 880-gallons of used oil was above or below 1,000-PPM prior to acceptance and transport.	Corrected
				Failure to comply with 49 CFR 171.2(a) by accepting a hazardous material for transport that was not properly classed, described, marked, labeled, etc..	
				Failure to obtain authorization prior to disposal or treatment of contaminated used oil.	
10/23/2003	FDEP	N/A	34757-003-SO	None	
1/28/2004	FDEP	N/A	34875-HO-007/34757-003-SO	None	
4/13/2004	FDEP	N/A	34757-003-SO	None	
8/10/2004	FDEP	N/A	34757-003-SO	None	
1/28/2005	FDEP	N/A	34757-003-SO	None	
3/30/2005	HEPC	N/A	34757-003-SO	None	
4/15/2005	FDEP	N/A	34757-003-SO	None	
7/14/2005	FDEP	N/A	34875-HO01 -002	None	
8/23/2005	FDEP	N/A	34757-003-SO	None	
4/27/2006	FDEP & EPA	NOV	34875-HO-007	Failure to perform a hazardous waste determination on the electronic waste before disposal into the non-hazardous waste container. (corrected)	Corrected
				Failure to operate the facility in a manner that minimizes the possibility of a release of hazardous constituents which could threaten human health or the environment. (Residual waste was observed on the lid of a drum of waste in the container storage building and residual waste was observed on a pain can hopper)	
				Failure to submit a complete Biennial Report for the year 2005.	
				Failure to send revised Contingency Plan to the department and Emergency Agencies.	
				Failure to keep containers of hazardous waste closed except when adding to or taking material from the container. (corrected)	
				Failure to properly label containers of spent mercury containing lamps.(corrected)	
6/1/2006	HEPC	N/A	34757-003-SO	None	
9/15/2006	FDEP	N/A	34757-003-SO	None	
10/31/2006	FDEP	N/A	34757-003-SO	None	
2/6/2007	HEPC	N/A	34757-003-SO	None	
2/8/2007	FDEP	N/A	34757-003-SO	None	

US Ecology Tampa Compliance History

DATE	AGENCY	NOTICE	PERMIT #	ALLEGED VIOLATION	STATUS
3/23/2007	FDEP	NOV	34875-HO01-009	Failure to document corrective actions on daily facilty inspection log.	Corrected
				Failure to properly clean-up broken lamp near paint crusher. (corrected)	
6/19/2007	HEPC	N/A	34757-003-SO	None	
11/2/2007	FDEP	N/A	34757-003-SO	None	
3/6/2008	FDEP	N/A	34757-003-SO	None	
03/17/08	FDEP	NOV	34875-HO01-009	Failure to label eight one cubic yard boxes with accumulation start dates. (corrected).	Corrected
				Failure to label eight one cubic yard boxes with the words "Hazardous Waste." (corrected)	
				Failure to ensure containers are in good condition. (corrected)	
05/14/08	FDEP	N/A	34757-003-SO	None	
11/04/08	FDEP	N/A	34757-003-SO	None	
02/12/09	HEPC	N/A	34757-006-SO/30	None	
04/24/09	FDEP	N/A	34757-006-SO/30	None	
07/30/09	FDEP	NOV	34875-HO01-009	During the insepction, a box storing universal waste lamps were observed in the box truck that was not properly closed. (corrected immediately after inspection)	Corrected
09/30/09	FDEP	N/A	34757-006-SO/30	None	
10/14/09	FDEP	Consent Order	FLR05E179	Alteration of a Stormwater Management system prior to receiving regulatory authorization	Settlement Agreement
02/18/10	FDEP	N/A	34757-006-SO/30	None	
03/22/10	USDOT	N/A	-	Failure to close a package in accordance with the manufacturers instructions. Bill of Lading not completed correctly.	Letter of Warning
05/14/10	US Customs and Border Protection	N/A	P330-08-00259	None	
05/26/10	FDEP	N/A	34757-006-SO/30	None	
06/14/10	US Customs and Border Protection	N/A	P330-08-00259	None	
08/24/10	FDEP	NOV	34875-HO01-009	Containers located within 15 meters (50 feet) of the property line.	See 04/19/11 Inspection
				Improper storage of universal waste lamps.	
				Residue on outside of drums.	
				Cyanide bearing waste stored improperly.	
				Improper container marking.	
				Failure to properly inspect the safety cabinets.	
				Failed to properly close containers.	
				Improper waste segregation.	
				Improper container storage.	
				Failure to park vehicles on a man made surface having emergency liquid containment.	
				Failed to label used oil dolly with the words "Used Oil".	
				Failed to mark containers with all applicable EPA waste codes and generator information.	
11/08/10	FDEP	N/A	34757-006-SO/30	None	

US Ecology Tampa Compliance History

DATE	AGENCY	NOTICE	PERMIT #	ALLEGED VIOLATION	STATUS
04/19/11	FDEP & EPA	NOV	34875-HO01-009	Failed to label used oil dolly with the words "Used Oil".	Consent Order Closed
				Failed to labe containers with the words "Universal Waste Batteries".	
				Failed to properly close containers.	
				Failed to record the date and nature of corrective actions or repairs in the daily inspection log.	
				Failed to mark containers with all applicable EPA waste codes and generator information.	
				Storing hazardous waste outside the permitted storage building.	
				Failed to properly complete manifests.	
				Residue on outside of drums.	
				Aerosol can empting device not in compliance with Subpart CC regulations.	
				Improper storage of universal waste lamps.	
				Improper waste segregation.	
				Improper waste inventories and daily inspections.	
				Universal waste improperly packaged.	
06/28/11	FDEP	N/A	34757-006-SO/30	None	
10/11/11	FDEP	N/A	34757-006-SO/30	None	-
02/01/12	FDEP	N/A	34757-006-SO/30	None	
02/09/12	DOT PHMSA	NOV		Offering for transportation in commerce, a hazardous material, UN 1950 Waste Aerosols, 2.1, while failing to comply with the terms of a special permit authorizing use of a nonstandard packaging, in violation of 49 CFR 171.2 (a), (b), (c), (e), (f), & (i), 173.22, 173.22a and DOT-SP 11296.	Closed
				Offering for transportation in commerce, a hazardous material, UN 1950 Waste Aerosols, 2.1, while failing to list a special permit with the shipping description, in violation of 49 CFR 171.2 (a), (b), (c), (e), (f), & (i), and 172.203(a)	
05/17/12	FDEP	N/A	34757-006-SO/30	None	
09/19/12	FDEP	NOV	34875-HO01-009	Two boxes of universal waste lamps were open, and not labeled. (Corrected)	-
03/26/13	FDEP	N/A	34757-006-SO/30	None	-
05/22/13	FDEP	N/A	34875-HO01-009	None	-
05/22/13	FDEP	N/A	34757-006-SO/30	None	-
06/19/14	FDEP	N/A	34757-SO-010	None	-
06/19/14	FDEP	N/A	FLR05E179	None	-

US Ecology Tampa Compliance History

DATE	AGENCY	NOTICE	PERMIT #	ALLEGED VIOLATION	STATUS
08/14/15	FDEP	Consent Order	34875-HO-011 & 34757-SO-01(	In violation of 62-730.160(1), F.A.C. as adopted from 40 CFR 262.34(a)(1)(i)	Consent Order Closed 11/14/16 Permit Modification Issued 10/17/16
				In violation of 62-730.160(1), F.A.C. as adopted from 40 CFR 262.34(a)(2)	
				In violation of 62-730.160(1), F.A.C. as adopted from 40 CFR 262.34(a)(3)	
				In violation of 62-730.180(1) as adopted from 40 CFR 264.16(a)(1)	
				In violation of 62-730.180(1) as adopted from 40 CFR 264.175(a)	
				In violation of 62-730.180(1) as adopted from 40 CFR 264.71(a)(2)(ii)	
				Failed to comply with Permit Condition II.B.14, Sec. 8.2 of the Application and sections 403.727(1)(a) and (c), F.S.	
				Failed to comply with Permit Condition II.B.5, Sec. 5.4 of the Application and sections 403.727(1)(a) and (c), F.S.	
				Failed to comply with Permit Authoriztion of Specifically Described RCRA-regulated Permitted Unit #4, and sections 403.727(1)(a) and (c), F.S.	
				Failed to comply withAppendix A of the Permit, the Closure Plan in the Permit Application and sections 403.727(1)(a) and (c), F.S.	
				Failed to comply with Permit Condition II.B.15, Sec. 11.2 of the Application and sections 403.727(1)(a) and (c), F.S.	
				In violation of 62-730.180(1) as adopted from 40 CFR 264.13(a)(1), Permit Condition II.A.5, Sec. 4 - Waste Analysis Plan of the Permit Application, and 403.727(1)(a) and (c), F.S.	
				Failed to comply with 40 CFR 268 as required by Permit Conditions II.A.5 and II.B.15, Sec. 4 - Waste Analysis Plan of the Permit Application, and 403.727(1)(a) and (c), F.S.	
				In violation of 62-730.180(1), F.A.C. as adopted from 40 CFR 264.71	
				Failed to comply with Permit Condition V.B.10.a.(2), Sec. 6.1.5 of the Engineering Report in the Permit Application, 62-701-320(1) F.A.C., and 403.161(1)(b), F.S.	
				Failed to comply with Permit Condition V.B.10.b.(1), Attachment E of the Permit, Sec. 5.6.2 and Figure 9A of the Engineering Report in the Permit Application, 62-701-320(1) F.A.C., and 403.161, F.S.	
				Failed to comply with Permit Condition I.12.a., and 03.727(1)(a) and (c), F.S.	
08/16/16	FDEP	N/A	34757-SO-010	None	-
10/12/16	HEPC	NOV	34757-SO-010	Failed to comply with posting facility operating hours	Corrected
				Failed to comply with having a trainer operator on duty during operation hours	
				Failed to comply with having at least one trained spotter on duty at all times that waste is received at the facility inorder to inspect incoming waste.	

US Ecology Tampa Compliance History

DATE	AGENCY	NOTICE	PERMIT #	ALLEGED VIOLATION	STATUS
05/25/17	FDEP	N/A	34875-HO-012	None	-
06/20/18	FDEP	N/A	34757-SO-010	None	-
06/20/18	FDEP & EPA	N/A	34875-HO-012	None	-
10/15/18	DOT PHMSA	N/A	060820 550 001C	None	-
01/14/19	FDEP	N/A	34875-HO-012	None	-
03/01/19	FDEP	N/A	34757-SO-010	None	-
10/14/19	FDEP	N/A	34875-HO-013	None	-
10/16/19	HEPC	N/A	34875-SO-014	None	-
08/21/20	FDEP	N/A	34875-SO-014	None	-
10/14/20	HEPC	N/A	34875-SO-014	None	-
10/22/20	DOT PHMSA	NOV	060820 550 001C	NOV from 2018 Inspection: 1.) Offering for transportation in commerce a hazardous waste in an unauthorized UN certified fiberboard Intermediate Bulk Container that did not meet the requirements as a lab pack, in violation of 49 CFR §§ 171.2(a), (b), (c), (d), (e), & (f), 173.12(b), 173.22(a)(2), 173.24(c), and Special Provision IB2. 2.) Offering for transportation in commerce a hazardous waste in UN certified flexible poly Intermediate Bulk Containers (IBC), marked UN 13H4, while failing to close the UN specification packaging in accordance with the closure notification, thereby failing to bring the package into compliance with the manufacture's test report, in violation of 49 CFR §§ 171.2(a), (b), (d), (e), & (f), 173.22(a)(4)(i), and 173.24(f)(2).	Corrected
10/28/20	FDEP	N/A	34875-HO-013	None	-
02/10/21	FDEP	N/A	FLR05E179-004	None	-
05/07/21	FDEP	N/A	34875-SO-014	None	-
10/05/21	HEPC	N/A	34875-SO-014	None	-
05/03/22	FDEP	N/A	34875-SO-015	None	-
10/13/22	HPEC	N/A	34875-SO-015	None	-
12/22/22	FDEP	N/A	34875-HO-016	None	-
06/16/23	FDEP	N/A	FLR05E179-005	None	-
06/23/23	FDEP	N/A	34875-SO-015	None	-
08/01/23	HPEC	N/A	34875-SO-015	None	-

APPENDIX N

Airborne Contaminant Risk Assessment Report

AIRBORNE CONTAMINANT
RISK ASSESSMENT REPORT

PREPARED FOR:

US Ecology Tampa, Inc.

7202 East 8th Avenue

Tampa, FL 33619

PREPARED BY:

PACSCON GeoEnvironmental, Inc. &

3Leaf Solutions, LLC

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EXECUTIVE SUMMARY

US Ecology Tampa, Inc. (USE) applied to the Florida Department of Environmental Protection's (FDEP) Waste Management Division to modify Hazardous Waste Permit Number: 34875-HO-16, for the facility located at 7202 East 8th Avenue, Tampa, Florida.

This report is being submitted as a supplement to the modification package, and addresses the potential off-site risks to human health associated with the potential inhalation of airborne contaminants resulting from the stabilization processing of characteristic and listed hazardous wastes in a hazardous waste treatment tank located within SWMU-7 of the facility. The incoming hazardous wastes streams that are stabilized in this process *may* include constituents that are classified by the EPA and/or the FDEP as air toxics or carcinogens. As there may be a potential for these constituents to become airborne on the basis of the nature of the treatment process, a concomitant potential for an off-site ambient air impact also exists.

These so-called Compounds of Concern (COCs) are the focus of this assessment which characterizes the off-site impacts for significant COCs that are processed at the hazardous waste treatment tank. The risk assessment reviews the byproducts from the stabilization of the hazardous wastes for which Target Levels, as defined in the EPA document *Dose-Response Assessment for Assessing Health Risks Associated with Exposure to Hazardous Air Pollutants*, are provided.

To predict off-site impacts, the AERMOD model was used to estimate potential 1-hour, 8-hour, 24-hour, and annual average impacts of the resulting COCs at off-site receptors that surround the USE facility. These impacts were then compared with applicable target levels. In addition, special emphasis was also applied to assessing off-site impacts at the Orient Road Jail facility due to the elevated population density of that specific receptor and proximity to the source.

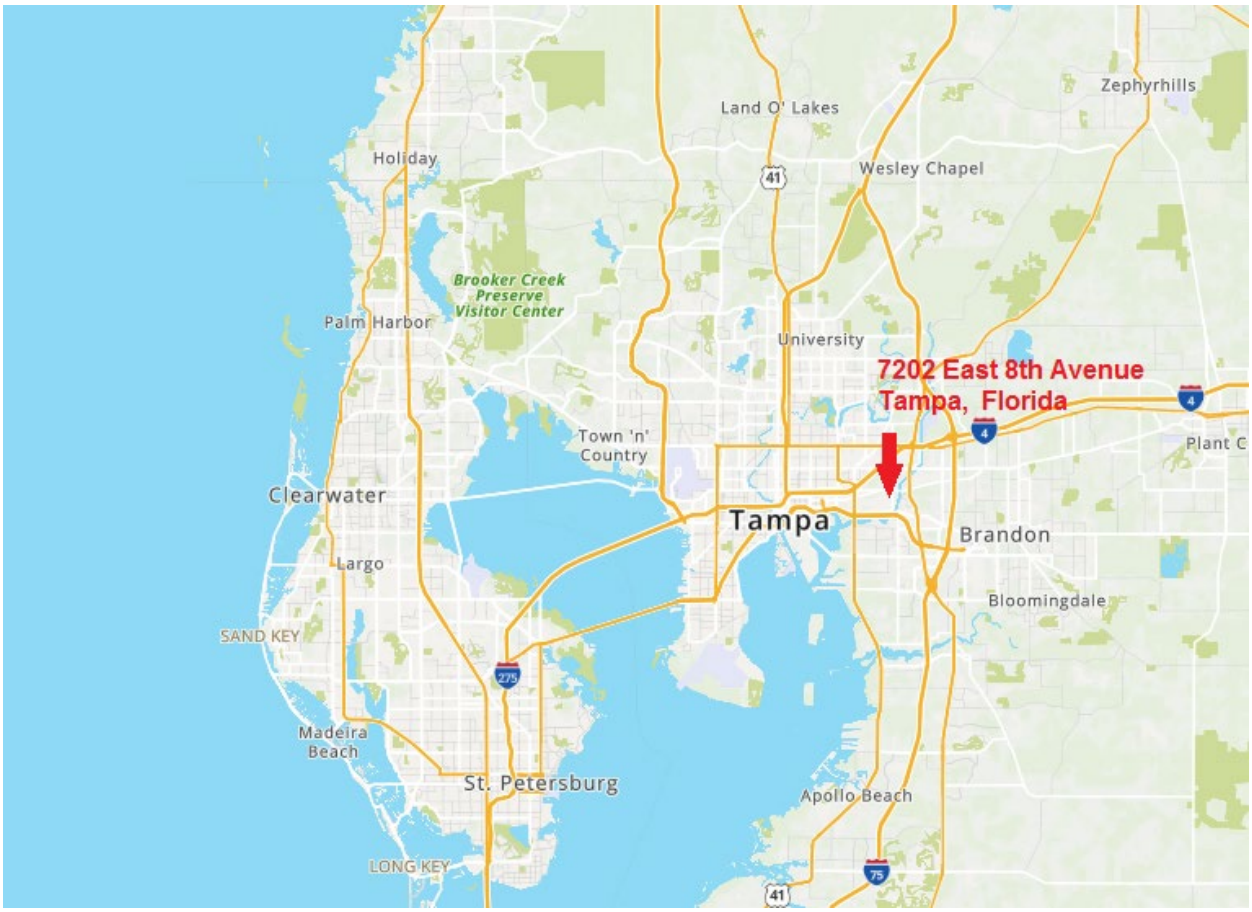
The modeling and risk analysis results demonstrate that the project complies with applicable Target Levels for the identified constituents of concern.

INTRODUCTION

US Ecology Tampa Inc. (USE), Facility ID FLD 981 932 494, applied to the Florida Department of Environmental Protection's (FDEP) Waste Management Division to modify Hazardous Waste Operating Permit: 34875-HO-16. This report is being submitted as a supplement to the Application Package, addressing the risks to human health as a result of the potential inhalation of airborne contaminants associated with the stabilization of hazardous wastes in a hazardous waste treatment tank located at SWMU-7 of the facility.

USE is located at 7202 East 8th Avenue, Tampa, Hillsborough County, Florida. The site vicinity location map of the facility is shown in Figure 1 provided on the next page.

Figure 1- Site Vicinity Map- US Ecology-Tampa, Inc.



Characteristic (D004-D011) and listed hazardous wastes (K062) are treated in an open hazardous waste treatment tank in a process which stabilizes the material in a manner such that the resulting processed mixture no longer exhibits the characteristics of hazardous waste and meets Land Disposal Restrictions requirements. This tank is located in the Waste Processing Building as part of SWMU-7. Its location is illustrated on the Site Plot Plan which is provided on the next page as Figure 2.

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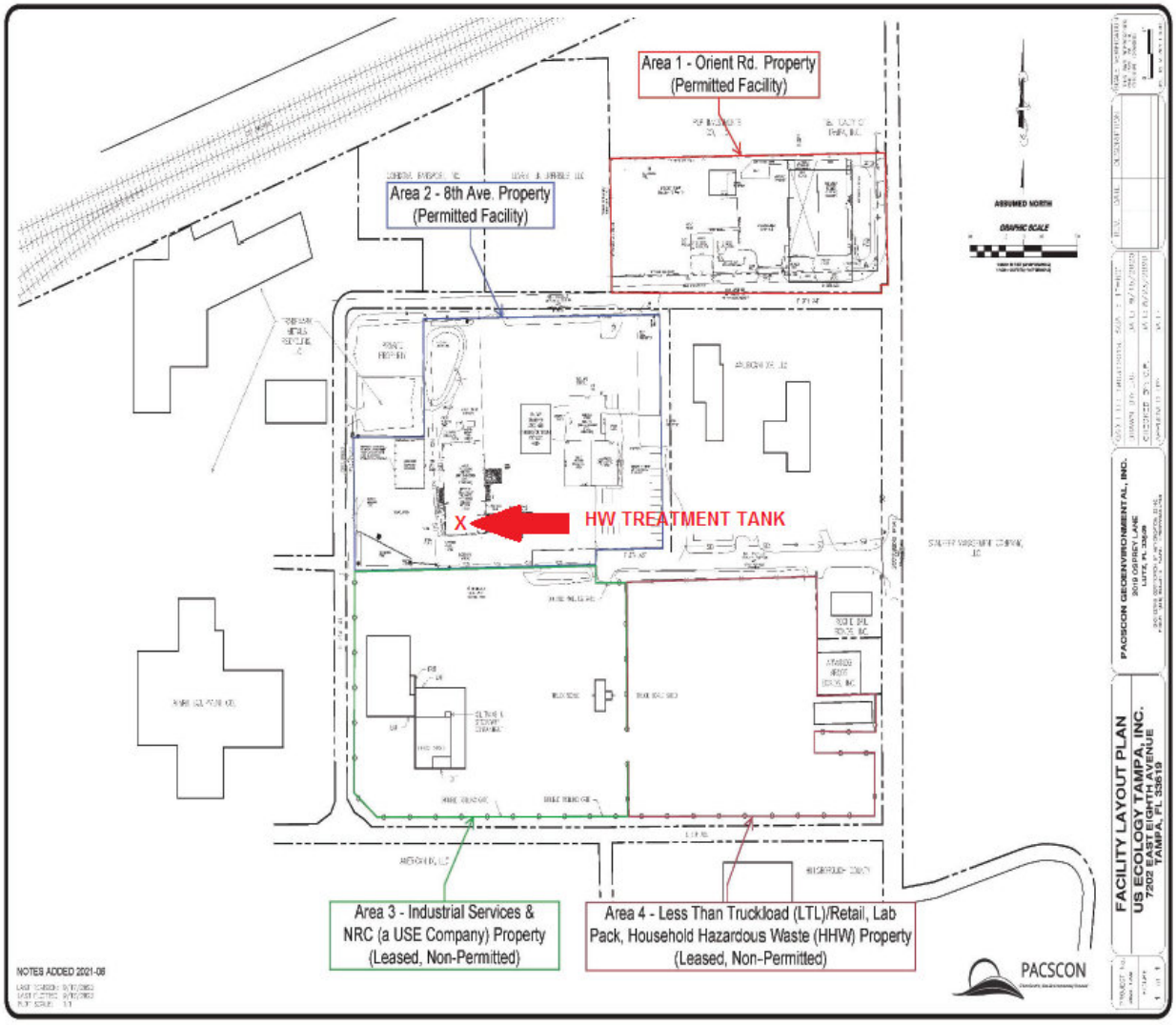
Figure 2 Site Plot Plan - US Ecology Tampa, Inc.



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The risk assessment associated with the inhalation of airborne contaminants will include toxic and potentially carcinogenic air contaminants released during the stabilization of representative hazardous waste streams. The air toxics/carcinogenic contaminants evaluated in the risk assessment included both organic compounds and inorganic compounds. The acute and chronic risks of all candidate air toxics will be based on dose-response data from the EPA document *Dose-Response Assessment for Assessing Health Risks Associated with Exposure to Hazardous Air Pollutants*, as directed by FDEP. Air dispersion modeling will be conducted in accordance with air modeling protocols approved by FDEP.

This report describes the hazardous wastes processed and stabilized by USE; the air dispersion modeling that was conducted to determine off-site ambient concentrations of air pollutants generated by treatment activities; and reports the inhalation risks to humans associated with these airborne contaminants. This report was prepared in accordance with an air dispersion modeling protocol presented to the FDEP Waste Management Division in July 2022, and on subsequent comments received from the Department in subsequent communications during September, November, and December 2022.

HAZARDOUS WASTE TREATMENT TANK PROCESS DESCRIPTION

The purpose of the hazardous waste treatment tank is to stabilize characteristic (D004-D011) and listed hazardous wastes (K062) so as to render the resulting mixture such it no longer exhibits the characteristics of hazardous waste and complies with disposal requirements. In the process, the waste selected for treatment is deposited directly into the top of the box by pumping, pouring, etc. The pH is then adjusted (neutralized) and then raised by adding treatment reagent to the waste until the optimal treatment range of 9 to 13 is reached. The material is then mechanically mixed using a backhoe, portable mixer, or similar piece of equipment thoroughly to ensure that all of the material has been treated. A solidification agent is then added to the treated mixture which eliminates any free liquids that may remain. The resulting mixture is of a homogenous consistency. Once the process is completed, a grab sample of the treated material is collected from the treatment tank for laboratory verification analysis. The material is then removed from the treatment tank by an excavator or other similar piece of heavy equipment and placed into a lined, sealed, bulk container. The bulk container is then moved for interim storage and subsequent shipment to the TSDF facility for final disposal.

WASTES AND IDENTIFICATION OF COMPOUNDS OF CONCERN (COC)

A comprehensive review was conducted to identify COCs for potential modeling and inhalation risk assessment. This review consisted of reviewing and analyzing US Ecology legacy waste stabilization/treatment logs for a complete calendar year, and identifying potential chemicals on the basis of the treatment frequency and the estimated volume (mass basis) of turnover for the specific COC.

A total of 5 COCs were identified and are presented below. Each of the COCs appear on one or more of the following five regulatory lists, and possess short-term exposure reference values,

long-term exposure reference values or RSL reference values. These COCs were selected for further risk analysis. The regulatory lists forming the criteria for COC selection included the following:

- EPA SARA 313-regulated (Form R) compounds;
- EPA List of Federal Hazardous Air Pollutants (HAPs);
- EPA's *Table 1. Prioritized Chronic Dose-Response Values*.
- EPA's *Table 2. Acute Dose-Response Values for Screening Risk Assessments*, and;
- EPA Regional Screening Levels (RSLs) List

The target list of COCs selected for risk assessment are presented in Table 1 below:

Table 1- US Ecology - Tampa- Chemicals of Concern

Chemical (COC)	CAS	FEDERAL HAP	SARA 313 Reportable	EPA Table 1. Prioritized Chronic Dose Response Value	EPA Table 2. Acute Dose Response Value	EPA RSL Table [3]
Hydrochloric acid	7647-01-0	YES	YES	0.02 mg/m^3	2.1 mg/m^3	2.1 ug/m^3
Nickel	7440-02-0	YES[1]	YES[1]	0.00009 mg/m^3	0.0002 mg/m^3	1.2E-2 ug/m^3
Ammonia	7664-41-7	NO	YES	NA	NA	5.0E-1 mg/m^3 (See Note 5)
Formaldehyde	50-00-0	YES	YES	0.0098 mg/m^3	0.049 mg/m^3	2.2 E-1 ug/m^3
Hydrofluoric acid	7664-39-3	YES	YES[2]	0.014 mg/m^3	0.016 mg/m^3	2.2 E-1 mg/m^3

Notes: 1) As Nickel Compounds
2) Reportable as 50% concentration or greater
3) Regional Screening Level (RSL) Resident Ambient Air Table (TR=1E-06, HQ=1) May 2022
4) NA- Not Applicable
5) RFC_i in mg/cubic meter

EMISSIONS ESTIMATIONS METHODOLOGY

Inorganic Acids

For the estimation of the emissions source term for the inorganic acids (HCl and HF) emissions were estimated based on the development of theoretical evaporation rates utilizing the Kawamura and Mackay equation below (Equation 1):

$$E = A \times K_M \times \left(\frac{M_W \times P_V}{R \times T} \right) (\text{kg s}^{-1})$$

where E = evaporation rate, in kg s^{-1}
A = area of the evaporating puddle (79 m^2)
K_M = mass transfer coefficient, in m s^{-1}
M_W = molecular weight of HCl (36.5 kg $kmol^{-1}$)
P_V = vapor pressure, in Pa
R = the gas constant (8314 J $kmol^{-1}$ K^{-1}), and
T = ambient temperature, in K (20°C is equal to 293.2 K).

K_M the mass transfer coefficient was estimated for each acid by employing the Mackay and Matsugo equation below: (Equation 2);

$$K_M = 0.0048 \times U^{7/9} \times Z^{-1/9} \times Sc^{-2/3} (\text{m s}^{-1})$$

where K_M = mass transfer coefficient of the HCl, in m s^{-1}
U = wind speed at a height of 10 m (5 m s^{-1})
Z = the pool diameter in the along-wind direction (10 m), and
Sc = the laminar Schmidt number for HCl.

The resulting calculated value *E,* from Equation 1 was then utilized as the emissions input rate in the AERMOD source term. The actual emissions rate was estimated by scaling the actual constituent processing rate to the theoretical short term emissions rate to derive an estimated emissions rate for the AERMOD source term. These calculations are presented in greater detail in Attachment A.

Metals/Particulate Emissions Estimation

The potential emissions of Nickel were assumed to be in particulate form from the mechanical mixing/handling of batch treatment inputs during the neutralization and stabilization of solids and semi-solids in the waste processing tank (see preceding HW Treatment Tank Process description), which could be a potential source of particulate emissions. In this regard, the potential for particulate/metal emissions estimated from the handling activities of the process inputs were estimated by the following equations provided at *USEPAs AP-42, Section 13.2.4 Aggregate Handling and Storage Piles:*

$$E = k(0.0032) \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (pound [lb]/ton)}$$

Where =
E = Emission factor, pounds emitted/ ton processed

K= particle size multiplier (dimensionless)
U= wind speed, (miles per hour), and;
M= Average material moisture content, %

For conservative emissions estimating purposes, an assumed moisture content of 11% was assumed (Table 13.2.4-1) and an aerodynamic particle size multiplier of 0.35 (appropriate for particles <10 um) were employed. The resulting emissions factor was then related the legacy input rates of Nickel-bearing treatment quantities to develop the appropriate emissions input value for the AERMOD source term. These COC-specific emissions calculations are presented in greater detail in Attachment A. The actual emissions rate was estimated by scaling the actual constituent processing rate to the theoretical short term emissions rate to derive an estimated emissions rate for the AERMOD source term. These calculations are presented in greater detail in Attachment A.

Formaldehyde Emissions

The theoretical emissions of Formaldehyde were estimated by first developing a mass transfer coefficient for Formaldehyde, then similarly applying the general evaporative losses equation below:

$$E_{n-1} = \frac{M_i K_i A P_i^{sat}}{R T_L}$$

The actual emissions rate was estimated by scaling the actual constituent processing rate to the theoretical short term emissions rate to derive an estimated emissions rate for the AERMOD source term. These calculations are presented in greater detail in Attachment A.

DETERMINATION OF AIR DISPERSION MODEL

Consistent with FDEP and EPA guidance protocols, AERMOD was the dispersion model used to predict off-site impacts. AERMOD is a Gaussian, steady-state plume dispersion model that simulates pollutant dispersion methods based on planetary boundary layer turbulence structure and scaling concepts, including the treatment of both surface and elevated sources, and both simple and complex terrain. AERMOD is listed in *EPA Appendix W* as the preferred model, and it is the recommended model for assessing air quality impacts up to 50 km from the source.

TERRAIN ELEVATION DATA PRE-PROCESSING

The terrain data for source and receptor AERMOD run stream input file components were pre-processed using the AERMAP pre-processor application, as AERMOD does not process its own terrain. The elevation dataset used was sourced from the National Elevation Dataset (NED) data, obtained from the USGS. *(U.S. Geological Survey, 20221019, USGS 1/3 Arc Second n28w083 20221019: U.S. Geological Survey).* The elevation data used was of 1/3 arc-second resolution.

The NED data was transformed into the GeoTiff format using the Geospatial Data Abstraction Library (GDAL) translation program, *gdal_translate.exe*, for subsequent direct processing with the AERMAP pre-processor utility. The subsequent source and receptor-specific terrain output from the AERMAP output files were then inserted into the run stream input files for the modeling with AERMOD.

METEROLOGICAL DATA CONSIDERATIONS

The basic set of meteorological data used for this inhalation risk assessment include surface and upper air data from the National Oceanic and Atmospheric Administration weather station in Tampa, Florida for the five-year period 2016-2020. These data are curated by the FDEP on its website in AERMET format and are the mandatory basic meteorological data set used with the AERMOD model.

AIR DISPERSION MODELING AND RISK ASSESSMENT

Averaging Times and Operating Hours

Based on guidance provided by FDEP, the averaging times for the air toxics/carcinogen levels considered in the inhalation risk assessment were established at 1-hour, 8-hours, and annual. For purposes of the AERMOD modeling, the averaging times between one-hour and 8-hours are considered short-term impacts while the annual averaging time is considered a long-term impact.

Definition Of Area Source Parameters

Based on pre-application discussions with FDEP it was agreed to model the source as an area source in the AERMOD modeling effort. The hazardous waste treatment tank most behaves as an area source, as it has no defined stack for an emissions point.

Source Term Definition

For clarity and efficiency, a unit COC emission rate of 1.0 grams per second was used in each of the model runs. Modeling runs were conducted for five years (2016 through 2020) of meteorological data representative of the Tampa metropolitan area. To convert the AERMOD impacts for short-term and long-term periods to impacts representative of USE's, the identified COCs, the modeled impacts determined with AERMOD were multiplied by the ratios of the predicted emission rates (grams per second) of the COCs to the modeled unit emission rate (1.0 grams per second). To err on the side of conservatism, the specific modeling year output yielding the greatest unit concentration was then used to estimate the COC-specific concentrations. The output files for the modeling run are provided in Attachment B. The generic emissions impacts of the one gram/second emission rate are summarized in Table 2 below:

Table 2 -Generic Modeling Results (1 gram/second)

				AERMOD MODELED CONCENTRATIONS (µg/cubic meter)		
Pollutant	**Emission Rate**	**Unit**	**YEAR**	**1ST Highest 1 HR**	**1ST Highest 8 HR**	**Period Average**
Generic	1	gram/second	2016	73,574.7	19,138.2	1,986.7
Generic	1	gram/second	2017	70,664.9	21,560.2	2,151.6
Generic	1	gram/second	2018	77,177.8	19,390.8	2,223.4
Generic	1	gram/second	2019	71,370.5	23,232.8	1,935.1
Generic	1	gram/second	2020	70,152.3	18,820.9	2,077.7
STUDY PERIOD AVERAGE CONCENTRATION (µg/cubic meter)				**72,588.0**	**20,428.6**	**2,074.9**

The COC-specific short-term and long-term concentrations are calculated by multiplying the maximum modeled concentration in Table 2 by the COC-specific predicted emission rates as presented in Table 3 below:

Table 3- Summary of Predicted COC Ambient Concentrations

			PREDICTED ASSESSMENT VALUES (µg/cubic meter)		
Constituent	**Emission Rate**	**Unit**	**Highest 1 HR (µg/cubic meter)**	**Highest 8 HR (µg/cubic meter)**	**Annual (µg/cubic meter)**
HCL	0.0081	g/sec	**588.0**	**165.5**	**16.8**
HF	9.33E-05		**6.8**	**1.9**	**0.2**
Ammonia	6.022E-04		**43.7**	**12.3**	**1.2**
Nickel	3.84E-08		**2.7874E-03**	**7.8446E-04**	**7.9677E-05**
Formaldehyde	0.0006		**43.4**	**12.2**	**1.240**

Receptor Considerations

A polar receptor grid radiating outward in all directions (36 radials) from the source origin in 100-meter increments extending to 2km was utilized. Additionally, two discrete receptors located at the Hillsborough County Orient Road Jail complex were also defined for particular review.

Lastly, an array of property fence-line receptors was also located in order to predict period concentrations along the facility fence line. The facility fence line receptors are illustrated in Figure 3 provided on the next page.

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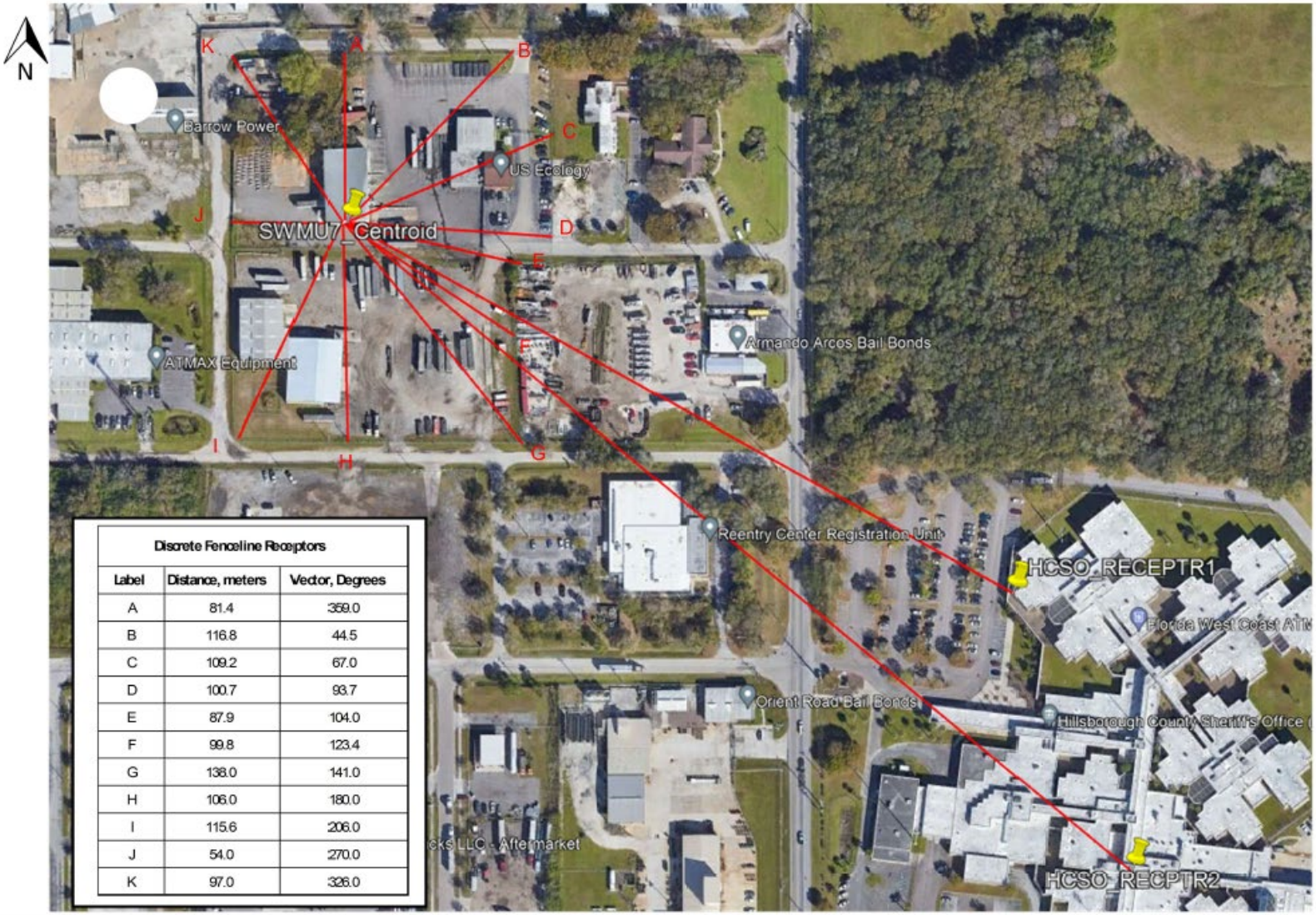

Discrete Fenceline Receptors		
Label	Distance, meters	Vector, Degrees
A	81.4	359.0
B	116.8	44.5
C	109.2	67.0
D	100.7	93.7
E	87.9	104.0
F	99.8	123.4
G	138.0	141.0
H	106.0	180.0
I	115.6	206.0
J	54.0	270.0
K	97.0	326.0

Figure 3
AERMOD Fenceline Receptor Locations
US ECOLOGY- TAMPA, INC.
Tampa, Florida

Additional Western Off-Site Receptors

In order to address potential off-site impacts at locations immediately to the west of the source, three (3) discrete polar receptors were also located at centroid of the following locations:

Distance from Source (m)	Direction from Source (Deg.)	Present Use
133.94	242.10	Commercial
101.99	301.65	Commercial
236.54	274.95	Manufac./Building Materials

Urban vs. Rural Determination

A cursory land use analysis utilizing the Land Use Procedure conducted according to EPA's Appendix W section 7.2.1.1 approximates that the 3-km radius surrounding the US Ecology facility to be comprised of 81.2% urban land use types I1, I2,C1, R2 and R3. (Technical Reference: *A. Auer, Correlation of Land Use and Cover with Meteorological Anomalies, Journal of Applied Meteorology, 1978*).

On this basis, and in conformance with FDEP and EPA guidance, the urban dispersion setting within the AERMOD model was employed. This supporting land use analysis is presented in Figure 4 provided on the next page.

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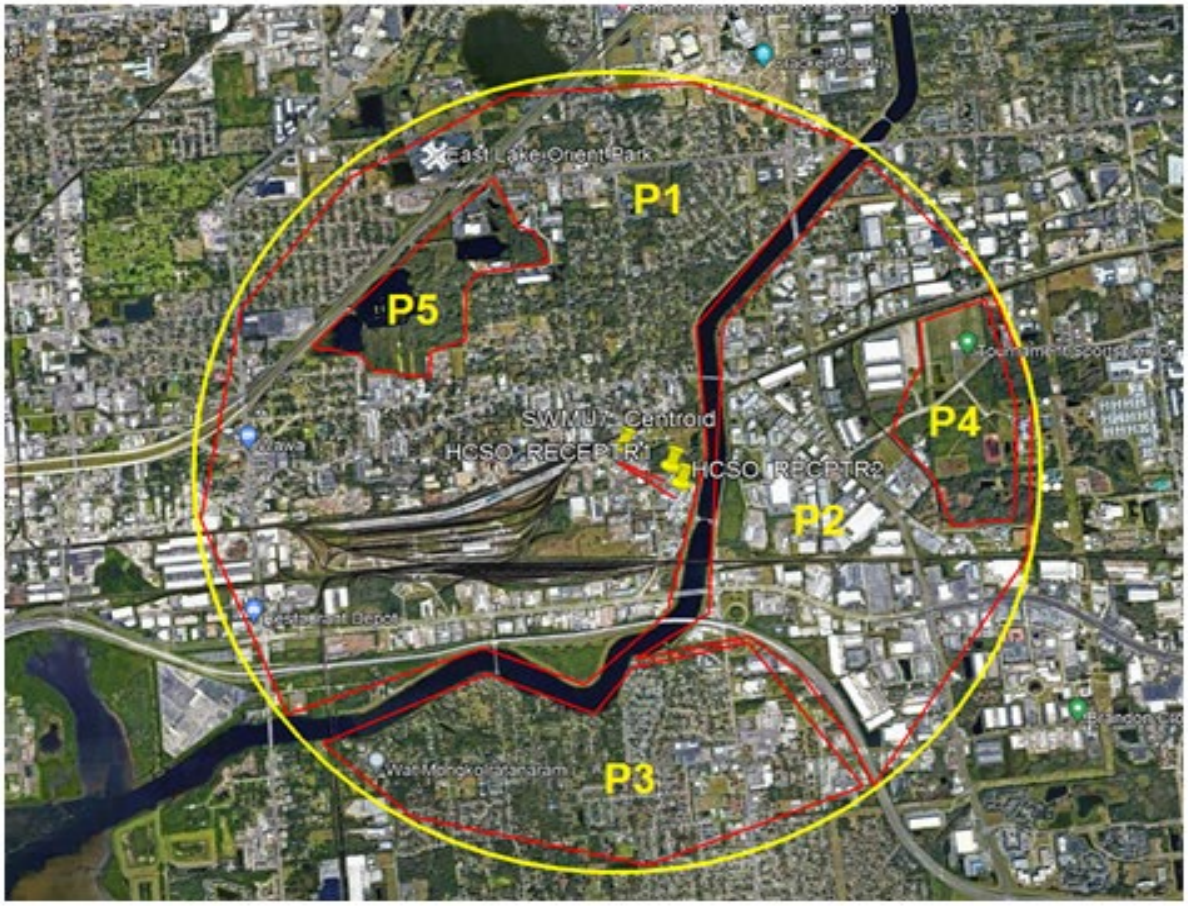
Figure 4- Vicinity Land Use Analysis

US Ecology- Tampa, Inc.

Vicinity Land Use Analysis

Description	Assumed land use	Estimated Area (km2)	Fraction
Total Area of Circle		**28.27**	**100%**
ASSUMED URBAN POLYGONS			
P1	I2, R2	14.2	50.2%
P2	I1,I2,C2	7.2	25.5%
P3	R2, C1 MIX	3.55	12.6%
		24.95	**88.3%**
LESS ASSUMED NON-URBAN / UNDEVELOPED POLYGONS			
P4	A3	1	
P5	A3	0.99	
		1.99	
	NET URBAN AREA/ PERCENTAGE	**22.96**	**81.2%**



DISCUSSION OF MODELING IMPACTS AND INHALATION RISK

The Long-Term and Short-term calculated risk factors and their comparison to regulatory Target values are presented in Table 4 below, followed by a narrative for each studied COC.

Table 4- Summary of Predicted Concentrations and Target Values Comparison

			PREDICTED ASSESSMENT VALUES (µg/cubic meter)			REGULATORY TARGET VALUES (µg/cubic meter)		
Constituent	Emission Rate	Unit	Highest 1 HR (µg/cubic meter)	Highest 8 HR (µg/cubic meter)	Annual (µg/cubic meter)	1 HOUR (µg/cubic meter)	8 HOUR (µg/cubic meter)	ANNUAL (µg/cubic meter)
HCL	0.0081	g/sec	588.0	165.5	16.8	**4900**	**2700**	**20.2**
HF	9.33E-05		6.8	1.9	0.2	**820**	**9800**	**14**
Ammonia	6.022E-04		43.7	12.3	1.2	**4900**	**4900**	**501**
Nickel	3.84E-08		2.7874E-03	7.8446E-04	7.9677E-05	**0.2**	**0.2**	**0.09**
Formaldehyde	0.0006		43.4	12.2	1.240	**1100**	**1100**	**9.8**

Hydrochloric Acid (HCL)

AERMOD modeling for HCL predicted a study period annual concentration of **16.8 µg/m^3**. This value represents 83.1% of the reference value **of 20.2 µg/m^3** cited at EPA (RSL) Resident Ambient Air Table 1, RfCi. Upon closer inspection of the modeling output, this predicted value is modeled at fence line receptor J, located at 54 meters at a vector of 270 degrees from the source.

The next-highest predicted annual period concentration for HCL occurs at Receptor C, located at a distance of 109.2 meters and a vector of 67 degrees from the emissions source. The predicted annual period concentration for HCL at Receptor C is **6.1 µg/m^3**. This value represents 30.2% of the reference value of **20.2 µg/m^3** cited at EPA (RSL) Resident Ambient Air Table 1, RfCi, and therefore unremarkable.

Receptor C predicted impacts are presented in Table 5, below:

Table 5- Predicted Concentrations and Target Values Comparison- Receptor C

				Predicted Fenceline Concentrations (µg/cubic meter)			TARGET VALUES (µg/cubic meter)		
Constituent	Emission Rate	Unit		Predicted 1st Highest 1 HR (µg/cubic meter)	Predicted 1st Highest 8 HR (µg/cubic meter)	Predicted PERIOD AVERAGE (ANNUAL) (µg/cubic meter)	1 HOUR (µg/cubic meter)	8 HOUR (µg/cubic meter)	ANNUAL (µg/cubic meter)
HCL	0.0081	g/ sec		308.4	81.6	**6.1**	4900	2700	**20.2**
HF	9.33E-05			3.6	0.9	0.1	820	9800	14
Ammonia	6.022E-04			22.9	6.1	0.5	4900	4900	501
Nickel	3.84E-08			1.4620E-03	3.8702E-04	2.8715E-05	0.2	0.2	0.09
Formaldehyde	0.000597			22.7	6.0	0.4	1100	1100	9.8

On this basis, modeled long-term off-site impacts from potential HCl exposures appear to be in conformance to applicable reference values.

Maximum 1-hour modeled HCL concentrations of 308.4µg/m^3 **(0.3084 mg/m^3)** were predicted. The maximum 1-hour concentration compares favorably with the NOAEL value of **4.9 mg/m^3** referenced by EPA. On this basis, modeled short-term off-site impacts from potential HCL exposures appear to be in conformance to applicable reference values.

Maximum 8-hour modeled HCL concentrations of 81.6 µg/m^3 **(0.0816 mg/m^3)** were predicted. The maximum 8-hour concentration compares favorably with the AEGL-1 (8-HR) value of **2.7 mg/m^3** referenced by EPA. On this basis, modeled short-term off-site impacts from potential HCL exposures appear to be in conformance to applicable reference values.

Nickel

AERMOD modeling for Nickel predicted maximum study period annual concentrations of **2.8715 x 10^{-5} µg/m^3**. When multiplied by EPAs Inhalation Unit Risk (IUR) reference value of 2.40 x10^{-4}, a predicted cancer risk of **6.89x10^{-9}** is obtained. On this basis, the long-term impacts from potential Nickel exposures appear to be unremarkable.

Maximum 8-hour Nickel concentrations of **3.87 x 10^{-4} µg/m^3** were predicted. This value is 0.19 percent of the reference value of 0.0002 mg/m^3 **(0.2 µg/m^3)** REL reference value for Nickel cited at *EPA Table 2- Acute Dose Response Values.* On this basis, the short-term impacts from potential Nickel exposures appear to be unremarkable.

Maximum 1-hour Nickel concentrations of **1.46 x 10^{-3} µg/m^3** were predicted. This value is 0.7 percent of the reference value of 0.0002 mg/m^3 **(0.2 µg/m^3)** REL reference value for Nickel cited at *EPA Table 2- Acute Dose Response Values.* On this basis, the short-term impacts from potential Nickel exposures appear to be unremarkable.

Ammonia

AERMOD modeling for Ammonia predicted maximum study period annual concentrations **of 0.5 µg/m^3**. This value represents just **0.1 %** of the reference value of **500 µg/m^3** cited at *EPA (RSL) Resident Ambient Air Table 1, RfCi*. On this basis, modeled long-term off-site impacts from potential Ammonia exposures appear to be in conformance to applicable reference values. It should be noted that Ammonia is not referenced in EPAs *Table 1. Table 1. Prioritized Chronic Dose-Response Values.*

Maximum 8-hour modeled concentrations of **6.1µg/m^3 (0.0061mg/m^3)** were predicted. The maximum 1-hour concentration compares favorably with the **NOAEL** value of **4.9 mg/m^3** referenced by EPA. On this basis, modeled 8-hour off-site impacts from potential Ammonia exposures appear to be unremarkable.

Maximum 1-hour modeled concentrations of **22.9 µg/m^3 (0.0229 mg/m^3)** were predicted. The maximum 1-hour concentration compares favorably with the **NOAEL** value of **4.9 mg/m^3** referenced by EPA. On this basis, modeled 1-hour off-site impacts from potential Ammonia exposures appear to be unremarkable.

Lastly, it should be noted that Ammonia is not referenced in EPAs *Table 2- Acute Dose-Response Values for Screening Risk Assessments.*

Formaldehyde

AERMOD modeling for Formaldehyde predicted *an average study period* annual concentration of **0.45 µg/m^3**. When multiplied by EPAs Inhalation Unit Risk (IUR) reference value of 1.30 x 10^{-5} for Formaldehyde, a predicted cancer risk of 5.81 X 10^{-6} is obtained. However, the average and maximum annual period concentration is well below the Target reference value of 0.0098 mg/m^3 **(9.8 µg/m^3)**, as cited in *Table 1, Prioritized Chronic Dose-Response Values for Screening Risk Assessments.*

Maximum 1-hour Formaldehyde concentrations of **22.7 µg/m^3** were predicted. This value is 41.4 percent of the REL reference value of 0.055 mg/m^3 **(55 µg/m^3**) for Formaldehyde cited at *EPA Table 2- Acute Dose Response Values.* On this basis, the short-term impacts from potential Formaldehyde exposures appear to be unremarkable.

Maximum 8-hour Formaldehyde concentrations of **6.0 µg/m^3** were predicted. This value is compares favorably to the AEGL-1 (8-h) reference value of 0.82 mg/m^3 **(820 µg/m^3)** cited in *Table 2. Acute Dose-Response Values for Screening Risk assessments.* On this basis, the short-term impacts from potential Formaldehyde exposures appear to be unremarkable.

Hydrofluoric Acid (HF)

AERMOD modeling for HF predicted maximum study period annual concentrations of **0.07 µg/m^3**. This value represents 0.5% of the reference value of 0.014 mg/m^3 (**14 µg/m^3**) cited at EPA's *Table 1. Prioritized Chronic Dose-Response Values for Screening Risk Assessments.* On this basis, the predicted long-term off-site impacts from potential HF exposures appear to be in conformance to applicable reference values. It should also be noted that EPA has *not* classified HF for carcinogenicity.

Maximum 1-hour modeled HF concentrations of 3.6 µg/m^3 (**0.0036 mg/m^3**) were predicted for the study period. This maximum predicted 1-hour concentration compares favorably to the REL reference value of **0.24 mg/m^3** (240 µg/m^3) as cited in *Table 2. Acute Dose-Response Values for Screening Risk assessments, and AEGL-1 reference value* of **0.82 mg/m^3**, from the same table. The AEGL-1 value is the airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic non-sensory effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure.

The maximum 8-hour modeled HF concentrations of 0.9 µg/m^3 (**0.0009 mg/m^3**) were predicted for the study period. This maximum predicted 8-hour concentration compares *favorably with the* REL reference value of **0.24 mg/m^3** (240 µg/m^3) as well as the **0.82 mg/m^3** AEGL-1 (8-h) reference value as cited in *Table 2. Acute Dose-Response Values for Screening Risk assessments.* On this basis, modeled short-term off-site impacts from potential HF exposures appear to be unremarkable.

DISCRETE WESTERN POLAR RECEPTORS MODELING RESULTS

As presented in Table 6 on the next page, the maximum predicted 1-hour, 8-hour, and Period concentrations for the modeled constituents among the three discrete western receptors were all well below Target Reference values and were all well below the respective 1-hour, 8-hour, and Annual Target values.

Table 6- Western Receptor Results (Maximum of the three receptors)

			Predicted Fenceline Concentrations (µg/cubic meter)			TARGET VALUES (µg/cubic meter)			
Constituent	Emission Rate	Unit	Predicted 1st Highest 1 HR (µg/cubic meter)	Predicted 1st Highest 8 HR (µg/cubic meter)	Predicted PERIOD AVERAGE (ANNUAL) (µg/cubic meter)	Constituent (COC)	1 HOUR (µg/cubic meter)	8 HOUR (µg/cubic meter)	ANNUAL (µg/cubic meter)
HCL	0.0081	g/ sec	316.4	103.3	**7.2**	Hydrochloric acid	4900	2700	**20.2**
HF	9.33E-05		3.6	1.2	0.1	Hydrofluoric acid	820	9800	14
Ammonia	6.022E-04		23.5	7.7	0.5	Ammonia	4900	4900	501
Nickel	3.84E-08		0.0015	0.00049	0.00003	Nickel	0.2	0.2	0.09
Formaldehyde	0.000597		23.3	7.6	0.5	Formaldehyde	1100	1100	9.8

The highest Annual Period off-site impact is observed at the offsite receptor located at 133.94 meters and 242.1 degrees; however, the predicted concentration is well below the Annual Target value. The highest 1-hour and 8-hour off-site predicted impacts are observed at the receptor located at 101.99 meters and 301.65 degrees; however, the predicted 1-hour and 8-hour concentrations are well below the respective Target Values. On this basis, the AERMOD modeling predicts unremarkable COC constituent concentration impacts at these three western receptors.

CONCLUSION

USE operates a hazardous waste treatment tank as part of SWMU-7 at the Tampa facility. Characteristic and listed hazardous wastes are treated in a manner such that the resulting processed mixture no longer exhibits the characteristics of hazardous waste and meets Land Disposal Restrictions requirements. A comprehensive review of the legacy treatment/stabilization activities conducted at the site resulted in the identification of five (5) potential constituents demonstrating the potential to generate off-site airborne impacts.

For each of these constituents, emissions factors were developed for subsequent use with the AERMOD dispersion model. The AERMOD model was then used to predict short-term and long-term impacts of the resulting COCs at off-site receptors surrounding and extending outward two (2) kilometers from the USE property boundary. The resulting modeling impacts were then directly compared with applicable target reference levels from various regulatory lists, as applicable, for both short-term and long-term exposure modes.

The COCs for this inhalation risk assessment included chemicals for which Target Levels, as defined in the EPA's *Dose-Response Assessment for Assessing Health Risks Associated with Exposure to Hazardous Air Pollutants*, are provided. None of the off-site receptors modeled in this assessment demonstrate predicted COC concentrations in excess of applicable Target levels for each of the relevant time periods.

The modeling and risk analysis results demonstrate that the project complies with the applicable Reference Target Levels for the studied COCs. Consequently, no additional modeling or mitigation measures are recommended at the USE Tampa facility.

ATTACHMENT A

Chemicals of Concern Emissions Estimates

US Ecology Tampa, Inc.
HCL Emissions Estimation

1) Det. Molecular diffusivity of HCl;
2) Det. Schmidt Number for HCl;
3) Determine Mass transfer rate for HCl;
4) Estimate HCL emissions rate using mass transfer rate (Kawamura/Mackay Equation, 1985)

STEP		Comment
1) Estimate Molecular Diffusivity of HCL, Dm		
Dm= DH20 X Sqrt[(MWH2O/ MWhcl)]*m2s-1		
Dm	**1.69E-05**	M^2S^{-1}
DH20	2.40E-05	M^2S^{-1}
MWH20	18	$KG\text{-}KMOLE^{-1}$
MWHCL	36.5	$KG\text{-}KMOLE^{-1}$
Sqrt[(MWH2O/ MWhcl)]*m2s-1	0.70224688	
2) Est. Schmidt Number for HCl		
Sc = v/Dm	**8.90E-01**	Sc
Sc= laminar schmidt number for HCL		
v= kinematic viscosity of the air, m^2s^{-1}	1.50E-05	m^2s^{-1}
assume 1.5 e-5 m^2s^{-1}		
3) Estimate Mass Transfer Rate		
Mackay and Matsugo, 1973		
K_M= 0.0048 x $U^{7/9}$ x $Z^{-1/9}$ x Sc $^{-2/3}$ meters-$second^{-1}$		
where:		
KM = mass transfer coefficient		
U = assumed wind speed 5 meters/second		
Z= pool diameter of source, in meters		
KM= 0.0048 x $U^{7/9}$ x $Z^{-1/9}$ x Sc $^{-2/3}$ (MS-1):	**0.00717877**	meters/second
WHERE:		
$U^{(7/9)}$	**1.714**	Assumed wind speed, in meters/second
$Z^{-1/9}$	**0.807**	diameter of pool, in meters, assume 1
SC $^{(-2/3)}$	**1.081**	Laminar Schmidt No. for HCL
4) Calculate Evaporation rate		
E= A x Km x [(Mw x Pv)/(R x T)]		kgs/second
where:		
E= evaporation Rate		
A= Area of evaporation surface (square meters)	**37.1600**	surface Area, square meters
Km= Mass Transfer Coefficient	0.00717877	meters/second
MW- Molecular Weight of acid	36.5	grams/gram-mole
Pv - Vapor Pressure, mmHg	84	Assume 20% HCL: (A) at 20 C, per MSDS. (B) Perry's CEH, 7th ed., Table 2-10, for even higher temps 230 deg F
Pv - Vapor Pressure, Pascals	**11,200**	Pa
mw*pv	**408,800**	
R= The Gas Constant, J/ kmol K	8314	J/ kmol-K
T= ambient Temperature, Kelvin	293.2	K
R*T	**2,437,665**	
Mw x Pv/RT	**0.16770**	
E=	**0.0447366**	kilograms/ Second
Est HCL Emissions Rate at 20 Degrees C , 20x20 Tank from mass transfer calculation	44.7366	Grams-$second^{-1}$
Surface Area of release	37.1609	$meter^2$
Theoretical Emissions Rate for AERMOD	**1.2039**	Grams/Second-$meter^2$

Theoretical Emission Rate, Annual	37,964,982	g/m2-yr
Theoretical Emission Rate, Annual	3,113,589	#/year
Actual MAX input of WASTE containing that Chemical	104,739	#/year
Chemical fraction in actual Input, % wt	20%	From USE Analysis/profiles
Actual MAXIMUM Chemical Input	20,948	#/year
Actual as % of Theoretical Emission Rate=	20,947.80	#/year
	3,113,589	#/year
	0.6728%	6.7279E-03
Theoretical Emission Rate DIVISOR to correct for Actual Max. Qty / year.	**148.6**	Divisor to derive predicted emissions Rate from Theoretical Rate

Predicted Emissions rate for AERMOD Source Term (*Aremis*)	**0.00810**	**Grams/Second-$meter^2$**

US Ecology Tampa, Inc.
HF Emissions Estimation

1) Det. Molecular diffusivity of HF;
2) Det. Schmidt Number for HF;
3) Determine Mass transfer rate for HF;
4) Estimate HF emissions rate using mass transfer rate (Kawamura/Mackay Equation, 1985)

STEP		Comment
1) Estimate Molecular Diffusivity of HF, Dm		
Dm= DH20 X Sqrt[(MWH2O/ MWhcl)]*m2s-1		
Dm	**2.28E-05**	M^2S^{-1}
DH20	2.40E-05	M^2S^{-1}
MWH20	18	KG $KMOLE^{-1}$
MWHF	**20.01**	KG $KMOLE^{-1}$
Sqrt[(MWH2O/ MWHF)]*m2s-1	0.948446216	
2) Est. Schmidt Number for HF		
Sc = v/Dm	**6.59E-01**	**Sc**
Sc= laminar schmidt number for HCL		
v= kinematic viscosity of the air, m^2s^{-1}	1.50E-05	m^2s^{-1}
assume 1.5 e-5 m^2s^{-1}		
3) Estimate Mass Transfer Rate		
Mackay and Matsugo, 1973		
K_M= 0.0048 x $U^{7/9}$ x $Z^{-1/9}$ x $Sc^{-2/3}$ meters-$second^{-1}$		
where:		
Km = mass transfer coefficient		
U = assumed wind speed at 2 meters/second		
Z= pool diameter of source, in meters, assume 1 meter		See Surface Area Calcs below.
Km= 0.0048 x $U^{7/9}$ x $Z^{-1/9}$ x $Sc^{-2/3}$	**0.007178774**	meters/second
WHERE:		
$U^{(7/9)}$	**1.714**	Assumed wind speed, in meters/second
$Z^{-1/9}$	**0.807**	Equivalent diameter of evap. Source, meters
$Sc^{(-2/3)}$	**1.081**	laminar Schmidt No. for HF
4) Relevant Surface Area Calcs.		
TYPICAL 55 GALLON DRUM DIMENSIONS:		
22.5	Diameter, inches	
0.28575	radius, meters	
0.572	Diameter, meters	
radius, meters	Surface area, square meters	
0.28575	**0.2564**	
20' x 20' Treatment Tank		
400	Area, square Feet	
37.16	Surface area, square meters	
11.82940941	R^2 = Surface area/(pi=3.1414)	
3.439390849	R = square root of R^2	
6.88	**Equivalent Diameter, meters**	
5) Calculate Theoretical (evaporation based) Evaporation Rate		
E= A x Km x [(Mw x Pv)/(R x T)]		**kg/second**
where:		
E= evaporation Rate		kg/s
A= Area of evaporation surface (square meters)	37.1609	m^2
Km= Mass Transfer Coefficient	0.007178774	m / s
MW- Molecular Weight of acid	20.01	g/mole or kg/kmol
Pv - Vapor Pressure, mmHg	350	30% HF acid, 280 degC (138 degF), per chart
Pv - Vapor Pressure, Pascals	46,667	Pa
Mw*Pv	933,800	
	8.3144	J / mole- degK
R= Gas Constant, J kmole-1 K-1	8314	J kilomole-1 K-1
T= ambient Temperature, F, annual average, Tampa	74	degF
T= ambient Temperature, Kelvin	296.48	K
R*T	2,464,962	
Mw x Pv/RT	0.37883	
E=	0.1010602	kilograms/ Second
Est HF Emissions Rate at 20 Degrees C , from mass transfer calculation	101.0602	Grams-$second^{-1}$
Surface Area of release vessel (Open top drum)	37.1609	$meter^2$
Theoretical (evaporation based) **Emissions rate for AERMOD SO term (*Aremis*)**	**2.7195**	**Grams/Second-$meter^2$**
Theoretical Emission Rate, Annual	85,763,099	g/m2-yr
Theoretical Emission Rate, Annual	7,033,785	#/year
Actual MAX input of WASTE containing that Chemical	1207	#/year
Chemical fraction in actual Input, % wt	20%	
Actual MAXIMUM Chemical Input	241.4	#/year
Actual as % of Theoretical Emission Rate=	241.4 #/year	
	7,033,785 #/year	
	0.0034%	3.4320E-05
Theoretical Emission Rate DIVISOR to correct for Actual Max. Qty / year.	**29,137**	on the Theoretical Emission Rate, or on Operating Hours, or on allowable emissions exceedance factors from original model run.
CORRECTED Emissions rate for AERMOD SO term (*Aremis*)	9.3334E-05	Grams/Second-$meter^2$
	2.207	#/kg
	109.38	kg/year
Actual MAX Chemical Input	109,379	g/yr
Area of Treatment Tank surface	37.00	m^2
MAX Emission Rate, Annual	2,956.20	g/m2-yr
Predicted Emissions rate for AERMOD Source Term (*Aremis*)	**9.374E-05**	**Grams/Second-$meter^2$**

US Ecology Tampa, Inc.

Ammonia Emissions Estimation

The evaporation rate over a given area A of a spill can be predicted theoretically by the following expression (Kawamura and Mackay, 1987; Van den Bosch, 2005): $E=k \cdot A \cdot M \cdot PTsol / (Rtsol)$

E	Evaporation Rate, Grams/second
k	mass transfer coefficient
A	Surface area of release, square meters
M	Molecular Weight of Ammonia, grams/gram-mole
Ptsol	vapor pressure of the chemical at the temperature of the liquid surface.
R	ideal gas constant (m3 Pa mol-1 K- 1)
T	Temperature, Kelvin

k	1.93E-02	meters/second (assumed), refine reference for Ammonia at 293 k
A	37.16	square meters
M	17.03	Gram/gram-mole
Ptsol	14123	Pascals
R	8314	ideal gas constant (m3 Pa mol-1 K- 1)
T	293.2	Assumed temp, Kelvin
E=	20.75	grams/Second Theoretical Emissions Rate
E=	**0.558**	**Grams/second/square meter Theoretical Emissions Rate**
	20.75	Grams/Second Theoretical
	654,291,394.27	Grams/Year Theoretical
	1,442,473.15	Pounds/Year Theoretical
	1555.83	Pounds/Year Typical Ammonia Processed
	0.108%	Actual vs. Theoretical Emission Rate, percent
	0.001079	Multiplier to account for Actual Max. Qty / year.
	927.1	Divisor to account for Actual Qty/year
	0.000602	**Predicted Ammonia Emissions Rate, Grams/Second-meter^2**

US Ecology Tampa, Inc.
Nickel Emissions Estimation

1	E	5.36E-04	Emission factor, Pounds/Ton Nickel Processed	missions factor for Nickel Pounds nickel/Pound processed
2	**U**	10	mean wind speed	
3	**M**	11	moisture content	
4	**k**	**0.74**	Aerodyn. particle size multiplie	mid range assumed for PM10 class
5	factor	0.001184	k times 0.0016	
6	numerator	2	numerator of equation	
7	denominator	5.5	denominator of equation	
8	Numerator Final	2.462	final numerator of equation	
9	Denominator Final	10.877	final Denominator of equation	

13.2.4 Aggregate Handling And Storage Piles, AP-42, USEPA

$$E = k(0.0032)\ \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}\ \text{(pound [lb]/ton)}$$

where:

E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s) (miles per hour [mph])
M = material moisture content (%)

Assumptions:

	Parameter	Value	Reference
10	Moisture Content	**11%**	Table 13.2.4-1. TYPICAL SILT AND MOISTURE CONTENTS OF MATERIALS AT VARIOUS
11	Particle Size multiplier	**0.35**	Assumed Particulate is pm-10 class or smaller, USEPA AP-42

Nickel Emissions Calculations

	Nickel Handling		Units	Comments
12	Total Nickel Processing	**9,971**	Pounds/Year	
13	Total Nickel Processing	**4.99**	Tons/Year	
14	Assumed Operational schedule	**8760**	Max Total Hours/Year	
15	Assumed Handling Rate	**5.69E-04**	Tons Nickel Processed / hour	
16	Emissions Factor (from above)	**5.36E-04**	Pounds Ni emitted /Ton Nickel Processed	
17	**Theoretical Ni Emissions**	3.05E-07	Ni emissions, Pounds/hour	Row 15 * Row 16
18	**Predicted Emissions rate for AERMOD Source Term**	**3.84E-08**	**Ni emissions, Grams/Second**	

US Ecology Tampa, Inc.

Formaldehyde Emissions Estimation

The potential evporation rate of Formaldehyde was estimated using the following equation:

$$E_{n-1} = \frac{M_i K_i A P_i^{sat}}{R T_L}$$

Where E_n is the evaporation rate (mass/time).
M_i is the molecular weight of the volatile substance,
K_i is a mass transfer coefficient (length/time),
A is the evaporation surface area,
P_i^{sat} is the saturated solvent vapor pressure,
P_i is the actual vapor pressure near the liquid surface,
R is the ideal gas constant, and
T_L is the absolute temperature of the liquid.

The ratio of the mass transfer coefficients between the compound of interest K and reference compound Ko is expressed as follows:

$$\frac{K_i}{K_o} = \left(\frac{D_i}{D_o}\right)^{2/3} \qquad \textit{equation 1}$$

The gas-phase diffusion coefficient D for a compound is estimated from the ratio of molecular weight of the compound of interest and a known compound (normally water) as follows:

$$\frac{D_i}{D_o} = \left(\frac{M_o}{M_i}\right)^{1/2} \qquad \textit{equation 2}$$

Combining Eq. 1 and Eq. -2 results in a relationship that can be used to estimate the mass transfer coefficient of a given volatile compound.

$$K_i = K_o \left(\frac{M_o}{M_i}\right)^{1/3} \qquad \textit{equation 3}$$

$Ki = K_o * (M_o/M_i)^{0.33}$

Water is commonly used as a base reference for estimating the mass transfer coefficient for many compounds of interest. The mass transfer coefficient of water at 77 F and 760 mm Hg. is 0.83 cm/s.

Ki =0.83 X(18.02/15.994)^0.33

Ki =0.83 X(18.02/15.994)^0.33

K_i =	**0.8633**	**cm/second**	*mass Transfer Coefficient for Formaldehyde, cm/second*
	0.86	**cm/second**	
	0.01	**meters/second**	
	0.03	**Feet/Second**	
K_i = **K_i =**	**100.91**	**Ft/ Hour**	*conversion from cm/second to feet per hr.*

P, Formaldehyde 130 Pascals
Assume 30% Formaldehyde at 20Deg. C;
note 1mm HG = 133.3 Pascal
0.975243811 mmHG

$$E_{n-1} = \frac{M_i K_i A P_i^{sat}}{R T_L}$$

M=	*15.99*	*Molecular weight of Formaldehyde*
A=	*400*	*Area of source, Square feet*
P_i =	*0.975244*	*Vapor pressure of formaldehyde, reference*
R=	*998.9*	*ideal gas constan ft atm/lb mol*K*
T_L =	*302*	*Absolute Temperature of Formaldehyde*

E	**2.1**	**Pounds/hr**
	0.3	**Grams/ Second**
	37.16	Square meters surface area
E	**0.0071**	**Grams/Second/meter^2** **Formaldehyde theoretical emissions rate**
	0.3	**Grams/ Second Theoretical Emissions Rate Formaldehyde**
	########	Pounds/Year Theoretical Emissions Rate
	1543.5	Pound/Year Typical processing rate
	8%	Actual vs. Theoretical Emission Rate, (%)
	0.08	Multiplier to acount for Actual versus theoretical
	11.842	Divisor to acount for Actual versus theoretical

E 0.00060 Predicted Emiss. Rate- Formaldehyde for AERMOD, grams/Sec-m^2

ATTACHMENT B

AERMOD Modeling Output Files

Study Years 2016 through 2020

```
**USEgeneric12016withAERMAPProcessedElevs

CO STARTING
CO TITLEONE USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016
CO MODELOPT DFAULT CONC ELEV
**CO MODELOPT CONC ELEVATED
CO AVERTIME 1 8 PERIOD
CO POLLUTID HCL
CO RUNORNOT RUN
**CO URBANOPT UrbPop (UrbName) (UrbRoughness)
CO URBANOPT 397809
CO FINISHED

SO STARTING
SO LOCATION TANK  AREA  0.0 0.0 0.0
SO URBANSRC ALL
**SO EMISFACT SrcID or SrcRange Qflag Qfact(i), i=1,n  HOUR-OF-Day Specific factor
** HOURLY SPECIFIC EMISSIONS ADJUSTMENT: 1-5 0  6-21 1.0  22 -24 0
SO EMISFACT TANK HROFDY 5*0.0 16*1.0 3*0.0
SO SRCPARAM TANK 1.0 6.096 6.096
SO SRCGROUP ALL
SO FINISHED

RE STARTING

** AERMAP - VERSION 18081                                    12/09/22
**                                                  14:52:07
**  Using USGS_ned_1_N28W083_GRIDFLOAT.TIF
**  With NAD27 Anchor Point
** A total of       1  NED files were used
** A total of     736  receptors were processed
** DOMAINXY  361366.0 3090645.0 17 369209.0 3097023.0 17
** ANCHORXY  0.0      0.0     364725.57  3093695.53  17  0
** Terrain heights were extracted by default

RE ELEVUNIT METERS
  GRIDPOLR POL1 STA
        POL1 ORIG   0.0   0.0
        POL1 DIST   100.   200. 300. 400. 500. 600. 700. 800. 900. 1000. 1100. 1200. 1300. 1400. 1500. 1600. 1700. 1800.
1900. 2000.
        POL1 GDIR   36     10.    10.
  GRIDPOLR POL1     ELEV    1      8.3      9.2      9.0      8.7      8.8      8.1
  GRIDPOLR POL1     ELEV    1      6.9      6.5      8.2      9.2      9.4      9.8
  GRIDPOLR POL1     ELEV    1      9.4      9.8     10.0     10.1      9.8      9.6
  GRIDPOLR POL1     ELEV    1      8.5      7.3
  GRIDPOLR POL1     ELEV    2      8.2      8.7      8.6      8.6      8.4      8.4
  GRIDPOLR POL1     ELEV    2      7.3      6.5      7.1      8.2      9.4      9.6
  GRIDPOLR POL1     ELEV    2      9.1      8.9      8.6      7.9      6.4      6.4
  GRIDPOLR POL1     ELEV    2      6.9      7.3
  GRIDPOLR POL1     ELEV    3      7.8      8.4      8.5      8.5      8.8      8.1
  GRIDPOLR POL1     ELEV    3      7.6      7.3      6.3      6.5      6.3      6.0
  GRIDPOLR POL1     ELEV    3      6.7      6.9      6.1      5.7      5.7      5.5
  GRIDPOLR POL1     ELEV    3      5.1      5.1
  GRIDPOLR POL1     ELEV    4      7.4      7.8      8.1      8.3      8.4      8.6
  GRIDPOLR POL1     ELEV    4      6.4      5.8      5.1      5.4      2.0      2.0
  GRIDPOLR POL1     ELEV    4      2.0      2.0      2.0      2.0      2.0      2.0
  GRIDPOLR POL1     ELEV    4      2.0      2.0
  GRIDPOLR POL1     ELEV    5      7.2      7.6      7.4      6.8      7.8      7.6
  GRIDPOLR POL1     ELEV    5      4.6      3.4      2.0      2.0      5.6      6.2
  GRIDPOLR POL1     ELEV    5      6.3      7.4      8.0      7.1      7.7      7.1
  GRIDPOLR POL1     ELEV    5      6.7      7.3
  GRIDPOLR POL1     ELEV    6      7.2      7.4      6.8      6.0      6.8      4.7
```

GRIDPOLR	POL1	ELEV	6	3.8	2.0	2.0	6.2	7.0	5.7
GRIDPOLR	POL1	ELEV	6	7.0	7.6	8.5	8.6	9.4	7.7
GRIDPOLR	POL1	ELEV	6	7.4	7.9				
GRIDPOLR	POL1	ELEV	7	7.1	7.0	6.4	5.9	7.1	10.0
GRIDPOLR	POL1	ELEV	7	2.6	2.0	10.0	7.7	7.8	7.4
GRIDPOLR	POL1	ELEV	7	7.1	7.0	6.9	9.0	7.1	7.3
GRIDPOLR	POL1	ELEV	7	7.0	8.1				
GRIDPOLR	POL1	ELEV	8	6.8	6.9	5.8	5.4	5.1	3.2
GRIDPOLR	POL1	ELEV	8	2.0	2.0	7.3	8.4	10.1	10.1
GRIDPOLR	POL1	ELEV	8	9.4	8.2	7.8	7.6	7.2	5.7
GRIDPOLR	POL1	ELEV	8	7.6	8.2				
GRIDPOLR	POL1	ELEV	9	6.6	6.4	5.8	4.8	4.6	4.2
GRIDPOLR	POL1	ELEV	9	2.0	4.8	5.6	6.7	7.7	7.6
GRIDPOLR	POL1	ELEV	9	8.1	8.5	8.0	7.4	7.5	5.2
GRIDPOLR	POL1	ELEV	9	6.7	7.0				
GRIDPOLR	POL1	ELEV	10	6.6	6.1	5.8	4.9	3.5	4.0
GRIDPOLR	POL1	ELEV	10	2.0	5.1	4.9	5.6	5.3	5.3
GRIDPOLR	POL1	ELEV	10	7.6	7.8	8.3	8.6	8.3	8.5
GRIDPOLR	POL1	ELEV	10	7.3	7.9				
GRIDPOLR	POL1	ELEV	11	6.5	6.2	5.7	4.0	4.0	4.0
GRIDPOLR	POL1	ELEV	11	2.0	6.3	8.7	8.1	5.1	5.4
GRIDPOLR	POL1	ELEV	11	6.4	6.4	7.3	8.6	8.0	7.7
GRIDPOLR	POL1	ELEV	11	7.0	6.8				
GRIDPOLR	POL1	ELEV	12	6.7	6.0	5.2	4.1	4.2	3.5
GRIDPOLR	POL1	ELEV	12	2.0	4.5	10.1	8.2	9.3	4.8
GRIDPOLR	POL1	ELEV	12	6.8	7.5	5.8	6.3	6.7	7.6
GRIDPOLR	POL1	ELEV	12	7.3	7.3				
GRIDPOLR	POL1	ELEV	13	6.6	6.4	5.3	4.3	4.3	4.0
GRIDPOLR	POL1	ELEV	13	2.0	3.1	7.7	8.0	7.5	5.7
GRIDPOLR	POL1	ELEV	13	4.4	3.8	3.7	4.2	5.1	5.7
GRIDPOLR	POL1	ELEV	13	7.0	6.2				
GRIDPOLR	POL1	ELEV	14	6.5	6.3	5.4	4.7	3.9	4.2
GRIDPOLR	POL1	ELEV	14	1.2	0.0	0.0	3.3	3.3	3.4
GRIDPOLR	POL1	ELEV	14	3.2	3.5	4.2	4.2	5.1	5.2
GRIDPOLR	POL1	ELEV	14	5.8	5.4				
GRIDPOLR	POL1	ELEV	15	6.3	5.8	5.0	5.0	4.6	3.6
GRIDPOLR	POL1	ELEV	15	2.9	2.3	0.0	0.0	3.8	3.2
GRIDPOLR	POL1	ELEV	15	3.0	3.0	5.6	7.2	4.1	4.6
GRIDPOLR	POL1	ELEV	15	4.9	5.6				
GRIDPOLR	POL1	ELEV	16	6.2	5.6	4.5	4.8	5.3	5.2
GRIDPOLR	POL1	ELEV	16	5.3	3.8	1.5	2.3	0.0	0.0
GRIDPOLR	POL1	ELEV	16	3.7	5.3	3.8	1.6	3.3	3.6
GRIDPOLR	POL1	ELEV	16	4.4	4.1				
GRIDPOLR	POL1	ELEV	17	6.1	5.0	4.7	3.5	5.0	5.0
GRIDPOLR	POL1	ELEV	17	4.8	4.5	9.4	2.4	3.6	0.0
GRIDPOLR	POL1	ELEV	17	0.0	1.7	3.2	2.3	2.8	3.3
GRIDPOLR	POL1	ELEV	17	3.6	4.1				
GRIDPOLR	POL1	ELEV	18	6.1	5.1	4.7	4.9	4.9	5.1
GRIDPOLR	POL1	ELEV	18	5.0	4.5	4.5	3.3	4.4	2.6
GRIDPOLR	POL1	ELEV	18	0.0	0.0	2.7	3.2	2.7	3.0
GRIDPOLR	POL1	ELEV	18	3.1	3.7				
GRIDPOLR	POL1	ELEV	19	6.3	5.0	4.7	4.8	5.2	5.5
GRIDPOLR	POL1	ELEV	19	5.3	4.8	4.9	4.4	4.7	4.9
GRIDPOLR	POL1	ELEV	19	3.2	4.1	0.2	0.0	0.0	0.0
GRIDPOLR	POL1	ELEV	19	3.4	3.7				
GRIDPOLR	POL1	ELEV	20	6.4	5.0	4.8	4.2	5.0	5.2
GRIDPOLR	POL1	ELEV	20	5.6	5.0	4.4	3.8	3.8	3.4
GRIDPOLR	POL1	ELEV	20	4.1	5.4	12.4	7.3	0.0	0.0
GRIDPOLR	POL1	ELEV	20	2.8	3.0				
GRIDPOLR	POL1	ELEV	21	6.4	4.8	5.3	5.2	4.6	4.9
GRIDPOLR	POL1	ELEV	21	7.3	4.7	4.6	3.2	3.1	2.7
GRIDPOLR	POL1	ELEV	21	2.9	2.6	6.3	0.0	0.0	0.1

```
GRIDPOLR POL1    ELEV  21     2.7     3.1
GRIDPOLR POL1    ELEV  22     6.4     5.1     5.6     5.9     5.6     4.9
GRIDPOLR POL1    ELEV  22    16.0    11.8     5.0     4.5     3.4     2.6
GRIDPOLR POL1    ELEV  22     2.3     3.0     3.1     7.9     0.0     0.0
GRIDPOLR POL1    ELEV  22     0.0     1.7
GRIDPOLR POL1    ELEV  23     6.8     6.2     5.8     6.1     5.8     6.6
GRIDPOLR POL1    ELEV  23     5.4     4.9     4.6     4.6     4.7     4.4
GRIDPOLR POL1    ELEV  23     3.0     3.2     2.0     2.4     2.9     2.6
GRIDPOLR POL1    ELEV  23     1.6     2.2
GRIDPOLR POL1    ELEV  24     7.1     6.4     6.4     6.3     6.5     7.4
GRIDPOLR POL1    ELEV  24     6.2     5.9     5.6     5.3     5.2     4.6
GRIDPOLR POL1    ELEV  24     5.1     4.8     3.3     3.3     2.9     1.4
GRIDPOLR POL1    ELEV  24     0.8     2.0
GRIDPOLR POL1    ELEV  25     7.3     7.3     7.1     6.9     8.1     7.5
GRIDPOLR POL1    ELEV  25     7.8     7.7     7.9     6.5     6.2     5.6
GRIDPOLR POL1    ELEV  25     5.5     5.3     4.8     4.7     4.1     4.5
GRIDPOLR POL1    ELEV  25     3.0     1.9
GRIDPOLR POL1    ELEV  26     7.5     7.9     7.7     8.4     8.2     8.4
GRIDPOLR POL1    ELEV  26     8.4     8.3     8.6     8.3     8.1     7.9
GRIDPOLR POL1    ELEV  26     7.6     7.1     6.7     6.6     5.6     4.9
GRIDPOLR POL1    ELEV  26     4.0     4.5
GRIDPOLR POL1    ELEV  27     7.8     8.3     8.4     8.5     8.2     9.1
GRIDPOLR POL1    ELEV  27     8.4     8.6     7.9     6.7     6.9     6.6
GRIDPOLR POL1    ELEV  27     6.8     7.0     7.0     7.1     6.6     6.0
GRIDPOLR POL1    ELEV  27     6.2     6.4
GRIDPOLR POL1    ELEV  28     8.2     8.8     9.3     8.2     8.5     8.3
GRIDPOLR POL1    ELEV  28     8.3     7.7     6.9     6.9     6.0     7.3
GRIDPOLR POL1    ELEV  28     8.6     9.5    11.1    10.0     8.8     8.6
GRIDPOLR POL1    ELEV  28     8.9     9.6
GRIDPOLR POL1    ELEV  29     8.3     9.1     9.0     8.4     8.7     8.0
GRIDPOLR POL1    ELEV  29     7.8     7.5     7.3     7.3     8.5     8.6
GRIDPOLR POL1    ELEV  29     9.5     9.6     9.7    10.1    10.3    10.5
GRIDPOLR POL1    ELEV  29    11.3    11.1
GRIDPOLR POL1    ELEV  30     8.6     8.6     8.9     8.5     8.3     8.1
GRIDPOLR POL1    ELEV  30     7.6     7.4     7.8     8.4     9.7     8.8
GRIDPOLR POL1    ELEV  30     8.6     8.7    10.3     9.0     8.8     8.6
GRIDPOLR POL1    ELEV  30     8.7    10.1
GRIDPOLR POL1    ELEV  31     8.9     9.4     8.7     8.7     8.1     7.7
GRIDPOLR POL1    ELEV  31     8.0     8.2     8.8     8.0     8.3     9.1
GRIDPOLR POL1    ELEV  31    10.7    11.3     8.2     9.6     9.1     9.3
GRIDPOLR POL1    ELEV  31     7.9     7.9
GRIDPOLR POL1    ELEV  32     8.5     8.9     9.0     8.7     8.0     8.1
GRIDPOLR POL1    ELEV  32     8.5     9.2     9.7     8.6     8.4    10.4
GRIDPOLR POL1    ELEV  32    11.0    11.5    11.9    10.2     9.3    11.6
GRIDPOLR POL1    ELEV  32     8.9     8.7
GRIDPOLR POL1    ELEV  33     8.5     8.6     9.0     8.8     8.4     8.2
GRIDPOLR POL1    ELEV  33     8.2     9.9    10.9    11.0    12.7    11.4
GRIDPOLR POL1    ELEV  33    10.9    11.7    11.7    11.5    11.9     9.8
GRIDPOLR POL1    ELEV  33     8.0     9.0
GRIDPOLR POL1    ELEV  34     8.5     8.8     8.7     8.8     7.6     7.8
GRIDPOLR POL1    ELEV  34     7.4     9.4    10.8    10.8    11.3    10.7
GRIDPOLR POL1    ELEV  34    10.4    10.9    12.3    10.6    10.9     8.0
GRIDPOLR POL1    ELEV  34     8.0     8.6
GRIDPOLR POL1    ELEV  35     8.6     9.0     9.0     8.7     7.9     7.5
GRIDPOLR POL1    ELEV  35     7.6     8.5     9.8    10.0     9.8    10.2
GRIDPOLR POL1    ELEV  35     9.9     9.7     9.7    10.9    10.6    10.8
GRIDPOLR POL1    ELEV  35    10.7    11.0
GRIDPOLR POL1    ELEV  36     8.3     9.1     8.7     8.7     8.2     7.2
GRIDPOLR POL1    ELEV  36     7.1     8.4     9.4     9.4     8.2     8.5
GRIDPOLR POL1    ELEV  36     9.2     9.3    10.2    10.5    10.7    10.8
GRIDPOLR POL1    ELEV  36    10.2     9.8
GRIDPOLR POL1    HILL   1     8.3     9.2     9.0     8.7     8.8     8.1
```

GRIDPOLR POL1	HILL	1	6.9	6.5	8.2	9.2	9.4	9.8
GRIDPOLR POL1	HILL	1	9.4	9.8	10.0	10.1	9.8	9.6
GRIDPOLR POL1	HILL	1	8.5	7.3				
GRIDPOLR POL1	HILL	2	8.2	9.5	8.6	8.6	8.4	8.4
GRIDPOLR POL1	HILL	2	7.3	6.5	7.1	8.2	9.4	9.6
GRIDPOLR POL1	HILL	2	9.1	8.9	8.6	7.9	6.4	6.4
GRIDPOLR POL1	HILL	2	6.9	7.3				
GRIDPOLR POL1	HILL	3	7.8	8.4	8.5	8.5	8.8	8.1
GRIDPOLR POL1	HILL	3	7.6	7.3	6.3	6.5	6.3	6.0
GRIDPOLR POL1	HILL	3	6.7	6.9	6.1	5.7	5.7	5.5
GRIDPOLR POL1	HILL	3	5.1	5.1				
GRIDPOLR POL1	HILL	4	7.4	7.8	8.1	8.3	8.4	8.6
GRIDPOLR POL1	HILL	4	6.4	5.8	5.1	6.2	2.0	2.0
GRIDPOLR POL1	HILL	4	2.0	2.0	2.0	2.0	2.0	2.0
GRIDPOLR POL1	HILL	4	2.0	5.1				
GRIDPOLR POL1	HILL	5	7.2	7.6	7.4	6.8	7.8	7.6
GRIDPOLR POL1	HILL	5	4.6	3.4	2.0	2.0	5.6	6.2
GRIDPOLR POL1	HILL	5	6.3	7.4	8.0	7.1	7.7	7.1
GRIDPOLR POL1	HILL	5	7.9	7.3				
GRIDPOLR POL1	HILL	6	7.2	7.4	6.8	6.0	6.8	12.5
GRIDPOLR POL1	HILL	6	7.1	2.0	6.5	6.2	7.0	5.7
GRIDPOLR POL1	HILL	6	7.0	7.6	8.5	8.6	9.4	7.7
GRIDPOLR POL1	HILL	6	7.4	7.9				
GRIDPOLR POL1	HILL	7	7.1	7.0	6.4	5.9	11.6	11.2
GRIDPOLR POL1	HILL	7	5.0	2.0	10.0	7.7	7.8	7.4
GRIDPOLR POL1	HILL	7	7.1	7.0	15.1	16.4	7.1	7.3
GRIDPOLR POL1	HILL	7	7.0	8.1				
GRIDPOLR POL1	HILL	8	6.8	6.9	5.8	5.4	5.1	4.1
GRIDPOLR POL1	HILL	8	2.0	9.3	7.3	8.4	10.1	10.1
GRIDPOLR POL1	HILL	8	9.4	8.2	7.8	7.6	7.2	5.7
GRIDPOLR POL1	HILL	8	7.6	8.2				
GRIDPOLR POL1	HILL	9	6.6	6.4	5.8	4.8	5.2	4.2
GRIDPOLR POL1	HILL	9	2.0	5.9	5.6	6.7	7.7	7.6
GRIDPOLR POL1	HILL	9	8.1	8.5	8.0	7.4	7.5	5.2
GRIDPOLR POL1	HILL	9	6.7	7.0				
GRIDPOLR POL1	HILL	10	6.6	6.1	5.8	4.9	3.5	4.0
GRIDPOLR POL1	HILL	10	2.0	7.8	7.1	5.6	5.3	5.3
GRIDPOLR POL1	HILL	10	7.6	7.8	8.3	8.6	8.3	8.5
GRIDPOLR POL1	HILL	10	7.3	7.9				
GRIDPOLR POL1	HILL	11	6.5	6.2	5.7	4.0	4.0	4.0
GRIDPOLR POL1	HILL	11	2.0	9.5	8.7	8.1	5.1	5.4
GRIDPOLR POL1	HILL	11	6.4	6.4	7.3	8.6	8.0	7.7
GRIDPOLR POL1	HILL	11	7.0	6.8				
GRIDPOLR POL1	HILL	12	6.7	6.0	5.2	4.1	4.2	3.5
GRIDPOLR POL1	HILL	12	2.0	8.8	10.1	14.4	15.9	15.9
GRIDPOLR POL1	HILL	12	6.8	7.5	5.8	6.3	6.7	7.6
GRIDPOLR POL1	HILL	12	7.3	7.3				
GRIDPOLR POL1	HILL	13	6.6	6.4	5.3	4.3	4.3	4.0
GRIDPOLR POL1	HILL	13	4.0	3.8	7.7	8.0	8.3	13.2
GRIDPOLR POL1	HILL	13	6.7	3.8	3.7	4.2	5.1	5.7
GRIDPOLR POL1	HILL	13	7.0	6.2				
GRIDPOLR POL1	HILL	14	6.5	6.3	5.4	4.7	3.9	4.2
GRIDPOLR POL1	HILL	14	3.1	0.0	0.0	3.3	3.3	3.4
GRIDPOLR POL1	HILL	14	3.2	3.5	4.2	4.2	5.1	5.2
GRIDPOLR POL1	HILL	14	5.8	5.4				
GRIDPOLR POL1	HILL	15	6.3	5.8	5.0	5.0	4.6	3.6
GRIDPOLR POL1	HILL	15	2.9	2.3	0.0	0.0	3.8	3.2
GRIDPOLR POL1	HILL	15	3.0	3.0	9.8	7.2	4.1	4.6
GRIDPOLR POL1	HILL	15	4.9	5.6				
GRIDPOLR POL1	HILL	16	6.2	5.6	4.5	4.8	5.3	5.2
GRIDPOLR POL1	HILL	16	12.0	13.1	13.1	2.9	0.0	0.0
GRIDPOLR POL1	HILL	16	3.7	5.3	3.8	3.1	3.3	3.6

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GRIDPOLR POL1    HILL  16     4.4     4.1
GRIDPOLR POL1    HILL  17     6.1     5.0     4.7     3.5     5.0     5.0
GRIDPOLR POL1    HILL  17     4.8    13.1     9.4     2.4     3.6     4.1
GRIDPOLR POL1    HILL  17     0.0     1.7     3.2     2.3     2.8     3.3
GRIDPOLR POL1    HILL  17     3.6     4.1
GRIDPOLR POL1    HILL  18     6.1     5.1     4.7     4.9     4.9     5.1
GRIDPOLR POL1    HILL  18     5.0     4.5     4.5     3.3     4.4     2.6
GRIDPOLR POL1    HILL  18     0.0     0.0     2.7     3.2     2.7     3.0
GRIDPOLR POL1    HILL  18     3.1     3.7
GRIDPOLR POL1    HILL  19     6.3     5.0     4.7     4.8     5.2     5.5
GRIDPOLR POL1    HILL  19     5.3     4.8     4.9     4.4     4.7     4.9
GRIDPOLR POL1    HILL  19    12.5    13.3    13.6    13.6     0.0     0.0
GRIDPOLR POL1    HILL  19     3.4     3.7
GRIDPOLR POL1    HILL  20     6.4     5.0     4.8     4.2     5.0     5.2
GRIDPOLR POL1    HILL  20     5.6     5.0     4.4     3.8     3.8     3.4
GRIDPOLR POL1    HILL  20     4.1    14.1    12.4    12.9    12.9     0.0
GRIDPOLR POL1    HILL  20     2.8     3.0
GRIDPOLR POL1    HILL  21     6.4     4.8     5.3     5.2     4.6    16.4
GRIDPOLR POL1    HILL  21    16.9    16.5     4.6     3.2     3.1     2.7
GRIDPOLR POL1    HILL  21     2.9     4.3    10.8    11.0     0.0     2.4
GRIDPOLR POL1    HILL  21     2.7     3.1
GRIDPOLR POL1    HILL  22     6.4     5.1     5.6     5.9     5.6    16.8
GRIDPOLR POL1    HILL  22    16.0    16.7    16.1     4.5     3.4     2.6
GRIDPOLR POL1    HILL  22     2.3     3.0     9.4     9.2     9.1     0.0
GRIDPOLR POL1    HILL  22     0.0     1.7
GRIDPOLR POL1    HILL  23     6.8     6.2     5.8     6.1     5.8     6.6
GRIDPOLR POL1    HILL  23    16.8    16.8    16.4     4.6     4.7     4.4
GRIDPOLR POL1    HILL  23     3.0     3.2     2.0     2.4     2.9     2.6
GRIDPOLR POL1    HILL  23     1.6     9.6
GRIDPOLR POL1    HILL  24     7.1     6.4     6.4     6.3     6.5     7.4
GRIDPOLR POL1    HILL  24     6.2     5.9     5.6     5.3     5.2     4.6
GRIDPOLR POL1    HILL  24     5.1     4.8     3.3     3.3     2.9     1.4
GRIDPOLR POL1    HILL  24     0.8     2.0
GRIDPOLR POL1    HILL  25     7.3     7.3     7.1     6.9     8.1     7.5
GRIDPOLR POL1    HILL  25     7.8     7.7     7.9     7.6     6.2     5.6
GRIDPOLR POL1    HILL  25     5.9     5.3     4.8     4.7     4.1     4.5
GRIDPOLR POL1    HILL  25     3.0     1.9
GRIDPOLR POL1    HILL  26     7.5     7.9     7.7     8.4     8.2     8.4
GRIDPOLR POL1    HILL  26     8.4     8.3     8.6     8.3     8.1     7.9
GRIDPOLR POL1    HILL  26     7.6     7.1     6.7     6.6     5.6     4.9
GRIDPOLR POL1    HILL  26     4.0     4.5
GRIDPOLR POL1    HILL  27     7.8     8.3     8.4     8.5     8.2     9.1
GRIDPOLR POL1    HILL  27     8.4     8.6     7.9     6.7     6.9     6.6
GRIDPOLR POL1    HILL  27     6.8     7.0     7.0     7.1     6.6    12.2
GRIDPOLR POL1    HILL  27    14.2    14.2
GRIDPOLR POL1    HILL  28     8.2     8.8     9.3     9.3     8.5     8.3
GRIDPOLR POL1    HILL  28     8.3     7.7     6.9     6.9     6.0     7.3
GRIDPOLR POL1    HILL  28     8.6     9.5    11.1    10.0     8.8     8.6
GRIDPOLR POL1    HILL  28     8.9     9.6
GRIDPOLR POL1    HILL  29     8.3     9.1     9.0     8.4     8.7     8.0
GRIDPOLR POL1    HILL  29     7.8     7.5     7.3     7.3     8.5     8.6
GRIDPOLR POL1    HILL  29     9.5     9.6     9.7    10.1    10.3    10.5
GRIDPOLR POL1    HILL  29    11.3    11.1
GRIDPOLR POL1    HILL  30     8.6     8.6     8.9     8.5     8.3     8.1
GRIDPOLR POL1    HILL  30     7.6     7.4     7.8     8.4     9.7     8.8
GRIDPOLR POL1    HILL  30     8.6     8.7    10.3     9.0     8.8     8.6
GRIDPOLR POL1    HILL  30     9.5    10.1
GRIDPOLR POL1    HILL  31     8.9     9.4     8.7     8.7     8.1     7.7
GRIDPOLR POL1    HILL  31     8.0     8.2     8.8     8.0     8.3     9.1
GRIDPOLR POL1    HILL  31    14.9    15.4     8.2     9.6     9.1     9.3
GRIDPOLR POL1    HILL  31     7.9     7.9
GRIDPOLR POL1    HILL  32     8.5     8.9     9.0     8.8     8.0     8.1
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  GRIDPOLR POL1     HILL  32      8.5     9.2     9.7     8.6     8.4     10.4
  GRIDPOLR POL1     HILL  32     11.0    11.5    11.9    10.2     9.3     11.6
  GRIDPOLR POL1     HILL  32      8.9     8.7
  GRIDPOLR POL1     HILL  33      8.5     8.6     9.0     8.8     8.4      8.2
  GRIDPOLR POL1     HILL  33      8.2     9.9    10.9    11.0    12.7     11.4
  GRIDPOLR POL1     HILL  33     10.9    11.7    11.7    11.5    11.9      9.8
  GRIDPOLR POL1     HILL  33      8.0     9.0
  GRIDPOLR POL1     HILL  34      8.5     8.8     8.7     8.8     7.6      7.8
  GRIDPOLR POL1     HILL  34      7.4     9.4    10.8    10.8    11.3     10.7
  GRIDPOLR POL1     HILL  34     10.4    10.9    12.3    16.6    10.9      8.0
  GRIDPOLR POL1     HILL  34      8.0     8.6
  GRIDPOLR POL1     HILL  35      8.6     9.0     9.0     8.7     7.9      7.5
  GRIDPOLR POL1     HILL  35      7.6     8.5     9.8    10.0     9.8     10.2
  GRIDPOLR POL1     HILL  35      9.9     9.7     9.7    10.9    10.6     10.8
  GRIDPOLR POL1     HILL  35     10.7    11.0
  GRIDPOLR POL1     HILL  36      8.3     9.1     8.7     8.7     8.2      7.2
  GRIDPOLR POL1     HILL  36      7.1     8.4     9.4     9.4     8.2      8.5
  GRIDPOLR POL1     HILL  36      9.2     9.3    10.2    10.5    10.7     10.8
  GRIDPOLR POL1     HILL  36     10.2    11.9
  GRIDPOLR POL1 END
  DISCPOLR TANK          375.70    118.90     4.13     4.13
  DISCPOLR TANK          498.87    129.50     4.28     4.28
  DISCPOLR TANK           81.43    359.00     8.22     8.22
  DISCPOLR TANK          116.79     44.50     7.45     7.45
  DISCPOLR TANK          109.20     67.00     7.18     7.18
  DISCPOLR TANK          100.70     93.73     6.54     6.54
  DISCPOLR TANK           87.91    103.99     6.86     6.86
  DISCPOLR TANK           99.82    123.38     6.79     6.79
  DISCPOLR TANK          138.00    141.00     5.94     5.94
  DISCPOLR TANK          106.00    180.00     5.90     5.90
  DISCPOLR TANK          115.60    206.00     5.94     5.94
  DISCPOLR TANK           54.00    270.00     7.66     7.66
  DISCPOLR TANK           97.00    326.00     8.52     8.52
  DISCPOLR TANK          133.94    242.10     7.16     7.16
  DISCPOLR TANK          101.99    301.65     8.70     8.70
  DISCPOLR TANK          236.54    274.95     8.35     8.35

RE FINISHED

ME STARTING
  SURFFILE  TPA2016_V19191.sfc
  PROFFILE  TPA2016_V19191.pfl
  SURFDATA  12842  2016
  UAIRDATA 12842  2016
  SITEDATA  12842  2016
  PROFBASE  0.0  METERS
ME FINISHED

OU STARTING
OU RECTABLE  ALLAVE  FIRST-THIRD
OU MAXTABLE  ALLAVE  50
OU SUMMFILE USECOLO1.SUM
OU FINISHED


 *** Message Summary For AERMOD Model Setup ***

 --------- Summary of Total Messages --------

A Total of         0 Fatal Error Message(s)
A Total of         3 Warning Message(s)
A Total of         0 Informational Message(s)
```

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 356 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 356 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
ME W531 356 MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for SITEDATA

****
*** SETUP Finishes Successfully ***
****

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56
PAGE 1
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY ***
- -

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 1 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 397809.0 ; Urban Roughness Length = 1.000 m

**Model Uses Regulatory DEFAULT Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.
6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
ADJ_U* - Use ADJ_U* option for SBL in AERMET
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: HCL

**Model Calculates 2 Short Term Average(s) of: 1-HR 8-HR
and Calculates PERIOD Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 736 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)
and: 1 AREA type source(s)

and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 19191

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 0.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: GenericUSE1GramWithElevs2016f.inp
**Output Print File: GenericUSE1GramWithElevs2016f.out

**File for Summary of Results: USECOLO1.SUM
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56
PAGE 2
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
TANK	0	0.10000E+01	0.0	0.0	0.0	6.10	6.10	6.10	0.00	0.00	YES	HROFDY

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56
PAGE 3
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	TANK ,

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	397809.	TANK ,

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = TANK ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.10000E+01
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.10000E+01	20	.10000E+01	21	.10000E+01	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 0.00 ; Y-ORIG = 0.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

100.0, 200.0, 300.0, 400.0, 500.0, 600.0, 700.0, 800.0, 900.0, 1000.0,
1100.0, 1200.0, 1300.0, 1400.0, 1500.0, 1600.0, 1700.0, 1800.0, 1900.0, 2000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00	600.00	700.00	800.00	900.00
10.00	8.30	9.20	9.00	8.70	8.80	8.10	6.90	6.50	8.20
20.00	8.20	8.70	8.60	8.60	8.40	8.40	7.30	6.50	7.10
30.00	7.80	8.40	8.50	8.50	8.80	8.10	7.60	7.30	6.30
40.00	7.40	7.80	8.10	8.30	8.40	8.60	6.40	5.80	5.10
50.00	7.20	7.60	7.40	6.80	7.80	7.60	4.60	3.40	2.00
60.00	7.20	7.40	6.80	6.00	6.80	4.70	3.80	2.00	2.00
70.00	7.10	7.00	6.40	5.90	7.10	10.00	2.60	2.00	10.00
80.00	6.80	6.90	5.80	5.40	5.10	3.20	2.00	2.00	7.30
90.00	6.60	6.40	5.80	4.80	4.60	4.20	2.00	4.80	5.60
100.00	6.60	6.10	5.80	4.90	3.50	4.00	2.00	5.10	4.90
110.00	6.50	6.20	5.70	4.00	4.00	4.00	2.00	6.30	8.70
120.00	6.70	6.00	5.20	4.10	4.20	3.50	2.00	4.50	10.10
130.00	6.60	6.40	5.30	4.30	4.30	4.00	2.00	3.10	7.70
140.00	6.50	6.30	5.40	4.70	3.90	4.20	1.20	0.00	0.00
150.00	6.30	5.80	5.00	5.00	4.60	3.60	2.90	2.30	0.00
160.00	6.20	5.60	4.50	4.80	5.30	5.20	5.30	3.80	1.50
170.00	6.10	5.00	4.70	3.50	5.00	5.00	4.80	4.50	9.40
180.00	6.10	5.10	4.70	4.90	4.90	5.10	5.00	4.50	4.50
190.00	6.30	5.00	4.70	4.80	5.20	5.50	5.30	4.80	4.90
200.00	6.40	5.00	4.80	4.20	5.00	5.20	5.60	5.00	4.40
210.00	6.40	4.80	5.30	5.20	4.60	4.90	7.30	4.70	4.60
220.00	6.40	5.10	5.60	5.90	5.60	4.90	16.00	11.80	5.00
230.00	6.80	6.20	5.80	6.10	5.80	6.60	5.40	4.90	4.60
240.00	7.10	6.40	6.40	6.30	6.50	7.40	6.20	5.90	5.60
250.00	7.30	7.30	7.10	6.90	8.10	7.50	7.80	7.70	7.90
260.00	7.50	7.90	7.70	8.40	8.20	8.40	8.40	8.30	8.60
270.00	7.80	8.30	8.40	8.50	8.20	9.10	8.40	8.60	7.90
280.00	8.20	8.80	9.30	8.20	8.50	8.30	8.30	7.70	6.90
290.00	8.30	9.10	9.00	8.40	8.70	8.00	7.80	7.50	7.30
300.00	8.60	8.60	8.90	8.50	8.30	8.10	7.60	7.40	7.80
310.00	8.90	9.40	8.70	8.70	8.10	7.70	8.00	8.20	8.80
320.00	8.50	8.90	9.00	8.70	8.00	8.10	8.50	9.20	9.70
330.00	8.50	8.60	9.00	8.80	8.40	8.20	8.20	9.90	10.90
340.00	8.50	8.80	8.70	8.80	7.60	7.80	7.40	9.40	10.80
350.00	8.60	9.00	9.00	8.70	7.90	7.50	7.60	8.50	9.80
360.00	8.30	9.10	8.70	8.70	8.20	7.20	7.10	8.40	9.40

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00

10.00	9.20	9.40	9.80	9.40	9.80	10.00	10.10	9.80	9.60
20.00	8.20	9.40	9.60	9.10	8.90	8.60	7.90	6.40	6.40
30.00	6.50	6.30	6.00	6.70	6.90	6.10	5.70	5.70	5.50
40.00	5.40	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
50.00	2.00	5.60	6.20	6.30	7.40	8.00	7.10	7.70	7.10
60.00	6.20	7.00	5.70	7.00	7.60	8.50	8.60	9.40	7.70
70.00	7.70	7.80	7.40	7.10	7.00	6.90	9.00	7.10	7.30
80.00	8.40	10.10	10.10	9.40	8.20	7.80	7.60	7.20	5.70
90.00	6.70	7.70	7.60	8.10	8.50	8.00	7.40	7.50	5.20
100.00	5.60	5.30	5.30	7.60	7.80	8.30	8.60	8.30	8.50
110.00	8.10	5.10	5.40	6.40	6.40	7.30	8.60	8.00	7.70
120.00	8.20	9.30	4.80	6.80	7.50	5.80	6.30	6.70	7.60
130.00	8.00	7.50	5.70	4.40	3.80	3.70	4.20	5.10	5.70
140.00	3.30	3.30	3.40	3.20	3.50	4.20	4.20	5.10	5.20
150.00	0.00	3.80	3.20	3.00	3.00	5.60	7.20	4.10	4.60
160.00	2.30	0.00	0.00	3.70	5.30	3.80	1.60	3.30	3.60
170.00	2.40	3.60	0.00	0.00	1.70	3.20	2.30	2.80	3.30
180.00	3.30	4.40	2.60	0.00	0.00	2.70	3.20	2.70	3.00
190.00	4.40	4.70	4.90	3.20	4.10	0.20	0.00	0.00	0.00
200.00	3.80	3.80	3.40	4.10	5.40	12.40	7.30	0.00	0.00
210.00	3.20	3.10	2.70	2.90	2.60	6.30	0.00	0.00	0.10
220.00	4.50	3.40	2.60	2.30	3.00	3.10	7.90	0.00	0.00
230.00	4.60	4.70	4.40	3.00	3.20	2.00	2.40	2.90	2.60
240.00	5.30	5.20	4.60	5.10	4.80	3.30	3.30	2.90	1.40
250.00	6.50	6.20	5.60	5.50	5.30	4.80	4.70	4.10	4.50
260.00	8.30	8.10	7.90	7.60	7.10	6.70	6.60	5.60	4.90
270.00	6.70	6.90	6.60	6.80	7.00	7.00	7.10	6.60	6.00
280.00	6.90	6.00	7.30	8.60	9.50	11.10	10.00	8.80	8.60
290.00	7.30	8.50	8.60	9.50	9.60	9.70	10.10	10.30	10.50
300.00	8.40	9.70	8.80	8.60	8.70	10.30	9.00	8.80	8.60
310.00	8.00	8.30	9.10	10.70	11.30	8.20	9.60	9.10	9.30
320.00	8.60	8.40	10.40	11.00	11.50	11.90	10.20	9.30	11.60
330.00	11.00	12.70	11.40	10.90	11.70	11.70	11.50	11.90	9.80
340.00	10.80	11.30	10.70	10.40	10.90	12.30	10.60	10.90	8.00
350.00	10.00	9.80	10.20	9.90	9.70	9.70	10.90	10.60	10.80
360.00	9.40	8.20	8.50	9.20	9.30	10.20	10.50	10.70	10.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	8.50	7.30
20.00	6.90	7.30
30.00	5.10	5.10
40.00	2.00	2.00
50.00	6.70	7.30
60.00	7.40	7.90
70.00	7.00	8.10
80.00	7.60	8.20
90.00	6.70	7.00
100.00	7.30	7.90
110.00	7.00	6.80
120.00	7.30	7.30

130.00	7.00	6.20
140.00	5.80	5.40
150.00	4.90	5.60
160.00	4.40	4.10
170.00	3.60	4.10
180.00	3.10	3.70
190.00	3.40	3.70
200.00	2.80	3.00
210.00	2.70	3.10
220.00	0.00	1.70
230.00	1.60	2.20
240.00	0.80	2.00
250.00	3.00	1.90
260.00	4.00	4.50
270.00	6.20	6.40
280.00	8.90	9.60
290.00	11.30	11.10
300.00	8.70	10.10
310.00	7.90	7.90
320.00	8.90	8.70
330.00	8.00	9.00
340.00	8.00	8.60
350.00	10.70	11.00
360.00	10.20	9.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00	600.00	700.00	800.00	900.00
10.00	8.30	9.20	9.00	8.70	8.80	8.10	6.90	6.50	8.20
20.00	8.20	9.50	8.60	8.60	8.40	8.40	7.30	6.50	7.10
30.00	7.80	8.40	8.50	8.50	8.80	8.10	7.60	7.30	6.30
40.00	7.40	7.80	8.10	8.30	8.40	8.60	6.40	5.80	5.10
50.00	7.20	7.60	7.40	6.80	7.80	7.60	4.60	3.40	2.00
60.00	7.20	7.40	6.80	6.00	6.80	12.50	7.10	2.00	6.50
70.00	7.10	7.00	6.40	5.90	11.60	11.20	5.00	2.00	10.00
80.00	6.80	6.90	5.80	5.40	5.10	4.10	2.00	9.30	7.30
90.00	6.60	6.40	5.80	4.80	5.20	4.20	2.00	5.90	5.60
100.00	6.60	6.10	5.80	4.90	3.50	4.00	2.00	7.80	7.10
110.00	6.50	6.20	5.70	4.00	4.00	4.00	2.00	9.50	8.70
120.00	6.70	6.00	5.20	4.10	4.20	3.50	2.00	8.80	10.10
130.00	6.60	6.40	5.30	4.30	4.30	4.00	4.00	3.80	7.70
140.00	6.50	6.30	5.40	4.70	3.90	4.20	3.10	0.00	0.00
150.00	6.30	5.80	5.00	5.00	4.60	3.60	2.90	2.30	0.00
160.00	6.20	5.60	4.50	4.80	5.30	5.20	12.00	13.10	13.10
170.00	6.10	5.00	4.70	3.50	5.00	5.00	4.80	13.10	9.40
180.00	6.10	5.10	4.70	4.90	4.90	5.10	5.00	4.50	4.50
190.00	6.30	5.00	4.70	4.80	5.20	5.50	5.30	4.80	4.90
200.00	6.40	5.00	4.80	4.20	5.00	5.20	5.60	5.00	4.40
210.00	6.40	4.80	5.30	5.20	4.60	16.40	16.90	16.50	4.60
220.00	6.40	5.10	5.60	5.90	5.60	16.80	16.00	16.70	16.10
230.00	6.80	6.20	5.80	6.10	5.80	6.60	16.80	16.80	16.40
240.00	7.10	6.40	6.40	6.30	6.50	7.40	6.20	5.90	5.60

250.00	7.30	7.30	7.10	6.90	8.10	7.50	7.80	7.70	7.90
260.00	7.50	7.90	7.70	8.40	8.20	8.40	8.40	8.30	8.60
270.00	7.80	8.30	8.40	8.50	8.20	9.10	8.40	8.60	7.90
280.00	8.20	8.80	9.30	9.30	8.50	8.30	8.30	7.70	6.90
290.00	8.30	9.10	9.00	8.40	8.70	8.00	7.80	7.50	7.30
300.00	8.60	8.60	8.90	8.50	8.30	8.10	7.60	7.40	7.80
310.00	8.90	9.40	8.70	8.70	8.10	7.70	8.00	8.20	8.80
320.00	8.50	8.90	9.00	8.80	8.00	8.10	8.50	9.20	9.70
330.00	8.50	8.60	9.00	8.80	8.40	8.20	8.20	9.90	10.90
340.00	8.50	8.80	8.70	8.80	7.60	7.80	7.40	9.40	10.80
350.00	8.60	9.00	9.00	8.70	7.90	7.50	7.60	8.50	9.80
360.00	8.30	9.10	8.70	8.70	8.20	7.20	7.10	8.40	9.40

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:01:56

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00
10.00	9.20	9.40	9.80	9.40	9.80	10.00	10.10	9.80	9.60
20.00	8.20	9.40	9.60	9.10	8.90	8.60	7.90	6.40	6.40
30.00	6.50	6.30	6.00	6.70	6.90	6.10	5.70	5.70	5.50
40.00	6.20	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
50.00	2.00	5.60	6.20	6.30	7.40	8.00	7.10	7.70	7.10
60.00	6.20	7.00	5.70	7.00	7.60	8.50	8.60	9.40	7.70
70.00	7.70	7.80	7.40	7.10	7.00	15.10	16.40	7.10	7.30
80.00	8.40	10.10	10.10	9.40	8.20	7.80	7.60	7.20	5.70
90.00	6.70	7.70	7.60	8.10	8.50	8.00	7.40	7.50	5.20
100.00	5.60	5.30	5.30	7.60	7.80	8.30	8.60	8.30	8.50
110.00	8.10	5.10	5.40	6.40	6.40	7.30	8.60	8.00	7.70
120.00	14.40	15.90	15.90	6.80	7.50	5.80	6.30	6.70	7.60
130.00	8.00	8.30	13.20	6.70	3.80	3.70	4.20	5.10	5.70
140.00	3.30	3.30	3.40	3.20	3.50	4.20	4.20	5.10	5.20
150.00	0.00	3.80	3.20	3.00	3.00	9.80	7.20	4.10	4.60
160.00	2.90	0.00	0.00	3.70	5.30	3.80	3.10	3.30	3.60
170.00	2.40	3.60	4.10	0.00	1.70	3.20	2.30	2.80	3.30
180.00	3.30	4.40	2.60	0.00	0.00	2.70	3.20	2.70	3.00
190.00	4.40	4.70	4.90	12.50	13.30	13.60	13.60	0.00	0.00
200.00	3.80	3.80	3.40	4.10	14.10	12.40	12.90	12.90	0.00
210.00	3.20	3.10	2.70	2.90	4.30	10.80	11.00	0.00	2.40
220.00	4.50	3.40	2.60	2.30	3.00	9.40	9.20	9.10	0.00
230.00	4.60	4.70	4.40	3.00	3.20	2.00	2.40	2.90	2.60
240.00	5.30	5.20	4.60	5.10	4.80	3.30	3.30	2.90	1.40
250.00	7.60	6.20	5.60	5.90	5.30	4.80	4.70	4.10	4.50
260.00	8.30	8.10	7.90	7.60	7.10	6.70	6.60	5.60	4.90
270.00	6.70	6.90	6.60	6.80	7.00	7.00	7.10	6.60	12.20
280.00	6.90	6.00	7.30	8.60	9.50	11.10	10.00	8.80	8.60
290.00	7.30	8.50	8.60	9.50	9.60	9.70	10.10	10.30	10.50
300.00	8.40	9.70	8.80	8.60	8.70	10.30	9.00	8.80	8.60
310.00	8.00	8.30	9.10	14.90	15.40	8.20	9.60	9.10	9.30
320.00	8.60	8.40	10.40	11.00	11.50	11.90	10.20	9.30	11.60
330.00	11.00	12.70	11.40	10.90	11.70	11.70	11.50	11.90	9.80
340.00	10.80	11.30	10.70	10.40	10.90	12.30	16.60	10.90	8.00
350.00	10.00	9.80	10.20	9.90	9.70	9.70	10.90	10.60	10.80
360.00	9.40	8.20	8.50	9.20	9.30	10.20	10.50	10.70	10.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	8.50	7.30
20.00	6.90	7.30
30.00	5.10	5.10
40.00	2.00	5.10
50.00	7.90	7.30
60.00	7.40	7.90
70.00	7.00	8.10
80.00	7.60	8.20
90.00	6.70	7.00
100.00	7.30	7.90
110.00	7.00	6.80
120.00	7.30	7.30
130.00	7.00	6.20
140.00	5.80	5.40
150.00	4.90	5.60
160.00	4.40	4.10
170.00	3.60	4.10
180.00	3.10	3.70
190.00	3.40	3.70
200.00	2.80	3.00
210.00	2.70	3.10
220.00	0.00	1.70
230.00	1.60	9.60
240.00	0.80	2.00
250.00	3.00	1.90
260.00	4.00	4.50
270.00	14.20	14.20
280.00	8.90	9.60
290.00	11.30	11.10
300.00	9.50	10.10
310.00	7.90	7.90
320.00	8.90	8.70
330.00	8.00	9.00
340.00	8.00	8.60
350.00	10.70	11.00
360.00	10.20	11.90

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE POLAR RECEPTORS ***
ORIGIN: (DIST, DIR, ZELEV, ZHILL, ZFLAG)
SRCID: (METERS,DEG,METERS,METERS,METERS)

TANK : (375.7, 118.9, 4.1, 4.1, 0.0); TANK : (498.9, 129.5, 4.3, 4.3, 0.0);
TANK : (81.4, 359.0, 8.2, 8.2, 0.0); TANK : (116.8, 44.5, 7.5, 7.5, 0.0);

TANK : (109.2, 67.0, 7.2, 7.2, 0.0); TANK : (100.7, 93.7, 6.5, 6.5, 0.0);
TANK : (87.9, 104.0, 6.9, 6.9, 0.0); TANK : (99.8, 123.4, 6.8, 6.8, 0.0);
TANK : (138.0, 141.0, 5.9, 5.9, 0.0); TANK : (106.0, 180.0, 5.9, 5.9, 0.0);
TANK : (115.6, 206.0, 5.9, 5.9, 0.0); TANK : (54.0, 270.0, 7.7, 7.7, 0.0);
TANK : (97.0, 326.0, 8.5, 8.5, 0.0); TANK : (133.9, 242.1, 7.2, 7.2, 0.0);
TANK : (102.0, 301.6, 8.7, 8.7, 0.0); TANK : (236.5, 274.9, 8.4, 8.4, 0.0);

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56
PAGE 14
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56
PAGE 15
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: TPA2016_V19191.sfc Met Version: 19191
Profile file: TPA2016_V19191.pfl
Surface format: FREE
Profile format: FREE
Surface station no.: 12842 Upper air station no.: 12842
Name: UNKNOWN Name: UNKNOWN
Year: 2016 Year: 2016

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
16	01	01	1	01	-4.4	0.088	-9.000	-9.000	-999.	63.	14.1	0.15	0.34	1.00	0.96	127.	7.9	295.9	2.0
16	01	01	1	02	-3.2	0.075	-9.000	-9.000	-999.	50.	12.3	0.13	0.34	1.00	0.82	157.	7.9	295.4	2.0
16	01	01	1	03	-5.6	0.099	-9.000	-9.000	-999.	75.	15.7	0.13	0.34	1.00	1.11	162.	7.9	295.9	2.0
16	01	01	1	04	-9.0	0.127	-9.000	-9.000	-999.	108.	20.4	0.13	0.34	1.00	1.40	165.	7.9	295.4	2.0
16	01	01	1	05	-5.6	0.099	-9.000	-9.000	-999.	75.	15.8	0.15	0.34	1.00	1.08	131.	7.9	295.4	2.0
16	01	01	1	06	-9.2	0.128	-9.000	-9.000	-999.	110.	20.8	0.15	0.34	1.00	1.38	137.	7.9	295.4	2.0
16	01	01	1	07	-13.4	0.156	-9.000	-9.000	-999.	148.	26.7	0.15	0.34	1.00	1.65	147.	7.9	295.4	2.0
16	01	01	1	08	-20.3	0.213	-9.000	-9.000	-999.	236.	49.8	0.15	0.34	0.70	2.21	140.	7.9	295.4	2.0
16	01	01	1	09	11.5	0.225	0.260	0.005	55.	256.	-89.8	0.13	0.34	0.33	2.16	178.	7.9	295.9	2.0

```
16 01 01   1 10   30.0  0.251  0.450  0.005  110.  301.    -47.8  0.05   0.34   0.21    2.91  189.    7.9  297.0    2.0
16 01 01   1 11   54.9  0.288  0.738  0.005  266.  370.    -39.4  0.05   0.34   0.18    3.30  200.    7.9  298.1    2.0
16 01 01   1 12   66.9  0.386  0.925  0.005  431.  576.    -78.4  0.05   0.34   0.17    4.60  187.    7.9  298.8    2.0
16 01 01   1 13   59.9  0.412  1.118  0.005  848.  635.   -106.2  0.05   0.34   0.16    4.97  183.    7.9  299.9    2.0
16 01 01   1 14   21.4  0.389  0.799  0.005  867.  583.   -249.8  0.05   0.34   0.17    4.80  190.    7.9  299.9    2.0
16 01 01   1 15   17.7  0.314  0.755  0.005  882.  425.   -158.1  0.05   0.34   0.18    3.83  204.    7.9  299.2    2.0
16 01 01   1 16   11.9  0.342  0.664  0.005  892.  480.   -305.2  0.05   0.34   0.21    4.19  243.    7.9  299.2    2.0
16 01 01   1 17   15.1  0.333  0.722  0.005  904.  461.   -221.7  0.05   0.34   0.31    4.05  248.    7.9  298.1    2.0
16 01 01   1 18  -24.9  0.292 -9.000 -9.000 -999.  379.     93.6  0.05   0.34   0.63    3.78  253.    7.9  297.5    2.0
16 01 01   1 19  -26.6  0.277 -9.000 -9.000 -999.  351.     84.6  0.05   0.34   1.00    3.61  256.    7.9  297.0    2.0
16 01 01   1 20  -18.9  0.196 -9.000 -9.000 -999.  211.     42.3  0.04   0.34   1.00    2.79  239.    7.9  295.9    2.0
16 01 01   1 21  -21.2  0.220 -9.000 -9.000 -999.  248.     53.2  0.05   0.34   1.00    2.89  252.    7.9  296.4    2.0
16 01 01   1 22  -29.0  0.300 -9.000 -9.000 -999.  395.     99.2  0.04   0.34   1.00    4.22  338.    7.9  294.9    2.0
16 01 01   1 23  -18.4  0.191 -9.000 -9.000 -999.  206.     39.9  0.05   0.34   1.00    2.57  325.    7.9  294.9    2.0
16 01 01   1 24   -5.7  0.095 -9.000 -9.000 -999.   75.     13.5  0.04   0.34   1.00    1.42  340.    7.9  294.9    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 16 01 01 01    7.9 1  127.    0.96   296.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016            ***
12/09/22
 *** AERMET - VERSION  19191 ***   ***                                                    ***       15:01:56
                                                                                    PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                        *** THE PERIOD (  8784 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL
***
                          INCLUDING SOURCE(S):     TANK       ,

                          *** NETWORK ID: POL1     ;  NETWORK TYPE: GRIDPOLR ***

                             ** CONC OF HCL      IN MICROGRAMS/M**3                    **

  DIRECTION |                                    DISTANCE (METERS)
  (DEGREES) |      100.00      200.00      300.00      400.00      500.00      600.00      700.00      800.00      900.00
 ---------------------------------------------------------------------------------------------------------------

      10.00 |   585.65166   191.81042    97.13009    59.60672    40.45087    29.74118    22.94850    18.22854    14.70949
      20.00 |   584.69383   184.58764    90.08493    53.54029    35.77549    25.66449    19.62284    15.46941    12.38330
      30.00 |   583.75541   174.23882    81.72502    47.39659    30.82121    22.02559    16.54749    12.85027    10.37547
      40.00 |   664.17187   195.55191    90.24668    51.78132    33.63133    23.59287    18.02749    14.01511    11.25551
      50.00 |   768.91540   226.71377   105.97321    61.63820    39.54247    27.95819    21.40871    16.69514
13.42898
      60.00 |   836.79851   249.87287   117.91818    68.79260    44.34212    31.89375    23.85962    18.62608    14.85376
      70.00 |   866.00998   265.47394   126.28394    73.65050    47.38432    32.27106    25.82100    20.04213
14.94967
      80.00 |   831.55767   260.69574   127.37930    75.15887    49.74540    35.78820    26.89867    20.93109
16.48264
      90.00 |   726.11901   233.45801   114.09421    68.09665    45.17780    32.22005    24.53418    18.71666    14.91816
     100.00 |   631.93265   208.99211   102.58873    61.62390    41.56753    29.30184    22.54902    16.86061
13.53823
     110.00 |   642.99360   223.57930   114.85183    71.94918    48.39787    34.94172    27.12343    20.12527
15.76531
     120.00 |   720.79208   274.41846   149.29954    95.40674    66.18490    49.11211    38.17236    30.16882
23.60356
     130.00 |   787.89000   309.43346   174.44340   113.33281    79.83793    59.55902    46.72515    37.41405
30.14343
     140.00 |   789.36987   311.93783   175.47881   113.93882    80.72850    59.84207    47.32142    37.93240
31.11380
```

150.00 |	747.92847	293.60204	162.93503	103.68636	72.74168	54.54323	42.51379	34.15058	28.37747
160.00 |	712.06287	276.52002	153.40254	96.00932	65.95719	48.84444	37.63777	30.62325	25.77955
170.00 |	719.73469	281.24862	152.65817	98.72233	67.23452	49.90171	38.87447	31.22747	24.43936
180.00 |	770.28513	290.19284	154.61383	96.48383	66.69118	49.09669	38.11912	30.61983	25.09609
190.00 |	881.57948	325.56958	168.91152	103.54825	70.04271	50.74014	38.90507	30.99082	25.18713
200.00 |	1054.44773	390.80046	203.88183	127.49209	86.55840	63.64351	48.70798	38.98373	32.03534
210.00 |	1219.88926	452.48323	234.82455	146.75028	101.88219	75.10437	57.23261	46.35555	38.14166
220.00 |	1335.68571	487.54702	252.53701	157.15716	108.71027	80.40520	56.36316	48.01928	40.77324
230.00 |	1387.05630	500.70065	263.18031	163.69244	113.30528	83.30452	64.66564	51.73542	42.52320
240.00 |	1367.86755	494.28598	258.34768	161.28880	111.16631	81.50543	63.40853	50.72742	41.67825
250.00 |	1245.05349	435.73147	227.12303	141.32704	95.89444	71.05642	54.71575	43.69890	35.81121
260.00 |	1043.19361	349.24212	178.96306	108.25353	73.92735	53.90216	41.22727	32.75771	26.65895
270.00 |	842.75806	274.75064	138.16742	83.77945	57.00296	40.75931	31.38098	24.70498	20.23946
280.00 |	712.42726	234.99814	118.46313	74.40079	50.43245	37.00710	28.35399	22.69727	18.65743
290.00 |	666.08975	223.62381	116.28659	72.96056	49.92475	37.02595	28.56614	22.83946	18.77784
300.00 |	654.92016	227.30558	117.06282	73.23741	50.49961	37.27851	28.83222	23.05275	18.92692
310.00 |	651.45198	221.86440	116.48003	71.97232	49.62750	36.54429	27.92821	22.14509	18.06426
320.00 |	640.85825	213.80806	109.16299	67.60367	46.62684	34.02591	26.01371	20.59857	16.79191
330.00 |	577.52954	190.28840	95.53146	58.76960	40.29669	29.45132	22.57945	17.68172	14.32059
340.00 |	496.61298	159.26996	79.73595	48.22436	33.19923	23.91698	18.27917	14.12451	11.33745
350.00 |	453.79211	145.14837	71.73869	43.33181	29.36404	21.23766	15.99773	12.43896	9.95320
360.00 |	511.49255	166.76971	84.49787	51.24608	34.85468	25.56019	19.44270	15.09457	12.10699

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES) |	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00
10.00 |	12.19306	10.34302	8.91607	7.78193	6.83972	6.09413	5.46611	4.94086	4.49756
20.00 |	10.11473	8.42818	7.19451	6.25052	5.48803	4.86316	4.35479	3.94594	3.56242
30.00 |	8.49812	7.10204	6.04611	5.17363	4.50902	3.99440	3.56147	3.19495	2.88082

40.00	9.17368	7.83451	6.64420	5.71041	4.96409	4.36797	3.89136	3.48012	3.13018
50.00	10.95260	8.89856	7.52843	6.47123	5.59290	4.89880	4.37285	3.90457	3.53420
60.00	11.86784	9.85620	8.43026	7.24864	6.28212	5.52057	4.91167	4.38119	3.97559
70.00	12.50508	10.41497	8.85056	7.61790	6.61094	5.80575	5.08304	4.59151	4.12295
80.00	13.52965	11.25584	9.61655	8.36861	7.35504	6.50935	5.79333	5.19750	4.70587
90.00	12.17381	10.11912	8.60553	7.41874	6.44585	5.68571	5.06521	4.53057	4.12813
100.00	11.03375	9.23877	7.87166	6.66596	5.80792	5.06961	4.50050	4.04750	3.64465
110.00	13.18081	11.49383	9.79345	8.36163	7.31219	6.40366	5.63963	5.08462	4.60312
120.00	20.28649	17.20241	15.28672	13.29171	11.74275	10.53786	9.46093	8.53949	7.74955
130.00	25.29105	21.77960	19.05422	16.75924	14.85735	13.29876	11.94993	10.74659	9.80185
140.00	26.02184	22.20585	19.20583	16.82817	14.87013	13.26615	11.93190	10.78702	9.80416
150.00	23.73362	19.75014	17.12352	14.96762	13.20801	11.59024	10.32650	9.45941	8.59185
160.00	21.28562	18.50702	15.93122	13.44769	11.65343	10.48106	9.60614	8.51728	7.72366
170.00	21.85937	18.55303	16.34808	14.26205	12.52894	11.08366	9.97344	9.01154	8.16023
180.00	21.19285	17.95165	15.65744	13.93721	12.26740	10.78524	9.64924	8.73371	7.93010
190.00	21.08140	17.76020	15.24247	13.45872	11.73907	10.93768	9.78243	8.80474	7.96651
200.00	26.86785	22.83439	19.74882	17.18902	15.03616	12.75093	11.86256	11.20309	10.15593
210.00	32.03314	27.34138	23.65815	20.71536	18.31424	16.29927	14.60437	13.21424	12.04379
220.00	34.24696	29.15345	25.14434	22.00588	19.51550	17.42056	15.64888	13.87030	12.64449
230.00	35.66578	30.40205	26.29185	22.96107	20.32156	18.02902	16.24880	14.73560	13.39073
240.00	34.91044	29.77889	25.77497	22.51885	19.92593	17.75763	15.97556	14.45482	13.14007
250.00	30.21389	25.77498	22.32847	19.51289	17.25440	15.39437	13.84554	12.54013	11.42368
260.00	22.27100	18.90670	16.33303	14.27713	12.61072	11.23365	10.08229	9.13464	8.30602
270.00	17.02830	14.36497	12.36106	10.72577	9.39487	8.35064	7.46658	6.74822	6.14242
280.00	15.55757	13.29565	11.43300	9.89229	8.71979	7.73665	7.00142	6.36966	5.80057
290.00	15.72744	13.29519	11.51267	10.02431	8.84800	7.90552	7.08660	6.42020	5.83796
300.00	15.81015	13.44880	11.69879	10.26909	9.07504	8.11703	7.33158	6.64811	6.05784
310.00	15.15997	12.83078	11.00669	9.50720	8.33078	7.58007	6.73161	6.09856	5.53278
320.00	14.15230	12.03291	10.26716	8.93700	7.89841	7.03023	6.37646	5.78652	5.21108
330.00	11.97798	10.03641	8.76322	7.69184	6.77611	6.02887	5.41461	4.88635	4.48279
340.00	9.43384	7.95880	6.86094	5.98437	5.25706	4.61352	4.18625	3.75546	3.47407
350.00	8.20507	6.96469	5.93273	5.18649	4.56716	4.05751	3.59809	3.24215	2.93850
360.00	10.05081	8.58038	7.35286	6.35289	5.57798	4.89543	4.37427	3.94395	3.55967

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	4.11752	3.78174
20.00	3.22048	2.93603
30.00	2.61827	2.38220
40.00	2.83501	2.59016
50.00	3.21584	2.90964
60.00	3.61574	3.30697
70.00	3.73273	3.37210
80.00	4.26927	3.89531
90.00	3.70575	3.36605
100.00	3.33104	3.01975
110.00	4.20556	3.83352

120.00	7.10185	6.53020
130.00	8.91922	8.21141
140.00	8.93738	8.22667
150.00	7.84799	7.17980
160.00	6.99752	6.43777
170.00	7.48084	6.85619
180.00	7.26588	6.67724
190.00	6.94839	6.34553
200.00	9.10341	8.34496
210.00	11.09225	10.18697
220.00	11.57385	10.80733
230.00	12.20634	11.23105
240.00	12.00746	11.05404
250.00	10.44642	9.62894
260.00	7.60189	6.97030
270.00	5.58255	5.09215
280.00	5.30500	4.86716
290.00	5.30617	4.89295
300.00	5.55637	5.10207
310.00	5.08959	4.66236
320.00	4.82034	4.42234
330.00	4.12660	3.77546
340.00	3.15980	2.88301
350.00	2.68747	2.46960
360.00	3.25187	2.98276

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56
PAGE 19
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC
TANK :	375.70	118.90	102.74818	TANK :	498.87	129.50	79.30882
TANK :	81.43	359.00	674.26103	TANK :	116.79	44.50	550.75363
TANK :	109.20	67.00	749.60605	TANK :	100.70	93.73	677.44510
TANK :	87.91	103.99	736.91600	TANK :	99.82	123.38	747.63307
TANK :	138.00	141.00	525.90070	TANK :	106.00	180.00	716.34012
TANK :	115.60	206.00	958.17155	TANK :	54.00	270.00	1986.70123
TANK :	97.00	326.00	634.54487	TANK :	133.94	242.10	885.15919
TANK :	101.99	301.65	635.20856	TANK :	236.54	274.95	190.59819

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56
PAGE 20
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	45809.81901 (16082007)	17015.27647 (16121820)	10273.94712 (16121820)	7044.62801 (16121820)	5188.42100 (16121820)
20.0	35020.99616 (16012620)	15324.44970 (16012620)	9027.14567 (16012620)	6064.10477 (16012620)	4455.99265 (16031020)
30.0	31231.43034 (16112919)	14838.29250 (16112919)	9293.68153 (16112919)	6556.13864 (16112919)	4955.99192 (16112919)
40.0	36916.39245 (16020121)	16125.87234 (16020121)	9411.24630 (16020121)	6301.79741 (16020121)	4583.50368 (16020121)
50.0	39546.75238 (16020121)	17702.20069 (16020121)	10576.50654 (16020121)	7190.49515 (16020121)	5324.61485 (16020121)
60.0	42899.07986 (16012019)	16358.26675 (16012019)	9635.70677 (16012518)	6617.73510 (16012518)	4939.94766 (16012518)
70.0	49082.48131 (16012019)	20551.25236 (16012019)	11876.59191 (16012019)	7958.47369 (16012019)	6019.51900 (16012019)
80.0	35805.83841 (16012019)	15099.38669 (16013018)	9057.09395 (16013018)	6136.54287 (16013018)	4483.41230 (16013018)
90.0	45927.06877 (16012519)	17463.55521 (16012519)	9478.12303 (16012519)	6102.51762 (16012519)	4277.86030 (16012519)
100.0	47253.69593 (16012519)	19221.62190 (16012519)	11033.55366 (16012519)	7287.34842 (16012519)	5162.69980 (16012519)
110.0	42129.07571 (16122908)	18214.05826 (16122908)	10572.88916 (16122908)	6915.44118 (16122908)	5089.52057 (16122908)
120.0	42413.24635 (16062406)	17046.73615 (16062406)	9404.90388 (16062406)	5996.66865 (16062406)	4278.53417 (16062406)
130.0	44095.51106 (16013019)	19431.39446 (16013019)	11297.18668 (16013019)	7540.66789 (16062406)	5578.15557 (16062406)
140.0	36214.33489 (16031907)	16456.23150 (16031907)	9765.03814 (16031907)	6583.74370 (16031907)	4792.23943 (16031907)
150.0	41308.99284 (16091921)	18810.55495 (16091921)	11155.46955 (16091921)	7640.18478 (16091921)	5629.43353 (16091921)
160.0	36860.60726 (16122907)	16946.58504 (16122907)	10052.38449 (16122907)	6843.67592 (16122907)	5033.75013 (16122907)
170.0	44683.65565 (16092306)	19707.81346 (16092306)	11555.86177 (16092306)	7652.96025 (16092306)	5808.34511 (16092306)
180.0	40086.96243 (16040507)	18647.43623 (16040507)	11184.23090 (16040507)	7727.40694 (16040507)	5757.41505 (16040507)
190.0	39386.49263 (16122906)	16760.02635 (16122906)	9768.73113 (16122906)	6648.83841 (16122906)	4954.38479 (16122906)
200.0	40016.52275 (16073006)	15646.09078 (16073006)	9132.62422 (16051506)	6131.66595 (16051506)	4613.02782 (16051506)
210.0	41228.75646 (16073006)	16534.95433 (16073006)	9683.62864 (16073006)	6547.05089 (16073006)	4756.95965 (16073006)
220.0	32512.12170 (16070706)	13429.73954 (16123119)	7938.63892 (16123119)	5441.69196 (16123119)	3995.23192 (16123119)
230.0	35575.92845 (16013008)	14613.64012 (16013008)	8438.31993 (16013008)	5777.13878 (16013008)	4234.38582 (16013008)
240.0	38011.88058 (16082206)	15889.32194 (16082206)	9311.37683 (16082206)	6320.52841 (16082206)	4704.88838 (16082206)
250.0	34850.42050 (16021706)	14730.97976 (16021706)	8663.18492 (16121908)	5870.26339 (16121908)	4463.43147 (16121908)
260.0	36233.10660 (16021706)	15274.93895 (16021706)	8884.22034 (16021706)	6107.99504 (16012021)	4517.84428 (16012021)
270.0	37268.31536 (16020806)	15780.31494 (16021707)	9313.31678 (16021707)	6334.82361 (16021707)	4666.39298 (16021707)
280.0	37535.11637 (16082207)	16335.57237 (16082207)	9713.44815 (16082207)	6540.52266 (16032906)	4859.90347 (16082207)

290.0 | 40221.96531 (16042407) 17365.70997 (16042407) 10248.68107 (16042407) 6906.52227 (16042407) 5134.67332 (16042407)
300.0 | 33538.04433 (16082006) 14824.92227 (16020808) 8905.79747 (16020808) 6097.33731 (16020808) 4524.30872 (16020808)
310.0 | 35842.56402 (16043006) 16062.96816 (16043006) 9632.82565 (16043006) 6610.02578 (16043006) 4870.57243 (16043006)
320.0 | 31832.00677 (16012619) 13254.04052 (16010106) 8018.59069 (16010106) 5499.26557 (16010106) 4059.25885 (16010106)
330.0 | 31295.35143 (16032507) 13907.37798 (16032507) 8288.18257 (16032507) 5649.51350 (16032507) 4165.94205 (16032507)
340.0 | 31122.62482 (16061106) 14076.08987 (16061106) 8514.09250 (16061106) 5882.45446 (16061106) 4318.44756 (16061106)
350.0 | 37002.13424 (16082007) 14557.97806 (16082007) 7839.02867 (16082007) 4940.41347 (16082007) 3559.51652 (16121821)
360.0 | 54540.96336 (16082007) 23611.56931 (16082007) 14015.61125 (16082007) 9592.89656 (16082007) 7068.49674 (16082007)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	4048.04499 (16121820)	3220.46557 (16121820)	2637.10034 (16121820)	2289.06621 (16020220)	2012.97076 (16020220)
20.0	3491.24544 (16031020)	2815.92717 (16031020)	2329.53135 (16031020)	2006.13932 (16031020)	1749.61492 (16031020)
30.0	3919.93552 (16112919)	3193.25808 (16112919)	2667.98893 (16112919)	2249.73230 (16112919)	1958.27416 (16112919)
40.0	3575.31644 (16021221)	2889.85316 (16021221)	2402.39705 (16021221)	2030.65843 (16021221)	1767.51250 (16021221)
50.0	4104.06034 (16020121)	3203.96089 (16020121)	2589.53391 (16020121)	2128.28629 (16020121)	1806.43325 (16020121)
60.0	3797.99610 (16012518)	3040.41792 (16012518)	2433.88494 (16012518)	2068.73012 (16012518)	1865.45973 (16012518)
70.0	4940.24769 (16012019)	3364.20448 (16012019)	2733.11072 (16012019)	2860.28187 (16012019)	2371.94787 (16012019)
80.0	3374.56452 (16013018)	2631.44099 (16013018)	2172.18675 (16121218)	2053.74113 (16121218)	1808.01560 (16121218)
90.0	3308.17674 (16060906)	2535.46420 (16060906)	2242.32490 (16060906)	1926.12079 (16060906)	1698.68334 (16060906)
100.0	4061.01061 (16012519)	3068.76667 (16012519)	2815.94497 (16012519)	2383.22343 (16012519)	2101.83392 (16012519)
110.0	3958.63143 (16122908)	2999.63221 (16122908)	2704.77012 (16122908)	2393.90128 (16122908)	2037.91503 (16122908)
120.0	3159.15727 (16072920)	2451.39197 (16072920)	2176.56179 (16072920)	1930.00026 (16072920)	1647.61095 (16072920)
130.0	4323.88970 (16062406)	3277.02172 (16062406)	2843.88549 (16062406)	2667.31885 (16062406)	2318.96451 (16062406)
140.0	3692.74268 (16031907)	2776.09143 (16031907)	2224.48005 (16031907)	1855.34910 (16031907)	1773.64769 (16031907)

150.0 | 4303.44458 (16091921) 3419.23180 (16091921) 2793.02521 (16091921) 2193.22625 (16091921)
1898.12131 (16091921)
160.0 | 3887.88121 (16122907) 3164.14404 (16122907) 2563.75957 (16122907) 2038.81888 (16122907)
1797.29890 (16122907)
170.0 | 4508.51678 (16092306) 3624.74359 (16092306) 3004.79524 (16092306) 2755.93053 (16050506)
2083.46911 (16092306)
180.0 | 4532.63473 (16040507) 3679.56835 (16040507) 3041.46380 (16040507) 2594.15954 (16040507)
2181.76053 (16040507)
190.0 | 3887.64347 (16122906) 3137.90483 (16122906) 2582.57263 (16122906) 2206.76896 (16122906)
1885.02068 (16122906)
200.0 | 3610.94343 (16051506) 2951.49282 (16051506) 2424.29968 (16051506) 2032.26084 (16051506)
1730.32156 (16051506)
210.0 | 3735.24516 (16073006) 3199.95523 (16081321) 2506.81117 (16081321) 2129.56960 (16081321)
1766.22561 (16081321)
220.0 | 3057.37629 (16123119) 3014.02647 (16070706) 2415.96454 (16070706) 1760.92708 (16070706)
1500.65592 (16070706)
230.0 | 3384.30906 (16013008) 2646.86537 (16013008) 2170.97465 (16013008) 1829.99765 (16013008)
1584.14875 (16013008)
240.0 | 3767.56784 (16082206) 2958.84176 (16082206) 2446.46481 (16082206) 2065.53204 (16082206)
1772.96008 (16082206)
250.0 | 3448.12739 (16121908) 2799.22702 (16121908) 2315.94873 (16121908) 1971.43129 (16121908)
1650.36418 (16121908)
260.0 | 3541.74175 (16012021) 2876.19691 (16012021) 2398.10497 (16012021) 2059.21645 (16012021)
1774.26525 (16012021)
270.0 | 3713.13362 (16021707) 2963.08579 (16021707) 2464.81929 (16021707) 2057.48044 (16021707)
1724.75936 (16021707)
280.0 | 3791.79296 (16082207) 3075.31239 (16032906) 2530.87489 (16032906) 2112.76455 (16032906)
1830.84785 (16032906)
290.0 | 3966.75888 (16042407) 3191.16012 (16042407) 2627.23670 (16042407) 2211.41720 (16042407)
1906.25506 (16042407)
300.0 | 3534.70351 (16020808) 2841.52037 (16020808) 2358.66421 (16121618) 2029.35407 (16121618)
1782.49768 (16121618)
310.0 | 3784.15797 (16043006) 3088.35406 (16043006) 2578.54721 (16043006) 2208.05474 (16043006)
1876.26772 (16043006)
320.0 | 3190.68139 (16010106) 2603.39699 (16010106) 2174.61357 (16010106) 1853.91178 (16010106)
1580.56331 (16010106)
330.0 | 3255.17620 (16032507) 2617.60266 (16032507) 2180.72850 (16032507) 1885.59602 (16032507)
1640.29978 (16032507)
340.0 | 3395.29036 (16061106) 2738.31192 (16061106) 2366.10588 (16061106) 2056.42088 (16061106)
1784.97592 (16061106)
350.0 | 2788.11189 (16121821) 2266.16935 (16121821) 1897.29768 (16121821) 1622.30037 (16121821)
1411.67645 (16121821)
360.0 | 5430.02706 (16082007) 4395.47561 (16082007) 3756.57019 (16082007) 3253.71899 (16082007)
2820.79347 (16082007)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION	DISTANCE (METERS)				
(DEGREES)	1100.00	1200.00	1300.00	1400.00	1500.00

10.0 | 1776.65453 (16020220) 1588.94435 (16020220) 1420.64456 (16020220) 1292.63261 (16020220) 1181.23436 (16020220)
20.0 | 1552.98828 (16010718) 1385.72616 (16010718) 1239.97778 (16010718) 1120.49193 (16010718) 1017.75721 (16010718)
30.0 | 1716.75716 (16112919) 1518.59704 (16112919) 1378.76346 (16112919) 1251.38586 (16112919) 1124.00672 (16112919)
40.0 | 1445.23522 (16021221) 1282.97899 (16021221) 1149.82275 (16021221) 1038.85146 (16021221) 944.55147 (16021221)
50.0 | 1714.06918 (16020121) 1519.97291 (16040621) 1358.12058 (16040621) 1243.42208 (16040621) 1143.02501 (16040621)
60.0 | 1655.89671 (16012518) 1444.04345 (16012518) 1320.90334 (16012518) 1203.87897 (16012518) 1092.29382 (16012518)
70.0 | 2087.60373 (16012019) 1836.58159 (16012019) 1634.53453 (16012019) 1473.50340 (16012019) 1337.59440 (16012019)
80.0 | 1616.50940 (16121218) 1440.89693 (16121218) 1287.37402 (16121218) 1149.27199 (16121218) 1040.89118 (16121218)
90.0 | 1518.22642 (16060906) 1348.12474 (16060906) 1220.04394 (16060906) 1110.73357 (16060906) 1004.04597 (16060906)
100.0 | 1829.93700 (16012519) 1624.34195 (16012519) 1537.18982 (16012519) 1389.59356 (16012519) 1271.01596 (16012519)
110.0 | 1701.21709 (16122908) 1522.18992 (16122908) 1346.74382 (16122908) 1193.09177 (16122908) 1105.23710 (16122908)
120.0 | 1470.03058 (16072920) 1221.09902 (16081920) 1131.27354 (16072920) 1036.29069 (16072920) 914.13590 (16081920)
130.0 | 2014.45811 (16062406) 1721.06392 (16062406) 1497.20376 (16062406) 1330.95767 (16062406) 1203.74529 (16062406)
140.0 | 1535.74777 (16031906) 1367.93829 (16031906) 1217.10388 (16031906) 1095.17202 (16110421) 1012.77748 (16110421)
150.0 | 1891.39768 (16091921) 1649.13873 (16091921) 1467.71611 (16091921) 1325.58304 (16091921) 1292.26453 (16091921)
160.0 | 1478.86464 (16122907) 1312.51792 (16122907) 1264.53387 (16122907) 1170.13420 (16111621) 1035.54385 (16111621)
170.0 | 1890.27375 (16092306) 1488.57692 (16092306) 1334.48837 (16092306) 1267.95849 (16092306) 1211.99882 (16050506)
180.0 | 1972.41975 (16040507) 1665.42165 (16040507) 1364.62663 (16040507) 1233.39588 (16040507) 1233.21239 (16040507)
190.0 | 1670.04725 (16122906) 1491.98532 (16122906) 1267.65754 (16122906) 1181.31500 (16122906) 909.03981 (16122906)
200.0 | 1519.71317 (16051506) 1331.62226 (16051506) 1221.42513 (16051506) 1145.68653 (16051506) 1176.27555 (16051506)
210.0 | 1544.82708 (16081321) 1350.45613 (16081321) 1220.45675 (16081321) 1089.81949 (16081321) 1113.17631 (16081321)
220.0 | 1266.87541 (16070706) 1087.53928 (16123119) 960.25808 (16123119) 894.46323 (16070706) 816.91564 (16070706)
230.0 | 1394.60825 (16013008) 1225.29267 (16013008) 1040.30911 (16013008) 947.76231 (16013008) 814.14474 (16013008)
240.0 | 1552.16927 (16082206) 1352.14783 (16082206) 1232.14812 (16082206) 1102.96341 (16082206) 951.42197 (16082206)
250.0 | 1438.19402 (16121908) 1256.65375 (16121908) 1123.72606 (16121908) 1010.00674 (16121908) 905.93083 (16121908)
260.0 | 1552.13670 (16012021) 1372.52369 (16012021) 1221.70657 (16012021) 1090.05204 (16012021) 981.55435 (16012021)
270.0 | 1515.77083 (16021707) 1335.21417 (16021707) 1204.17673 (16021707) 1094.75842 (16021707) 996.58525 (16021707)
280.0 | 1568.10377 (16032906) 1437.39683 (16032906) 1308.35305 (16082207) 1204.30156 (16082207) 1111.21374 (16032906)
290.0 | 1720.67677 (16042407) 1532.11091 (16042407) 1398.44553 (16042407) 1260.35928 (16042407) 1134.40148 (16042407)
300.0 | 1604.72307 (16121618) 1404.05132 (16121618) 1254.86531 (16121618) 1137.22976 (16121618) 1066.81236 (16121618)
310.0 | 1653.84916 (16043006) 1493.87463 (16043006) 1380.53433 (16043006) 1261.92941 (16043006) 1082.39210 (16043006)

320.0 | 1384.70531 (16010106) 1271.46230 (16010106) 1151.14668 (16010106) 1040.28874 (16010106) 935.42472 (16010106)
330.0 | 1431.96639 (16032507) 1248.98151 (16032507) 1101.84282 (16032507) 1005.63898 (16032507) 916.56848 (16032507)
340.0 | 1579.79781 (16061106) 1393.18533 (16061106) 1244.10830 (16061106) 1133.25990 (16061106) 1053.29485 (16061106)
350.0 | 1240.91948 (16121821) 1109.12274 (16121821) 993.19532 (16121821) 896.93851 (16121821) 817.32751 (16121821)
360.0 | 2428.06596 (16082007) 2168.90045 (16082007) 1968.85470 (16082007) 1783.03312 (16082007) 1647.09768 (16082007)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	1084.48684 (16020220)	995.57337 (16020220)	919.11670 (16020220)	840.02635 (16020220)	766.08472 (16020220)
20.0	924.02239 (16010718)	830.65165 (16010718)	768.50201 (16010718)	720.20603 (16010718)	676.27681 (16010718)
30.0	1022.07168 (16112919)	941.14307 (16112919)	867.34298 (16112919)	799.40908 (16112919)	745.39790 (16112919)
40.0	863.17067 (16021221)	792.08195 (16021221)	729.28217 (16021221)	673.48716 (16021221)	624.66565 (16021221)
50.0	1031.58736 (16040621)	960.26700 (16040621)	879.27208 (16040621)	810.97776 (16040621)	764.86918 (16040621)
60.0	989.68683 (16032619)	914.05444 (16032619)	825.98591 (16032619)	760.43108 (16032619)	712.00338 (16032619)
70.0	1285.08573 (16012019)	1132.88186 (16012019)	1052.95095 (16012019)	970.69066 (16012019)	929.65343 (16012019)
80.0	950.86943 (16121218)	870.05716 (16121218)	783.40912 (16121218)	753.36143 (16121218)	709.84523 (16121218)
90.0	910.31848 (16060906)	837.26997 (16060906)	742.41460 (16060906)	705.88373 (16060906)	657.79174 (16060906)
100.0	1164.66346 (16012519)	1062.41879 (16012519)	984.91884 (16012519)	889.54780 (16012519)	841.09249 (16012519)
110.0	1042.40584 (16122908)	947.49932 (16122908)	870.22697 (16122908)	795.00963 (16122908)	736.91199 (16122908)
120.0	845.42285 (16072920)	784.71303 (16072920)	735.70477 (16072920)	678.87761 (16081920)	633.30324 (16081920)
130.0	1112.90248 (16062406)	1049.10704 (16062406)	985.72106 (16062406)	945.89484 (16062406)	864.75144 (16062406)
140.0	927.57746 (16110421)	869.83239 (16110421)	806.36271 (16110421)	758.04890 (16110421)	701.44978 (16110421)
150.0	1227.26755 (16091921)	1050.27969 (16091921)	983.95446 (16091921)	920.92125 (16091921)	873.56319 (16091921)
160.0	890.72894 (16111621)	863.00082 (16111621)	804.34776 (16111621)	760.02117 (16111621)	704.51274 (16111621)
170.0	1075.90510 (16050506)	1008.29230 (16050506)	948.29160 (16050506)	889.08132 (16050506)	840.56644 (16050506)

180.0	1147.88649 (16040507)	1039.86248 (16040507)	971.52913 (16040507)	905.42469 (16040507)	859.68532 (16040507)
190.0	832.31237 (16122906)	766.14749 (16122906)	708.59187 (16122906)	760.93483 (16122906)	717.04692 (16122906)
200.0	997.88790 (16051506)	715.83303 (16051506)	662.06042 (16051506)	695.27515 (16051506)	653.44991 (16051506)
210.0	810.22601 (16081321)	745.74733 (16081321)	689.73775 (16081321)	721.40624 (16081321)	683.44036 (16081321)
220.0	872.00308 (16070706)	588.81047 (16123119)	544.58818 (16123119)	505.84117 (16123119)	513.01301 (16070706)
230.0	760.00067 (16013008)	715.72862 (16013008)	652.34603 (16013008)	574.96064 (16013008)	553.45615 (16013008)
240.0	871.18115 (16082206)	788.02622 (16082206)	673.62183 (16082206)	599.13270 (16082206)	604.31966 (16082206)
250.0	827.13086 (16121908)	747.61622 (16121908)	700.11499 (16121908)	617.00013 (16121908)	547.37109 (16121908)
260.0	896.46973 (16012021)	801.96116 (16012021)	726.31405 (16012021)	655.79046 (16012021)	621.26259 (16012021)
270.0	915.29419 (16021707)	830.77019 (16021707)	755.01922 (16021707)	705.54002 (16021707)	658.66546 (16021707)
280.0	996.57415 (16032906)	894.37685 (16032906)	823.60210 (16032906)	770.53444 (16032906)	729.78998 (16032906)
290.0	1028.06763 (16042407)	943.88260 (16042407)	876.49650 (16042407)	825.83087 (16042407)	767.64662 (16042407)
300.0	954.52761 (16121618)	875.58914 (16121618)	806.79220 (16121618)	751.20607 (16121618)	720.03824 (16121618)
310.0	1021.49758 (16043006)	931.33068 (16043006)	865.30032 (16043006)	778.83089 (16043006)	726.26830 (16043006)
320.0	842.26373 (16010106)	762.75397 (16010106)	717.88132 (16010106)	639.48882 (16010106)	592.81170 (16010106)
330.0	837.77306 (16032507)	776.70871 (16032507)	694.62515 (16032507)	622.42858 (16032507)	593.00026 (16032507)
340.0	941.53581 (16061106)	871.61024 (16061106)	764.14046 (16061106)	709.88254 (16061106)	670.73932 (16061106)
350.0	745.75592 (16121821)	678.91331 (16121821)	628.44540 (16092621)	583.59086 (16092621)	546.44001 (16092621)
360.0	1515.84740 (16082007)	1400.28164 (16082007)	1297.61019 (16082007)	1194.24666 (16082007)	1106.40408 (16082007)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	6153.83339	(16072920)	TANK	498.87	129.50	5640.10957	(16062406)
TANK	81.43	359.00	67714.04682	(16082007)	TANK	116.79	44.50	34864.60602	(16020121)
TANK	109.20	67.00	44443.66509	(16012019)	TANK	100.70	93.73	47944.82275	(16012519)
TANK	87.91	103.99	53159.62459	(16122908)	TANK	99.82	123.38	45152.10161	(16062406)
TANK	138.00	141.00	25974.31963	(16031907)	TANK	106.00	180.00	37925.29606	(16040507)
TANK	115.60	206.00	35030.60176	(16073006)	TANK	54.00	270.00	73574.69753	(16020806)

TANK : 97.00 326.00 31979.34494 (16032507) TANK : 133.94 242.10 26666.62259 (16082206)
TANK : 101.99 301.65 32294.51138 (16082006) TANK : 236.54 274.95 12996.54152 (16082207)
♀*** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	38101.97926 (16121820)	16797.98857 (16082007)	9538.22692 (16012620)	6619.92575 (16020220)	4982.75902 (16020220)
20.0	29959.22624 (16031020)	13892.10406 (16031020)	8557.15523 (16031020)	5961.01703 (16031020)	4422.22175 (16012620)
30.0	29294.45266 (16080520)	13738.84141 (16121420)	8656.18121 (16121420)	6128.91038 (16121420)	4639.04866 (16121420)
40.0	29825.54092 (16010818)	13894.89008 (16010818)	8502.81519 (16021221)	5973.77590 (16021221)	4511.17699 (16021221)
50.0	33270.26936 (16040621)	15594.46430 (16040621)	9630.87175 (16040621)	6692.09463 (16040621)	5026.33051 (16040621)
60.0	34135.64978 (16012518)	15780.20468 (16012518)	9242.03623 (16032619)	6315.09931 (16032619)	4714.04223 (16032619)
70.0	38856.44412 (16012018)	17532.20224 (16012018)	10496.77519 (16012018)	7154.70069 (16012018)	5390.26070 (16012018)
80.0	33606.80055 (16013018)	14145.43552 (16022819)	8608.76901 (16022819)	5892.21958 (16121218)	4378.59071 (16121218)
90.0	30045.83801 (16060906)	13965.55230 (16060906)	8465.78906 (16060906)	5768.03242 (16060906)	4270.31619 (16060906)
100.0	44831.27706 (16122908)	18394.64229 (16122908)	10363.26965 (16122908)	6750.54567 (16122908)	4798.65358 (16122908)
110.0	33733.34742 (16012519)	13406.64414 (16111921)	8212.42248 (16111921)	5585.44345 (16111921)	4145.57486 (16111921)
120.0	33152.23995 (16013019)	14255.82978 (16061406)	8335.03505 (16061406)	5516.05553 (16072920)	4095.94472 (16072920)
130.0	43311.73234 (16062406)	19250.30077 (16062406)	11280.60730 (16062406)	7502.24501 (16013019)	5532.99730 (16013019)
140.0	35928.72277 (16032007)	16331.08439 (16032007)	9692.69854 (16032007)	6535.08410 (16032007)	4758.25501 (16032007)
150.0	36909.84743 (16022606)	17344.84218 (16022606)	10441.57299 (16022606)	7174.68805 (16022606)	5298.62055 (16022606)
160.0	36431.15396 (16050506)	15080.54260 (16072906)	8901.34747 (16111621)	6189.91110 (16111621)	4655.44913 (16111621)
170.0	40077.20798 (16050506)	18318.71294 (16050506)	10928.01494 (16050506)	7323.10016 (16050506)	5611.24170 (16050506)
180.0	39853.15342 (16010721)	18416.21757 (16010721)	10989.59850 (16010721)	7570.64396 (16010721)	5631.13525 (16010721)
190.0	37527.17153 (16040506)	16270.73787 (16040506)	9524.25967 (16040506)	6490.91145 (16040506)	4837.89136 (16040506)
200.0	35886.02913 (16051506)	15558.34353 (16051506)	8804.36994 (16073006)	5755.72928 (16022206)	4344.59129 (16022206)
210.0	36929.88218 (16081321)	15962.54509 (16081321)	9502.65840 (16081321)	6474.25815 (16081321)	4729.53667 (16081321)

220.0 | 32472.10052 (16123119) 13397.97257 (16070706) 7925.81487 (16070706) 5433.13342 (16070706) 3987.86866 (16070706)
230.0 | 34472.66961 (16032907) 14428.52879 (16032907) 8369.10974 (16032907) 5735.66297 (16032907) 4209.29493 (16032907)
240.0 | 34938.08734 (16090407) 14505.25815 (16090407) 8439.33090 (16090407) 5683.20873 (16090407) 4214.22154 (16090407)
250.0 | 33844.49170 (16082206) 14698.81893 (16121908) 8539.04310 (16021706) 5733.71447 (16021706) 4309.35706 (16021706)
260.0 | 34517.21477 (16020806) 14869.28373 (16012021) 8830.16281 (16012021) 6010.02198 (16021706) 4381.99417 (16021706)
270.0 | 36672.25835 (16021707) 15712.48706 (16020806) 9209.82835 (16062806) 6268.47788 (16062806) 4616.76061 (16062806)
280.0 | 37196.96319 (16032906) 16259.51539 (16032906) 9706.50306 (16032906) 6529.77007 (16082207) 4856.27625 (16032906)
290.0 | 37865.29711 (16013006) 16404.22459 (16013006) 9693.27877 (16013006) 6529.57394 (16013006) 4852.80070 (16013006)
300.0 | 33157.72252 (16020807) 14762.64720 (16082006) 8785.97363 (16121618) 6055.49291 (16121618) 4503.40357 (16121618)
310.0 | 33682.79477 (16050807) 15131.74734 (16012619) 9171.68833 (16012619) 6326.29843 (16012619) 4671.54185 (16012619)
320.0 | 30433.38817 (16043006) 12982.35140 (16012619) 7511.66767 (16091507) 5145.50989 (16091507) 3796.50079 (16012618)
330.0 | 25649.05712 (16032606) 11811.34855 (16010107) 7162.05434 (16010107) 4942.56644 (16010107) 3675.39267 (16010107)
340.0 | 29896.01669 (16032606) 13420.45859 (16032606) 8058.48599 (16032606) 5516.17768 (16032606) 4049.35452 (16032606)
350.0 | 26744.33532 (16061106) 11202.21530 (16121821) 6876.17958 (16121821) 4773.59305 (16121821) 3414.79296 (16082007)
360.0 | 32370.31548 (16121820) 14512.86664 (16121820) 8718.08758 (16121820) 5918.92625 (16121820) 4331.14330 (16121820)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	3914.29049 (16020220)	3144.59693 (16020220)	2612.46736 (16020220)	2251.19944 (16121820)	1983.64214 (16121820)
20.0	3419.30400 (16010718)	2776.52665 (16010718)	2304.88957 (16010718)	1982.94870 (16010718)	1744.48306 (16010718)
30.0	3680.77372 (16121420)	3004.71807 (16121420)	2513.93354 (16121420)	2124.95784 (16121420)	1849.65177 (16121420)
40.0	3512.98865 (16020121)	2801.90107 (16020121)	2261.14996 (16010818)	1897.20005 (16010818)	1650.11333 (16010818)
50.0	3958.52445 (16040621)	3103.39020 (16040621)	2528.66568 (16040621)	2069.12280 (16040621)	1791.30836 (16040621)
60.0	3575.68766 (16032619)	2847.04695 (16121421)	2273.50805 (16121421)	1933.47566 (16121421)	1815.16665 (16032619)
70.0	4339.61446 (16012018)	3131.07010 (16012018)	2555.86383 (16012018)	2535.40581 (16012018)	2135.75213 (16012018)

80.0 | 3324.04736 (16121218) 2607.51805 (16121218) 2156.38978 (16013018) 2005.08560 (16022819) 1753.44817 (16102418)
90.0 | 3220.50489 (16012519) 2463.49734 (16121219) 2185.83667 (16121219) 1886.94770 (16121219) 1662.96126 (16121219)
100.0 | 3641.75598 (16122908) 2790.60529 (16122908) 2407.54748 (16122908) 1971.98927 (16122908) 1729.40168 (16122908)
110.0 | 3243.76561 (16111921) 2497.50145 (16111921) 2281.04607 (16111921) 1989.77830 (16111921) 1716.61873 (16111921)
120.0 | 3137.36575 (16062406) 2432.91211 (16042306) 2112.28480 (16081920) 1885.83014 (16081920) 1629.29941 (16081920)
130.0 | 4265.76523 (16013019) 3245.01475 (16013019) 2767.51338 (16013019) 2614.62131 (16013019) 2246.66387 (16013019)
140.0 | 3668.06756 (16032007) 2757.51901 (16032007) 2210.19075 (16032007) 1843.38101 (16032007) 1761.54557 (16032007)
150.0 | 4058.74337 (16022606) 3222.68944 (16022606) 2628.75442 (16022606) 2081.96844 (16022606) 1792.42991 (16022606)
160.0 | 3659.68781 (16111621) 2985.29392 (16111621) 2438.13021 (16111621) 1954.43835 (16111621) 1734.94304 (16111621)
170.0 | 4396.00316 (16050506) 3557.22627 (16050506) 2949.97281 (16050506) 2734.07362 (16092306) 2049.38789 (16050506)
180.0 | 4423.76675 (16010721) 3583.86614 (16010721) 2958.78193 (16010721) 2515.96149 (16010721) 2119.61350 (16010721)
190.0 | 3799.14576 (16040506) 3069.43321 (16040506) 2528.11655 (16040506) 2160.37809 (16040506) 1846.45911 (16040506)
200.0 | 3417.22137 (16022206) 2801.65774 (16022206) 2308.38545 (16022206) 1939.62128 (16022206) 1655.00990 (16022206)
210.0 | 3724.50298 (16081321) 3176.02547 (16073006) 2483.07703 (16073006) 2094.51917 (16073006) 1737.85843 (16073006)
220.0 | 3050.31052 (16070706) 2954.92607 (16123119) 2373.49959 (16123119) 1757.55491 (16123119) 1496.50660 (16123119)
230.0 | 3356.64737 (16032907) 2631.33910 (16032907) 2158.47370 (16032907) 1817.78830 (16032907) 1568.77151 (16032907)
240.0 | 3373.56723 (16090407) 2649.86435 (16090407) 2190.79706 (16090407) 1847.60957 (16090407) 1581.92402 (16090407)
250.0 | 3289.03070 (16021706) 2633.66184 (16021706) 2191.48095 (16021706) 1878.13007 (16021706) 1567.32267 (16021706)
260.0 | 3438.05287 (16021706) 2736.59766 (16021706) 2230.64616 (16021706) 1910.11176 (16021706) 1644.74782 (16021706)
270.0 | 3678.23699 (16062806) 2936.41934 (16062806) 2443.18987 (16062806) 2039.98420 (16062806) 1710.50362 (16062806)
280.0 | 3784.81274 (16032906) 3061.17363 (16082207) 2509.30583 (16082207) 2089.42735 (16082207) 1795.83409 (16082207)
290.0 | 3745.78506 (16013006) 3019.27299 (16013006) 2485.51317 (16013006) 2092.04470 (16013006) 1798.22862 (16013006)
300.0 | 3521.80681 (16121618) 2836.12541 (16121618) 2356.37926 (16020808) 2015.19073 (16020808) 1756.82135 (16020808)
310.0 | 3632.59545 (16012619) 2970.90385 (16012619) 2491.98683 (16012619) 2151.05724 (16012619) 1835.01321 (16012619)
320.0 | 2984.11260 (16012618) 2440.48494 (16012618) 2052.87771 (16012618) 1754.67227 (16012618) 1499.18874 (16012618)
330.0 | 2884.59131 (16010107) 2346.94849 (16010107) 1978.03177 (16010107) 1694.58852 (16092707) 1475.75577 (16092707)
340.0 | 3177.96742 (16032606) 2537.85816 (16032606) 2125.80965 (16032606) 1847.03620 (16032606) 1602.44056 (16032606)
350.0 | 2663.62420 (16092621) 2171.13705 (16092621) 1834.59065 (16092621) 1584.00948 (16092621) 1378.07705 (16092621)
360.0 | 3359.07155 (16121820) 2659.25879 (16121820) 2151.78124 (16121820) 1824.17451 (16121820) 1521.42366 (16121820)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	1729.14518 (16121820)	1538.46900 (16060920)	1375.85060 (16060920)	1251.82989 (16060920)	1143.97027 (16060920)
20.0	1528.76778 (16031020)	1349.56165 (16031020)	1204.91283 (16031020)	1087.88520 (16031020)	987.16443 (16031020)
30.0	1622.52860 (16121420)	1436.24406 (16121420)	1302.74067 (16121420)	1182.19520 (16121420)	1063.28650 (16121420)
40.0	1364.81970 (16020121)	1193.75093 (16010818)	1069.84235 (16010818)	966.62259 (16010818)	879.49375 (16010818)
50.0	1704.35056 (16040621)	1512.91355 (16020119)	1351.75785 (16020119)	1234.44028 (16020119)	1132.81864 (16020119)
60.0	1618.27958 (16032619)	1402.62361 (16032619)	1289.96201 (16032619)	1178.82168 (16032619)	1084.30470 (16032619)
70.0	1880.27463 (16012018)	1659.47281 (16012018)	1480.38088 (16012018)	1335.97175 (16012018)	1213.92371 (16012018)
80.0	1564.30679 (16102418)	1394.12756 (16102418)	1246.42812 (16102418)	1114.26814 (16102418)	1009.62484 (16102418)
90.0	1482.52638 (16121219)	1317.34918 (16121219)	1190.92457 (16121219)	1083.38696 (16121219)	980.88422 (16121219)
100.0	1504.68311 (16122908)	1284.59247 (16122908)	1172.43025 (16122908)	1018.14739 (16122908)	895.78851 (16122908)
110.0	1451.85738 (16111921)	1292.07439 (16111921)	1170.76361 (16111921)	1054.79550 (16111921)	969.60084 (16111921)
120.0	1444.85230 (16081920)	1217.67582 (16072920)	1126.56580 (16081920)	1028.35171 (16081920)	913.76802 (16072920)
130.0	1933.91041 (16013019)	1659.53705 (16013019)	1445.21122 (16013019)	1277.62691 (16013019)	1147.15389 (16013019)
140.0	1533.30486 (16031907)	1347.57467 (16110421)	1202.03620 (16110421)	1094.83113 (16031906)	999.74020 (16031907)
150.0	1766.64274 (16022606)	1544.27956 (16022606)	1376.61784 (16022606)	1244.43890 (16022606)	1196.85270 (16022606)
160.0	1421.91854 (16111621)	1261.49566 (16111621)	1255.43643 (16111621)	1153.62236 (16122907)	1032.31567 (16122907)
170.0	1871.75578 (16050506)	1466.60112 (16050506)	1314.73709 (16050506)	1261.45613 (16050506)	1180.64408 (16092306)
180.0	1900.00991 (16010721)	1613.64918 (16010721)	1334.97673 (16010721)	1206.57752 (16010721)	1179.90037 (16010721)
190.0	1635.58283 (16040506)	1461.04697 (16040506)	1243.26543 (16040506)	1157.71379 (16040506)	893.95097 (16040506)
200.0	1453.76871 (16022206)	1275.61164 (16022206)	1167.56003 (16022206)	1091.07327 (16022206)	1129.16942 (16022206)
210.0	1510.78074 (16073006)	1317.08282 (16073006)	1188.80322 (16073006)	1060.75158 (16073006)	1091.74131 (16073006)
220.0	1266.79009 (16123119)	1085.16721 (16070706)	958.29887 (16070706)	887.37310 (16123119)	807.00749 (16123119)
230.0	1374.59554 (16032907)	1205.25873 (16032907)	1030.13754 (16032907)	933.02416 (16032907)	808.55358 (16032907)
240.0	1376.60637 (16090407)	1197.01367 (16090407)	1077.43337 (16090407)	962.53673 (16090407)	835.71542 (16090407)

250.0 | 1364.91782 (16021706) 1191.01550 (16021706) 1064.58260 (16021706) 953.88936 (16091906) 855.58167 (16091906)
260.0 | 1438.22174 (16021706) 1261.90290 (16021706) 1116.37727 (16090406) 996.13291 (16090406) 897.02016 (16090406)
270.0 | 1500.30672 (16062806) 1321.58164 (16062806) 1191.91240 (16062806) 1083.63509 (16062806) 986.46692 (16062806)
280.0 | 1539.44989 (16082207) 1414.36739 (16082207) 1296.18217 (16032906) 1182.33787 (16032906) 1097.86365 (16082207)
290.0 | 1625.93857 (16013006) 1448.13055 (16013006) 1324.62774 (16013006) 1199.88010 (16013006) 1085.03275 (16013006)
300.0 | 1574.18530 (16020808) 1376.10877 (16020808) 1229.61990 (16020808) 1114.34010 (16020808) 1046.27066 (16020808)
310.0 | 1623.49586 (16012619) 1466.63081 (16012619) 1354.32369 (16012619) 1237.68147 (16012619) 1063.21712 (16012619)
320.0 | 1307.00720 (16012618) 1183.55378 (16012618) 1069.34671 (16012618) 973.21532 (16012618) 890.87233 (16012618)
330.0 | 1317.45318 (16092707) 1162.86791 (16092707) 1040.08436 (16092707) 949.80382 (16092707) 866.20397 (16092707)
340.0 | 1389.98273 (16032606) 1213.39413 (16032606) 1072.32391 (16032606) 976.44011 (16032606) 906.67479 (16032606)
350.0 | 1210.60873 (16092621) 1080.54111 (16092621) 967.02504 (16092621) 872.65852 (16092621) 794.41001 (16092621)
360.0 | 1323.80314 (16021606) 1182.06957 (16021606) 1068.50167 (16021606) 968.83476 (16021606) 882.51037 (16021606)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	1050.31879 (16060920)	964.35025 (16060920)	890.42000 (16060920)	814.01956 (16060920)	742.55610 (16060920)
20.0	894.63141 (16031020)	801.87094 (16121819)	741.94271 (16121819)	695.50603 (16031020)	653.58235 (16031020)
30.0	967.51750 (16121420)	890.96327 (16121420)	821.37931 (16121420)	757.51388 (16121420)	706.35322 (16121420)
40.0	805.11160 (16010818)	740.02423 (16010818)	676.04592 (16010818)	619.48568 (16031607)	574.46385 (16031607)
50.0	1022.53736 (16020119)	951.76711 (16020119)	871.58230 (16020119)	803.94231 (16020119)	758.17323 (16020119)
60.0	987.60057 (16012518)	903.86377 (16012518)	821.10461 (16012518)	756.83099 (16012518)	711.00948 (16012518)
70.0	1154.39186 (16012018)	1027.77311 (16012018)	954.56306 (16012018)	881.53774 (16012018)	839.91896 (16012018)
80.0	922.48130 (16102418)	844.48809 (16102418)	762.02820 (16102418)	730.72855 (16102418)	687.92746 (16102418)
90.0	890.88132 (16121219)	821.95656 (16121219)	730.83356 (16121219)	697.50772 (16121219)	653.88117 (16121219)
100.0	825.69136 (16122908)	755.57325 (16122908)	688.34564 (16121320)	634.36971 (16122908)	592.79919 (16121320)

110.0	907.09028 (16111921)	828.05421 (16111921)	762.41738 (16111921)	699.55315 (16111921)	649.98686 (16111921)
120.0	843.99343 (16081920)	782.17701 (16081920)	733.61766 (16081920)	677.50207 (16072920)	627.90303 (16080807)
130.0	1060.38536 (16013019)	999.51389 (16013019)	938.73177 (16013019)	892.73272 (16013019)	818.72931 (16013019)
140.0	915.21148 (16031907)	848.15941 (16031906)	786.39492 (16031906)	740.08121 (16031906)	684.29854 (16031906)
150.0	1116.53624 (16022606)	974.36736 (16022606)	903.32881 (16022606)	840.28346 (16022606)	795.14429 (16022606)
160.0	890.34826 (16122907)	833.00891 (16122907)	764.10709 (16092021)	722.28107 (16092021)	669.41365 (16092021)
170.0	1047.30695 (16092306)	981.91860 (16092306)	923.86963 (16092306)	866.39464 (16092306)	819.43056 (16092306)
180.0	1095.33006 (16010721)	991.99646 (16010721)	926.93274 (16010721)	863.89422 (16010721)	820.47160 (16010721)
190.0	818.49942 (16040506)	753.43371 (16040506)	696.83314 (16040506)	746.24440 (16040506)	701.49907 (16040506)
200.0	951.59272 (16022206)	693.44910 (16022206)	641.35007 (16022206)	667.47646 (16022206)	626.91549 (16022206)
210.0	795.76112 (16073006)	727.18746 (16073006)	670.28853 (16072406)	702.16041 (16073006)	665.73337 (16073006)
220.0	859.45917 (16123119)	584.85229 (16070706)	540.92115 (16070706)	502.40851 (16070706)	506.28206 (16123119)
230.0	748.22805 (16032907)	701.98701 (16032907)	640.00550 (16032907)	565.11519 (16032907)	543.24178 (16032907)
240.0	760.97895 (16090407)	687.97859 (16022908)	600.53694 (16090407)	533.26767 (16090407)	530.70050 (16022908)
250.0	781.14032 (16091906)	706.03087 (16091906)	661.15524 (16091906)	582.55088 (16091906)	516.56493 (16091906)
260.0	813.48085 (16090406)	732.93820 (16090406)	663.81961 (16090406)	599.37356 (16090406)	563.11839 (16020207)
270.0	906.01467 (16062806)	822.31367 (16062806)	747.28798 (16062806)	698.33234 (16062806)	655.02605 (16062806)
280.0	986.00314 (16082207)	889.33323 (16082207)	811.31032 (16082207)	752.74368 (16082207)	712.18334 (16082207)
290.0	984.18055 (16013006)	897.16909 (16013006)	832.13354 (16013006)	785.34693 (16013006)	729.73278 (16013006)
300.0	935.37047 (16020808)	857.88133 (16020808)	790.36170 (16020808)	735.92423 (16020808)	705.66899 (16020808)
310.0	1002.76467 (16012619)	914.47731 (16012619)	849.58032 (16012619)	765.16639 (16012619)	713.52842 (16012619)
320.0	800.98111 (16012618)	728.98120 (16012618)	694.85604 (16012618)	623.06698 (16012618)	579.24744 (16012618)
330.0	792.78817 (16092707)	734.14721 (16092707)	662.13209 (16092707)	597.41208 (16092707)	567.11673 (16092707)
340.0	812.18736 (16032606)	751.74512 (16032606)	661.18550 (16032606)	614.27931 (16032606)	580.06435 (16032606)
350.0	737.17212 (16092621)	677.25345 (16092621)	621.30729 (16121821)	575.98889 (16121821)	539.44971 (16121821)
360.0	801.33247 (16021606)	730.93002 (16021606)	669.41709 (16021606)	618.34413 (16021606)	575.14017 (16021606)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:01:56

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK :	375.70	118.90	6119.00092	(16062406)	TANK :	498.87	129.50	5443.66323	(16013019)
TANK :	81.43	359.00	37953.53768	(16121820)	TANK :	116.79	44.50	27473.12544	(16040621)
TANK :	109.20	67.00	34423.49775	(16012018)	TANK :	100.70	93.73	35957.91693	(16122908)
TANK :	87.91	103.99	50369.42011	(16012519)	TANK :	99.82	123.38	38750.36116	(16013019)
TANK :	138.00	141.00	25771.69986	(16032007)	TANK :	106.00	180.00	37718.46829	(16010721)
TANK :	115.60	206.00	31299.87094	(16081321)	TANK :	54.00	270.00	70722.31693	(16021707)
TANK :	97.00	326.00	27852.46340	(16010106)	TANK :	133.94	242.10	23916.98886	(16090407)
TANK :	101.99	301.65	32217.07158	(16020808)	TANK :	236.54	274.95	12098.31264	(16091907)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	34159.89986 (16012620)	15607.05042 (16012620)	9419.48964 (16020220)	6605.83839 (16012620)	4896.06634 (16012620)
20.0	28128.46606 (16071420)	13173.24034 (16071420)	8127.05298 (16071420)	5710.05243 (16010718)	4319.59944 (16010718)
30.0	28595.44622 (16121420)	13720.41866 (16080520)	8531.12579 (16080520)	5990.80591 (16080520)	4515.17753 (16080520)
40.0	28654.28878 (16021221)	13668.87661 (16021221)	8487.48903 (16010818)	5879.38946 (16010818)	4399.63227 (16010818)
50.0	33023.24095 (16020119)	15479.45744 (16020119)	9563.65906 (16020119)	6645.13342 (16020119)	4984.35304 (16020119)
60.0	33531.58432 (16032619)	15256.55728 (16032619)	8889.89074 (16012019)	6152.88377 (16121421)	4606.23602 (16121421)
70.0	27337.67877 (16032619)	12080.06135 (16032619)	7046.36890 (16032619)	4709.72115 (16010121)	3520.47900 (16010121)
80.0	30565.98092 (16022819)	13760.87544 (16121218)	8535.78802 (16121218)	5888.00654 (16022819)	4344.59921 (16022819)
90.0	29114.11803 (16013018)	13292.24474 (16092721)	8111.47613 (16092721)	5552.36757 (16092721)	4117.34067 (16092721)
100.0	28023.58999 (16051406)	12859.61575 (16051406)	7645.69984 (16051406)	5146.64343 (16051406)	3723.77365 (16051406)
110.0	28697.23632 (16072920)	12642.78893 (16072920)	7382.36323 (16072920)	4877.35933 (16072920)	3605.25939 (16111220)
120.0	31728.89297 (16061406)	13610.76057 (16042621)	8128.34696 (16072920)	5515.24484 (16061406)	4066.56165 (16042306)
130.0	36201.47332 (16032006)	16866.93620 (16032006)	10138.54643 (16032006)	6861.24615 (16032006)	5092.78315 (16032006)
140.0	34771.11950 (16013019)	15477.45179 (16031906)	9318.26721 (16031906)	6328.50595 (16031906)	4636.89593 (16031906)

150.0 | 31984.30469 (16051821) 15330.00948 (16051821) 9339.45975 (16051821) 6443.62255 (16051821) 4777.30508 (16051821)
160.0 | 35347.14545 (16072906) 14856.96221 (16050506) 8718.36566 (16102107) 5990.48732 (16092021) 4501.95637 (16092021)
170.0 | 37592.37771 (16010721) 17447.69611 (16072906) 10486.60104 (16072906) 7081.34247 (16072906) 5397.25687 (16072906)
180.0 | 37700.13550 (16081107) 16342.50593 (16102419) 9971.78154 (16102419) 6928.58139 (16102419) 5179.35937 (16102419)
190.0 | 35457.85385 (16081107) 15194.63530 (16081107) 8803.49293 (16042906) 6026.36202 (16042906) 4508.89045 (16042906)
200.0 | 34813.11550 (16012507) 14903.85554 (16012507) 8611.33515 (16012507) 5717.93100 (16073006) 4255.90223 (16012507)
210.0 | 35139.14520 (16072406) 15385.56330 (16072406) 9175.61213 (16072406) 6259.45755 (16072406) 4578.21932 (16072406)
220.0 | 32391.84735 (16073006) 11984.29868 (16073006) 6829.83167 (16041206) 4689.74990 (16041206) 3453.46619 (16041206)
230.0 | 32855.65490 (16090407) 13306.56200 (16090407) 7546.23720 (16090407) 5046.84623 (16090407) 3690.68965 (16082106)
240.0 | 33247.31131 (16021708) 13947.88807 (16021708) 8133.37963 (16021708) 5484.46275 (16021708) 4071.11487 (16021708)
250.0 | 33705.83131 (16121908) 13644.50349 (16091906) 8096.20083 (16091906) 5518.75418 (16091906) 4164.97104 (16091906)
260.0 | 33886.71709 (16012021) 14388.09917 (16090406) 8464.94812 (16090406) 5801.92369 (16090406) 4283.46848 (16090406)
270.0 | 36103.42558 (16062806) 15585.77871 (16062806) 9183.30391 (16020806) 6218.83422 (16020806) 4540.34154 (16020806)
280.0 | 34582.96405 (16042407) 14623.79927 (16042407) 8817.53896 (16040406) 6023.08431 (16040406) 4510.33487 (16040406)
290.0 | 37536.09723 (16032906) 15488.14741 (16032906) 8872.39321 (16032906) 5977.98129 (16020807) 4453.06743 (16020807)
300.0 | 33021.59046 (16020808) 14476.16771 (16121618) 8758.79101 (16082006) 5935.36722 (16082006) 4390.27732 (16121406)
310.0 | 33210.03413 (16012619) 14644.66681 (16050807) 8663.92676 (16050807) 5881.20233 (16050807) 4295.51405 (16050807)
320.0 | 29194.99623 (16010106) 12492.45477 (16091507) 7383.38182 (16012618) 5110.76494 (16012618) 3777.11808 (16091507)
330.0 | 25628.22790 (16010107) 11763.32549 (16032606) 7027.43694 (16032606) 4813.37062 (16092707) 3604.59562 (16092707)
340.0 | 25877.64755 (16112921) 11511.82151 (16112921) 6907.26599 (16031806) 4777.96131 (16031806) 3549.96255 (16031806)
350.0 | 24216.94644 (16121821) 10590.82617 (16071320) 6484.90760 (16092621) 4541.80139 (16092621) 3399.90675 (16092621)
360.0 | 22442.72993 (16021606) 11001.15860 (16021606) 7061.54118 (16021606) 5014.03581 (16021606) 3813.04647 (16021606)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00

10.0 | 3805.63269 (16060920) 3058.23361 (16060920) 2539.62925 (16060920) 2220.99169 (16060920) 1950.09378 (16060920)
20.0 | 3354.04728 (16012620) 2674.42862 (16012620) 2218.96761 (16121819) 1907.93409 (16121819) 1675.78500 (16121819)
30.0 | 3559.40430 (16080520) 2892.01790 (16080520) 2411.36778 (16080520) 2028.90929 (16080520) 1764.48408 (16080520)
40.0 | 3423.56395 (16010818) 2755.64627 (16010818) 2249.50646 (16020121) 1851.53661 (16020121) 1596.39315 (16020121)
50.0 | 3922.77292 (16020119) 3076.70654 (16020119) 2507.63694 (16020119) 2052.51770 (16020119) 1776.96300 (16020119)
60.0 | 3555.63185 (16121421) 2839.96693 (16032619) 2247.26085 (16032619) 1902.01841 (16032619) 1776.09865 (16010720)
70.0 | 2719.42123 (16010121) 2191.18005 (16010121) 1797.23129 (16010121) 1627.06341 (16010121) 1415.57782 (16010121)
80.0 | 3283.08101 (16022819) 2567.01289 (16022819) 2128.29244 (16102418) 1994.93433 (16102418) 1737.72423 (16022819)
90.0 | 3194.03748 (16092721) 2457.09923 (16092721) 2164.50227 (16092721) 1857.57776 (16092721) 1634.91432 (16092721)
100.0 | 2902.86427 (16051406) 2252.07945 (16051406) 1972.43774 (16121320) 1679.00426 (16121320) 1469.03186 (16121320)
110.0 | 2825.77480 (16111220) 2196.38595 (16111220) 1946.88184 (16111220) 1656.94510 (16111220) 1430.91767 (16111220)
120.0 | 3119.97367 (16042306) 2412.17742 (16062406) 2098.27489 (16080807) 1870.92251 (16080807) 1615.63243 (16080807)
130.0 | 3960.16423 (16032006) 3031.58344 (16032006) 2617.59010 (16032006) 2450.30508 (16032006) 2135.34638 (16032006)
140.0 | 3626.60946 (16031906) 2709.01404 (16031906) 2177.83761 (16031906) 1839.72175 (16031906) 1748.39611 (16031906)
150.0 | 3675.88953 (16051821) 2926.69887 (16051821) 2391.49070 (16051821) 1900.20472 (16051821) 1636.50483 (16051821)
160.0 | 3537.69576 (16092021) 2882.70386 (16092021) 2360.08969 (16092021) 1893.48827 (16092021) 1682.98927 (16092021)
170.0 | 4228.80959 (16072906) 3421.87761 (16072906) 2837.15718 (16072906) 2588.75032 (16072906) 1989.41196 (16072906)
180.0 | 4083.09180 (16102419) 3320.49592 (16102419) 2751.64206 (16102419) 2348.39374 (16102419) 1982.69088 (16102419)
190.0 | 3539.72611 (16042906) 2853.30398 (16042906) 2346.84190 (16042906) 1995.19327 (16042906) 1701.75214 (16042906)
200.0 | 3299.55066 (16022906) 2695.12202 (16013021) 2220.94169 (16013021) 1866.25046 (16013021) 1592.43268 (16013021)
210.0 | 3605.32623 (16072406) 3091.10802 (16072406) 2427.78435 (16072406) 2062.76502 (16072406) 1712.87304 (16072406)
220.0 | 2652.19704 (16041206) 2484.19605 (16041206) 2042.04605 (16041206) 1531.50914 (16041206) 1307.81154 (16041206)
230.0 | 2945.19680 (16082106) 2314.77704 (16082106) 1902.23434 (16082106) 1605.05861 (16082106) 1388.51650 (16082106)
240.0 | 3258.29250 (16021708) 2561.70637 (16021708) 2117.52094 (16021708) 1784.77465 (16021708) 1526.85113 (16021708)
250.0 | 3215.40873 (16091906) 2611.64757 (16091906) 2171.30312 (16091906) 1860.98672 (16091906) 1558.47216 (16091906)
260.0 | 3365.83664 (16090406) 2698.57564 (16090406) 2215.34218 (16090406) 1881.02790 (16090406) 1620.94712 (16090406)
270.0 | 3621.30897 (16020806) 2882.83829 (16020806) 2375.26142 (16020806) 1971.86432 (16020806) 1651.09685 (16020806)
280.0 | 3527.95566 (16040406) 2860.33976 (16040406) 2353.76745 (16040406) 1965.95249 (16040406) 1695.95803 (16040406)
290.0 | 3445.32231 (16020807) 2787.89923 (16020807) 2312.45743 (16070806) 1962.68391 (16121721) 1701.53972 (16121721)
300.0 | 3435.52706 (16121406) 2768.35701 (16121406) 2303.03102 (16121406) 1981.38347 (16121406) 1740.07765 (16121406)
310.0 | 3335.01689 (16050807) 2717.75286 (16050807) 2245.94729 (16050807) 1886.27851 (16050807) 1607.74850 (16050807)

320.0 | 2961.98111 (16091507) 2418.28592 (16091507) 1999.76568 (16091507) 1689.06268 (16091507) 1440.65170 (16091507)
330.0 | 2831.90086 (16092707) 2307.92775 (16092707) 1964.81032 (16092707) 1689.12113 (16010107) 1468.28559 (16010107)
340.0 | 2796.63426 (16031806) 2263.73431 (16031806) 1910.98857 (16031806) 1634.31237 (16031806) 1421.70364 (16031806)
350.0 | 2595.64940 (16020221) 2115.28936 (16020221) 1787.44304 (16020221) 1544.20451 (16020221) 1344.35807 (16020221)
360.0 | 3017.09807 (16021606) 2451.64249 (16021606) 2041.97475 (16021606) 1736.30764 (16021606) 1512.94559 (16021606)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	1720.24086 (16060920)	1503.25857 (16121820)	1319.09834 (16121820)	1195.19796 (16121820)	1092.31099 (16121820)
20.0	1489.17126 (16121819)	1328.96624 (16121819)	1190.76946 (16121819)	1076.75288 (16121819)	978.77777 (16121819)
30.0	1545.54131 (16080520)	1366.28103 (16080520)	1240.93924 (16080520)	1126.23786 (16080520)	1010.71714 (16080520)
40.0	1354.30522 (16010818)	1171.08846 (16031607)	1049.58188 (16031607)	948.31558 (16031607)	862.81851 (16031607)
50.0	1693.89213 (16020119)	1485.46872 (16020121)	1314.73834 (16020121)	1214.90764 (16020121)	1117.65106 (16020121)
60.0	1568.13658 (16010720)	1370.69452 (16010720)	1247.39749 (16121421)	1134.21435 (16121421)	1038.99454 (16010720)
70.0	1248.32105 (16010121)	1108.28053 (16010121)	992.82310 (16010121)	897.68979 (16010121)	817.03167 (16010121)
80.0	1542.00028 (16013018)	1373.08136 (16120621)	1228.30297 (16120621)	1098.53329 (16120621)	995.55742 (16120621)
90.0	1459.34254 (16092721)	1296.23883 (16092721)	1172.43604 (16092721)	1066.95133 (16092721)	965.20693 (16092721)
100.0	1286.54513 (16121320)	1143.41823 (16121320)	1055.88039 (16121320)	957.94608 (16121320)	877.84784 (16121320)
110.0	1230.59965 (16111220)	1085.60566 (16111220)	985.12841 (16111220)	891.11924 (16111220)	822.12841 (16111220)
120.0	1432.85943 (16080807)	1214.47494 (16080807)	1118.97440 (16080807)	1020.91427 (16080807)	909.23663 (16080807)
130.0	1860.71129 (16032006)	1596.02449 (16032006)	1390.06691 (16032006)	1237.92420 (16032006)	1123.37612 (16032006)
140.0	1524.76065 (16032007)	1335.21159 (16031907)	1182.74565 (16031907)	1078.59930 (16031907)	992.13343 (16032007)
150.0	1596.49959 (16051821)	1397.05895 (16051821)	1245.78975 (16051821)	1126.15293 (16051821)	1086.57320 (16051821)
160.0	1376.97876 (16092021)	1222.72383 (16092021)	1203.63455 (16092021)	1112.89178 (16092021)	985.38455 (16092021)
170.0	1794.95103 (16072906)	1433.83618 (16072906)	1285.44983 (16072906)	1217.79240 (16072906)	1149.57076 (16072906)

180.0 | 1787.46570 (16102419) 1516.99369 (16102419) 1250.23421 (16102419) 1130.03143 (16102419) 1123.29843 (16102419)
190.0 | 1503.49889 (16042906) 1342.59638 (16042906) 1147.38211 (16042906) 1066.13675 (16042906) 832.11194 (16042906)
200.0 | 1397.60271 (16013021) 1225.97090 (16013021) 1119.97202 (16013021) 1044.73917 (16013021) 1075.84214 (16013021)
210.0 | 1498.30032 (16072406) 1310.21214 (16072406) 1183.88970 (16072406) 1057.42201 (16072406) 1077.08923 (16072406)
220.0 | 1108.90677 (16041206) 952.92298 (16041206) 842.52578 (16041206) 784.06835 (16041206) 715.78018 (16041206)
230.0 | 1219.61854 (16082106) 1070.73291 (16082106) 915.72977 (16082106) 831.16759 (16082106) 718.88681 (16082106)
240.0 | 1335.51866 (16022908) 1167.81601 (16022908) 1061.08771 (16022908) 951.60546 (16022908) 828.51719 (16022908)
250.0 | 1358.34439 (16091906) 1186.89422 (16091906) 1061.31511 (16091906) 948.66900 (16021706) 847.70110 (16021706)
260.0 | 1418.13737 (16090406) 1254.11537 (16090406) 1103.15810 (16021706) 980.73725 (16020207) 884.17869 (16020207)
270.0 | 1444.76191 (16020806) 1272.30708 (16020806) 1147.48850 (16020806) 1043.26836 (16020806) 949.65670 (16020806)
280.0 | 1453.56804 (16040406) 1326.65446 (16040406) 1226.46282 (16040406) 1129.17587 (16040406) 1057.89175 (16040406)
290.0 | 1536.77363 (16121721) 1368.85993 (16121721) 1248.67819 (16121721) 1128.99898 (16121721) 1026.91724 (16070806)
300.0 | 1565.77440 (16121406) 1370.67322 (16121406) 1225.23370 (16121406) 1110.40144 (16121406) 1041.04722 (16121406)
310.0 | 1419.65325 (16050807) 1276.59873 (16050807) 1161.20707 (16050807) 1029.60107 (16050807) 920.75488 (16050807)
320.0 | 1262.21413 (16091507) 1158.10479 (16091507) 1034.77880 (16091507) 917.09561 (16091507) 834.39659 (16091507)
330.0 | 1313.30178 (16010107) 1157.10304 (16010107) 1034.17658 (16010107) 944.61884 (16010107) 856.37615 (16010107)
340.0 | 1258.14635 (16031806) 1115.22075 (16031806) 999.16931 (16031806) 909.53943 (16031806) 826.43750 (16031806)
350.0 | 1177.84691 (16020221) 1041.44111 (16080321) 932.54305 (16080321) 841.85597 (16080321) 766.46090 (16080321)
360.0 | 1312.35307 (16121820) 1142.05844 (16121820) 1036.74369 (16121820) 908.68331 (16121820) 818.18262 (16120418)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	1002.76800 (16121820)	919.77924 (16121820)	840.53274 (16121820)	772.65199 (16121820)	704.06820 (16121820)
20.0	889.81514 (16121819)	801.43747 (16031020)	741.40577 (16031020)	694.85694 (16121819)	652.14623 (16121819)
30.0	918.60695 (16080520)	845.76080 (16080520)	779.22415 (16080520)	717.88826 (16080520)	669.32800 (16080520)

40.0	789.63766 (16031607)	725.85257 (16031607)	669.59373 (16031607)	612.35187 (16010818)	559.52818 (16010818)
50.0	1006.83080 (16020121)	932.04217 (16031707)	854.58370 (16031707)	788.91356 (16031707)	743.25252 (16031707)
60.0	953.84273 (16010720)	886.93935 (16010720)	804.00707 (16010720)	743.86726 (16010720)	699.32070 (16010720)
70.0	759.48186 (16010121)	689.99152 (16010121)	637.10275 (16010121)	588.22365 (16010121)	550.20159 (16010121)
80.0	909.74902 (16120621)	832.89652 (16120621)	751.41167 (16120621)	720.86014 (16120621)	678.73820 (16120621)
90.0	875.84561 (16092721)	807.34791 (16092721)	716.35440 (16092721)	681.44699 (16092721)	634.92930 (16092721)
100.0	807.29868 (16121320)	741.86678 (16121320)	684.72976 (16122908)	630.31493 (16121320)	582.19171 (16111920)
110.0	766.09681 (16111220)	700.95669 (16111220)	646.14970 (16111220)	594.31672 (16111220)	552.60781 (16111220)
120.0	838.69507 (16080807)	776.63847 (16080807)	727.39270 (16080807)	673.22158 (16080807)	625.00185 (16072920)
130.0	1041.69304 (16032006)	979.63398 (16032006)	918.72568 (16032006)	878.03651 (16032006)	804.88720 (16032006)
140.0	908.58583 (16032007)	824.47419 (16031907)	751.43914 (16052306)	705.90694 (16031907)	652.36531 (16031907)
150.0	1017.82991 (16040321)	888.42774 (16051821)	828.49117 (16040321)	774.25846 (16040321)	731.78646 (16040321)
160.0	857.46579 (16092021)	819.69752 (16092021)	760.53716 (16012521)	720.40321 (16122907)	667.07494 (16122907)
170.0	1023.81525 (16072906)	956.93710 (16072906)	899.35860 (16072906)	842.87526 (16072906)	796.35374 (16072906)
180.0	1044.28987 (16102419)	947.27644 (16102419)	884.38493 (16102419)	824.03338 (16102419)	781.28605 (16102419)
190.0	760.42808 (16042906)	699.97383 (16042906)	647.38465 (16042906)	688.48277 (16042906)	648.18024 (16042906)
200.0	909.98467 (16013021)	667.53512 (16013021)	616.85475 (16013021)	640.31332 (16013021)	601.31122 (16013021)
210.0	787.39330 (16072406)	724.72423 (16072406)	669.53619 (16073006)	699.90062 (16072406)	662.86234 (16072406)
220.0	750.84050 (16041206)	517.76698 (16041206)	478.78824 (16041206)	444.59484 (16041206)	451.97322 (16041206)
230.0	667.75083 (16082106)	622.29330 (16082106)	567.08690 (16082106)	505.04553 (16082106)	480.25721 (16082106)
240.0	758.64285 (16022908)	687.89500 (16090407)	594.19992 (16022908)	530.59488 (16022908)	526.73452 (16090407)
250.0	763.86746 (16042006)	691.27973 (16042006)	646.81617 (16042006)	577.73601 (16021706)	514.69065 (16021706)
260.0	807.80945 (16020207)	724.65281 (16020207)	657.59332 (16020207)	595.29406 (16020207)	562.98825 (16090406)
270.0	872.19586 (16020806)	790.09547 (16020806)	718.87399 (16020806)	656.60252 (16020806)	615.21289 (16040407)
280.0	951.32468 (16040406)	856.08694 (16040406)	788.79492 (16040406)	737.63242 (16040406)	697.77426 (16040406)
290.0	947.63625 (16070806)	876.13746 (16070806)	813.80949 (16070806)	767.04068 (16070806)	713.13546 (16070806)
300.0	931.99716 (16121406)	855.02202 (16121406)	787.92650 (16121406)	733.63575 (16121406)	702.87316 (16121406)
310.0	830.09266 (16050807)	757.78880 (16050807)	703.14268 (16050807)	638.37830 (16050807)	595.26794 (16050807)
320.0	746.57822 (16091507)	677.62807 (16091507)	650.23001 (16091507)	578.46264 (16091507)	537.44840 (16091507)
330.0	781.91661 (16062906)	723.99382 (16062906)	653.54168 (16062906)	590.07158 (16062906)	559.94626 (16062906)
340.0	748.11548 (16031806)	681.12434 (16031806)	619.16853 (16031806)	568.54733 (16031806)	524.39592 (16031806)

350.0 | 710.25801 (16080321) 652.74968 (16080321) 605.63149 (16080321) 562.50330 (16080321) 526.57092 (16080321)
360.0 | 751.18762 (16120418) 686.17087 (16120418) 629.43107 (16120418) 581.20234 (16120418) 537.70978 (16120418)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)
TANK	375.70	118.90	5745.19908	(16080807)	TANK	498.87	129.50	5083.60151	(16032006)
TANK	81.43	359.00	28679.47614	(16071320)	TANK	116.79	44.50	24389.90482	(16021221)
TANK	109.20	67.00	28009.46328	(16032619)	TANK	100.70	93.73	28888.60091	(16060906)
TANK	87.91	103.99	33105.69541	(16111921)	TANK	99.82	123.38	33941.68770	(16032006)
TANK	138.00	141.00	24004.46777	(16091921)	TANK	106.00	180.00	35283.28326	(16081107)
TANK	115.60	206.00	30447.27132	(16012507)	TANK	54.00	270.00	69396.16636	(16062806)
TANK	97.00	326.00	26493.45481	(16012619)	TANK	133.94	242.10	22918.93989	(16121908)
TANK	101.99	301.65	31381.63814	(16121618)	TANK	236.54	274.95	11380.41929	(16040406)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	10633.54835 (16121824)	4477.92650 (16121824)	2596.85624 (16121824)	1733.94806 (16121824)	1241.14657 (16121824)
20.0	9913.64160 (16020224)	4088.27120 (16121824)	2381.17536 (16121824)	1590.16694 (16121824)	1159.48902 (16121824)
30.0	7981.89262 (16121424)	3396.45751 (16121424)	1993.82418 (16121424)	1351.72490 (16121424)	990.99499 (16121424)
40.0	10775.27180 (16020124)	4473.06453 (16020124)	2603.20008 (16021224)	1754.50326 (16021224)	1283.53003 (16021224)
50.0	12771.61577 (16020124)	5745.14413 (16020124)	3450.96447 (16020124)	2357.32704 (16020124)	1723.64462 (16020124)
60.0	9399.94560 (16020124)	4053.06065 (16020124)	2377.53060 (16020124)	1588.13541 (16020124)	1121.97799 (16020124)
70.0	10992.36568 (16012024)	4760.43183 (16012024)	2809.54767 (16010124)	1921.13646 (16010124)	1426.22246 (16012024)

80.0 | 9506.66031 (16030124) 3959.43497 (16030124) 2313.66975 (16030124) 1532.67535 (16030124) 1100.10333 (16030124)
90.0 | 10309.24446 (16012924) 4531.38831 (16012924) 2679.92575 (16012924) 1793.63616 (16012924) 1301.92956 (16012924)
100.0 | 8457.40233 (16111924) 3850.30896 (16111924) 2294.75611 (16111924) 1556.62900 (16012924) 1139.34283 (16012924)
110.0 | 8837.22087 (16111924) 4192.47250 (16111924) 2568.79670 (16111924) 1767.39378 (16111924) 1299.09025 (16111924)
120.0 | 9075.06020 (16020724) 4203.34456 (16020724) 2547.74609 (16020724) 1736.00730 (16020724) 1277.95715 (16020724)
130.0 | 10603.50276 (16110424) 4736.60689 (16110424) 2814.21376 (16110424) 1908.07632 (16011724) 1402.09964 (16011724)
140.0 | 9708.19546 (16011824) 4426.61442 (16011824) 2667.59219 (16011824) 1804.51818 (16011824) 1319.41461 (16011824)
150.0 | 10404.64687 (16111424) 4898.34664 (16111424) 2996.30745 (16111424) 2058.38088 (16111424) 1521.83663 (16111424)
160.0 | 10841.35904c(16011224) 5116.63849c(16011224) 3121.09520c(16011224) 2103.09378c(16011224) 1521.45811c(16011224)
170.0 | 8383.64382 (16110408) 4055.83844 (16110324) 2585.06279 (16110324) 1822.04231 (16110324) 1368.48319 (16110324)
180.0 | 10546.69228 (16040508) 4515.75640 (16102424) 2785.13299 (16102424) 1932.99147 (16102424) 1441.50200 (16102424)
190.0 | 9177.61448 (16040508) 4162.67057 (16120708) 2473.34061 (16120708) 1680.76567 (16120708) 1238.09421 (16120708)
200.0 | 8980.75049 (16012508) 3823.60034 (16112508) 2234.77787 (16122024) 1506.20688 (16122024) 1093.85080 (16112508)
210.0 | 9577.77308 (16111724) 4219.25483 (16111724) 2476.99841 (16011324) 1683.44402 (16122024) 1236.37406 (16122024)
220.0 | 10706.91844 (16111724) 4696.19523 (16111724) 2717.14278 (16111724) 1821.15655 (16111724) 1332.74818 (16111724)
230.0 | 11040.50339 (16112224) 4825.08818 (16112224) 2818.34385 (16112224) 1889.14172 (16112224) 1382.28256 (16112224)
240.0 | 10249.47696c(16123124) 4414.14733 (16112224) 2569.18406 (16112224) 1712.56131 (16112224) 1256.52030 (16112224)
250.0 | 10446.84664 (16021708) 4068.36638 (16021708) 2310.00771m(16110224) 1554.42321m(16110224) 1145.04404m(16110224)
260.0 | 10699.25690 (16021708) 4199.46939 (16021708) 2351.43011 (16021708) 1537.53107 (16021708) 1098.86297 (16021708)
270.0 | 9411.77973 (16011424) 3972.38067 (16011424) 2302.34639 (16011424) 1541.65006 (16011424) 1120.69287 (16011424)
280.0 | 8416.28033 (16020808) 3225.59903 (16011424) 1848.64761 (16040408) 1253.87956 (16011424) 927.60468 (16092508)
290.0 | 9640.68573 (16020808) 3818.86806 (16020808) 2156.92650 (16020808) 1422.21867 (16020808) 1018.40863 (16020808)
300.0 | 10466.42341 (16013124) 4706.37045 (16013124) 2793.26933 (16013124) 1905.73320 (16013124) 1399.51995 (16013124)
310.0 | 12655.03102 (16013124) 5326.79788 (16013124) 3119.26518 (16013124) 2075.80978 (16013124) 1489.44849 (16013124)
320.0 | 11663.48979c(16012624) 4811.58945c(16012624) 2743.24221c(16012624) 1822.37302c(16012624) 1302.62938c(16012624)
330.0 | 9451.07275c(16012624) 3588.68091 (16010108) 2064.42915 (16010108) 1370.80777 (16010108) 988.50689 (16010108)
340.0 | 7843.52937 (16120424) 3521.50628 (16021208) 2180.31380 (16021208) 1515.17532 (16021208) 1132.75962 (16021208)
350.0 | 7910.44759 (16120424) 3531.56844 (16021208) 2130.97063 (16021208) 1466.84847 (16021208) 1079.42718 (16021208)
360.0 | 8656.55817 (16011616) 3624.14650 (16121724) 2205.96709 (16121724) 1505.23920 (16121724) 1102.83374 (16121724)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	952.67908 (16121824)	759.43796 (16121824)	613.41468 (16121824)	503.67503 (16121824)	426.53365 (16121724)
20.0	889.69511 (16121824)	722.08006 (16121824)	590.14815 (16121824)	495.47145 (16121824)	432.91803 (16010724)
30.0	774.75100 (16121424)	621.69136 (16121424)	511.70371 (16121424)	430.82736 (16121424)	370.74586 (16121424)
40.0	985.45102 (16021224)	797.18798 (16021224)	655.87642 (16021224)	552.91224 (16021224)	470.93491 (16021224)
50.0	1337.97281 (16020124)	1053.70849 (16020124)	857.21025 (16020124)	703.93333 (16020124)	602.16374 (16020124)
60.0	867.60062 (16020124)	683.88249 (16020124)	556.28631 (16020124)	462.83515 (16020124)	372.03573 (16020124)
70.0	1159.98277 (16012024)	858.70076 (16010124)	695.49472 (16010124)	674.46096 (16012024)	563.46250 (16012024)
80.0	833.51484 (16030124)	651.09124 (16030124)	529.92741 (16030124)	447.09888 (16030124)	381.54739 (16030124)
90.0	981.09299 (16012924)	777.18862 (16012924)	630.98693 (16012924)	518.35519 (16012924)	442.95200 (16012924)
100.0	876.58254 (16012924)	691.68377 (16012924)	571.29331 (16012924)	478.45169 (16012924)	409.63194 (16012924)
110.0	1003.48022 (16111924)	788.81634 (16111924)	672.32800 (16111924)	572.29007 (16111924)	490.27351 (16111924)
120.0	984.22920 (16020724)	770.88956 (16020724)	656.13713 (16020724)	558.75965 (16020724)	484.16188 (16020724)
130.0	1077.22324 (16011724)	841.73881 (16011724)	708.87423 (16011724)	606.08660 (16011724)	522.99193 (16011724)
140.0	1006.13226 (16011824)	779.40730 (16011824)	625.48129 (16011824)	521.76431 (16011824)	467.34158 (16011824)
150.0	1174.95360 (16111424)	938.43985 (16111424)	770.63592 (16111424)	617.78342 (16111424)	532.88130 (16111424)
160.0	1182.42691c(16011224)	931.08049c(16011224)	761.12277c(16011224)	633.81751c(16011224)	539.44021c(16011224)
170.0	1077.11872 (16110324)	879.55388 (16110324)	735.59861 (16110324)	627.51401 (16110324)	527.97767 (16110324)
180.0	1130.07362 (16102424)	917.92440 (16102424)	761.81289 (16102424)	649.25491 (16102424)	550.35134 (16102424)
190.0	954.61724 (16120708)	760.50268 (16120708)	627.87390 (16120708)	536.46720 (16120708)	460.39301 (16120708)
200.0	850.06032 (16091224)	683.44974 (16091224)	559.12305 (16091224)	465.88597 (16091224)	396.03761 (16091224)
210.0	957.37113 (16122024)	774.30245 (16122024)	628.49690 (16122024)	530.99733 (16122024)	446.92549 (16122024)
220.0	1018.84184 (16111724)	797.01281 (16111724)	682.60990 (16111724)	558.02742 (16111724)	475.85988 (16111724)
230.0	1067.94055 (16112224)	846.20938 (16112224)	695.80156 (16112224)	587.00415 (16112224)	498.70416 (16112224)
240.0	967.70040 (16112224)	766.96909 (16112224)	626.23741 (16112224)	524.50694 (16112224)	447.73757 (16112224)

250.0 | 885.12147m(16110224) 715.97565m(16110224) 593.03923m(16110224) 503.26172m(16110224) 425.53526m(16110224)
260.0 | 834.02114 (16021708) 661.31614 (16021708) 540.24496 (16021708) 448.24850 (16021708) 381.47653 (16021708)
270.0 | 849.28219 (16011424) 675.58588 (16011424) 554.72929 (16011424) 463.97525 (16011424) 395.56541 (16011424)
280.0 | 723.98795 (16092508) 589.69413 (16092508) 487.73688 (16092508) 409.09769 (16092508) 354.00933 (16092508)
290.0 | 777.97800 (16020808) 621.34697 (16020808) 502.65334 (16020808) 419.01285 (16020808) 361.94387 (16020808)
300.0 | 1085.89573 (16013124) 871.54484 (16013124) 722.60492 (16013124) 616.98676 (16013124) 536.97442 (16013124)
310.0 | 1147.86243 (16013124) 906.00762 (16013124) 736.25440 (16013124) 617.32393 (16013124) 521.22534 (16013124)
320.0 | 1001.13201c(16012624) 813.80707 (16010108) 674.29764 (16010108) 572.67625 (16010108) 490.60898 (16010108)
330.0 | 751.61086 (16010108) 599.04641 (16010108) 479.46581 (16010108) 393.79934 (16010108) 330.32588 (16010108)
340.0 | 881.83447 (16021208) 713.97006 (16021208) 605.04422 (16021208) 509.48581 (16021208) 441.37268 (16021208)
350.0 | 838.77449 (16021208) 677.72761 (16021208) 549.76702 (16021208) 469.77017 (16021208) 397.92006 (16021208)
360.0 | 860.05298 (16121724) 692.62047 (16121724) 550.72098 (16121724) 462.55202 (16121724) 393.21454 (16121724)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	370.37344 (16121724)	328.71280 (16121724)	292.38794 (16121724)	261.72586 (16121724)	233.47013 (16121724)
20.0	381.99651 (16010724)	339.62891 (16010724)	303.48319 (16010724)	273.11638 (16010724)	247.36047 (16010724)
30.0	322.70959 (16121424)	285.18837 (16121424)	253.63714 (16121424)	225.99985 (16121424)	203.00890 (16121424)
40.0	394.20668 (16021224)	348.20066 (16021224)	309.10221 (16021224)	272.36436 (16021224)	244.13178 (16021224)
50.0	555.50184 (16020124)	481.16474 (16020124)	427.85595 (16020124)	390.18172 (16020124)	352.00022 (16020124)
60.0	321.69876 (16020124)	282.11793 (16020124)	245.01428 (16020124)	217.95909 (16020124)	190.46349 (16020124)
70.0	495.98480 (16012024)	437.00680 (16012024)	389.36443 (16012024)	351.18439 (16012024)	318.93976 (16012024)
80.0	328.86683 (16030124)	286.39954 (16030124)	254.79543 (16030124)	227.87112 (16030124)	205.57533 (16030124)
90.0	386.50600 (16011524)	342.67711 (16011524)	307.20487 (16011524)	275.27937 (16011524)	248.33334 (16011524)
100.0	354.98898 (16012924)	314.63505 (16012924)	280.97688 (16012924)	250.89036 (16012924)	226.70999 (16012924)

110.0 | 424.48205 (16111924) 373.92475 (16111924) 333.25357 (16111924) 300.61431 (16111924) 270.76980 (16111924)
120.0 | 423.19978 (16020724) 367.18107 (16020724) 330.99239 (16020724) 300.93724 (16020724) 268.59294 (16020724)
130.0 | 457.68082 (16011724) 399.73949 (16011724) 352.34280 (16011724) 315.12378 (16011724) 284.63375 (16011724)
140.0 | 399.81578 (16011824) 350.99790 (16110424) 311.84148 (16110424) 279.82148 (16110424) 256.78278 (16110424)
150.0 | 500.13401 (16111424) 438.39641 (16111424) 390.78412 (16111424) 352.45800 (16111424) 328.07042 (16111424)
160.0 | 454.15442c(16011224) 396.98733c(16011224) 360.60636c(16011224) 320.93266c(16011224) 289.77988c(16011224)
170.0 | 468.96612 (16110324) 387.59770 (16110324) 347.03462 (16110324) 322.95743 (16110324) 303.39935 (16110324)
180.0 | 487.25163 (16102424) 419.20466 (16102424) 349.62515 (16102424) 315.42786 (16102424) 304.92700 (16102424)
190.0 | 397.42986 (16120708) 347.22510 (16120708) 303.64284 (16120708) 275.68350 (16120708) 228.72889 (16120708)
200.0 | 345.16601 (16091224) 303.21473 (16091224) 275.52343 (16091224) 244.97162 (16091224) 240.41917 (16012508)
210.0 | 390.01700 (16122024) 341.45632 (16122024) 306.60803 (16122024) 274.09556 (16122024) 260.96630 (16122024)
220.0 | 405.86433 (16111724) 349.53215 (16111724) 309.34297 (16111724) 283.92143 (16111724) 255.02950 (16111724)
230.0 | 437.31614 (16112224) 384.82445 (16112224) 330.48967 (16112224) 300.42164 (16112224) 260.74310 (16112224)
240.0 | 387.26194 (16112224) 337.33443 (16112224) 303.61261 (16112224) 268.19130 (16112224) 239.28995 (16112224)
250.0 | 369.96253m(16110224) 323.76910m(16110224) 287.91075m(16110224) 257.49147m(16110224) 230.89707m(16110224)
260.0 | 331.99263 (16021708) 293.27507 (16091608) 262.14479 (16091608) 235.08179 (16091608) 212.63957 (16091608)
270.0 | 346.60984 (16011424) 302.79436 (16011424) 269.35957 (16011424) 236.95502 (16011424) 214.61175 (16011424)
280.0 | 304.48560 (16092508) 275.70436 (16092508) 248.70445 (16092508) 228.53004 (16092508) 213.35629 (16092508)
290.0 | 313.08706 (16020808) 273.71581 (16020808) 245.68554 (16020808) 221.06239 (16042408) 195.26625 (16042408)
300.0 | 470.99672 (16013124) 412.78693 (16013124) 366.11195 (16013124) 330.03721 (16013124) 304.58295 (16013124)
310.0 | 447.48467 (16013124) 395.33079 (16013124) 343.09631 (16013124) 306.74431c(16012624) 274.46344 (16013124)
320.0 | 430.22902 (16010108) 385.68321 (16010108) 346.99012 (16010108) 314.84935 (16010108) 285.20244 (16010108)
330.0 | 284.36219 (16010108) 248.46859 (16010108) 217.66734 (16010108) 197.01325 (16042708) 179.54231 (16042708)
340.0 | 388.47929 (16021208) 344.44285 (16021208) 306.36402 (16021208) 274.86195 (16021208) 253.48267 (16021208)
350.0 | 346.04826 (16021208) 306.85906 (16021208) 271.23709 (16021208) 242.06738 (16021208) 220.60168 (16021208)
360.0 | 340.55592 (16121724) 295.05748 (16121724) 259.70150 (16121724) 232.69055 (16121208) 210.77844 (16121208)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	212.31809 (16121724)	193.46169 (16121724)	177.95072 (16121724)	163.47545 (16121724)	150.30487 (16121724)
20.0	224.59957 (16010724)	202.39696 (16010724)	186.75082 (16010724)	174.48947 (16010724)	163.71252 (16010724)
30.0	184.70913 (16121424)	169.93914 (16121424)	156.54458 (16121424)	143.93381 (16121424)	133.94806 (16121424)
40.0	221.12881 (16021224)	202.18062 (16021224)	182.99571 (16021224)	167.48911 (16021224)	155.33715 (16021224)
50.0	317.66209 (16020124)	292.14081 (16020124)	266.91194 (16020124)	245.04088 (16020124)	225.70823 (16020124)
60.0	174.20727 (16031724)	160.83281 (16031724)	147.34484 (16031724)	136.30295 (16031724)	127.34800 (16031724)
70.0	304.93470 (16012024)	270.08187 (16012024)	250.93925 (16012024)	231.52855 (16012024)	221.19655 (16012024)
80.0	186.33926 (16030124)	170.22226 (16030124)	153.93081 (16030124)	143.55822 (16030124)	129.59531 (16120624)
90.0	225.26213 (16011524)	205.20466 (16011524)	187.48084 (16011524)	173.69563 (16011524)	161.71104 (16011524)
100.0	205.59397 (16012924)	187.44418 (16012924)	173.49048 (16012924)	159.10406 (16012924)	147.70078 (16012924)
110.0	250.39111 (16111924)	229.07867 (16111924)	211.15292 (16111924)	194.16790 (16111924)	178.85319 (16111924)
120.0	247.15555 (16020724)	227.19403 (16020724)	209.47297 (16020724)	192.67042 (16020724)	178.53853 (16020724)
130.0	255.99351 (16011724)	237.51209 (16011724)	219.61918 (16011724)	203.71917 (16011724)	187.97772 (16011724)
140.0	232.73778 (16110424)	215.80337 (16110424)	199.76017 (16110424)	185.94428 (16110424)	172.09961 (16110424)
150.0	305.96933 (16111424)	270.45906 (16111424)	251.87140 (16111424)	234.86173 (16111424)	221.07212 (16111424)
160.0	258.58632c(16011224)	230.98470c(16011224)	212.59508c(16011224)	197.23800c(16011224)	181.64149c(16011224)
170.0	272.51342 (16110324)	253.30243 (16110324)	235.57002 (16110324)	217.95443 (16110324)	203.51423 (16110324)
180.0	283.07616 (16102424)	257.06650 (16102424)	239.78933 (16102424)	223.34253 (16102424)	208.07176 (16102424)
190.0	209.38656 (16120708)	192.70989 (16120708)	178.20587 (16120708)	173.73617 (16120708)	159.18571 (16120708)
200.0	209.68750 (16091224)	166.36707 (16091224)	153.74775 (16091224)	151.14884 (16091224)	141.71754 (16091224)
210.0	207.59544 (16122024)	190.78244 (16122024)	176.14115 (16122024)	176.16184 (16122024)	164.58175 (16122024)
220.0	246.32852 (16111724)	191.36119 (16111724)	176.85417 (16111724)	164.09733 (16111724)	160.40711 (16111724)
230.0	242.08136 (16112224)	220.50307 (16112224)	201.21364 (16112224)	183.94110 (16112224)	170.44216 (16112224)
240.0	216.26717 (16112224)	195.56257 (16112224)	172.45229 (16112224)	155.58988 (16112224)	148.50912 (16112224)
250.0	209.22817m(16110224)	189.50942m(16110224)	175.63171m(16110224)	157.46566m(16110224)	142.34903m(16110224)
260.0	194.78561 (16091608)	175.56156 (16091608)	159.97868 (16091608)	145.45052 (16091608)	137.49877 (16091608)
270.0	194.63785 (16011424)	176.55532 (16011424)	161.34084 (16011424)	148.95507 (16011424)	137.68019 (16011424)

280.0 | 192.37160 (16092508) 173.57692 (16092508) 160.00687 (16092508) 149.54184 (16092508) 140.05557 (16092508)
290.0 | 179.61763 (16020808) 165.77115 (16020808) 149.45102 (16020808) 140.20719 (16042408) 129.97634 (16042408)
300.0 | 274.18779 (16013124) 250.81482 (16013124) 231.06560 (16013124) 214.33819 (16013124) 200.25629 (16013124)
310.0 | 248.91423c(16012624) 227.04484c(16012624) 205.55242c(16012624) 189.41268c(16012624) 172.46132c(16012624)
320.0 | 257.79900 (16010108) 234.30630 (16010108) 216.50735 (16010108) 197.25303 (16010108) 181.10454 (16010108)
330.0 | 164.45158 (16042708) 151.86648 (16042708) 138.76809 (16042708) 126.61691 (16042708) 119.48449 (16042708)
340.0 | 229.20363 (16021208) 211.90364 (16021208) 189.06384 (16021208) 175.65843 (16021208) 165.41998 (16021208)
350.0 | 199.57083 (16021208) 179.67314 (16021208) 164.18936 (16021208) 151.82115 (16021208) 141.23235 (16021208)
360.0 | 191.02696 (16121208) 176.06379 (16082008) 162.99279 (16082008) 150.03886 (16082008) 138.98477 (16082008)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	1853.21047	(16020724)	TANK	498.87	129.50	1378.62454	(16011724)
TANK	81.43	359.00	11324.69491	(16011616)	TANK	116.79	44.50	10205.00210	(16020124)
TANK	109.20	67.00	9858.39536	(16012024)	TANK	100.70	93.73	9866.77355	(16012924)
TANK	87.91	103.99	10233.32963	(16111924)	TANK	99.82	123.38	9930.71580	(16110424)
TANK	138.00	141.00	6914.50149	(16011824)	TANK	106.00	180.00	9878.38843	(16040508)
TANK	115.60	206.00	8170.10539	(16012508)	TANK	54.00	270.00	19138.21024	(16021708)
TANK	97.00	326.00	11204.42686c	(16012624)	TANK	133.94	242.10	7077.45550c	(16123124)
TANK	101.99	301.65	10805.37034	(16013124)	TANK	236.54	274.95	3037.57175	(16011424)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00

10.0 | 10530.43060 (16020224) 4235.39378 (16020224) 2406.52451 (16020224) 1584.02828 (16020224) 1155.51410 (16121724)
20.0 | 9800.38396 (16121824) 3509.51588 (16010724) 2135.24856 (16010724) 1475.79298 (16010724) 1102.45724 (16010724)
30.0 | 7493.89081 (16010724) 2955.89647 (16010724) 1752.35713 (16112924) 1208.56665 (16112924) 894.28630 (16112924)
40.0 | 10290.57917 (16021224) 4454.12600 (16021224) 2495.18718 (16020124) 1607.56858 (16020124) 1129.64957 (16020124)
50.0 | 9624.57228 (16091424) 4185.54161 (16091424) 2494.61169 (16091424) 1711.55136 (16091424) 1243.16424 (16091424)
60.0 | 9121.86740 (16031616) 3483.44549 (16010124) 2057.31014 (16010124) 1386.02165 (16010124) 978.06913 (16010124)
70.0 | 10267.95811 (16010124) 4648.57750 (16010124) 2796.67089 (16012024) 1889.14680 (16012024) 1383.62757 (16010124)
80.0 | 9223.15721 (16080424) 3451.40538 (16080424) 1999.53950 (16042724) 1345.61247 (16042724) 981.73473 (16042724)
90.0 | 9354.70425 (16121324) 4050.23902 (16121324) 2384.37558 (16121324) 1597.89399 (16121324) 1158.29280 (16121324)
100.0 | 8215.39624 (16100816) 3786.19401 (16012924) 2282.21846 (16012924) 1554.17927 (16111924) 1136.28198 (16111924)
110.0 | 7515.89378 (16061324) 3214.38010 (16021624) 2025.74290 (16021624) 1418.38129 (16021624) 1053.25452 (16021624)
120.0 | 8927.12272 (16110424) 3774.14500 (16040424) 2306.80577 (16040424) 1575.10003 (16040424) 1162.65977 (16040424)
130.0 | 9959.09986 (16011724) 4573.00745 (16011724) 2795.06985 (16011724) 1873.96750 (16110424) 1368.50691 (16102124)
140.0 | 9324.84043 (16032008) 3995.16418 (16110424) 2460.41421 (16110424) 1687.32933 (16110424) 1233.88774 (16110424)
150.0 | 9796.63042 (16111624) 4331.08548 (16111624) 2522.29486 (16111624) 1716.73518 (16032124) 1267.34774 (16032124)
160.0 | 9159.41760 (16121516) 3933.76377 (16111624) 2390.34598 (16111624) 1620.19215 (16111624) 1189.00670 (16111624)
170.0 | 8331.32096 (16102424) 3834.97580c(16011224) 2389.08555c(16011224) 1667.05454c(16011224) 1216.42838c(16011224)
180.0 | 9082.66799 (16102424) 4432.22417 (16040508) 2532.06453 (16040508) 1737.48898 (16112108) 1288.90184 (16112108)
190.0 | 8924.23460 (16120708) 3768.16320 (16040508) 2105.02647 (16040508) 1373.56768 (16040508) 977.98244 (16040508)
200.0 | 8542.06708 (16112508) 3799.85755 (16012508) 2223.64495 (16112508) 1486.72441 (16091224) 1092.62729 (16091224)
210.0 | 9448.29976 (16012508) 4188.56568 (16011324) 2473.74524 (16122024) 1677.40070 (16011324) 1228.02505 (16011324)
220.0 | 10123.64558 (16123024) 4227.92142 (16123024) 2380.19784 (16123024) 1573.48465 (16123024) 1134.22350 (16123024)
230.0 | 9732.00682c(16123124) 3882.24773c(16123124) 2182.32004 (16111724) 1442.11334 (16122324) 1052.37784 (16122324)
240.0 | 10040.53585 (16112224) 4279.33752c(16123124) 2425.15421c(16123124) 1615.16248c(16123124) 1171.97369c(16123124)
250.0 | 9059.20227m(16110224) 3939.79339m(16110224) 2227.44372 (16021708) 1480.18264 (16013108) 1095.90119 (16013108)
260.0 | 8010.52543b(16030808) 3389.09381 (16013108) 2003.63896 (16013108) 1346.30233 (16013108) 984.38788 (16013108)
270.0 | 8870.29834 (16021708) 3329.70501 (16021924) 1937.71694 (16021924) 1296.15872 (16021924) 942.51264 (16021924)
280.0 | 7951.52244 (16011424) 3162.33759 (16040408) 1836.64355 (16011424) 1247.04198 (16040408) 903.58738 (16040408)
290.0 | 8247.31889 (16042408) 3410.17257 (16042408) 1976.92881 (16042408) 1322.33590 (16042408) 958.71855 (16042408)
300.0 | 9047.00171 (16020808) 4001.16504 (16012124) 2459.13720 (16012124) 1722.50597 (16012124) 1284.13032 (16012124)
310.0 | 9859.34044c(16012624) 4373.43011c(16012624) 2606.15004c(16012624) 1773.13899c(16012624) 1295.66422c(16012624)

320.0 | 11212.73646 (16013124) 4080.16170 (16013124) 2486.05132 (16010108) 1719.87357 (16010108) 1273.31741 (16010108)
330.0 | 9182.78437 (16043016) 3266.06589c(16012624) 1758.31205 (16010924) 1189.77975 (16010924) 874.97310 (16010924)
340.0 | 7388.60208 (16021208) 3241.55888 (16120424) 1841.50195 (16120424) 1234.20632 (16092624) 909.42648 (16092624)
350.0 | 7811.11114 (16021208) 3345.73403 (16120424) 1950.89840 (16120424) 1313.57035 (16120424) 958.95715 (16120424)
360.0 | 8234.96168 (16020224) 3564.94803 (16020224) 2121.24577 (16020224) 1422.86375 (16020224) 1033.18028 (16020224)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	901.70442 (16121724)	724.07130 (16121724)	596.86434 (16121724)	499.24779 (16121724)	422.57786 (16121824)
20.0	864.67653 (16010724)	699.23516 (16010724)	578.18945 (16010724)	495.14024 (16010724)	421.01306 (16121824)
30.0	699.35727 (16112924)	569.78627 (16112924)	468.79950 (16112924)	392.73375 (16112924)	339.54494 (16112924)
40.0	870.16312 (16091424)	711.14058 (16091424)	589.82741 (16091424)	496.80024 (16091424)	420.05402 (16091424)
50.0	968.81477 (16091424)	782.55214 (16091424)	640.51715 (16091424)	528.72101 (16091424)	453.71540 (16091424)
60.0	762.92763 (16010124)	600.03909 (16010124)	490.56177 (16010124)	405.39355 (16010124)	330.68881 (16031724)
70.0	1028.65868 (16010124)	811.90932 (16012024)	661.12182 (16012024)	585.42017 (16010124)	508.32201 (16010124)
80.0	755.84913 (16010124)	596.22196 (16010124)	485.99899 (16010124)	412.92925 (16120624)	358.27204 (16120624)
90.0	890.03803 (16011524)	692.73148 (16011524)	595.22208 (16011524)	504.22358 (16011524)	437.68426 (16011524)
100.0	861.47400 (16111924)	677.57307 (16111924)	556.85368 (16111924)	470.25152 (16111924)	400.67221 (16111924)
110.0	825.46383 (16021624)	645.83592 (16021624)	558.89766 (16021624)	476.40182 (16021624)	413.89193 (16021624)
120.0	889.99120 (16040424)	697.98410 (16040424)	589.03118 (16040424)	493.32632 (16040424)	426.96489 (16040424)
130.0	1053.05289 (16102124)	822.35940 (16102124)	687.35923 (16102124)	596.16564 (16102124)	516.70672 (16102124)
140.0	958.46273 (16110424)	740.51314 (16110424)	598.72118 (16110424)	499.83433 (16110424)	456.57947 (16110424)
150.0	976.96291 (16032124)	778.12393 (16032124)	636.06633 (16032124)	507.05515 (16032124)	436.66539 (16032124)
160.0	918.75971 (16111624)	738.40585 (16111624)	604.04506 (16111624)	493.92249 (16111624)	428.19694 (16111624)
170.0	942.87839c(16011224)	760.54780c(16011224)	626.00599c(16011224)	516.93100c(16011224)	448.85336c(16011224)

180.0 | 1006.10491 (16112108) 815.80423 (16112108) 672.32560 (16112108) 568.31760 (16112108) 483.16440 (16112108)
190.0 | 742.04246 (16040508) 585.88492 (16040508) 478.99830 (16011808) 407.81661 (16011808) 350.44102 (16011808)
200.0 | 849.95288 (16122024) 678.38411 (16122024) 550.77362 (16122024) 456.94531 (16122024) 390.20073 (16122808)
210.0 | 951.44399 (16011324) 770.53467 (16011324) 627.87759 (16011324) 527.68373 (16011324) 445.26643 (16011324)
220.0 | 864.62130 (16123024) 682.21278 (16123024) 583.41642 (16123024) 469.64084 (16123024) 399.45688 (16123024)
230.0 | 822.44339 (16122324) 652.09405 (16122324) 536.44022 (16122324) 452.92801 (16122324) 387.81014 (16122324)
240.0 | 900.47028c(16123124) 712.66799c(16123124) 580.11549 (16122708) 488.30458 (16122708) 416.83792 (16122708)
250.0 | 852.11243 (16013108) 690.61256 (16013108) 565.35824 (16013108) 481.49036 (16013108) 407.01385 (16013108)
260.0 | 763.09916 (16091608) 619.91052 (16091608) 515.77433 (16091608) 440.47704 (16091608) 379.14921 (16091608)
270.0 | 732.20417 (16040408) 583.22459 (16040408) 477.03445 (16040408) 401.62221 (16040408) 338.98560 (16040408)
280.0 | 701.65929 (16040408) 553.41728 (16040408) 456.13198 (16040408) 383.23275 (16011424) 328.39652 (16011424)
290.0 | 741.40337 (16042408) 593.65913 (16042408) 482.30704 (16042408) 408.06169 (16042408) 350.92278 (16042408)
300.0 | 1005.25470 (16012124) 814.97793 (16012124) 678.14359 (16012124) 577.83482 (16012124) 499.86254 (16012124)
310.0 | 991.37870c(16012624) 801.07435c(16012624) 668.75362c(16012624) 560.45719c(16012624) 475.91679c(16012624)
320.0 | 995.79293 (16010108) 792.27612c(16012624) 647.43568c(16012624) 544.01692c(16012624) 462.11864c(16012624)
330.0 | 667.67458 (16010924) 527.73388 (16010924) 423.37466 (16010924) 359.20411 (16042708) 311.42776 (16042708)
340.0 | 696.89815 (16092624) 547.72673 (16092624) 449.08976 (16092624) 377.57505 (16092624) 321.25258 (16092624)
350.0 | 740.49656 (16120424) 583.53888 (16120424) 475.78152 (16121208) 405.18928 (16121208) 345.90970 (16121208)
360.0 | 793.65155 (16020224) 635.43085 (16020224) 513.20846 (16020224) 427.73535 (16121208) 370.42715 (16121208)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 1100.00 1200.00 1300.00 1400.00 1500.00

10.0 | 362.62859 (16121824) 311.71716 (16121824) 273.87273 (16121824) 241.59258 (16033124) 218.16207 (16033124)
20.0 | 364.65992 (16121824) 323.33654 (16121824) 286.85107 (16121824) 258.66604 (16121824) 233.68927 (16121824)
30.0 | 297.29151 (16112924) 259.90413 (16112924) 231.33519 (16112924) 209.48487 (16112924) 188.44270 (16112924)

40.0 | 358.80009 (16091424) 316.06085 (16091424) 277.50560 (16091424) 246.46942 (16091424) 220.51949 (16091424)
50.0 | 399.19102 (16091424) 353.14576 (16091424) 313.24611 (16091424) 280.58530 (16091424) 252.96969 (16091424)
60.0 | 291.11335 (16031724) 256.11267 (16031724) 230.58461 (16031724) 208.49214 (16031724) 190.27466 (16031724)
70.0 | 442.67442 (16010124) 387.45108 (16010124) 343.70289 (16010124) 306.81308 (16010124) 273.93291 (16010124)
80.0 | 311.40221 (16120624) 272.72662 (16120624) 243.75171 (16120624) 218.66961 (16120624) 198.22249 (16120624)
90.0 | 370.48967 (16012924) 324.44078 (16012924) 287.28407 (16012924) 250.02889 (16012924) 222.96300 (16012924)
100.0 | 340.72348 (16111924) 301.60703 (16111924) 262.19665 (16111924) 237.86017 (16111924) 210.61431 (16111924)
110.0 | 355.85468 (16021624) 316.77722 (16021624) 285.79430 (16021624) 256.34207 (16021624) 233.34385 (16021624)
120.0 | 370.88911 (16040424) 324.90023 (16040424) 290.26020 (16040424) 262.43446 (16040424) 235.28562 (16040424)
130.0 | 451.61334 (16102124) 394.22277 (16102124) 347.20584 (16102124) 310.15487 (16102124) 280.09799 (16102124)
140.0 | 395.45886 (16110424) 347.01897 (16011824) 308.16047 (16011824) 278.30344 (16011824) 250.06240 (16011824)
150.0 | 416.89431 (16032124) 364.50965 (16032124) 323.95917 (16032124) 291.51742 (16032124) 274.77534 (16032124)
160.0 | 359.65878 (16111624) 316.59448 (16111624) 299.37018 (16111624) 275.72303 (16111624) 244.57265 (16111624)
170.0 | 389.06968c(16011224) 336.55396c(16011224) 297.74755c(16011224) 267.42397c(16011224) 246.21195c(16011224)
180.0 | 433.00883 (16112108) 370.92498 (16112108) 312.60341 (16112108) 279.30834 (16112108) 268.59602 (16112108)
190.0 | 308.75799 (16011808) 274.75834 (16011808) 238.57260 (16011808) 219.43041 (16011808) 176.37641 (16011808)
200.0 | 342.69078 (16122808) 300.49863 (16122808) 268.70989 (16122024) 244.55181 (16112508) 232.45918 (16112508)
210.0 | 385.76682 (16011324) 337.12325 (16011324) 301.28696 (16011324) 268.07090 (16011324) 254.46406 (16011324)
220.0 | 339.81383 (16123024) 292.95117 (16123024) 258.47016 (16123024) 236.82955 (16123024) 215.11545 (16123024)
230.0 | 340.57221 (16122324) 298.37545 (16122324) 258.41355 (16122324) 232.88831 (16122324) 204.02328 (16122324)
240.0 | 362.67826 (16122708) 317.55976 (16122708) 287.35724 (16122708) 257.50316 (16122708) 225.80392 (16122708)
250.0 | 354.64348 (16013108) 310.71485 (16013108) 275.05501 (16013108) 246.91960b(16030808) 222.92569b(16030808)
260.0 | 331.09869 (16091608) 292.27622 (16021708) 256.36616 (16021708) 227.31862 (16021708) 204.23116 (16081908)
270.0 | 299.15371 (16040408) 263.83573 (16040408) 231.23366 (16040408) 207.64586 (16040408) 188.91952 (16040408)
280.0 | 281.54941 (16011424) 248.32790 (16040408) 221.44348 (16040408) 198.86851 (16022308) 183.40937 (16040408)
290.0 | 309.11672 (16042408) 272.58180 (16042408) 245.20463 (16042408) 216.96200 (16020808) 194.54984 (16020808)
300.0 | 441.53621 (16012124) 389.63044 (16012124) 347.35857 (16012124) 312.85227 (16012124) 285.12253 (16012124)
310.0 | 420.28431c(16012624) 376.16900c(16012624) 336.42702c(16012624) 302.58660 (16013124) 264.78148c(16012624)
320.0 | 397.07913c(16012624) 349.24923c(16012624) 302.08060c(16012624) 274.02922c(16012624) 245.17781c(16012624)
330.0 | 273.20892 (16042708) 242.63586 (16042708) 217.25074 (16042708) 195.79014 (16010108) 175.23875 (16010108)
340.0 | 275.08330 (16092624) 240.83248 (16092624) 211.47812 (16092624) 190.96717 (16092624) 175.54914c(16061108)

350.0 | 300.58680 (16121208) 266.28390 (16121208) 238.16774 (16121208) 214.56413 (16121208) 194.64079 (16121208)
360.0 | 323.22394 (16121208) 288.19678 (16121208) 259.27173 (16121208) 229.18870 (16121724) 207.33234 (16082008)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	197.39440 (16033124)	179.55207 (16033124)	164.45260 (16033124)	151.23636 (16033124)	139.01683 (16033124)
20.0	212.00437 (16121824)	192.84669 (16121824)	177.18528 (16121824)	164.28666 (16121824)	152.52559 (16121824)
30.0	171.48227 (16112924)	154.55370 (16112924)	140.86917 (16112924)	129.89105 (16112924)	121.10256 (16112924)
40.0	200.20636 (16091424)	183.70650 (16091424)	168.84839 (16091424)	153.69033 (16091424)	141.81935 (16091424)
50.0	229.21263 (16091424)	209.23089 (16091424)	191.08723 (16091424)	175.45023 (16091424)	163.86220 (16091424)
60.0	173.26333 (16020124)	151.70682 (16020124)	142.40298 (16020124)	128.76577 (16020124)	118.12523 (16020124)
70.0	250.16112 (16010124)	228.22378 (16010124)	208.69814 (16010124)	191.54459 (16010124)	176.95934 (16010124)
80.0	180.28392 (16120624)	165.21595 (16120624)	149.45961 (16120624)	140.97365 (16120624)	129.57510 (16030124)
90.0	201.34142 (16012924)	184.26847 (16012924)	166.61084 (16012924)	156.03894 (16012924)	140.36113 (16012924)
100.0	188.75024 (16111924)	173.39364 (16111924)	159.91582 (16111924)	147.14220 (16111924)	133.69842 (16111924)
110.0	213.98231 (16021624)	195.65819 (16021624)	179.68183 (16021624)	165.44724 (16021624)	153.12317 (16021624)
120.0	212.22879 (16040424)	193.87927 (16040424)	177.98343 (16040424)	164.48002 (16040424)	151.83137 (16040424)
130.0	252.36504 (16102124)	232.19913 (16102124)	215.17164 (16102124)	201.64903 (16102124)	185.89398 (16102124)
140.0	227.58003 (16011824)	210.36012 (16021724)	193.41918 (16021724)	180.74852 (16031908)	167.08298 (16031908)
150.0	255.32454 (16032124)	225.66551 (16032124)	209.47759 (16032124)	194.80240 (16032124)	182.90745 (16032124)
160.0	212.58551 (16111624)	203.36626 (16111624)	188.94850 (16111624)	176.36232 (16111624)	163.05772 (16111624)
170.0	221.33090c(16011224)	204.52239c(16011224)	189.27300c(16011224)	176.78505c(16011224)	163.72105c(16011224)
180.0	244.98992 (16112108)	222.48234 (16112108)	206.64546 (16112108)	192.43387 (16112108)	178.40327 (16112108)
190.0	161.17709 (16011808)	148.19193 (16011808)	136.92502 (16011808)	141.96263 (16011808)	133.17436 (16011808)
200.0	203.22980 (16012508)	164.82515 (16112508)	152.01408 (16122808)	149.01555 (16012508)	139.32829 (16012508)

210.0	206.47301 (16011324)	189.71168 (16011324)	173.96318 (16011324)	174.74190 (16011324)	160.55172 (16011324)
220.0	208.20222 (16123024)	161.22948 (16123024)	147.83561 (16123024)	136.10481 (16123024)	134.34966 (16123024)
230.0	188.02349 (16122324)	175.15880 (16122324)	159.38678 (16122324)	143.09375 (16122324)	135.17437 (16122324)
240.0	206.27978 (16122708)	187.15444 (16122708)	162.58599 (16122708)	145.40943 (16122708)	144.36888 (16122708)
250.0	204.14496b(16030808)	186.00237b(16030808)	172.37195b(16030808)	155.93426b(16030808)	140.36601b(16030808)
260.0	186.57438 (16081908)	168.12958 (16081908)	153.11242 (16081908)	139.22416 (16081908)	130.30646 (16081908)
270.0	173.47458 (16040408)	157.77679 (16040408)	143.69099 (16040408)	131.29302 (16040408)	120.68218 (16040408)
280.0	165.03271 (16040408)	149.08782 (16022308)	136.93870 (16040408)	127.42350 (16022308)	119.94945 (16022308)
290.0	178.35572 (16042408)	163.45685 (16042408)	148.83762 (16042408)	139.22086 (16020808)	129.51058 (16020808)
300.0	258.54196 (16012124)	236.58498 (16012124)	218.32063 (16012124)	203.08643 (16012124)	191.94926 (16012124)
310.0	245.61922 (16013124)	221.65091 (16013124)	200.52314 (16013124)	185.11942 (16013124)	169.83798 (16013124)
320.0	224.02113c(16012624)	203.32435c(16012624)	185.13240c(16012624)	165.53502c(16012624)	152.96687c(16012624)
330.0	155.81032 (16010108)	139.32193 (16092908)	128.56694 (16010108)	119.73000 (16010108)	109.15771 (16092908)
340.0	156.92264c(16061108)	145.26837c(16061108)	127.79671 (16092624)	118.31376c(16061108)	111.78989c(16061108)
350.0	175.70018 (16121208)	159.18655 (16121208)	145.67457 (16121208)	134.73671 (16121208)	126.01459 (16121208)
360.0	190.55692 (16082008)	174.48954 (16121208)	160.95011 (16121208)	148.90808 (16121208)	138.41257 (16121208)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)
TANK	375.70	118.90	1634.97582	(16040424)	TANK	498.87	129.50	1345.79393	(16102124)
TANK	81.43	359.00	9789.48529	(16020224)	TANK	116.79	44.50	8937.09625	(16021224)
TANK	109.20	67.00	9279.06629	(16010124)	TANK	100.70	93.73	9008.21113	(16062824)
TANK	87.91	103.99	8465.08384	(16100816)	TANK	99.82	123.38	9443.84209	(16052324)
TANK	138.00	141.00	6280.48143	(16032008)	TANK	106.00	180.00	8630.40483	(16102424)
TANK	115.60	206.00	7950.09642	(16122024)	TANK	54.00	270.00	17631.83678	(16011424)
TANK	97.00	326.00	9246.92366	(16010108)	TANK	133.94	242.10	6781.10971	(16112224)
TANK	101.99	301.65	8520.79934	(16020808)	TANK	236.54	274.95	2740.69144	(16040408)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	9062.08152 (16121724)	3895.66985 (16121724)	2322.53595 (16121724)	1582.26386 (16121724)	1123.90717 (16020224)
20.0	8067.41584 (16112924)	3504.01313 (16020224)	2011.26985c(16031024)	1399.08600c(16031024)	1045.54236c(16031024)
30.0	7297.43456c(16071424)	2899.14361 (16112924)	1643.07088 (16010724)	1064.06673 (16010724)	751.16571c(16071424)
40.0	8590.13694 (16091424)	3799.26051 (16091424)	2250.07924 (16091424)	1533.05237 (16091424)	1123.06899 (16091424)
50.0	9181.87513 (16021224)	3702.30438 (16021224)	2081.18963 (16021224)	1370.94939 (16021224)	985.20452 (16031708)
60.0	9045.11928 (16012024)	3477.92661 (16012024)	1890.33502 (16012024)	1274.41200 (16032824)	914.27578 (16032824)
70.0	9233.22820 (16042724)	3980.74681 (16042724)	2356.89477 (16042724)	1590.64357 (16042724)	1145.62322 (16042724)
80.0	8159.31246 (16012024)	3305.29525 (16042724)	1966.57009 (16010124)	1330.60406 (16010124)	977.43905 (16010124)
90.0	8736.88239c(16042624)	3725.85950 (16011524)	2268.30476 (16011524)	1555.68937 (16011524)	1147.35407 (16011524)
100.0	7988.28379 (16012924)	3416.66013 (16021624)	2036.29786 (16021624)	1383.50409 (16021624)	1013.01282 (16021624)
110.0	7242.97432 (16042324)	3130.44100 (16061324)	1799.38335 (16042324)	1197.83709 (16042324)	853.53296 (16042324)
120.0	8777.95781 (16052324)	3637.34204 (16110424)	2053.71301 (16110424)	1353.63981 (16021024)	993.26268 (16042308)
130.0	9748.66572 (16102124)	4495.50987 (16102124)	2732.53207 (16102124)	1860.77980 (16102124)	1340.70036 (16110424)
140.0	8833.61648 (16032124)	3991.71041 (16031908)	2385.41317 (16031908)	1616.06919 (16011724)	1189.65849 (16021724)
150.0	9324.22396 (16121516)	4131.52438 (16032124)	2509.49629 (16032124)	1645.30713 (16111624)	1164.30802 (16111624)
160.0	8207.60644 (16111624)	3349.57031 (16111424)	2038.42572 (16111424)	1361.94831 (16120124)	1008.20979 (16120124)
170.0	8293.84438 (16011116)	3815.08297 (16102424)	2241.25446 (16110408)	1506.13836 (16110408)	1114.18987 (16110408)
180.0	8330.90753 (16022708)	4070.80587 (16112108)	2510.03540 (16112108)	1695.57552 (16040508)	1230.96915 (16040508)
190.0	7552.65093 (16011916)	3246.98389 (16022708)	1928.26132 (16022708)	1292.88451 (16022708)	940.09312 (16022708)
200.0	8328.70977 (16122024)	3791.68106 (16122024)	2200.89956 (16091224)	1480.93448 (16112508)	1090.72322 (16122024)
210.0	9270.46629 (16122124)	4171.84647 (16122024)	2403.59597 (16111724)	1597.93496 (16111724)	1142.25019 (16111724)
220.0	9433.88578 (16112224)	3885.96698 (16112224)	2135.97136 (16122124)	1427.20656 (16122124)	1026.58409 (16122124)
230.0	9253.44318 (16111724)	3864.47285 (16111724)	2139.36458 (16122324)	1425.96624 (16111724)	1017.48939 (16111724)
240.0	8754.52654 (16122324)	3856.31345 (16103024)	2265.87509 (16103024)	1526.39361 (16103024)	1125.89105 (16103024)

250.0 | 8672.45262c(16123124) 3641.34264 (16120324) 2169.70722 (16013108) 1445.31874b(16030808)
1074.53844b(16030808)
260.0 | 7961.59440 (16011424) 3377.37106b(16030808) 1973.36355b(16030808) 1318.12825b(16030808)
971.94787 (16091608)
270.0 | 7920.91869 (16021924) 3326.95144 (16021708) 1883.83698 (16040408) 1277.25583 (16040408)
931.84911 (16040408)
280.0 | 7455.18105 (16040408) 3092.83244 (16020808) 1806.47895 (16092508) 1246.13612 (16092508)
897.96588 (16011424)
290.0 | 6942.40824 (16062624) 2894.75942 (16012124) 1786.89755 (16012124) 1246.15827 (16012124)
915.24193 (16012124)
300.0 | 8538.84491 (16050808) 3715.73886 (16020808) 2157.34362 (16112824) 1480.75641 (16112824)
1092.01579 (16112824)
310.0 | 8093.82258 (16050808) 3356.76424 (16012124) 1980.46888 (16012124) 1309.40750 (16121708)
976.95834 (16121708)
320.0 | 8786.53947 (16010108) 4073.10619 (16010108) 2152.48865 (16013124) 1392.81941 (16010924)
1041.84869 (16010924)
330.0 | 8371.39404 (16010108) 3008.74397 (16010924) 1678.53561 (16032508) 1123.41838 (16032508)
818.97351 (16032508)
340.0 | 6866.21146 (16043016) 3045.76218 (16092624) 1818.94710 (16092624) 1199.62500 (16120424) 873.11985
(16120424)
350.0 | 6354.59278 (16092624) 2782.24021 (16092624) 1725.11691 (16121208) 1211.20942 (16121208) 909.54000
(16121208)
360.0 | 8009.96075 (16121724) 3242.20681 (16121824) 1867.85656 (16121208) 1296.29800 (16121208)
968.49475 (16121208)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 600.00 700.00 800.00 900.00 1000.00

10.0 | 858.26116 (16020224) 675.53349 (16020224) 548.76981 (16020224) 456.41100 (16020224) 388.58579
(16033124)
20.0 | 819.65428c(16031024) 666.66168c(16031024) 554.05227c(16031024) 472.42843c(16031024)
405.39839c(16031024)
30.0 | 576.27998 (16021224) 462.17256 (16021224) 375.19854 (16021224) 316.53266 (16021224) 268.95858
(16021224)
40.0 | 834.19784 (16020124) 669.82465 (16020124) 535.65282 (16020124) 438.23407 (16020124) 363.31326
(16020124)
50.0 | 770.84765 (16031708) 621.25768 (16032824) 508.24023 (16032824) 426.94772 (16032824) 358.69017
(16031708)
60.0 | 716.55640 (16032824) 566.48611 (16032824) 463.57571 (16032824) 382.96144 (16032824) 328.43092
(16010124)
70.0 | 850.13903 (16042724) 704.40706 (16042724) 572.05691 (16042724) 474.15404 (16042724) 412.94791
(16042724)
80.0 | 754.04238 (16042724) 594.90448 (16042724) 481.99324 (16042724) 402.73679 (16042724) 347.55699
(16021124)
90.0 | 873.51173 (16121324) 692.00187 (16121324) 564.72017 (16121324) 466.38314 (16121324) 393.63683
(16121324)
100.0 | 774.86835 (16021624) 610.36126 (16021624) 501.81881 (16021624) 418.56744 (16021624) 358.36037
(16021624)

110.0 | 647.79298 (16042324) 503.36186 (16042324) 412.82669 (16061324) 341.98590c(16122908) 291.13072c(16122908)
120.0 | 761.36187 (16042308) 594.52434 (16042308) 510.14434 (16042308) 436.82976 (16042308) 376.25110 (16042308)
130.0 | 1012.03930 (16110424) 797.39280 (16110424) 642.65559 (16110424) 543.21502 (16030224) 472.92229 (16030224)
140.0 | 923.62273 (16021724) 712.61916 (16011724) 574.23798 (16011724) 481.96232 (16021724) 440.25548 (16031908)
150.0 | 874.75428 (16111624) 695.93012 (16012908) 573.41837 (16012908) 465.88724 (16111624) 398.05370 (16012908)
160.0 | 783.44937 (16120124) 638.37967 (16120124) 532.16180 (16120124) 439.71443 (16120124) 381.32684 (16120124)
170.0 | 868.31643 (16110408) 694.03068 (16110408) 569.70946 (16110408) 506.48458 (16060124) 403.39130 (16060124)
180.0 | 952.45986 (16022708) 767.27229 (16022708) 627.84232 (16022708) 530.27164 (16022708) 449.41304 (16022708)
190.0 | 717.95390 (16022708) 578.68448 (16011808) 476.55996 (16040508) 394.29433 (16040508) 337.41594 (16040508)
200.0 | 840.96762 (16112508) 669.31815 (16112508) 548.43030 (16112508) 456.17093 (16122808) 388.62315 (16122024)
210.0 | 875.07021 (16111724) 712.24081 (16122124) 574.63256 (16102324) 482.79575 (16102324) 407.63091 (16102324)
220.0 | 779.19038 (16122124) 602.09362 (16122124) 526.76734 (16122124) 431.71760 (16122124) 363.69088 (16122124)
230.0 | 783.40815 (16121108) 623.87124 (16121108) 515.20734 (16121108) 435.93099 (16121108) 377.41720 (16121108)
240.0 | 877.58298 (16122708) 700.49358 (16122708) 579.39621c(16123124) 486.06671c(16123124) 412.45209c(16123124)
250.0 | 832.55262b(16030808) 669.05400b(16030808) 551.46394b(16030808) 469.78744b(16030808) 398.46401b(16030808)
260.0 | 750.81569 (16013108) 605.36527 (16013108) 498.50329 (16081908) 423.47441 (16081908) 364.97032 (16081908)
270.0 | 725.76300 (16021924) 580.06159 (16021924) 475.57136 (16021924) 398.95093 (16021924) 337.96954 (16021924)
280.0 | 695.64034 (16011424) 550.46038 (16011424) 455.42180 (16011424) 381.64648 (16040408) 320.90225 (16040408)
290.0 | 714.08143 (16012124) 563.47318 (16012124) 460.48662 (16012124) 391.01762 (16012124) 333.38473 (16012124)
300.0 | 849.14217 (16112824) 684.08984 (16112824) 567.14297 (16112824) 482.22480 (16112824) 415.37102 (16112824)
310.0 | 754.20794 (16121708) 615.08397 (16121708) 504.00862 (16121708) 429.45659 (16121708) 367.64252 (16121708)
320.0 | 808.36963 (16010924) 654.87802 (16010924) 542.92781 (16010924) 460.00873 (16010924) 396.45152 (16010924)
330.0 | 627.93230 (16032508) 503.43400 (16032508) 421.01967 (16042708) 354.71787 (16010924) 298.71978 (16010924)
340.0 | 648.13453 (16120424) 507.64433 (16120424) 405.36221 (16120424) 342.73681c(16061108) 297.49599c(16061108)
350.0 | 707.05524 (16121208) 566.12941 (16121208) 472.70076 (16120424) 398.56620 (16120424) 336.35463 (16120424)
360.0 | 759.23874 (16121208) 617.51840 (16121208) 511.18015 (16121208) 426.81352 (16020224) 360.81532 (16020224)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	339.18613 (16033124)	300.11701 (16033124)	267.86427 (16033124)	239.05685 (16121824)	215.64180 (16121824)
20.0	354.48788c(16031024)	314.03256c(16031024)	281.16843c(16031024)	254.04570c(16031024)	229.68702c(16031024)
30.0	230.45176 (16021224)	202.84049 (16021224)	175.69893 (16021224)	158.32107 (16021224)	142.57448 (16021224)
40.0	328.03716 (16020124)	274.39083 (16020124)	233.92736 (16020124)	211.25756 (16020124)	185.96189 (16020124)
50.0	327.47066 (16031708)	293.28559 (16031708)	263.50688 (16031708)	235.66888 (16031708)	214.94352 (16031708)
60.0	284.45627 (16010124)	249.88191 (16010124)	219.38138 (16032824)	193.14357 (16032824)	175.00348 (16032824)
70.0	360.12640 (16042724)	318.42233 (16042724)	281.02286 (16042724)	249.30910 (16042724)	225.96532 (16042724)
80.0	292.71289 (16021124)	259.85745 (16021124)	233.60274 (16021124)	210.67505 (16021124)	191.00719 (16021124)
90.0	331.76372 (16121324)	287.57188 (16121324)	258.28083 (16121324)	225.60534 (16121324)	202.18605 (16121324)
100.0	310.24132 (16021624)	269.45985 (16021624)	242.03972 (16021624)	210.61134 (16021624)	187.23045 (16021624)
110.0	251.23992 (16061324)	217.45570c(16122908)	193.74996 (16061324)	174.21048 (16061324)	157.89101c(16122908)
120.0	331.94448 (16042308)	282.52269 (16042308)	258.30185 (16042308)	235.73995 (16042308)	209.49094 (16042308)
130.0	414.92861 (16030224)	364.02685 (16030224)	321.41808 (16030224)	287.98438 (16030224)	261.44733 (16030224)
140.0	383.66670 (16021724)	337.89373 (16031908)	299.98119 (16031908)	271.67880 (16031908)	248.71509 (16031908)
150.0	380.20986 (16012908)	333.95572 (16012908)	297.80370 (16012908)	268.79291 (16012908)	253.50957 (16012908)
160.0	322.85268 (16120124)	286.31919 (16120124)	254.04459 (16120124)	230.88042 (16120124)	208.38107 (16120124)
170.0	364.27202 (16060124)	293.42764 (16060124)	262.76275 (16060124)	249.26657 (16060124)	236.35159 (16060124)
180.0	395.61195 (16022708)	341.85221 (16022708)	288.99837 (16022708)	257.37503 (16022708)	247.09572 (16022708)
190.0	296.92745 (16081824)	264.50340 (16081824)	227.15848 (16081824)	209.87074 (16081824)	170.49669 (16022708)
200.0	340.20400 (16122024)	298.83689 (16122024)	268.65533 (16112508)	244.12409 (16012508)	225.84396 (16091224)
210.0	351.35866 (16102324)	305.30743 (16102324)	274.25679 (16102324)	244.51307 (16102324)	233.00113 (16122124)
220.0	311.23722 (16122124)	269.77704 (16122124)	235.80456 (16122124)	215.21427 (16122124)	195.62830 (16122124)
230.0	331.96079 (16121108)	292.65989 (16121108)	252.15464 (16121108)	229.29490 (16121108)	199.25501 (16121108)
240.0	360.74164c(16123124)	313.89397c(16123124)	283.23141c(16123124)	252.72059c(16123124)	221.31345c(16123124)
250.0	347.84361b(16030808)	305.66118b(16030808)	273.81603b(16030808)	244.23638 (16013108)	219.60744 (16013108)
260.0	319.41690 (16081908)	283.18905 (16081908)	252.91290 (16081908)	226.64199 (16081908)	203.09737 (16021708)
270.0	292.43935 (16021924)	256.45768 (16021924)	227.77669 (16021924)	203.08257 (16021924)	184.24844 (16021924)

280.0 | 273.66846 (16040408) 245.26057 (16011424) 217.93970 (16011424) 197.92624 (16040408) 180.89549 (16022308)
290.0 | 290.54935 (16012124) 251.30693 (16012124) 214.58008 (16042208) 194.45447 (16042208) 177.39485 (16042208)
300.0 | 363.99309 (16112824) 320.17638 (16112824) 285.68477 (16112824) 257.97572 (16112824) 237.73749 (16112824)
310.0 | 313.25266 (16121708) 279.69884 (16121708) 246.95585 (16121708) 224.56580 (16121708) 199.35254 (16121708)
320.0 | 346.74240 (16010924) 304.91558 (16010924) 273.32468 (16010924) 244.16568 (16010924) 222.98631 (16010924)
330.0 | 259.22274 (16120108) 230.29620 (16120108) 204.22289 (16120108) 181.95107 (16120108) 164.90312 (16120108)
340.0 | 263.29963c(16061108) 232.19755c(16061108) 207.35138c(16061108) 188.87665c(16061108) 164.64084 (16092624)
350.0 | 291.44314 (16120424) 253.15976 (16120424) 225.18631 (16120424) 203.44581 (16120424) 182.80889 (16120424)
360.0 | 311.98743 (16020224) 273.46282 (16082008) 248.11759 (16082008) 224.40710 (16082008) 204.66233 (16121724)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	197.23869 (16121824)	179.05315 (16121824)	164.02990 (16022224)	150.88980 (16022224)	138.64040 (16022224)
20.0	207.97720c(16031024)	188.35765c(16031024)	172.46063c(16031024)	159.49292c(16031024)	149.70075c(16031024)
30.0	127.80727 (16021224)	115.46265 (16021224)	106.47140 (16021224)	98.35640 (16021224)	89.50330 (16021224)
40.0	165.85322 (16020124)	148.23877 (16020124)	130.00465 (16020124)	118.56041 (16020124)	108.44774 (16020124)
50.0	194.64262 (16031708)	180.83106 (16031708)	165.98711 (16031708)	153.33189 (16031708)	141.30989 (16031708)
60.0	158.16404 (16032824)	142.78438 (16032824)	131.97548 (16032824)	120.85218 (16032824)	108.12814 (16032824)
70.0	204.09116 (16042724)	186.28313 (16042724)	171.15563 (16042724)	158.23364 (16042724)	146.00198 (16042724)
80.0	172.11023 (16021124)	156.02606 (16021124)	144.05797 (16021124)	133.19259 (16021124)	122.33311 (16021124)
90.0	182.44881 (16121324)	167.04013 (16121324)	152.66389 (16121324)	139.75445 (16121324)	128.91294 (16121324)
100.0	171.84006 (16021624)	157.87855 (16021624)	144.24193 (16021624)	133.22580 (16021624)	120.92727 (16021624)
110.0	148.91512c(16122908)	135.35705c(16122908)	124.31814c(16122908)	113.57280c(16122908)	105.27314c(16122908)
120.0	192.90050 (16042308)	178.30922 (16053024)	166.90799 (16053024)	154.56748 (16053024)	144.19863 (16053024)
130.0	238.68294 (16030224)	216.30670 (16030224)	199.77501 (16030224)	188.43683 (16030224)	173.96429 (16030224)

140.0	227.26568 (16031908)	209.07920 (16031908)	192.08184 (16031908)	177.27656 (16021724)	163.59318 (16021724)
150.0	236.03336 (16012908)	209.70990 (16012908)	195.19401 (16012908)	181.96812 (16012908)	171.14947 (16012908)
160.0	183.26222 (16120124)	168.42114 (16120124)	154.46188 (16120124)	145.01852 (16120124)	133.47117 (16120124)
170.0	211.37736 (16060124)	197.21877 (16060124)	184.74103 (16060124)	172.77425 (16060124)	162.71631 (16060124)
180.0	229.32797 (16022708)	208.28315 (16022708)	189.86076 (16022708)	176.82111 (16022708)	166.49046 (16022708)
190.0	156.01295 (16022708)	142.79554 (16040508)	131.34624 (16040508)	133.37129 (16081824)	124.43798 (16081824)
200.0	202.57094 (16112508)	164.56304 (16122024)	151.82324 (16122024)	148.06609 (16112508)	138.11405 (16122024)
210.0	190.31318 (16102324)	172.16450 (16102324)	156.60001 (16102324)	156.69499 (16122124)	145.42996 (16102324)
220.0	186.37371 (16122124)	149.83269 (16122124)	138.31182 (16122124)	125.92292 (16122124)	123.93868 (16122124)
230.0	185.31675 (16121108)	173.38413 (16121108)	158.41977 (16121108)	141.14298 (16121108)	134.54707 (16121108)
240.0	202.57673c(16123124)	183.63612c(16123124)	159.95859c(16123124)	144.38087c(16123124)	141.27339c(16123124)
250.0	200.60001 (16013108)	181.92993 (16013108)	169.95466 (16013108)	151.05203 (16013108)	135.74804 (16013108)
260.0	180.51118 (16021708)	164.87943 (16021708)	149.67594 (16021708)	136.59597 (16021708)	125.57043 (16021708)
270.0	168.35605 (16021924)	152.85896 (16021924)	139.27901 (16021924)	128.44452 (16021924)	116.75416 (16021924)
280.0	163.98084 (16022308)	148.60272 (16040408)	136.67202 (16022308)	124.36201 (16081308)	117.07839 (16081308)
290.0	162.79145 (16042208)	148.09042 (16021508)	137.18737 (16021508)	128.25318 (16021508)	119.38890 (16021508)
300.0	214.92016 (16112824)	196.93830 (16112824)	181.24212 (16112824)	167.59534 (16112824)	156.56969 (16112824)
310.0	185.27580 (16121708)	168.15977 (16121708)	152.82696 (16121708)	140.15747 (16121708)	129.74627 (16121708)
320.0	202.22527 (16010924)	184.76243 (16010924)	171.28413 (16010924)	157.91705 (16010924)	145.27015 (16010924)
330.0	151.14640 (16120108)	139.18874 (16120108)	127.18608 (16120108)	115.65582 (16120108)	108.90007 (16120108)
340.0	149.04562 (16092624)	137.55554 (16092624)	127.35674c(16061108)	113.99141 (16092624)	107.22466 (16092624)
350.0	164.04978 (16120424)	148.37267 (16120424)	136.30185 (16120424)	126.61723 (16120424)	117.38160 (16120424)
360.0	184.84091 (16121724)	165.65057 (16121724)	147.17817 (16121724)	135.76682 (16121724)	126.09846 (16121724)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:01:56

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC

(YYMMDDHH)

TANK	:	375.70	118.90	1447.72598	(16042308)	TANK	:	498.87	129.50	1331.06992 (16110424)
TANK	:	81.43	359.00	9637.52809	(16082008)	TANK	:	116.79	44.50	8353.92530 (16091424)
TANK	:	109.20	67.00	7877.12551	(16042724)	TANK	:	100.70	93.73	8761.03687 (16121324)
TANK	:	87.91	103.99	8370.29163	(16021624)	TANK	:	99.82	123.38	8835.21771 (16020724)
TANK	:	138.00	141.00	6233.40553	(16031908)	TANK	:	106.00	180.00	7893.43514 (16022708)
TANK	:	115.60	206.00	7750.33510	(16112508)	TANK	:	54.00	270.00	15624.06716 (16052716)
TANK	:	97.00	326.00	9102.02882	(16013124)	TANK	:	133.94	242.10	6290.67764 (16103024)
TANK	:	101.99	301.65	8441.49001	(16050808)	TANK	:	236.54	274.95	2634.20072 (16021924)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

** CONC OF HCL IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF	TYPE	RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF	TYPE
1.	73574.69753	(16020806)	AT (	-54.00, -0.00)		DP	26.	47075.67912	(16081906)	AT (	-54.00, -0.00)		DP
2.	70722.31693	(16021707)	AT (	-54.00, -0.00)		DP	27.	47056.60362	(16020107)	AT (	-54.00, -0.00)		DP
3.	69396.16636	(16062806)	AT (	-54.00, -0.00)		DP	28.	46892.72592	(16091606)	AT (	-54.00, -0.00)		DP
4.	67714.04682	(16082007)	AT (	-1.42, 81.42)		DP	29.	46059.03853	(16091906)	AT (	-54.00, -0.00)		DP
5.	63474.61321	(16012021)	AT (	-54.00, -0.00)		DP	30.	45927.06877	(16012519)	AT (	100.00, 0.00)		GP
6.	62876.26706	(16082207)	AT (	-54.00, -0.00)		DP	31.	45871.28578	(16052606)	AT (	-54.00, -0.00)		DP
7.	60758.56527	(16013007)	AT (	-54.00, -0.00)		DP	32.	45809.81901	(16082007)	AT (	17.36, 98.48)		GP
8.	60423.44592	(16021706)	AT (	-54.00, -0.00)		DP	33.	45501.24562	(16121907)	AT (	-54.00, -0.00)		DP
9.	57504.90628	(16091907)	AT (	-54.00, -0.00)		DP	34.	45392.19663	(16060206)	AT (	-54.00, -0.00)		DP
10.	54540.96336	(16082007)	AT (	-0.00, 100.00)		GP	35.	45152.10161	(16062406)	AT (	83.35, -54.92)		DP
11.	54531.43268	(16072806)	AT (	-54.00, -0.00)		DP	36.	44831.27706	(16122908)	AT (	98.48, -17.36)		GP
12.	54421.03067	(16090406)	AT (	-54.00, -0.00)		DP	37.	44795.20356	(16081406)	AT (	-54.00, -0.00)		DP
13.	53212.48854	(16121407)	AT (	-54.00, -0.00)		DP	38.	44683.65565	(16092306)	AT (	17.36, -98.48)		GP
14.	53159.62459	(16122908)	AT (	85.30, -21.25)		DP	39.	44643.49269	(16081206)	AT (	-54.00, -0.00)		DP
15.	52993.19970	(16032906)	AT (	-54.00, -0.00)		DP	40.	44629.73716	(16042407)	AT (	-54.00, -0.00)		DP
16.	52904.25182	(16020206)	AT (	-54.00, -0.00)		DP	41.	44481.29346	(16121619)	AT (	-54.00, -0.00)		DP
17.	52123.57603	(16040407)	AT (	-54.00, -0.00)		DP	42.	44443.66509	(16012019)	AT (	100.52, 42.67)		DP
18.	50396.31444	(16040406)	AT (	-54.00, -0.00)		DP	43.	44095.51106	(16013019)	AT (	76.60, -64.28)		GP
19.	50393.11631	(16082107)	AT (	-54.00, -0.00)		DP	44.	43345.47599	(16082720)	AT (	-54.00, -0.00)		DP
20.	50369.42011	(16012519)	AT (	85.30, -21.25)		DP	45.	43311.73234	(16062406)	AT (	76.60, -64.28)		GP
21.	50138.51245	(16020106)	AT (	-54.00, -0.00)		DP	46.	42931.77883	(16081106)	AT (	-54.00, -0.00)		DP
22.	50047.35061	(16020207)	AT (	-54.00, -0.00)		DP	47.	42899.07986	(16012019)	AT (	86.60, 50.00)		GP
23.	49082.48131	(16012019)	AT (	93.97, 34.20)		GP	48.	42625.30498	(16092206)	AT (	-54.00, -0.00)		DP
24.	47944.82275	(16012519)	AT (	100.49, -6.55)		DP	49.	42550.46046	(16013006)	AT (	-54.00, -0.00)		DP
25.	47253.69593	(16012519)	AT (	98.48, -17.36)		GP	50.	42495.39103	(16072420)	AT (	-54.00, -0.00)		DP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE MAXIMUM 50 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL

***

INCLUDING SOURCE(S): TANK ,

** CONC OF HCL IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE	RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE
1.	19138.21024	(16021708) AT	(-54.00, -0.00) DP	26.	11948.32745	(16082916) AT	(-54.00, -0.00) DP
2.	17631.83678	(16011424) AT	(-54.00, -0.00) DP	27.	11870.38763	(16122616) AT	(-54.00, -0.00) DP
3.	15624.06716	(16052716) AT	(-54.00, -0.00) DP	28.	11759.79973	(16022308) AT	(-54.00, -0.00) DP
4.	14961.49621	(16013008) AT	(-54.00, -0.00) DP	29.	11752.49410	(16090408) AT	(-54.00, -0.00) DP
5.	14847.95320	(16021924) AT	(-54.00, -0.00) DP	30.	11701.41510m	(16081408) AT	(-54.00, -0.00) DP
6.	14614.49143	(16040408) AT	(-54.00, -0.00) DP	31.	11663.48979c	(16012624) AT	(-64.28, 76.60) GP
7.	14568.50204	(16041916) AT	(-54.00, -0.00) DP	32.	11634.77120	(16081208) AT	(-54.00, -0.00) DP
8.	13725.77556	(16020808) AT	(-54.00, -0.00) DP	33.	11626.26656	(16052724) AT	(-54.00, -0.00) DP
9.	13659.94188	(16020208) AT	(-54.00, -0.00) DP	34.	11605.94756	(16033024) AT	(-54.00, -0.00) DP
10.	13397.31971	(16081908) AT	(-54.00, -0.00) DP	35.	11549.11960	(16091808) AT	(-54.00, -0.00) DP
11.	13214.26585	(16091608) AT	(-54.00, -0.00) DP	36.	11536.63574	(16110816) AT	(-54.00, -0.00) DP
12.	13102.39371	(16021424) AT	(-54.00, -0.00) DP	37.	11452.08019b	(16030808) AT	(-54.00, -0.00) DP
13.	13016.82238	(16121116) AT	(-54.00, -0.00) DP	38.	11448.13060	(16071816) AT	(-54.00, -0.00) DP
14.	12945.49310	(16091908) AT	(-54.00, -0.00) DP	39.	11324.69491	(16011616) AT	(-1.42, 81.42) DP
15.	12832.64194	(16052524) AT	(-54.00, -0.00) DP	40.	11212.73646	(16013124) AT	(-64.28, 76.60) GP
16.	12771.61577	(16020124) AT	(76.60, 64.28) GP	41.	11204.42686c	(16012624) AT	(-54.24, 80.42) DP
17.	12655.03102	(16013124) AT	(-76.60, 64.28) GP	42.	11040.50339	(16112224) AT	(-76.60, -64.28) GP
18.	12481.03468	(16020108) AT	(-54.00, -0.00) DP	43.	10998.85284	(16021916) AT	(-54.00, -0.00) DP
19.	12458.28708	(16122524) AT	(-54.00, -0.00) DP	44.	10992.36568	(16012024) AT	(93.97, 34.20) GP
20.	12278.85534	(16091216) AT	(-54.00, -0.00) DP	45.	10947.28866	(16013108) AT	(-54.00, -0.00) DP
21.	12278.48263	(16060524) AT	(-54.00, -0.00) DP	46.	10841.35904c	(16011224) AT	(34.20, -93.97) GP
22.	12150.12524	(16121624) AT	(-54.00, -0.00) DP	47.	10825.47176	(16081716) AT	(-54.00, -0.00) DP
23.	12134.38598	(16091116) AT	(-54.00, -0.00) DP	48.	10805.37034	(16013124) AT	(-86.82, 53.52) DP
24.	12052.97317	(16121908) AT	(-54.00, -0.00) DP	49.	10775.27180	(16020124) AT	(64.28, 76.60) GP
25.	11972.18030	(16082208) AT	(-54.00, -0.00) DP	50.	10706.91844	(16111724) AT	(-64.28, -76.60) GP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (8784 HRS) RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	1986.70123 AT (-54.00, -0.00, 7.66, 7.66, 0.00) DP	
	2ND HIGHEST VALUE IS	1387.05630 AT (-76.60, -64.28, 6.80, 6.80, 0.00) GP	POL1
	3RD HIGHEST VALUE IS	1367.86755 AT (-86.60, -50.00, 7.10, 7.10, 0.00) GP	POL1
	4TH HIGHEST VALUE IS	1335.68571 AT (-64.28, -76.60, 6.40, 6.40, 0.00) GP	POL1
	5TH HIGHEST VALUE IS	1245.05349 AT (-93.97, -34.20, 7.30, 7.30, 0.00) GP	POL1
	6TH HIGHEST VALUE IS	1219.88926 AT (-50.00, -86.60, 6.40, 6.40, 0.00) GP	POL1
	7TH HIGHEST VALUE IS	1054.44773 AT (-34.20, -93.97, 6.40, 6.40, 0.00) GP	POL1
	8TH HIGHEST VALUE IS	1043.19361 AT (-98.48, -17.36, 7.50, 7.50, 0.00) GP	POL1
	9TH HIGHEST VALUE IS	958.17155 AT (-50.68, -103.90, 5.94, 5.94, 0.00) DP	

10TH HIGHEST VALUE IS 885.15919 AT (-118.37, -62.67, 7.16, 7.16, 0.00) DP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56
PAGE 53
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	73574.69753	ON 16020806: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 2ND HIGH VALUE IS	70722.31693	ON 16021707: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 3RD HIGH VALUE IS	69396.16636	ON 16062806: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56
PAGE 54
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	19138.21024	ON 16021708: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 2ND HIGH VALUE IS	17631.83678	ON 16011424: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 3RD HIGH VALUE IS	15624.06716	ON 16052716: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2016 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:01:56

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 3 Warning Message(s)
A Total of 167 Informational Message(s)

A Total of 8784 Hours Were Processed

A Total of 98 Calm Hours Identified

A Total of 69 Missing Hours Identified (0.79 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 356 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 356 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
ME W531 356 MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for SITEDATA

****
*** AERMOD Finishes Successfully ***
****

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**USEgeneric12017withAERMAPProcessedElevs

CO STARTING
CO TITLEONE USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017
CO MODELOPT DFAULT CONC ELEV
**CO MODELOPT CONC ELEVATED
CO AVERTIME 1 8 PERIOD
CO POLLUTID HCL
CO RUNORNOT RUN
**CO URBANOPT UrbPop (UrbName) (UrbRoughness)
CO URBANOPT 397809
CO FINISHED

SO STARTING
SO LOCATION TANK  AREA  0.0 0.0 0.0
SO URBANSRC ALL
**SO EMISFACT SrcID or SrcRange Qflag Qfact(i), i=1,n  HOUR-OF-Day Specific factor
** HOURLY SPECIFIC EMISSIONS ADJUSTMENT: 1-5 0  6-21 1.0  22 -24 0
SO EMISFACT TANK HROFDY 5*0.0 16*1.0 3*0.0
SO SRCPARAM TANK 1.0 6.096 6.096
SO SRCGROUP ALL
SO FINISHED

RE STARTING

** AERMAP - VERSION 18081                                    12/09/22
**                                                  14:52:07
**  Using USGS_ned_1_N28W083_GRIDFLOAT.TIF
**  With NAD27 Anchor Point
** A total of       1  NED files were used
** A total of     736  receptors were processed
** DOMAINXY  361366.0 3090645.0 17 369209.0 3097023.0 17
** ANCHORXY  0.0      0.0     364725.57  3093695.53  17  0
** Terrain heights were extracted by default

RE ELEVUNIT METERS
  GRIDPOLR POL1 STA
        POL1 ORIG   0.0   0.0
        POL1 DIST   100.   200. 300. 400. 500. 600. 700. 800. 900. 1000. 1100. 1200. 1300. 1400. 1500. 1600. 1700. 1800.
1900. 2000.
        POL1 GDIR   36     10.    10.
  GRIDPOLR POL1     ELEV    1     8.3     9.2     9.0     8.7     8.8     8.1
  GRIDPOLR POL1     ELEV    1     6.9     6.5     8.2     9.2     9.4     9.8
  GRIDPOLR POL1     ELEV    1     9.4     9.8    10.0    10.1     9.8     9.6
  GRIDPOLR POL1     ELEV    1     8.5     7.3
  GRIDPOLR POL1     ELEV    2     8.2     8.7     8.6     8.6     8.4     8.4
  GRIDPOLR POL1     ELEV    2     7.3     6.5     7.1     8.2     9.4     9.6
  GRIDPOLR POL1     ELEV    2     9.1     8.9     8.6     7.9     6.4     6.4
  GRIDPOLR POL1     ELEV    2     6.9     7.3
  GRIDPOLR POL1     ELEV    3     7.8     8.4     8.5     8.5     8.8     8.1
  GRIDPOLR POL1     ELEV    3     7.6     7.3     6.3     6.5     6.3     6.0
  GRIDPOLR POL1     ELEV    3     6.7     6.9     6.1     5.7     5.7     5.5
  GRIDPOLR POL1     ELEV    3     5.1     5.1
  GRIDPOLR POL1     ELEV    4     7.4     7.8     8.1     8.3     8.4     8.6
  GRIDPOLR POL1     ELEV    4     6.4     5.8     5.1     5.4     2.0     2.0
  GRIDPOLR POL1     ELEV    4     2.0     2.0     2.0     2.0     2.0     2.0
  GRIDPOLR POL1     ELEV    4     2.0     2.0
  GRIDPOLR POL1     ELEV    5     7.2     7.6     7.4     6.8     7.8     7.6
  GRIDPOLR POL1     ELEV    5     4.6     3.4     2.0     2.0     5.6     6.2
  GRIDPOLR POL1     ELEV    5     6.3     7.4     8.0     7.1     7.7     7.1
  GRIDPOLR POL1     ELEV    5     6.7     7.3
  GRIDPOLR POL1     ELEV    6     7.2     7.4     6.8     6.0     6.8     4.7
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GRIDPOLR	POL1	ELEV	6	3.8	2.0	2.0	6.2	7.0	5.7
GRIDPOLR	POL1	ELEV	6	7.0	7.6	8.5	8.6	9.4	7.7
GRIDPOLR	POL1	ELEV	6	7.4	7.9				
GRIDPOLR	POL1	ELEV	7	7.1	7.0	6.4	5.9	7.1	10.0
GRIDPOLR	POL1	ELEV	7	2.6	2.0	10.0	7.7	7.8	7.4
GRIDPOLR	POL1	ELEV	7	7.1	7.0	6.9	9.0	7.1	7.3
GRIDPOLR	POL1	ELEV	7	7.0	8.1				
GRIDPOLR	POL1	ELEV	8	6.8	6.9	5.8	5.4	5.1	3.2
GRIDPOLR	POL1	ELEV	8	2.0	2.0	7.3	8.4	10.1	10.1
GRIDPOLR	POL1	ELEV	8	9.4	8.2	7.8	7.6	7.2	5.7
GRIDPOLR	POL1	ELEV	8	7.6	8.2				
GRIDPOLR	POL1	ELEV	9	6.6	6.4	5.8	4.8	4.6	4.2
GRIDPOLR	POL1	ELEV	9	2.0	4.8	5.6	6.7	7.7	7.6
GRIDPOLR	POL1	ELEV	9	8.1	8.5	8.0	7.4	7.5	5.2
GRIDPOLR	POL1	ELEV	9	6.7	7.0				
GRIDPOLR	POL1	ELEV	10	6.6	6.1	5.8	4.9	3.5	4.0
GRIDPOLR	POL1	ELEV	10	2.0	5.1	4.9	5.6	5.3	5.3
GRIDPOLR	POL1	ELEV	10	7.6	7.8	8.3	8.6	8.3	8.5
GRIDPOLR	POL1	ELEV	10	7.3	7.9				
GRIDPOLR	POL1	ELEV	11	6.5	6.2	5.7	4.0	4.0	4.0
GRIDPOLR	POL1	ELEV	11	2.0	6.3	8.7	8.1	5.1	5.4
GRIDPOLR	POL1	ELEV	11	6.4	6.4	7.3	8.6	8.0	7.7
GRIDPOLR	POL1	ELEV	11	7.0	6.8				
GRIDPOLR	POL1	ELEV	12	6.7	6.0	5.2	4.1	4.2	3.5
GRIDPOLR	POL1	ELEV	12	2.0	4.5	10.1	8.2	9.3	4.8
GRIDPOLR	POL1	ELEV	12	6.8	7.5	5.8	6.3	6.7	7.6
GRIDPOLR	POL1	ELEV	12	7.3	7.3				
GRIDPOLR	POL1	ELEV	13	6.6	6.4	5.3	4.3	4.3	4.0
GRIDPOLR	POL1	ELEV	13	2.0	3.1	7.7	8.0	7.5	5.7
GRIDPOLR	POL1	ELEV	13	4.4	3.8	3.7	4.2	5.1	5.7
GRIDPOLR	POL1	ELEV	13	7.0	6.2				
GRIDPOLR	POL1	ELEV	14	6.5	6.3	5.4	4.7	3.9	4.2
GRIDPOLR	POL1	ELEV	14	1.2	0.0	0.0	3.3	3.3	3.4
GRIDPOLR	POL1	ELEV	14	3.2	3.5	4.2	4.2	5.1	5.2
GRIDPOLR	POL1	ELEV	14	5.8	5.4				
GRIDPOLR	POL1	ELEV	15	6.3	5.8	5.0	5.0	4.6	3.6
GRIDPOLR	POL1	ELEV	15	2.9	2.3	0.0	0.0	3.8	3.2
GRIDPOLR	POL1	ELEV	15	3.0	3.0	5.6	7.2	4.1	4.6
GRIDPOLR	POL1	ELEV	15	4.9	5.6				
GRIDPOLR	POL1	ELEV	16	6.2	5.6	4.5	4.8	5.3	5.2
GRIDPOLR	POL1	ELEV	16	5.3	3.8	1.5	2.3	0.0	0.0
GRIDPOLR	POL1	ELEV	16	3.7	5.3	3.8	1.6	3.3	3.6
GRIDPOLR	POL1	ELEV	16	4.4	4.1				
GRIDPOLR	POL1	ELEV	17	6.1	5.0	4.7	3.5	5.0	5.0
GRIDPOLR	POL1	ELEV	17	4.8	4.5	9.4	2.4	3.6	0.0
GRIDPOLR	POL1	ELEV	17	0.0	1.7	3.2	2.3	2.8	3.3
GRIDPOLR	POL1	ELEV	17	3.6	4.1				
GRIDPOLR	POL1	ELEV	18	6.1	5.1	4.7	4.9	4.9	5.1
GRIDPOLR	POL1	ELEV	18	5.0	4.5	4.5	3.3	4.4	2.6
GRIDPOLR	POL1	ELEV	18	0.0	0.0	2.7	3.2	2.7	3.0
GRIDPOLR	POL1	ELEV	18	3.1	3.7				
GRIDPOLR	POL1	ELEV	19	6.3	5.0	4.7	4.8	5.2	5.5
GRIDPOLR	POL1	ELEV	19	5.3	4.8	4.9	4.4	4.7	4.9
GRIDPOLR	POL1	ELEV	19	3.2	4.1	0.2	0.0	0.0	0.0
GRIDPOLR	POL1	ELEV	19	3.4	3.7				
GRIDPOLR	POL1	ELEV	20	6.4	5.0	4.8	4.2	5.0	5.2
GRIDPOLR	POL1	ELEV	20	5.6	5.0	4.4	3.8	3.8	3.4
GRIDPOLR	POL1	ELEV	20	4.1	5.4	12.4	7.3	0.0	0.0
GRIDPOLR	POL1	ELEV	20	2.8	3.0				
GRIDPOLR	POL1	ELEV	21	6.4	4.8	5.3	5.2	4.6	4.9
GRIDPOLR	POL1	ELEV	21	7.3	4.7	4.6	3.2	3.1	2.7
GRIDPOLR	POL1	ELEV	21	2.9	2.6	6.3	0.0	0.0	0.1

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GRIDPOLR POL1    ELEV  21     2.7     3.1
GRIDPOLR POL1    ELEV  22     6.4     5.1     5.6     5.9     5.6     4.9
GRIDPOLR POL1    ELEV  22    16.0    11.8     5.0     4.5     3.4     2.6
GRIDPOLR POL1    ELEV  22     2.3     3.0     3.1     7.9     0.0     0.0
GRIDPOLR POL1    ELEV  22     0.0     1.7
GRIDPOLR POL1    ELEV  23     6.8     6.2     5.8     6.1     5.8     6.6
GRIDPOLR POL1    ELEV  23     5.4     4.9     4.6     4.6     4.7     4.4
GRIDPOLR POL1    ELEV  23     3.0     3.2     2.0     2.4     2.9     2.6
GRIDPOLR POL1    ELEV  23     1.6     2.2
GRIDPOLR POL1    ELEV  24     7.1     6.4     6.4     6.3     6.5     7.4
GRIDPOLR POL1    ELEV  24     6.2     5.9     5.6     5.3     5.2     4.6
GRIDPOLR POL1    ELEV  24     5.1     4.8     3.3     3.3     2.9     1.4
GRIDPOLR POL1    ELEV  24     0.8     2.0
GRIDPOLR POL1    ELEV  25     7.3     7.3     7.1     6.9     8.1     7.5
GRIDPOLR POL1    ELEV  25     7.8     7.7     7.9     6.5     6.2     5.6
GRIDPOLR POL1    ELEV  25     5.5     5.3     4.8     4.7     4.1     4.5
GRIDPOLR POL1    ELEV  25     3.0     1.9
GRIDPOLR POL1    ELEV  26     7.5     7.9     7.7     8.4     8.2     8.4
GRIDPOLR POL1    ELEV  26     8.4     8.3     8.6     8.3     8.1     7.9
GRIDPOLR POL1    ELEV  26     7.6     7.1     6.7     6.6     5.6     4.9
GRIDPOLR POL1    ELEV  26     4.0     4.5
GRIDPOLR POL1    ELEV  27     7.8     8.3     8.4     8.5     8.2     9.1
GRIDPOLR POL1    ELEV  27     8.4     8.6     7.9     6.7     6.9     6.6
GRIDPOLR POL1    ELEV  27     6.8     7.0     7.0     7.1     6.6     6.0
GRIDPOLR POL1    ELEV  27     6.2     6.4
GRIDPOLR POL1    ELEV  28     8.2     8.8     9.3     8.2     8.5     8.3
GRIDPOLR POL1    ELEV  28     8.3     7.7     6.9     6.9     6.0     7.3
GRIDPOLR POL1    ELEV  28     8.6     9.5    11.1    10.0     8.8     8.6
GRIDPOLR POL1    ELEV  28     8.9     9.6
GRIDPOLR POL1    ELEV  29     8.3     9.1     9.0     8.4     8.7     8.0
GRIDPOLR POL1    ELEV  29     7.8     7.5     7.3     7.3     8.5     8.6
GRIDPOLR POL1    ELEV  29     9.5     9.6     9.7    10.1    10.3    10.5
GRIDPOLR POL1    ELEV  29    11.3    11.1
GRIDPOLR POL1    ELEV  30     8.6     8.6     8.9     8.5     8.3     8.1
GRIDPOLR POL1    ELEV  30     7.6     7.4     7.8     8.4     9.7     8.8
GRIDPOLR POL1    ELEV  30     8.6     8.7    10.3     9.0     8.8     8.6
GRIDPOLR POL1    ELEV  30     8.7    10.1
GRIDPOLR POL1    ELEV  31     8.9     9.4     8.7     8.7     8.1     7.7
GRIDPOLR POL1    ELEV  31     8.0     8.2     8.8     8.0     8.3     9.1
GRIDPOLR POL1    ELEV  31    10.7    11.3     8.2     9.6     9.1     9.3
GRIDPOLR POL1    ELEV  31     7.9     7.9
GRIDPOLR POL1    ELEV  32     8.5     8.9     9.0     8.7     8.0     8.1
GRIDPOLR POL1    ELEV  32     8.5     9.2     9.7     8.6     8.4    10.4
GRIDPOLR POL1    ELEV  32    11.0    11.5    11.9    10.2     9.3    11.6
GRIDPOLR POL1    ELEV  32     8.9     8.7
GRIDPOLR POL1    ELEV  33     8.5     8.6     9.0     8.8     8.4     8.2
GRIDPOLR POL1    ELEV  33     8.2     9.9    10.9    11.0    12.7    11.4
GRIDPOLR POL1    ELEV  33    10.9    11.7    11.7    11.5    11.9     9.8
GRIDPOLR POL1    ELEV  33     8.0     9.0
GRIDPOLR POL1    ELEV  34     8.5     8.8     8.7     8.8     7.6     7.8
GRIDPOLR POL1    ELEV  34     7.4     9.4    10.8    10.8    11.3    10.7
GRIDPOLR POL1    ELEV  34    10.4    10.9    12.3    10.6    10.9     8.0
GRIDPOLR POL1    ELEV  34     8.0     8.6
GRIDPOLR POL1    ELEV  35     8.6     9.0     9.0     8.7     7.9     7.5
GRIDPOLR POL1    ELEV  35     7.6     8.5     9.8    10.0     9.8    10.2
GRIDPOLR POL1    ELEV  35     9.9     9.7     9.7    10.9    10.6    10.8
GRIDPOLR POL1    ELEV  35    10.7    11.0
GRIDPOLR POL1    ELEV  36     8.3     9.1     8.7     8.7     8.2     7.2
GRIDPOLR POL1    ELEV  36     7.1     8.4     9.4     9.4     8.2     8.5
GRIDPOLR POL1    ELEV  36     9.2     9.3    10.2    10.5    10.7    10.8
GRIDPOLR POL1    ELEV  36    10.2     9.8
GRIDPOLR POL1    HILL  1     8.3     9.2     9.0     8.7     8.8     8.1
```

GRIDPOLR	POL1	HILL	1	6.9	6.5	8.2	9.2	9.4	9.8
GRIDPOLR	POL1	HILL	1	9.4	9.8	10.0	10.1	9.8	9.6
GRIDPOLR	POL1	HILL	1	8.5	7.3				
GRIDPOLR	POL1	HILL	2	8.2	9.5	8.6	8.6	8.4	8.4
GRIDPOLR	POL1	HILL	2	7.3	6.5	7.1	8.2	9.4	9.6
GRIDPOLR	POL1	HILL	2	9.1	8.9	8.6	7.9	6.4	6.4
GRIDPOLR	POL1	HILL	2	6.9	7.3				
GRIDPOLR	POL1	HILL	3	7.8	8.4	8.5	8.5	8.8	8.1
GRIDPOLR	POL1	HILL	3	7.6	7.3	6.3	6.5	6.3	6.0
GRIDPOLR	POL1	HILL	3	6.7	6.9	6.1	5.7	5.7	5.5
GRIDPOLR	POL1	HILL	3	5.1	5.1				
GRIDPOLR	POL1	HILL	4	7.4	7.8	8.1	8.3	8.4	8.6
GRIDPOLR	POL1	HILL	4	6.4	5.8	5.1	6.2	2.0	2.0
GRIDPOLR	POL1	HILL	4	2.0	2.0	2.0	2.0	2.0	2.0
GRIDPOLR	POL1	HILL	4	2.0	5.1				
GRIDPOLR	POL1	HILL	5	7.2	7.6	7.4	6.8	7.8	7.6
GRIDPOLR	POL1	HILL	5	4.6	3.4	2.0	2.0	5.6	6.2
GRIDPOLR	POL1	HILL	5	6.3	7.4	8.0	7.1	7.7	7.1
GRIDPOLR	POL1	HILL	5	7.9	7.3				
GRIDPOLR	POL1	HILL	6	7.2	7.4	6.8	6.0	6.8	12.5
GRIDPOLR	POL1	HILL	6	7.1	2.0	6.5	6.2	7.0	5.7
GRIDPOLR	POL1	HILL	6	7.0	7.6	8.5	8.6	9.4	7.7
GRIDPOLR	POL1	HILL	6	7.4	7.9				
GRIDPOLR	POL1	HILL	7	7.1	7.0	6.4	5.9	11.6	11.2
GRIDPOLR	POL1	HILL	7	5.0	2.0	10.0	7.7	7.8	7.4
GRIDPOLR	POL1	HILL	7	7.1	7.0	15.1	16.4	7.1	7.3
GRIDPOLR	POL1	HILL	7	7.0	8.1				
GRIDPOLR	POL1	HILL	8	6.8	6.9	5.8	5.4	5.1	4.1
GRIDPOLR	POL1	HILL	8	2.0	9.3	7.3	8.4	10.1	10.1
GRIDPOLR	POL1	HILL	8	9.4	8.2	7.8	7.6	7.2	5.7
GRIDPOLR	POL1	HILL	8	7.6	8.2				
GRIDPOLR	POL1	HILL	9	6.6	6.4	5.8	4.8	5.2	4.2
GRIDPOLR	POL1	HILL	9	2.0	5.9	5.6	6.7	7.7	7.6
GRIDPOLR	POL1	HILL	9	8.1	8.5	8.0	7.4	7.5	5.2
GRIDPOLR	POL1	HILL	9	6.7	7.0				
GRIDPOLR	POL1	HILL	10	6.6	6.1	5.8	4.9	3.5	4.0
GRIDPOLR	POL1	HILL	10	2.0	7.8	7.1	5.6	5.3	5.3
GRIDPOLR	POL1	HILL	10	7.6	7.8	8.3	8.6	8.3	8.5
GRIDPOLR	POL1	HILL	10	7.3	7.9				
GRIDPOLR	POL1	HILL	11	6.5	6.2	5.7	4.0	4.0	4.0
GRIDPOLR	POL1	HILL	11	2.0	9.5	8.7	8.1	5.1	5.4
GRIDPOLR	POL1	HILL	11	6.4	6.4	7.3	8.6	8.0	7.7
GRIDPOLR	POL1	HILL	11	7.0	6.8				
GRIDPOLR	POL1	HILL	12	6.7	6.0	5.2	4.1	4.2	3.5
GRIDPOLR	POL1	HILL	12	2.0	8.8	10.1	14.4	15.9	15.9
GRIDPOLR	POL1	HILL	12	6.8	7.5	5.8	6.3	6.7	7.6
GRIDPOLR	POL1	HILL	12	7.3	7.3				
GRIDPOLR	POL1	HILL	13	6.6	6.4	5.3	4.3	4.3	4.0
GRIDPOLR	POL1	HILL	13	4.0	3.8	7.7	8.0	8.3	13.2
GRIDPOLR	POL1	HILL	13	6.7	3.8	3.7	4.2	5.1	5.7
GRIDPOLR	POL1	HILL	13	7.0	6.2				
GRIDPOLR	POL1	HILL	14	6.5	6.3	5.4	4.7	3.9	4.2
GRIDPOLR	POL1	HILL	14	3.1	0.0	0.0	3.3	3.3	3.4
GRIDPOLR	POL1	HILL	14	3.2	3.5	4.2	4.2	5.1	5.2
GRIDPOLR	POL1	HILL	14	5.8	5.4				
GRIDPOLR	POL1	HILL	15	6.3	5.8	5.0	5.0	4.6	3.6
GRIDPOLR	POL1	HILL	15	2.9	2.3	0.0	0.0	3.8	3.2
GRIDPOLR	POL1	HILL	15	3.0	3.0	9.8	7.2	4.1	4.6
GRIDPOLR	POL1	HILL	15	4.9	5.6				
GRIDPOLR	POL1	HILL	16	6.2	5.6	4.5	4.8	5.3	5.2
GRIDPOLR	POL1	HILL	16	12.0	13.1	13.1	2.9	0.0	0.0
GRIDPOLR	POL1	HILL	16	3.7	5.3	3.8	3.1	3.3	3.6

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GRIDPOLR POL1    HILL  16    4.4    4.1
GRIDPOLR POL1    HILL  17    6.1    5.0    4.7    3.5    5.0    5.0
GRIDPOLR POL1    HILL  17    4.8   13.1    9.4    2.4    3.6    4.1
GRIDPOLR POL1    HILL  17    0.0    1.7    3.2    2.3    2.8    3.3
GRIDPOLR POL1    HILL  17    3.6    4.1
GRIDPOLR POL1    HILL  18    6.1    5.1    4.7    4.9    4.9    5.1
GRIDPOLR POL1    HILL  18    5.0    4.5    4.5    3.3    4.4    2.6
GRIDPOLR POL1    HILL  18    0.0    0.0    2.7    3.2    2.7    3.0
GRIDPOLR POL1    HILL  18    3.1    3.7
GRIDPOLR POL1    HILL  19    6.3    5.0    4.7    4.8    5.2    5.5
GRIDPOLR POL1    HILL  19    5.3    4.8    4.9    4.4    4.7    4.9
GRIDPOLR POL1    HILL  19   12.5   13.3   13.6   13.6    0.0    0.0
GRIDPOLR POL1    HILL  19    3.4    3.7
GRIDPOLR POL1    HILL  20    6.4    5.0    4.8    4.2    5.0    5.2
GRIDPOLR POL1    HILL  20    5.6    5.0    4.4    3.8    3.8    3.4
GRIDPOLR POL1    HILL  20    4.1   14.1   12.4   12.9   12.9    0.0
GRIDPOLR POL1    HILL  20    2.8    3.0
GRIDPOLR POL1    HILL  21    6.4    4.8    5.3    5.2    4.6   16.4
GRIDPOLR POL1    HILL  21   16.9   16.5    4.6    3.2    3.1    2.7
GRIDPOLR POL1    HILL  21    2.9    4.3   10.8   11.0    0.0    2.4
GRIDPOLR POL1    HILL  21    2.7    3.1
GRIDPOLR POL1    HILL  22    6.4    5.1    5.6    5.9    5.6   16.8
GRIDPOLR POL1    HILL  22   16.0   16.7   16.1    4.5    3.4    2.6
GRIDPOLR POL1    HILL  22    2.3    3.0    9.4    9.2    9.1    0.0
GRIDPOLR POL1    HILL  22    0.0    1.7
GRIDPOLR POL1    HILL  23    6.8    6.2    5.8    6.1    5.8    6.6
GRIDPOLR POL1    HILL  23   16.8   16.8   16.4    4.6    4.7    4.4
GRIDPOLR POL1    HILL  23    3.0    3.2    2.0    2.4    2.9    2.6
GRIDPOLR POL1    HILL  23    1.6    9.6
GRIDPOLR POL1    HILL  24    7.1    6.4    6.4    6.3    6.5    7.4
GRIDPOLR POL1    HILL  24    6.2    5.9    5.6    5.3    5.2    4.6
GRIDPOLR POL1    HILL  24    5.1    4.8    3.3    3.3    2.9    1.4
GRIDPOLR POL1    HILL  24    0.8    2.0
GRIDPOLR POL1    HILL  25    7.3    7.3    7.1    6.9    8.1    7.5
GRIDPOLR POL1    HILL  25    7.8    7.7    7.9    7.6    6.2    5.6
GRIDPOLR POL1    HILL  25    5.9    5.3    4.8    4.7    4.1    4.5
GRIDPOLR POL1    HILL  25    3.0    1.9
GRIDPOLR POL1    HILL  26    7.5    7.9    7.7    8.4    8.2    8.4
GRIDPOLR POL1    HILL  26    8.4    8.3    8.6    8.3    8.1    7.9
GRIDPOLR POL1    HILL  26    7.6    7.1    6.7    6.6    5.6    4.9
GRIDPOLR POL1    HILL  26    4.0    4.5
GRIDPOLR POL1    HILL  27    7.8    8.3    8.4    8.5    8.2    9.1
GRIDPOLR POL1    HILL  27    8.4    8.6    7.9    6.7    6.9    6.6
GRIDPOLR POL1    HILL  27    6.8    7.0    7.0    7.1    6.6   12.2
GRIDPOLR POL1    HILL  27   14.2   14.2
GRIDPOLR POL1    HILL  28    8.2    8.8    9.3    9.3    8.5    8.3
GRIDPOLR POL1    HILL  28    8.3    7.7    6.9    6.9    6.0    7.3
GRIDPOLR POL1    HILL  28    8.6    9.5   11.1   10.0    8.8    8.6
GRIDPOLR POL1    HILL  28    8.9    9.6
GRIDPOLR POL1    HILL  29    8.3    9.1    9.0    8.4    8.7    8.0
GRIDPOLR POL1    HILL  29    7.8    7.5    7.3    7.3    8.5    8.6
GRIDPOLR POL1    HILL  29    9.5    9.6    9.7   10.1   10.3   10.5
GRIDPOLR POL1    HILL  29   11.3   11.1
GRIDPOLR POL1    HILL  30    8.6    8.6    8.9    8.5    8.3    8.1
GRIDPOLR POL1    HILL  30    7.6    7.4    7.8    8.4    9.7    8.8
GRIDPOLR POL1    HILL  30    8.6    8.7   10.3    9.0    8.8    8.6
GRIDPOLR POL1    HILL  30    9.5   10.1
GRIDPOLR POL1    HILL  31    8.9    9.4    8.7    8.7    8.1    7.7
GRIDPOLR POL1    HILL  31    8.0    8.2    8.8    8.0    8.3    9.1
GRIDPOLR POL1    HILL  31   14.9   15.4    8.2    9.6    9.1    9.3
GRIDPOLR POL1    HILL  31    7.9    7.9
GRIDPOLR POL1    HILL  32    8.5    8.9    9.0    8.8    8.0    8.1
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  GRIDPOLR POL1     HILL  32     8.5     9.2     9.7     8.6     8.4    10.4
  GRIDPOLR POL1     HILL  32    11.0    11.5    11.9    10.2     9.3    11.6
  GRIDPOLR POL1     HILL  32     8.9     8.7
  GRIDPOLR POL1     HILL  33     8.5     8.6     9.0     8.8     8.4     8.2
  GRIDPOLR POL1     HILL  33     8.2     9.9    10.9    11.0    12.7    11.4
  GRIDPOLR POL1     HILL  33    10.9    11.7    11.7    11.5    11.9     9.8
  GRIDPOLR POL1     HILL  33     8.0     9.0
  GRIDPOLR POL1     HILL  34     8.5     8.8     8.7     8.8     7.6     7.8
  GRIDPOLR POL1     HILL  34     7.4     9.4    10.8    10.8    11.3    10.7
  GRIDPOLR POL1     HILL  34    10.4    10.9    12.3    16.6    10.9     8.0
  GRIDPOLR POL1     HILL  34     8.0     8.6
  GRIDPOLR POL1     HILL  35     8.6     9.0     9.0     8.7     7.9     7.5
  GRIDPOLR POL1     HILL  35     7.6     8.5     9.8    10.0     9.8    10.2
  GRIDPOLR POL1     HILL  35     9.9     9.7     9.7    10.9    10.6    10.8
  GRIDPOLR POL1     HILL  35    10.7    11.0
  GRIDPOLR POL1     HILL  36     8.3     9.1     8.7     8.7     8.2     7.2
  GRIDPOLR POL1     HILL  36     7.1     8.4     9.4     9.4     8.2     8.5
  GRIDPOLR POL1     HILL  36     9.2     9.3    10.2    10.5    10.7    10.8
  GRIDPOLR POL1     HILL  36    10.2    11.9
  GRIDPOLR POL1 END
  DISCPOLR TANK          375.70    118.90     4.13     4.13
  DISCPOLR TANK          498.87    129.50     4.28     4.28
  DISCPOLR TANK           81.43    359.00     8.22     8.22
  DISCPOLR TANK          116.79     44.50     7.45     7.45
  DISCPOLR TANK          109.20     67.00     7.18     7.18
  DISCPOLR TANK          100.70     93.73     6.54     6.54
  DISCPOLR TANK           87.91    103.99     6.86     6.86
  DISCPOLR TANK           99.82    123.38     6.79     6.79
  DISCPOLR TANK          138.00    141.00     5.94     5.94
  DISCPOLR TANK          106.00    180.00     5.90     5.90
  DISCPOLR TANK          115.60    206.00     5.94     5.94
  DISCPOLR TANK           54.00    270.00     7.66     7.66
  DISCPOLR TANK           97.00    326.00     8.52     8.52
  DISCPOLR TANK          133.94    242.10     7.16     7.16
  DISCPOLR TANK          101.99    301.65     8.70     8.70
  DISCPOLR TANK          236.54    274.95     8.35     8.35

RE FINISHED

ME STARTING
  SURFFILE  TPA2017_V19191.sfc
  PROFFILE  TPA2017_V19191.pfl
  SURFDATA  12842  2017
  UAIRDATA 12842  2017
  SITEDATA  12842  2017
  PROFBASE  0.0  METERS
ME FINISHED

OU STARTING
OU RECTABLE  ALLAVE  FIRST-THIRD
OU MAXTABLE  ALLAVE  50
OU SUMMFILE USECOLO1.SUM
OU FINISHED


 *** Message Summary For AERMOD Model Setup ***

 --------- Summary of Total Messages --------

A Total of         0 Fatal Error Message(s)
A Total of         3 Warning Message(s)
A Total of         0 Informational Message(s)
```

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 356 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 356 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
ME W531 356 MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for SITEDATA

****
*** SETUP Finishes Successfully ***
****

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 1
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY ***
- -

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 1 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 397809.0 ; Urban Roughness Length = 1.000 m

**Model Uses Regulatory DEFAULT Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.
6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
ADJ_U* - Use ADJ_U* option for SBL in AERMET
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: HCL

**Model Calculates 2 Short Term Average(s) of: 1-HR 8-HR
and Calculates PERIOD Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 736 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)
and: 1 AREA type source(s)

and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 19191

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 0.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: GenericUSE1GramWithElevs2017f.inp
**Output Print File: GenericUSE1GramWithElevs2017f.out

**File for Summary of Results: USECOLO1.SUM
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 2
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
TANK	0	0.10000E+01	0.0	0.0	0.0	6.10	6.10	6.10	0.00	0.00	YES	HROFDY

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 3
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	TANK ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	397809.	TANK ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = TANK ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.10000E+01
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.10000E+01	20	.10000E+01	21	.10000E+01	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 0.00 ; Y-ORIG = 0.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

100.0, 200.0, 300.0, 400.0, 500.0, 600.0, 700.0, 800.0, 900.0, 1000.0,
1100.0, 1200.0, 1300.0, 1400.0, 1500.0, 1600.0, 1700.0, 1800.0, 1900.0, 2000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00	600.00	700.00	800.00	900.00
10.00	8.30	9.20	9.00	8.70	8.80	8.10	6.90	6.50	8.20
20.00	8.20	8.70	8.60	8.60	8.40	8.40	7.30	6.50	7.10
30.00	7.80	8.40	8.50	8.50	8.80	8.10	7.60	7.30	6.30
40.00	7.40	7.80	8.10	8.30	8.40	8.60	6.40	5.80	5.10
50.00	7.20	7.60	7.40	6.80	7.80	7.60	4.60	3.40	2.00
60.00	7.20	7.40	6.80	6.00	6.80	4.70	3.80	2.00	2.00
70.00	7.10	7.00	6.40	5.90	7.10	10.00	2.60	2.00	10.00
80.00	6.80	6.90	5.80	5.40	5.10	3.20	2.00	2.00	7.30
90.00	6.60	6.40	5.80	4.80	4.60	4.20	2.00	4.80	5.60
100.00	6.60	6.10	5.80	4.90	3.50	4.00	2.00	5.10	4.90
110.00	6.50	6.20	5.70	4.00	4.00	4.00	2.00	6.30	8.70
120.00	6.70	6.00	5.20	4.10	4.20	3.50	2.00	4.50	10.10
130.00	6.60	6.40	5.30	4.30	4.30	4.00	2.00	3.10	7.70
140.00	6.50	6.30	5.40	4.70	3.90	4.20	1.20	0.00	0.00
150.00	6.30	5.80	5.00	5.00	4.60	3.60	2.90	2.30	0.00
160.00	6.20	5.60	4.50	4.80	5.30	5.20	5.30	3.80	1.50
170.00	6.10	5.00	4.70	3.50	5.00	5.00	4.80	4.50	9.40
180.00	6.10	5.10	4.70	4.90	4.90	5.10	5.00	4.50	4.50
190.00	6.30	5.00	4.70	4.80	5.20	5.50	5.30	4.80	4.90
200.00	6.40	5.00	4.80	4.20	5.00	5.20	5.60	5.00	4.40
210.00	6.40	4.80	5.30	5.20	4.60	4.90	7.30	4.70	4.60
220.00	6.40	5.10	5.60	5.90	5.60	4.90	16.00	11.80	5.00
230.00	6.80	6.20	5.80	6.10	5.80	6.60	5.40	4.90	4.60
240.00	7.10	6.40	6.40	6.30	6.50	7.40	6.20	5.90	5.60
250.00	7.30	7.30	7.10	6.90	8.10	7.50	7.80	7.70	7.90
260.00	7.50	7.90	7.70	8.40	8.20	8.40	8.40	8.30	8.60
270.00	7.80	8.30	8.40	8.50	8.20	9.10	8.40	8.60	7.90
280.00	8.20	8.80	9.30	8.20	8.50	8.30	8.30	7.70	6.90
290.00	8.30	9.10	9.00	8.40	8.70	8.00	7.80	7.50	7.30
300.00	8.60	8.60	8.90	8.50	8.30	8.10	7.60	7.40	7.80
310.00	8.90	9.40	8.70	8.70	8.10	7.70	8.00	8.20	8.80
320.00	8.50	8.90	9.00	8.70	8.00	8.10	8.50	9.20	9.70
330.00	8.50	8.60	9.00	8.80	8.40	8.20	8.20	9.90	10.90
340.00	8.50	8.80	8.70	8.80	7.60	7.80	7.40	9.40	10.80
350.00	8.60	9.00	9.00	8.70	7.90	7.50	7.60	8.50	9.80
360.00	8.30	9.10	8.70	8.70	8.20	7.20	7.10	8.40	9.40

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00

10.00	9.20	9.40	9.80	9.40	9.80	10.00	10.10	9.80	9.60
20.00	8.20	9.40	9.60	9.10	8.90	8.60	7.90	6.40	6.40
30.00	6.50	6.30	6.00	6.70	6.90	6.10	5.70	5.70	5.50
40.00	5.40	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
50.00	2.00	5.60	6.20	6.30	7.40	8.00	7.10	7.70	7.10
60.00	6.20	7.00	5.70	7.00	7.60	8.50	8.60	9.40	7.70
70.00	7.70	7.80	7.40	7.10	7.00	6.90	9.00	7.10	7.30
80.00	8.40	10.10	10.10	9.40	8.20	7.80	7.60	7.20	5.70
90.00	6.70	7.70	7.60	8.10	8.50	8.00	7.40	7.50	5.20
100.00	5.60	5.30	5.30	7.60	7.80	8.30	8.60	8.30	8.50
110.00	8.10	5.10	5.40	6.40	6.40	7.30	8.60	8.00	7.70
120.00	8.20	9.30	4.80	6.80	7.50	5.80	6.30	6.70	7.60
130.00	8.00	7.50	5.70	4.40	3.80	3.70	4.20	5.10	5.70
140.00	3.30	3.30	3.40	3.20	3.50	4.20	4.20	5.10	5.20
150.00	0.00	3.80	3.20	3.00	3.00	5.60	7.20	4.10	4.60
160.00	2.30	0.00	0.00	3.70	5.30	3.80	1.60	3.30	3.60
170.00	2.40	3.60	0.00	0.00	1.70	3.20	2.30	2.80	3.30
180.00	3.30	4.40	2.60	0.00	0.00	2.70	3.20	2.70	3.00
190.00	4.40	4.70	4.90	3.20	4.10	0.20	0.00	0.00	0.00
200.00	3.80	3.80	3.40	4.10	5.40	12.40	7.30	0.00	0.00
210.00	3.20	3.10	2.70	2.90	2.60	6.30	0.00	0.00	0.10
220.00	4.50	3.40	2.60	2.30	3.00	3.10	7.90	0.00	0.00
230.00	4.60	4.70	4.40	3.00	3.20	2.00	2.40	2.90	2.60
240.00	5.30	5.20	4.60	5.10	4.80	3.30	3.30	2.90	1.40
250.00	6.50	6.20	5.60	5.50	5.30	4.80	4.70	4.10	4.50
260.00	8.30	8.10	7.90	7.60	7.10	6.70	6.60	5.60	4.90
270.00	6.70	6.90	6.60	6.80	7.00	7.00	7.10	6.60	6.00
280.00	6.90	6.00	7.30	8.60	9.50	11.10	10.00	8.80	8.60
290.00	7.30	8.50	8.60	9.50	9.60	9.70	10.10	10.30	10.50
300.00	8.40	9.70	8.80	8.60	8.70	10.30	9.00	8.80	8.60
310.00	8.00	8.30	9.10	10.70	11.30	8.20	9.60	9.10	9.30
320.00	8.60	8.40	10.40	11.00	11.50	11.90	10.20	9.30	11.60
330.00	11.00	12.70	11.40	10.90	11.70	11.70	11.50	11.90	9.80
340.00	10.80	11.30	10.70	10.40	10.90	12.30	10.60	10.90	8.00
350.00	10.00	9.80	10.20	9.90	9.70	9.70	10.90	10.60	10.80
360.00	9.40	8.20	8.50	9.20	9.30	10.20	10.50	10.70	10.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	8.50	7.30
20.00	6.90	7.30
30.00	5.10	5.10
40.00	2.00	2.00
50.00	6.70	7.30
60.00	7.40	7.90
70.00	7.00	8.10
80.00	7.60	8.20
90.00	6.70	7.00
100.00	7.30	7.90
110.00	7.00	6.80
120.00	7.30	7.30

130.00	7.00	6.20
140.00	5.80	5.40
150.00	4.90	5.60
160.00	4.40	4.10
170.00	3.60	4.10
180.00	3.10	3.70
190.00	3.40	3.70
200.00	2.80	3.00
210.00	2.70	3.10
220.00	0.00	1.70
230.00	1.60	2.20
240.00	0.80	2.00
250.00	3.00	1.90
260.00	4.00	4.50
270.00	6.20	6.40
280.00	8.90	9.60
290.00	11.30	11.10
300.00	8.70	10.10
310.00	7.90	7.90
320.00	8.90	8.70
330.00	8.00	9.00
340.00	8.00	8.60
350.00	10.70	11.00
360.00	10.20	9.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00	600.00	700.00	800.00	900.00
10.00	8.30	9.20	9.00	8.70	8.80	8.10	6.90	6.50	8.20
20.00	8.20	9.50	8.60	8.60	8.40	8.40	7.30	6.50	7.10
30.00	7.80	8.40	8.50	8.50	8.80	8.10	7.60	7.30	6.30
40.00	7.40	7.80	8.10	8.30	8.40	8.60	6.40	5.80	5.10
50.00	7.20	7.60	7.40	6.80	7.80	7.60	4.60	3.40	2.00
60.00	7.20	7.40	6.80	6.00	6.80	12.50	7.10	2.00	6.50
70.00	7.10	7.00	6.40	5.90	11.60	11.20	5.00	2.00	10.00
80.00	6.80	6.90	5.80	5.40	5.10	4.10	2.00	9.30	7.30
90.00	6.60	6.40	5.80	4.80	5.20	4.20	2.00	5.90	5.60
100.00	6.60	6.10	5.80	4.90	3.50	4.00	2.00	7.80	7.10
110.00	6.50	6.20	5.70	4.00	4.00	4.00	2.00	9.50	8.70
120.00	6.70	6.00	5.20	4.10	4.20	3.50	2.00	8.80	10.10
130.00	6.60	6.40	5.30	4.30	4.30	4.00	4.00	3.80	7.70
140.00	6.50	6.30	5.40	4.70	3.90	4.20	3.10	0.00	0.00
150.00	6.30	5.80	5.00	5.00	4.60	3.60	2.90	2.30	0.00
160.00	6.20	5.60	4.50	4.80	5.30	5.20	12.00	13.10	13.10
170.00	6.10	5.00	4.70	3.50	5.00	5.00	4.80	13.10	9.40
180.00	6.10	5.10	4.70	4.90	4.90	5.10	5.00	4.50	4.50
190.00	6.30	5.00	4.70	4.80	5.20	5.50	5.30	4.80	4.90
200.00	6.40	5.00	4.80	4.20	5.00	5.20	5.60	5.00	4.40
210.00	6.40	4.80	5.30	5.20	4.60	16.40	16.90	16.50	4.60
220.00	6.40	5.10	5.60	5.90	5.60	16.80	16.00	16.70	16.10
230.00	6.80	6.20	5.80	6.10	5.80	6.60	16.80	16.80	16.40
240.00	7.10	6.40	6.40	6.30	6.50	7.40	6.20	5.90	5.60

250.00	7.30	7.30	7.10	6.90	8.10	7.50	7.80	7.70	7.90
260.00	7.50	7.90	7.70	8.40	8.20	8.40	8.40	8.30	8.60
270.00	7.80	8.30	8.40	8.50	8.20	9.10	8.40	8.60	7.90
280.00	8.20	8.80	9.30	9.30	8.50	8.30	8.30	7.70	6.90
290.00	8.30	9.10	9.00	8.40	8.70	8.00	7.80	7.50	7.30
300.00	8.60	8.60	8.90	8.50	8.30	8.10	7.60	7.40	7.80
310.00	8.90	9.40	8.70	8.70	8.10	7.70	8.00	8.20	8.80
320.00	8.50	8.90	9.00	8.80	8.00	8.10	8.50	9.20	9.70
330.00	8.50	8.60	9.00	8.80	8.40	8.20	8.20	9.90	10.90
340.00	8.50	8.80	8.70	8.80	7.60	7.80	7.40	9.40	10.80
350.00	8.60	9.00	9.00	8.70	7.90	7.50	7.60	8.50	9.80
360.00	8.30	9.10	8.70	8.70	8.20	7.20	7.10	8.40	9.40

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00
10.00	9.20	9.40	9.80	9.40	9.80	10.00	10.10	9.80	9.60
20.00	8.20	9.40	9.60	9.10	8.90	8.60	7.90	6.40	6.40
30.00	6.50	6.30	6.00	6.70	6.90	6.10	5.70	5.70	5.50
40.00	6.20	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
50.00	2.00	5.60	6.20	6.30	7.40	8.00	7.10	7.70	7.10
60.00	6.20	7.00	5.70	7.00	7.60	8.50	8.60	9.40	7.70
70.00	7.70	7.80	7.40	7.10	7.00	15.10	16.40	7.10	7.30
80.00	8.40	10.10	10.10	9.40	8.20	7.80	7.60	7.20	5.70
90.00	6.70	7.70	7.60	8.10	8.50	8.00	7.40	7.50	5.20
100.00	5.60	5.30	5.30	7.60	7.80	8.30	8.60	8.30	8.50
110.00	8.10	5.10	5.40	6.40	6.40	7.30	8.60	8.00	7.70
120.00	14.40	15.90	15.90	6.80	7.50	5.80	6.30	6.70	7.60
130.00	8.00	8.30	13.20	6.70	3.80	3.70	4.20	5.10	5.70
140.00	3.30	3.30	3.40	3.20	3.50	4.20	4.20	5.10	5.20
150.00	0.00	3.80	3.20	3.00	3.00	9.80	7.20	4.10	4.60
160.00	2.90	0.00	0.00	3.70	5.30	3.80	3.10	3.30	3.60
170.00	2.40	3.60	4.10	0.00	1.70	3.20	2.30	2.80	3.30
180.00	3.30	4.40	2.60	0.00	0.00	2.70	3.20	2.70	3.00
190.00	4.40	4.70	4.90	12.50	13.30	13.60	13.60	0.00	0.00
200.00	3.80	3.80	3.40	4.10	14.10	12.40	12.90	12.90	0.00
210.00	3.20	3.10	2.70	2.90	4.30	10.80	11.00	0.00	2.40
220.00	4.50	3.40	2.60	2.30	3.00	9.40	9.20	9.10	0.00
230.00	4.60	4.70	4.40	3.00	3.20	2.00	2.40	2.90	2.60
240.00	5.30	5.20	4.60	5.10	4.80	3.30	3.30	2.90	1.40
250.00	7.60	6.20	5.60	5.90	5.30	4.80	4.70	4.10	4.50
260.00	8.30	8.10	7.90	7.60	7.10	6.70	6.60	5.60	4.90
270.00	6.70	6.90	6.60	6.80	7.00	7.00	7.10	6.60	12.20
280.00	6.90	6.00	7.30	8.60	9.50	11.10	10.00	8.80	8.60
290.00	7.30	8.50	8.60	9.50	9.60	9.70	10.10	10.30	10.50
300.00	8.40	9.70	8.80	8.60	8.70	10.30	9.00	8.80	8.60
310.00	8.00	8.30	9.10	14.90	15.40	8.20	9.60	9.10	9.30
320.00	8.60	8.40	10.40	11.00	11.50	11.90	10.20	9.30	11.60
330.00	11.00	12.70	11.40	10.90	11.70	11.70	11.50	11.90	9.80
340.00	10.80	11.30	10.70	10.40	10.90	12.30	16.60	10.90	8.00
350.00	10.00	9.80	10.20	9.90	9.70	9.70	10.90	10.60	10.80
360.00	9.40	8.20	8.50	9.20	9.30	10.20	10.50	10.70	10.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	8.50	7.30
20.00	6.90	7.30
30.00	5.10	5.10
40.00	2.00	5.10
50.00	7.90	7.30
60.00	7.40	7.90
70.00	7.00	8.10
80.00	7.60	8.20
90.00	6.70	7.00
100.00	7.30	7.90
110.00	7.00	6.80
120.00	7.30	7.30
130.00	7.00	6.20
140.00	5.80	5.40
150.00	4.90	5.60
160.00	4.40	4.10
170.00	3.60	4.10
180.00	3.10	3.70
190.00	3.40	3.70
200.00	2.80	3.00
210.00	2.70	3.10
220.00	0.00	1.70
230.00	1.60	9.60
240.00	0.80	2.00
250.00	3.00	1.90
260.00	4.00	4.50
270.00	14.20	14.20
280.00	8.90	9.60
290.00	11.30	11.10
300.00	9.50	10.10
310.00	7.90	7.90
320.00	8.90	8.70
330.00	8.00	9.00
340.00	8.00	8.60
350.00	10.70	11.00
360.00	10.20	11.90

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE POLAR RECEPTORS ***
ORIGIN: (DIST, DIR, ZELEV, ZHILL, ZFLAG)
SRCID: (METERS,DEG,METERS,METERS,METERS)

TANK : (375.7, 118.9, 4.1, 4.1, 0.0); TANK : (498.9, 129.5, 4.3, 4.3, 0.0);
TANK : (81.4, 359.0, 8.2, 8.2, 0.0); TANK : (116.8, 44.5, 7.5, 7.5, 0.0);

```
 TANK       : (    109.2,    67.0,     7.2,     7.2,     0.0);  TANK       : (    100.7,    93.7,     6.5,     6.5,     0.0);
 TANK       : (     87.9,   104.0,     6.9,     6.9,     0.0);  TANK       : (     99.8,   123.4,     6.8,     6.8,     0.0);
 TANK       : (    138.0,   141.0,     5.9,     5.9,     0.0);  TANK       : (    106.0,   180.0,     5.9,     5.9,     0.0);
 TANK       : (    115.6,   206.0,     5.9,     5.9,     0.0);  TANK       : (     54.0,   270.0,     7.7,     7.7,     0.0);
 TANK       : (     97.0,   326.0,     8.5,     8.5,     0.0);  TANK       : (    133.9,   242.1,     7.2,     7.2,     0.0);
 TANK       : (    102.0,   301.6,     8.7,     8.7,     0.0);  TANK       : (    236.5,   274.9,     8.4,     8.4,     0.0);
```

♀ *** AERMOD - VERSION 19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017   ***
12/09/22
 *** AERMET - VERSION 19191 ***   ***   ***   15:08:15
PAGE 14
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

♀ *** AERMOD - VERSION 19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017   ***
12/09/22
 *** AERMET - VERSION 19191 ***   ***   ***   15:08:15
PAGE 15
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

```
  Surface file:   TPA2017_V19191.sfc                                       Met Version:  19191
  Profile file:   TPA2017_V19191.pfl
  Surface format: FREE
  Profile format: FREE
  Surface station no.:    12842                Upper air station no.:    12842
            Name: UNKNOWN                                Name: UNKNOWN
            Year:   2017                           Year:   2017
```

First 24 hours of scalar data

```
 YR MO DY JDY HR    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF
TA    HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 17 01 01   1 01   -5.9  0.101 -9.000 -9.000 -999.  77.     16.0  0.15   0.49   1.00    1.09  102.    7.9  288.8    2.0
 17 01 01   1 02   -8.0  0.119 -9.000 -9.000 -999.  98.     19.2  0.17   0.49   1.00    1.23   81.    7.9  289.2    2.0
 17 01 01   1 03   -7.6  0.116 -9.000 -9.000 -999.  95.     18.6  0.17   0.49   1.00    1.20   60.    7.9  288.8    2.0
 17 01 01   1 04  -19.6  0.199 -9.000 -9.000 -999.  213.    43.5  0.15   0.49   1.00    2.05  105.    7.9  289.2    2.0
 17 01 01   1 05  -18.4  0.186 -9.000 -9.000 -999.  193.    38.2  0.15   0.49   1.00    1.93  105.    7.9  289.2    2.0
 17 01 01   1 06  -13.6  0.157 -9.000 -9.000 -999.  149.    27.0  0.15   0.49   1.00    1.64  106.    7.9  289.9    2.0
 17 01 01   1 07  -19.6  0.199 -9.000 -9.000 -999.  213.    43.5  0.15   0.49   1.00    2.05  107.    7.9  290.4    2.0
 17 01 01   1 08  -18.2  0.187 -9.000 -9.000 -999.  193.    38.3  0.15   0.49   0.70    1.93  101.    7.9  290.9    2.0
 17 01 01   1 09   13.8  0.298  0.271  0.005   53.  391.  -175.6  0.15   0.49   0.33    2.84  110.    7.9  292.5    2.0
```

```
17 01 01   1 10   54.3  0.461  0.534  0.005  102.  750.   -163.9  0.15   0.49   0.21    4.42  137.    7.9  294.9    2.0
17 01 01   1 11   82.4  0.511  0.788  0.008  216.  875.   -147.2  0.15   0.49   0.18    4.88  140.    7.9  296.4    2.0
17 01 01   1 12  105.9  0.431  1.200  0.005  596.  685.    -68.9  0.13   0.49   0.17    4.08  152.    7.9  298.1    2.0
17 01 01   1 13   92.6  0.470  1.270  0.005  805.  772.   -101.9  0.13   0.49   0.16    4.54  175.    7.9  299.9    2.0
17 01 01   1 14  103.9  0.380  1.471  0.013 1114.  568.    -48.0  0.05   0.49   0.17    4.41  201.    7.9  299.9    2.0
17 01 01   1 15   86.8  0.312  1.467  0.016 1324.  421.    -31.8  0.04   0.49   0.18    3.78  224.    7.9  299.2    2.0
17 01 01   1 16   60.2  0.274  1.300  0.016 1326.  346.    -31.2  0.05   0.49   0.21    3.10  204.    7.9  299.2    2.0
17 01 01   1 17   20.9  0.259  0.913  0.016 1327.  317.    -75.7  0.05   0.49   0.31    3.08  194.    7.9  298.1    2.0
17 01 01   1 18  -16.3  0.182 -9.000 -9.000 -999.  188.     36.3  0.04   0.49   0.63    2.59  212.    7.9  295.4    2.0
17 01 01   1 19   -9.2  0.123 -9.000 -9.000 -999.  104.     18.3  0.05   0.49   1.00    1.69  204.    7.9  295.9    2.0
17 01 01   1 20  -17.1  0.177 -9.000 -9.000 -999.  179.     34.5  0.05   0.49   1.00    2.38  182.    7.9  295.4    2.0
17 01 01   1 21  -20.0  0.207 -9.000 -9.000 -999.  225.     47.0  0.13   0.49   1.00    2.21  157.    7.9  295.4    2.0
17 01 01   1 22  -21.9  0.227 -9.000 -9.000 -999.  259.     56.6  0.15   0.49   1.00    2.35  144.    7.9  295.4    2.0
17 01 01   1 23  -15.9  0.170 -9.000 -9.000 -999.  169.     31.8  0.15   0.49   1.00    1.79  120.    7.9  294.9    2.0
17 01 01   1 24  -11.3  0.142 -9.000 -9.000 -999.  129.     23.3  0.15   0.49   1.00    1.50  112.    7.9  294.9    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 17 01 01 01    7.9 1  102.    1.09   288.8   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017            ***
12/09/22
 *** AERMET - VERSION  19191 ***   ***                                                    ***       15:08:15
                                                                                    PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                        *** THE PERIOD (  8760 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL
***
                          INCLUDING SOURCE(S):     TANK       ,

                          *** NETWORK ID: POL1     ;  NETWORK TYPE: GRIDPOLR ***

                            ** CONC OF HCL      IN MICROGRAMS/M**3                    **

  DIRECTION |                                    DISTANCE (METERS)
  (DEGREES) |      100.00      200.00      300.00      400.00      500.00      600.00      700.00      800.00      900.00
 ---------------------------------------------------------------------------------------------------------------------

      10.00 |   674.19345   219.43027   110.75207    67.72223    45.80952    33.56788    25.91142    20.49007    16.43464
      20.00 |   658.59291   204.52472    98.60520    58.04446    38.46281    27.39026    20.83520    16.37956    13.04854
      30.00 |   670.41522   201.56715    95.32599    55.68615    36.42843    26.14745    19.66937    15.34805    12.41499
      40.00 |   753.88396   227.09651   107.46374    63.04386    41.76906    29.83927    23.03854    18.09271
 14.66912
      50.00 |   842.30866   251.58678   119.40228    70.44599    45.74062    32.65893    25.21026    19.76211    15.95420
      60.00 |   870.57131   259.13870   122.35075    71.50166    46.12248    33.24138    24.87649    19.47172
 15.51232
      70.00 |   831.60475   249.66488   117.23053    67.80739    43.35225    29.41605    23.49921    18.12966    13.50421
      80.00 |   749.15191   227.19367   108.41166    62.82351    40.97988    29.25140    21.81103    16.81832    12.93073
      90.00 |   653.78863   204.62293    98.09880    57.80089    37.86355    26.73707    20.28872    15.27969    12.08695
     100.00 |   596.77356   196.97180    96.63372    58.06910    39.20241    27.71032    21.23199    15.98170
 12.84341
     110.00 |   614.57132   214.32893   110.45527    69.21942    46.75042    33.89629    26.23988    19.86481
 15.73277
     120.00 |   684.53151   257.79644   139.19480    88.45329    61.03877    45.16913    35.07826    27.46492
 21.24799
     130.00 |   759.88749   295.50592   165.47826   106.97077    74.94212    55.76841    43.73083    34.84482
 27.90461
     140.00 |   770.23449   306.13456   172.59977   112.20153    79.62856    59.11236    46.67284    37.42276
 30.72535
     150.00 |   732.31435   291.76901   163.19232   104.47955    73.60782    55.29848    43.13157    34.70975
```

28.83360
160.00 | 699.71870 274.16708 152.99335 96.40847 66.59765 49.53449 38.34877 31.21070
26.16563
170.00 | 699.55725 271.00067 146.16569 94.32103 63.93359 47.24146 36.71096 29.44117
22.80284
180.00 | 728.52172 269.24525 141.83762 87.68010 60.30312 44.14508 34.14541 27.30455
22.30943
190.00 | 813.05903 294.96926 151.66964 92.57595 62.44047 45.12832 34.59309 27.48467
22.31294
200.00 | 957.82521 348.96956 180.56946 112.14697 76.03148 55.64865 42.51856 33.95570
27.81624
210.00 | 1102.54677 402.02944 206.71699 128.60981 88.90904 65.45269 50.04372 40.38929
33.19885
220.00 | 1217.34243 438.12090 224.45509 138.70664 95.52057 70.43147 48.90795 41.56599
35.45607
230.00 | 1287.38608 461.80652 241.48188 149.39757 102.86275 75.22853 58.36016 46.57077
38.19280
240.00 | 1301.73875 474.06897 249.25818 156.34206 108.23516 79.72286 62.21859 49.87314
41.07847
250.00 | 1228.29127 438.47501 231.93125 145.86005 100.18530 74.74008 57.96949 46.62841
38.37687
260.00 | 1084.39651 371.36523 192.82889 117.63551 80.91945 59.18742 45.48403 36.24699
29.56034
270.00 | 928.84060 308.70837 156.58239 95.42095 65.14650 46.66600 36.00404 28.48086
23.33602
280.00 | 810.76971 270.87385 137.84412 86.96964 59.24154 43.54843 33.49172 26.87557
22.12185
290.00 | 747.53155 250.30403 130.26057 81.84275 56.20825 41.74993 32.34464 25.96493
21.33538
300.00 | 707.67141 239.47568 121.44026 75.16813 51.47841 37.66575 29.02183 23.11071
18.80483
310.00 | 685.70025 226.27212 116.59810 71.02596 48.54685 35.40795 26.87683 21.19487
17.13260
320.00 | 678.34067 222.61187 112.89319 69.63405 47.95311 34.90928 26.76660 21.22015
17.31611
330.00 | 628.14805 206.25682 103.63020 63.79991 43.75036 31.99423 24.52117 19.25306
15.60351
340.00 | 557.85711 180.06425 90.64375 55.03149 38.03571 27.51409 21.07168 16.30280 13.08784
350.00 | 530.50962 174.04301 87.86903 53.95068 37.13452 27.08325 20.62752 16.16023
13.01038
360.00 | 608.74200 202.99792 104.91783 64.67253 44.65506 33.06431 25.43743 20.02832
16.27434

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION	DISTANCE (METERS)								
(DEGREES)	1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00
10.00	13.53267	11.43326	9.80389	8.54594	7.48701	6.63363	5.94270	5.35690	4.85343
20.00	10.59275	8.79758	7.50244	6.50162	5.68877	5.03738	4.50597	4.07194	3.68173

30.00	10.11381	8.48755	7.23093	6.19650	5.38969	4.77947	4.25387	3.78916	3.41115
40.00	12.07317	10.25480	8.77016	7.57898	6.62995	5.86554	5.21646	4.68319	4.24366
50.00	13.07678	10.77057	9.12220	7.86431	6.84524	6.00426	5.37518	4.81297	4.35961
60.00	12.33965	10.24962	8.76906	7.49117	6.52087	5.70899	5.06917	4.51921	4.10872
70.00	11.25648	9.37333	7.95054	6.83484	5.93634	5.21117	4.54073	4.10974	3.68021
80.00	10.47459	8.63702	7.32062	6.32225	5.53025	4.86092	4.30856	3.85314	3.47640
90.00	9.79618	8.10557	6.87762	5.87600	5.08652	4.48290	3.99059	3.56268	3.23079
100.00	10.49405	8.80232	7.46608	6.32738	5.50708	4.84116	4.26829	3.83093	3.45658
110.00	13.16091	11.42466	9.75548	8.43939	7.39364	6.52693	5.77408	5.21428	4.73464
120.00	18.23622	15.37831	13.75564	11.85576	10.40063	9.34335	8.35950	7.54124	6.79973
130.00	23.43421	20.14925	17.62109	15.49521	13.71750	12.22988	10.99726	9.91007	8.99985
140.00	25.80837	22.02815	19.07971	16.71318	14.79309	13.18272	11.84697	10.71622	9.73119
150.00	24.13554	20.19202	17.51362	15.34750	13.56532	11.93736	10.65026	9.75208	8.85466
160.00	21.69869	18.79097	16.19124	13.80549	12.08013	10.83185	9.83206	8.82994	7.98987
170.00	20.57994	17.36924	15.39924	13.42666	11.71391	10.29356	9.29399	8.36999	7.59454
180.00	18.80432	15.88910	13.82830	12.32554	10.82384	9.47270	8.49203	7.68124	6.94952
190.00	18.67548	15.75188	13.50617	11.90591	10.36981	9.61384	8.58491	7.72294	6.99640
200.00	23.28971	19.76210	17.05525	14.78434	12.89150	10.75372	10.07514	9.63007	8.73792
210.00	27.83169	23.73867	20.52208	17.99859	15.92659	14.34347	12.58967	11.38638	10.36823
220.00	29.70979	25.32640	21.87406	19.11924	16.90574	15.08362	13.48242	12.09532	11.00291
230.00	31.97049	27.16648	23.47647	20.56791	18.16609	16.18416	14.53714	13.10208	11.91748
240.00	34.51314	29.49721	25.56218	22.45282	19.88399	17.74539	15.97396	14.46267	13.10376
250.00	32.43143	27.71058	24.05778	21.12200	18.73038	16.74183	15.07042	13.65349	12.48475
260.00	24.76204	21.08326	18.18840	15.91219	14.06592	12.55348	11.25573	10.20925	9.29805
270.00	19.66292	16.60812	14.29147	12.42038	10.92849	9.67482	8.65627	7.83448	7.13602
280.00	18.48887	15.82515	13.56424	11.78857	10.36103	9.18965	8.31131	7.56036	6.88891
290.00	17.91981	15.28533	13.27220	11.63105	10.30011	9.21795	8.31519	7.55155	6.89835
300.00	15.66627	13.19767	11.45846	10.03131	8.85927	7.82574	7.07383	6.38935	5.81933
310.00	14.37118	12.14999	10.36893	8.92426	7.82159	7.11812	6.31685	5.71559	5.16363
320.00	14.58187	12.43914	10.67491	9.31434	8.25312	7.36017	6.67215	6.06252	5.48431
330.00	13.05740	10.95989	9.56937	8.40105	7.38859	6.60928	5.94839	5.35121	4.92187
340.00	10.90034	9.23348	8.00049	6.99735	6.15851	5.42186	4.92542	4.44336	4.10355
350.00	10.80803	9.18880	7.89306	6.88195	6.08350	5.42362	4.81984	4.35652	3.96082
360.00	13.63179	11.70109	10.07895	8.78804	7.76342	6.91256	6.19412	5.60070	5.09024

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:08:15

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	4.44658	4.09856
20.00	3.33882	3.04113
30.00	3.10007	2.83749
40.00	3.86731	3.54291
50.00	3.96727	3.61083
60.00	3.73437	3.40899
70.00	3.33302	3.02176
80.00	3.12067	2.83433
90.00	2.91049	2.63108
100.00	3.15415	2.85790

110.00	4.32444	3.95659
120.00	6.21200	5.70757
130.00	8.19755	7.54619
140.00	8.91078	8.20038
150.00	8.08508	7.39867
160.00	7.26737	6.68274
170.00	6.90635	6.33077
180.00	6.36019	5.81255
190.00	6.15218	5.61463
200.00	7.76071	7.10211
210.00	9.64607	8.90362
220.00	10.07106	9.34097
230.00	10.91610	10.00200
240.00	11.95478	11.08484
250.00	11.38118	10.46070
260.00	8.51736	7.80159
270.00	6.50784	5.95223
280.00	6.28338	5.75573
290.00	6.31982	5.82457
300.00	5.31832	4.85603
310.00	4.76878	4.36635
320.00	5.06012	4.65756
330.00	4.53267	4.13549
340.00	3.75430	3.43211
350.00	3.62650	3.32279
360.00	4.66841	4.29806

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 19
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC
TANK :	375.70	118.90	95.57557	TANK :	498.87	129.50	74.40849
TANK :	81.43	359.00	799.56284	TANK :	116.79	44.50	617.08765
TANK :	109.20	67.00	736.76782	TANK :	100.70	93.73	620.07232
TANK :	87.91	103.99	703.68716	TANK :	99.82	123.38	712.40906
TANK :	138.00	141.00	515.11683	TANK :	106.00	180.00	676.68498
TANK :	115.60	206.00	863.68310	TANK :	54.00	270.00	2151.59248
TANK :	97.00	326.00	682.32662	TANK :	133.94	242.10	850.78418
TANK :	101.99	301.65	681.65541	TANK :	236.54	274.95	218.92365

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 20
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	45377.09770 (17121719)	19032.05264 (17122619)	11642.12085 (17122619)	8066.28448 (17122619)	6035.15708 (17122619)
20.0	36138.30784 (17122619)	16095.56204 (17042607)	9770.93795 (17042607)	6749.52856 (17042607)	5035.92495 (17042607)
30.0	33541.32417 (17123118)	14530.98300 (17123118)	8704.97943 (17010408)	6116.79037 (17010408)	4596.31775 (17010408)
40.0	48679.49905 (17060420)	19533.78234 (17060420)	11096.07739 (17060420)	7446.49473 (17123118)	5553.78657 (17123118)
50.0	51043.69084 (17060420)	20915.53402 (17060420)	12042.79890 (17060420)	7979.34341 (17060420)	5902.08568 (17060420)
60.0	46538.48924 (17123119)	20130.07143 (17123119)	11767.07233 (17123119)	7862.75688 (17123119)	5818.25483 (17123119)
70.0	32753.61658 (17011821)	14119.33576 (17011821)	8201.17962 (17011821)	5428.19947 (17011821)	3920.23658 (17011821)
80.0	38046.44173 (17021907)	17342.66328 (17021907)	10414.56602 (17021907)	7094.40605 (17021907)	5234.43560 (17021907)
90.0	27537.46436 (17051620)	12697.47334 (17051620)	7660.04650 (17051620)	5198.03983 (17051620)	3834.09880 (17051620)
100.0	28243.40330 (17060421)	12229.55691 (17042507)	7562.09592 (17042507)	5258.04148 (17042507)	3882.15475 (17042507)
110.0	32475.89594 (17060421)	15121.41019 (17060421)	9123.87125 (17060421)	6132.17816 (17060421)	4544.58942 (17060421)
120.0	35419.57184 (17013021)	15007.81063 (17013121)	9061.64507 (17013121)	6140.24909 (17013121)	4564.48185 (17013121)
130.0	38895.18754 (17102921)	17817.44814 (17102921)	10603.73883 (17102921)	7140.28392 (17102921)	5293.18152 (17102921)
140.0	37737.44422 (17030806)	17084.66197 (17120520)	10263.02402 (17120520)	6983.19475 (17120520)	5110.27865 (17120520)
150.0	47164.41385 (17121321)	18892.77387 (17121321)	11009.16319 (17030806)	7547.79285 (17030806)	5563.72310 (17030806)
160.0	48739.34509 (17010421)	20846.79863 (17010421)	11950.29491 (17010421)	8114.70615 (17010421)	6038.41185 (17010421)
170.0	42809.91244 (17082807)	19463.93005 (17082807)	11580.41192 (17082807)	7768.50117 (17082807)	5926.20081 (17082807)
180.0	46237.63425 (17122620)	20519.35942 (17122620)	12126.80342 (17122620)	8335.55687 (17122620)	6187.13309 (17122620)
190.0	41527.71901 (17121521)	17188.32034 (17121521)	9961.23681 (17121521)	6768.24779 (17121521)	5041.58625 (17121521)
200.0	36544.21945 (17051106)	15791.50179 (17051106)	9257.96967 (17051106)	6218.30415 (17051106)	4694.79442 (17051106)
210.0	36748.05510 (17022007)	16005.81379 (17022007)	9539.41015 (17022007)	6504.65780 (17022007)	4755.65634 (17022007)
220.0	31859.28308 (17011906)	12922.38406 (17011906)	7442.20928 (17011906)	5060.08498 (17011906)	3692.09642 (17070406)
230.0	32913.84566 (17121721)	13648.57006 (17121721)	7869.42070 (17121721)	5314.76596 (17121721)	3832.80407 (17121721)
240.0	34465.42772 (17112506)	14446.49245 (17021106)	8375.08668 (17021106)	5603.31399 (17021106)	4162.03639 (17021106)
250.0	36432.63951 (17112506)	15656.01934 (17021107)	9226.95963 (17021107)	6273.97831 (17021107)	4784.12188 (17021107)
260.0	37995.99918 (17021207)	16100.08723 (17021207)	9400.92689 (17021207)	6448.21558 (17021207)	4758.05260 (17021207)
270.0	36635.79993 (17020106)	15948.74752 (17011907)	9508.95652 (17011907)	6519.49426 (17011907)	4810.01946 (17011907)
280.0	34920.89766 (17021706)	15170.49738 (17012506)	9187.19679 (17012506)	6266.89436 (17012506)	

4690.39881 (17012506)
290.0 | 32414.18067 (17090406) 13918.42587 (17081907) 8296.92284 (17071606) 5695.01636 (17071606)
4262.81218 (17071606)
300.0 | 37803.52103 (17021408) 16560.44366 (17121720) 9938.25724 (17121720) 6799.11090 (17121720)
5039.29337 (17121720)
310.0 | 33666.14917 (17121720) 14455.51685 (17081107) 8714.66957 (17081107) 5992.52585 (17081107)
4434.73862 (17081107)
320.0 | 36282.54153 (17021206) 15257.60899 (17021206) 9205.39230 (17122006) 6334.64214 (17122006)
4667.15720 (17122006)
330.0 | 41125.90613 (17021206) 17138.34856 (17021206) 9992.85457 (17021206) 6713.92590 (17021206)
4886.03287 (17021206)
340.0 | 33073.61350 (17021206) 11948.53061 (17122007) 6928.24763 (17080220) 4760.67161 (17080220)
3497.25909 (17080220)
350.0 | 41660.79091 (17122007) 17935.04508 (17122007) 10636.22762 (17122007) 7228.41911 (17122007)
5271.84566 (17122007)
360.0 | 45954.90596 (17121719) 20073.01373 (17121719) 11935.13361 (17121719) 8152.65982 (17121719)
5995.21786 (17121719)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 21
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 600.00 700.00 800.00 900.00 1000.00

10.0 | 4699.42178 (17122619) 3741.29791 (17122619) 3097.76943 (17122619) 2732.15585 (17122619)
2410.05088 (17122619)
20.0 | 3952.13518 (17042607) 3194.81753 (17042607) 2650.40897 (17042607) 2270.79804 (17042607)
1986.90036 (17042607)
30.0 | 3619.19914 (17010408) 2928.44931 (17010408) 2425.26297 (17010408) 2039.48042 (17010408)
1766.21662 (17010408)
40.0 | 4351.94535 (17123118) 3448.33581 (17123118) 2833.26102 (17123118) 2367.06039 (17123118) 2030.10054
(17123118)
50.0 | 4578.38163 (17060420) 3463.14215 (17060420) 2786.83622 (17060420) 2252.08937 (17060420)
1948.26200 (17060420)
60.0 | 4374.32718 (17123119) 3448.44508 (17123119) 2739.33443 (17123119) 2307.87174 (17070120) 2228.78351
(17070120)
70.0 | 2927.66441 (17011821) 2301.06643 (17011821) 1878.35177 (17011821) 1735.71162 (17083021) 1500.51196
(17083021)
80.0 | 3919.37448 (17021907) 3052.33625 (17021907) 2541.86518 (17021907) 2466.90164 (17021907)
2181.61268 (17021907)
90.0 | 2970.00029 (17051620) 2268.84099 (17051620) 2023.83861 (17051620) 1748.05239 (17051620)
1543.02379 (17051620)
100.0 | 3056.80364 (17042507) 2393.81557 (17042507) 2096.23736 (17042507) 1784.35221 (17042507)
1558.53056 (17042507)
110.0 | 3552.15100 (17060421) 2717.57067 (17060421) 2515.41105 (17060421) 2229.33930 (17060421)
1920.59354 (17060421)
120.0 | 3515.55349 (17013121) 2723.16833 (17013121) 2433.16845 (17013121) 2261.01323 (17013121)
1925.83886 (17013121)
130.0 | 4110.90222 (17102921) 3135.97533 (17102921) 2711.66812 (17102921) 2554.76965 (17102921)
2226.47173 (17102921)
140.0 | 4020.14404 (17120520) 2964.47487 (17120520) 2380.25085 (17120520) 2026.10250 (17120520)

1959.74078 (17120520)
150.0 | 4250.39351 (17030806) 3374.46273 (17030806) 2754.98108 (17030806) 2156.17699 (17030806)
1866.92646 (17030806)
160.0 | 4671.04895 (17010421) 3765.50416 (17010421) 3020.21087 (17010421) 2374.02205 (17010421)
2118.56964 (17010421)
170.0 | 4639.82305 (17082807) 3753.95076 (17082807) 3113.44908 (17082807) 2877.25472 (17082807)
2175.52433 (17082807)
180.0 | 4864.91983 (17122620) 3943.12458 (17122620) 3252.12215 (17122620) 2772.23740 (17122620)
2323.73545 (17122620)
190.0 | 3953.52535 (17121521) 3181.87057 (17121521) 2616.06116 (17121521) 2235.05102 (17121521)
1907.99205 (17121521)
200.0 | 3678.68453 (17051106) 3001.40600 (17051106) 2459.11523 (17051106) 2055.45374 (17051106)
1745.23208 (17051106)
210.0 | 3745.09111 (17022007) 3213.69695 (17022007) 2521.88094 (17022007) 2142.82172 (17022007)
1779.00832 (17022007)
220.0 | 2828.18589 (17070406) 2691.14710 (17070406) 2180.51042 (17070406) 1629.86402 (17070406)
1389.29598 (17070406)
230.0 | 3039.36927 (17121721) 2381.49449 (17121721) 1955.16293 (17121721) 1649.30076 (17121721)
1421.80379 (17121721)
240.0 | 3258.92286 (17021106) 2558.32260 (17021106) 2085.65858 (17112508) 1759.73971 (17112508)
1508.42563 (17112508)
250.0 | 3695.16351 (17021107) 3024.38208 (17021107) 2519.17765 (17021107) 2159.11549 (17021107)
1802.82099 (17021107)
260.0 | 3739.38880 (17021207) 3020.12264 (17021207) 2498.18298 (17021207) 2132.84749 (17021108)
1837.26108 (17021108)
270.0 | 3827.15489 (17011907) 3071.38750 (17011907) 2576.78496 (17011907) 2163.02821 (17011907)
1817.78468 (17011907)
280.0 | 3667.09732 (17012506) 2983.12113 (17012506) 2460.05546 (17012506) 2057.81049 (17012506)
1783.78973 (17012506)
290.0 | 3310.37545 (17071606) 2681.30596 (17071606) 2221.73542 (17071606) 1879.21588 (17071606)
1621.28522 (17071606)
300.0 | 3931.77826 (17121720) 3158.50089 (17121720) 2623.75841 (17121720) 2258.63953 (17121720)
1985.89525 (17121720)
310.0 | 3455.08266 (17081107) 2818.63680 (17081107) 2360.12232 (17081107) 2028.00654 (17081107)
1739.47442 (17081107)
320.0 | 3663.49199 (17122006) 3000.73182 (17122006) 2538.61757 (17122006) 2185.00972 (17122006)
1858.24764 (17122006)
330.0 | 3797.68033 (17021206) 3065.58304 (17021206) 2562.26113 (17021206) 2213.12532 (17021206)
1922.70396 (17021206)
340.0 | 2743.55996 (17080220) 2218.42908 (17080220) 1864.02046 (17080220) 1581.27006 (17080220)
1375.08477 (17080220)
350.0 | 4079.02855 (17122007) 3315.21667 (17122007) 2823.11135 (17122007) 2468.91351 (17122007)
2148.27748 (17122007)
360.0 | 4597.98786 (17121719) 3696.27236 (17121719) 3107.57912 (17121719) 2682.84595 (17121719)
2326.61206 (17121719)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 22
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 1100.00 1200.00 1300.00 1400.00 1500.00
- -

10.0 | 2126.42426 (17122619) 1902.43923 (17122619) 1697.07036 (17122619) 1543.89454 (17122619) 1409.08583 (17122619)
20.0 | 1758.87248 (17042607) 1565.48219 (17042607) 1401.18108 (17042607) 1265.73312 (17042607) 1150.17811 (17042607)
30.0 | 1548.69236 (17010408) 1370.24766 (17010408) 1243.83476 (17010408) 1128.17974 (17010408) 1013.93017 (17010408)
40.0 | 1676.38980 (17123118) 1475.44400 (17123118) 1304.29676 (17123118) 1164.50208 (17123118) 1053.52134 (17123118)
50.0 | 1854.93138 (17120518) 1667.28003 (17120518) 1498.57635 (17120518) 1383.04033 (17120518) 1273.15958 (17120518)
60.0 | 1989.72777 (17070120) 1721.61298 (17070120) 1586.47191 (17070120) 1451.87628 (17070120) 1344.66380 (17070120)
70.0 | 1322.74416 (17083021) 1172.84427 (17083021) 1049.68745 (17083021) 948.68288 (17083021) 863.10967 (17083021)
80.0 | 1964.93693 (17021907) 1749.06075 (17021907) 1556.06775 (17021907) 1380.80976 (17021907) 1247.86956 (17021907)
90.0 | 1377.51729 (17051620) 1222.18465 (17051620) 1105.17115 (17051620) 1005.44743 (17051620) 908.45907 (17051620)
100.0 | 1365.42993 (17042507) 1213.32911 (17042507) 1115.29646 (17042507) 1011.21875 (17042507) 925.67532 (17042507)
110.0 | 1596.08050 (17060421) 1427.01890 (17060421) 1306.70728 (17060421) 1181.60069 (17060421) 1095.45486 (17060421)
120.0 | 1719.62980 (17013121) 1411.31255 (17013121) 1319.43626 (17013121) 1209.53072 (17013121) 1064.48984 (17013121)
130.0 | 1938.15287 (17102921) 1658.18631 (17102921) 1441.71121 (17102921) 1282.89056 (17102921) 1164.00303 (17102921)
140.0 | 1716.88189 (17120520) 1523.00285 (17120520) 1353.69042 (17120520) 1226.49059 (17120520) 1131.29694 (17120520)
150.0 | 1875.62606 (17030806) 1635.58117 (17030806) 1456.63019 (17030806) 1316.54419 (17030806) 1286.83675 (17030806)
160.0 | 1708.73929 (17010421) 1517.16821 (17010421) 1528.85798 (17010421) 1421.90511 (17112521) 1249.15176 (17112521)
170.0 | 1975.95769 (17082807) 1567.15001 (17082807) 1403.58839 (17082807) 1338.61338 (17082807) 1279.49188 (17082807)
180.0 | 2105.69717 (17122620) 1769.99693 (17122620) 1442.55663 (17122620) 1303.75535 (17122620) 1310.52214 (17122620)
190.0 | 1690.60431 (17121521) 1510.42708 (17121521) 1281.51095 (17121521) 1194.98845 (17121521) 917.00416 (17121521)
200.0 | 1527.30494 (17051106) 1337.50351 (17051106) 1226.78108 (17051106) 1150.63197 (17051106) 1195.84056 (17051106)
210.0 | 1556.34122 (17022007) 1361.14241 (17022007) 1230.00868 (17022007) 1098.68397 (17022007) 1119.52807 (17022007)
220.0 | 1176.46902 (17070406) 1009.70780 (17070406) 891.98111 (17070406) 827.03082 (17070406) 751.47488 (17070406)
230.0 | 1223.61553 (17121721) 1061.97756 (17121721) 930.64612 (17121721) 821.82154 (17121721) 734.12536 (17121721)
240.0 | 1315.85865 (17112508) 1146.37171 (17112508) 1042.64578 (17021106) 933.61904 (17021106) 806.97598 (17021106)
250.0 | 1570.25120 (17021107) 1370.49918 (17021107) 1225.22422 (17021107) 1100.79901 (17021107) 986.50036 (17021107)
260.0 | 1606.98625 (17021108) 1420.83492 (17021108) 1264.52409 (17021108) 1128.04308 (17021108) 1015.62165 (17021108)
270.0 | 1605.58324 (17011907) 1414.79161 (17011907) 1275.79037 (17011907) 1159.72243 (17011907) 1055.76445 (17011907)
280.0 | 1530.50581 (17012506) 1406.83094 (17012506) 1301.83389 (17012506) 1199.27104 (17012506) 1124.77108 (17012506)
290.0 | 1449.92710 (17071606) 1288.15823 (17071606) 1175.77750 (17071606) 1065.64299 (17071606) 972.46216 (17071606)
300.0 | 1792.25355 (17121720) 1564.61264 (17121720) 1397.47022 (17121720) 1266.47464 (17121720) 1191.40518 (17121720)
310.0 | 1535.37603 (17081107) 1378.75528 (17081107) 1258.81543 (17081107) 1145.57546 (17081107)

1005.76150 (17081107)
320.0 | 1626.50722 (17122006) 1500.56598 (17122006) 1360.43139 (17122006) 1241.05604 (17122006)
1138.06675 (17122006)
330.0 | 1703.77665 (17021206) 1477.65927 (17021206) 1295.99064 (17021206) 1176.12140 (17021206)
1071.03854 (17021206)
340.0 | 1217.32259 (17080220) 1077.09100 (17080220) 963.57467 (17080220) 876.20977 (17072321) 807.91593
(17072321)
350.0 | 1880.44945 (17122007) 1683.71057 (17122007) 1501.43641 (17122007) 1352.02485 (17122007)
1230.81808 (17122007)
360.0 | 1998.77686 (17121719) 1786.77880 (17121719) 1617.41045 (17121719) 1448.59952 (17121719)
1310.15036 (17121719)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION	DISTANCE (METERS)				
(DEGREES)	1600.00	1700.00	1800.00	1900.00	2000.00
10.0	1291.62392 (17122619)	1183.46269 (17122619)	1090.68372 (17122619)	995.04780 (17122619)	906.25130 (17122619)
20.0	1047.05338 (17042607)	948.77489 (17042607)	877.56912 (17042607)	819.69201 (17042607)	767.67030 (17042607)
30.0	920.93481 (17010408)	842.13609 (17010408)	769.59572 (17010408)	705.64892 (17010408)	649.00040 (17010408)
40.0	964.04555 (17123118)	887.22089 (17123118)	820.41140 (17123118)	761.85745 (17123118)	710.18036 (17123118)
50.0	1147.83877 (17120518)	1069.04657 (17120518)	978.22677 (17120518)	901.85240 (17120518)	851.02481 (17120518)
60.0	1234.12890 (17070120)	1150.60071 (17070120)	1034.17871 (17070120)	954.92840 (17070120)	898.96370 (17070120)
70.0	809.62947 (17083021)	730.46030 (17083021)	677.83055 (17083021)	627.30910 (17083021)	593.94188 (17083021)
80.0	1138.59583 (17021907)	1039.85374 (17021907)	930.54404 (17021907)	901.40363 (17021907)	849.69128 (17021907)
90.0	823.35099 (17051620)	759.39019 (17051620)	671.24159 (17051620)	642.62006 (17051620)	602.60056 (17051620)
100.0	850.62176 (17042507)	781.88521 (17042507)	725.06543 (17042507)	665.37966 (17042507)	624.94198 (17042507)
110.0	1027.94215 (17060421)	937.04082 (17060421)	862.12120 (17060421)	789.83994 (17060421)	733.53467 (17060421)
120.0	985.37205 (17013121)	914.97020 (17013121)	861.88914 (17013121)	796.15155 (17013121)	742.40014 (17013121)
130.0	1079.99814 (17102921)	1016.70716 (17102921)	954.11497 (17102921)	913.14461 (17102921)	836.29163 (17102921)
140.0	1035.41157 (17120520)	974.46284 (17120520)	903.62216 (17120520)	851.41052 (17120520)	786.53094 (17120520)
150.0	1220.19190 (17030806)	1044.69452 (17030806)	979.10450 (17030806)	916.43780 (17030806)	868.52140 (17030806)
160.0	1072.03072 (17010421)	1038.37412 (17112521)	969.09042 (17112521)	918.96248 (17112521)	850.64026 (17112521)
170.0	1139.33705 (17082807)	1065.93511 (17082807)	1000.88805 (17082807)	937.52547 (17082807)	885.01759

(17082807)
180.0 | 1221.15120 (17122620) 1104.89228 (17122620) 1032.93098 (17122620) 962.81105 (17122620) 915.30655 (17122620)
190.0 | 839.60191 (17121521) 772.86499 (17121521) 714.82658 (17121521) 769.21420 (17121521) 724.99385 (17121521)
200.0 | 1008.45255 (17051106) 719.17233 (17051106) 665.15324 (17051106) 698.42105 (17051106) 656.40160 (17051106)
210.0 | 819.53368 (17022007) 754.40955 (17022007) 697.75618 (17022007) 727.24923 (17022007) 688.73265 (17022007)
220.0 | 792.61904 (17070406) 546.45835 (17123106) 505.38154 (17123106) 469.37553 (17123106) 471.24875 (17070406)
230.0 | 658.19817 (17121721) 618.02127 (17121721) 563.51015 (17121721) 496.05019 (17121721) 478.31658 (17121721)
240.0 | 738.92377 (17021106) 668.79139 (17021106) 576.61225 (17112508) 514.51426 (17112508) 513.76014 (17011708)
250.0 | 900.51052 (17021107) 813.09124 (17021107) 761.93297 (17021107) 669.74516 (17021107) 592.97668 (17021107)
260.0 | 927.54226 (17021108) 829.52169 (17021108) 751.12949 (17021108) 678.03016 (17021108) 642.41798 (17021108)
270.0 | 969.60000 (17011907) 880.47806 (17120606) 800.69926 (17120606) 748.09265 (17120606) 700.56293 (17011907)
280.0 | 1010.55701 (17012506) 908.55837 (17012506) 836.98269 (17012506) 782.82098 (17012506) 740.83997 (17012506)
290.0 | 897.53887 (17071606) 829.77498 (17071606) 770.70204 (17071606) 726.16221 (17071606) 675.21980 (17071606)
300.0 | 1063.27743 (17121720) 974.87639 (17121720) 897.87295 (17121720) 836.08866 (17121720) 803.20932 (17121720)
310.0 | 938.72118 (17081107) 859.13324 (17081107) 796.91459 (17081107) 725.25493 (17081107) 676.28238 (17081107)
320.0 | 1013.45746 (17122006) 917.59845 (17122006) 885.42436 (17122006) 782.37437 (17122006) 726.49608 (17122006)
330.0 | 977.54890 (17021206) 907.01271 (17021206) 805.08130 (17021206) 716.97177 (17021206) 685.17650 (17021206)
340.0 | 729.78199 (17072321) 668.44902 (17072321) 599.52856 (17072321) 556.73595 (17072321) 516.09953 (17072321)
350.0 | 1154.15449 (17122007) 1056.74235 (17122007) 981.45613 (17122007) 910.06952 (17122007) 853.63849 (17122007)
360.0 | 1194.61445 (17121719) 1104.01681 (17121719) 1023.33769 (17121719) 940.96623 (17121719) 871.19018 (17121719)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	6729.26459	(17013121)	TANK	498.87	129.50	5283.53903	(17102921)
TANK	81.43	359.00	56012.98129	(17121719)	TANK	116.79	44.50	43533.57123	(17060420)
TANK	109.20	67.00	29689.96401	(17123119)	TANK	100.70	93.73	25206.51331	(17051620)
TANK	87.91	103.99	36316.62568	(17060421)	TANK	99.82	123.38	37929.79020	(17013021)
TANK	138.00	141.00	26423.95421	(17030806)	TANK	106.00	180.00	43527.99191	(17122620)

TANK : 115.60 206.00 31481.94204 (17080520) TANK : 54.00 270.00 70664.92236 (17020106)
TANK : 97.00 326.00 42211.22514 (17021206) TANK : 133.94 242.10 25137.43326 (17112506)
TANK : 101.99 301.65 36684.85116 (17121720) TANK : 236.54 274.95 13037.86383 (17011907)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	41997.83070 (17122619)	18281.01236 (17121719)	10347.82677 (17121719)	6782.50854 (17121719)	4864.66452 (17121719)
20.0	35684.32583 (17042607)	14596.96445 (17121718)	8995.59216 (17121718)	6285.77068 (17123120)	4741.36073 (17123120)
30.0	31093.25074 (17042607)	13951.20857 (17010408)	8484.94291 (17123118)	5736.20138 (17122106)	4307.07064 (17062706)
40.0	39762.12230 (17081620)	17903.05943 (17123118)	10802.19904 (17123118)	7293.22376 (17060420)	5371.40326 (17081620)
50.0	45161.41532 (17123119)	18821.42827 (17123119)	10774.71682 (17123119)	7286.23519 (17120518)	5486.91055 (17120518)
60.0	40167.81937 (17070120)	18402.84536 (17070120)	11151.84013 (17070120)	7614.62714 (17070120)	5720.53073 (17070120)
70.0	32560.50515 (17021907)	13369.08565 (17021907)	7509.50329 (17021907)	4936.08289 (17083021)	3705.65777 (17083021)
80.0	34215.77806 (17011821)	15760.01068 (17011821)	9493.41392 (17011821)	6456.91273 (17011821)	4769.06571 (17011821)
90.0	25056.56422 (17021907)	11125.80557 (17121518)	6870.07027 (17121518)	4733.70026 (17121518)	3521.01604 (17121518)
100.0	25947.46862 (17012421)	11888.73601 (17090519)	7352.61340 (17090519)	5107.22420 (17090519)	3763.58522 (17090519)
110.0	31659.74564 (17012421)	14797.64383 (17012421)	8954.62101 (17012421)	6035.33407 (17012421)	4476.20437 (17012421)
120.0	32285.61871 (17102921)	14872.47103 (17013021)	8394.63185 (17090619)	5705.88720 (17032921)	4258.10262 (17032921)
130.0	37784.17950 (17050706)	16886.83325 (17013021)	10123.45977 (17013021)	6844.61602 (17013021)	5077.49098 (17013021)
140.0	36933.44838 (17012407)	16674.87444 (17012407)	9858.17403 (17012407)	6633.82037 (17012407)	4824.69667 (17012407)
150.0	40838.92711 (17030806)	18556.16179 (17030806)	10617.24601 (17051206)	7315.63110 (17051206)	5413.86517 (17051206)
160.0	44532.28339 (17121321)	18612.89716 (17121321)	11062.69851 (17112521)	7629.45656 (17112521)	5725.42557 (17112521)
170.0	42107.91517 (17121520)	17679.51914 (17121520)	9920.19315 (17121520)	6427.90249 (17121520)	4848.46899 (17121120)
180.0	42218.60987 (17121520)	19039.32373 (17121520)	11247.84700 (17121520)	7692.17848 (17121520)	5686.22254 (17121520)
190.0	39499.92101 (17090221)	16120.12492 (17090221)	9317.47766 (17090221)	6337.04482 (17090221)	4736.04158 (17090221)
200.0	35295.09234 (17080520)	14916.55737 (17080520)	8560.07281 (17080520)	5723.88123 (17021406)	4300.73888 (17021406)
210.0	35448.69282 (17080520)	15314.96127 (17080520)	9036.41919 (17080520)	6138.00308 (17110707)	

4499.65989 (17110707)
220.0 | 30464.21675 (17030807) 12382.04565 (17070406) 7326.30750 (17070406) 5024.14095 (17070406)
3678.79285 (17123106)
230.0 | 31660.47514 (17090407) 13172.46435 (17090407) 7604.64949 (17090407) 5153.79486 (17090407)
3718.50234 (17090407)
240.0 | 34295.51598 (17021106) 14296.50472 (17112506) 8254.45801 (17112506) 5505.32950 (17011708)
4090.77050 (17011708)
250.0 | 36285.89420 (17021107) 15389.50962 (17112506) 8964.11157 (17112506) 6026.97542 (17112506)
4567.50128 (17112506)
260.0 | 35522.05854 (17021108) 15480.78731 (17021108) 9166.19551 (17021108) 6336.46968 (17021108)
4682.34974 (17021108)
270.0 | 36272.26007 (17011907) 15893.06222 (17120606) 9486.80129 (17120606) 6507.73376 (17120606)
4803.27416 (17120606)
280.0 | 34890.26523 (17011907) 14838.01215 (17021706) 8873.26292 (17032806) 6055.49426 (17032806)
4521.77068 (17032806)
290.0 | 32212.99437 (17021408) 13787.10666 (17021408) 8283.30585 (17081907) 5609.82790 (17081907)
4111.14111 (17081907)
300.0 | 37163.34702 (17121720) 16530.20001 (17021408) 9797.05573 (17021408) 6623.42536 (17021408)
4884.45833 (17021408)
310.0 | 32302.98833 (17081107) 13302.46703 (17121720) 7635.13417 (17081707) 5287.26582 (17081707)
3929.06891 (17081707)
320.0 | 33773.54024 (17122006) 15230.33952 (17122006) 8865.43670 (17021206) 5922.69222 (17021206)
4245.11933 (17021206)
330.0 | 37884.20309 (17122406) 16318.04962 (17122406) 9608.99239 (17122406) 6491.90358 (17122406)
4766.15319 (17122406)
340.0 | 30298.96250 (17122007) 11505.04704 (17021206) 6681.16324 (17072321) 4619.80434 (17072321)
3426.12051 (17072321)
350.0 | 32828.46863 (17082321) 14277.86898 (17082321) 8500.59566 (17082321) 5802.73455 (17082321)
4248.06813 (17082321)
360.0 | 39035.87790 (17122007) 16750.02674 (17072120) 10293.24009 (17072120) 7153.32271 (17072120)
5334.61319 (17072120)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 26
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 600.00 700.00 800.00 900.00 1000.00

10.0 | 3634.53634 (17121719) 2831.78479 (17010407) 2360.58004 (17010407) 2055.83636 (17010407)
1802.60781 (17010407)
20.0 | 3747.72167 (17123120) 3031.26667 (17123120) 2510.13887 (17123120) 2162.01873 (17123120)
1906.35141 (17123120)
30.0 | 3424.31902 (17062706) 2798.48794 (17062706) 2341.70865 (17062706) 1982.10065 (17062706)
1721.88631 (17062706)
40.0 | 4155.72195 (17081620) 3279.72834 (17081620) 2689.43775 (17081620) 2255.95771 (17081620)
1967.46014 (17081620)
50.0 | 4314.07997 (17120518) 3362.49893 (17120518) 2733.80763 (17120518) 2232.64872 (17120518)
1931.95649 (17120518)
60.0 | 4325.56079 (17070120) 3440.30038 (17070120) 2712.86047 (17070120) 2299.72944 (17123119)
2162.68389 (17123119)
70.0 | 2900.23290 (17083021) 2276.27178 (17030208) 1874.93144 (17030208) 1678.85373 (17030208)

1463.68497 (17030208)
80.0 | 3581.79015 (17011821) 2793.94744 (17011821) 2326.88848 (17011821) 2153.61789 (17011821) 1899.26679 (17011821)
90.0 | 2721.58603 (17121518) 2125.24193 (17121518) 1805.45194 (17121518) 1555.50122 (17121518) 1363.24673 (17121518)
100.0 | 2966.00780 (17090519) 2312.74971 (17090519) 2035.26812 (17090519) 1730.59506 (17090519) 1511.88787 (17090519)
110.0 | 3499.93489 (17012421) 2684.73607 (17012421) 2469.71073 (17012421) 2180.39384 (17012421) 1878.35417 (17012421)
120.0 | 3302.94454 (17032921) 2585.05705 (17032921) 2277.13815 (17032921) 2049.84041 (17032921) 1764.92315 (17032921)
130.0 | 3946.56348 (17013021) 3019.02208 (17013021) 2608.41396 (17013021) 2409.78003 (17013021) 2096.42421 (17013021)
140.0 | 3718.88194 (17012407) 2790.68000 (17012407) 2236.15734 (17012407) 1864.94124 (17012407) 1783.95442 (17012407)
150.0 | 4155.17634 (17051206) 3309.85453 (17051206) 2709.21408 (17051206) 2134.95521 (17051206) 1848.88708 (17051206)
160.0 | 4480.14725 (17112521) 3647.69312 (17112521) 2948.39867 (17112521) 2332.40914 (17112521) 2078.60179 (17112521)
170.0 | 3797.17418 (17110706) 3082.54849 (17110706) 2563.49699 (17110706) 2325.83904 (17110706) 1804.18642 (17110706)
180.0 | 4435.62799 (17121520) 3568.41692 (17121520) 2928.32857 (17121520) 2470.85248 (17121520) 2076.29916 (17121520)
190.0 | 3728.98070 (17090221) 3007.24566 (17090221) 2471.07415 (17090221) 2109.93785 (17090221) 1799.69171 (17090221)
200.0 | 3368.61001 (17021406) 2754.70096 (17021406) 2269.30531 (17021406) 1906.64190 (17021406) 1626.75748 (17021406)
210.0 | 3543.62301 (17110707) 3027.38971 (17110707) 2388.86330 (17110707) 2030.52951 (17110707) 1690.13280 (17110707)
220.0 | 2819.91725 (17123106) 2666.70396 (17123106) 2167.81600 (17123106) 1626.03380 (17123106) 1386.37423 (17123106)
230.0 | 2929.43723 (17090407) 2300.15638 (17090407) 1890.12172 (17090407) 1595.33161 (17090407) 1381.45509 (17090407)
240.0 | 3206.30868 (17011708) 2525.17890 (17011708) 2081.97739 (17021106) 1746.26134 (17021106) 1499.62782 (17021106)
250.0 | 3521.46585 (17112506) 2838.34166 (17112506) 2326.06692 (17112506) 1972.23208 (17112506) 1646.04657 (17112506)
260.0 | 3669.49996 (17021108) 2979.88087 (17021108) 2483.90855 (17021108) 2124.74352 (17021207) 1822.82264 (17021207)
270.0 | 3823.00270 (17120606) 3069.14647 (17120606) 2575.05449 (17120606) 2162.10038 (17120606) 1817.58009 (17120606)
280.0 | 3536.48707 (17032806) 2877.55262 (17032806) 2374.16365 (17032806) 1986.96668 (17032806) 1722.47795 (17032806)
290.0 | 3163.25343 (17081907) 2559.33338 (17081907) 2122.87508 (17081907) 1799.88253 (17081907) 1534.84151 (17081907)
300.0 | 3807.45240 (17021408) 3048.67800 (17021408) 2514.11743 (17021408) 2139.86122 (17021408) 1873.78501 (17021408)
310.0 | 3067.03920 (17081707) 2505.71670 (17081707) 2100.47404 (17081707) 1807.56931 (17081707) 1549.54915 (17081707)
320.0 | 3284.62727 (17081706) 2690.11373 (17081706) 2274.03712 (17081706) 1956.43740 (17081706) 1667.62323 (17081706)
330.0 | 3704.82297 (17122406) 2961.52891 (17122406) 2491.99339 (17122406) 2161.91360 (17122406) 1868.64422 (17122406)
340.0 | 2697.22174 (17072321) 2185.31522 (17072321) 1851.26650 (17072321) 1580.00989 (17072321) 1370.09682 (17072321)
350.0 | 3291.39060 (17082321) 2674.81543 (17082321) 2274.04983 (17082321) 1983.35189 (17082321) 1724.18039 (17082321)
360.0 | 4138.06627 (17072120) 3355.44711 (17072120) 2848.33274 (17072120) 2452.11406 (17072120) 2122.04194 (17072120)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	1591.54560 (17010407)	1422.59219 (17010407)	1274.84756 (17010407)	1159.10333 (17010407)	1059.12214 (17010407)
20.0	1701.15849 (17123120)	1518.14766 (17123120)	1356.73442 (17123120)	1225.30126 (17123120)	1112.16710 (17123120)
30.0	1507.81420 (17062706)	1331.93641 (17062706)	1198.35528 (17062706)	1081.22268 (17062706)	972.27777 (17062706)
40.0	1575.49494 (17081620)	1394.48372 (17081620)	1249.61508 (17081620)	1128.95397 (17081620)	1027.12892 (17081620)
50.0	1822.72157 (17060420)	1641.32083 (17060420)	1474.66394 (17060420)	1352.22397 (17060420)	1197.15381 (17060420)
60.0	1861.91624 (17123119)	1618.14978 (17123119)	1454.36915 (17123119)	1332.42313 (17123119)	1221.47065 (17123119)
70.0	1289.51129 (17030208)	1145.22938 (17030208)	1026.29098 (17030208)	927.91246 (17030208)	844.57143 (17030208)
80.0	1707.92126 (17011821)	1513.39276 (17011821)	1344.05210 (17011821)	1199.42594 (17011821)	1079.81867 (17011821)
90.0	1180.77038 (17121518)	1041.54238 (17032121)	935.10975 (17032121)	847.42783 (17021306)	769.84335 (17021306)
100.0	1322.81526 (17090519)	1174.36892 (17090519)	1081.74326 (17090519)	980.54325 (17090519)	898.30967 (17090519)
110.0	1565.66592 (17012421)	1397.90201 (17012421)	1277.36606 (17012421)	1154.65949 (17012421)	1069.76968 (17012421)
120.0	1567.47814 (17032921)	1316.47602 (17032921)	1217.97456 (17032921)	1113.03985 (17032921)	987.48971 (17032921)
130.0	1825.60551 (17013021)	1566.44587 (17013021)	1365.89057 (17013021)	1215.84332 (17013021)	1101.03894 (17013021)
140.0	1544.12010 (17012407)	1345.10605 (17050706)	1198.30008 (17050706)	1091.48925 (17050706)	1005.04967 (17012407)
150.0	1837.87920 (17051206)	1605.75032 (17051206)	1431.12535 (17051206)	1293.66150 (17051206)	1256.40306 (17051206)
160.0	1687.78846 (17112521)	1497.27355 (17112521)	1513.90061 (17112521)	1403.82754 (17010421)	1229.09704 (17010421)
170.0	1634.69953 (17110706)	1305.89641 (17110706)	1169.67295 (17110706)	1112.40902 (17110706)	1060.17442 (17110706)
180.0	1877.33092 (17121520)	1580.09283 (17121520)	1322.12196 (17121520)	1182.96032 (17121520)	1169.92812 (17121520)
190.0	1593.35498 (17090221)	1422.32528 (17090221)	1205.99552 (17090221)	1123.46950 (17090221)	860.98564 (17090221)
200.0	1428.94744 (17021406)	1253.77890 (17021406)	1147.65655 (17021406)	1072.60936 (17021406)	1081.99456 (17021406)
210.0	1478.90458 (17110707)	1294.33974 (17110707)	1169.25173 (17110707)	1044.95987 (17110707)	1058.48931 (17110707)
220.0	1174.59855 (17123106)	1008.77219 (17123106)	891.34325 (17123106)	825.44259 (17123106)	749.77018 (17123106)
230.0	1201.29770 (17090407)	1041.26413 (17090407)	909.99462 (17090407)	807.29564 (17090407)	715.21429 (17090407)
240.0	1313.14568 (17021106)	1144.83833 (17021106)	1037.84757 (17011708)	929.86698 (17011708)	805.58132

(17011708)
250.0 | 1433.55364 (17112506) 1250.98859 (17112506) 1118.34468 (17112506) 1004.72063 (17112506) 900.29350 (17112506)
260.0 | 1593.58915 (17021207) 1408.40229 (17021207) 1252.85602 (17021207) 1116.89708 (17021207) 1005.07306 (17021207)
270.0 | 1605.38826 (17120606) 1414.74514 (17120606) 1275.72499 (17120606) 1159.63972 (17120606) 1055.70640 (17120606)
280.0 | 1478.58275 (17032806) 1358.33624 (17032806) 1256.28657 (17032806) 1150.39128 (17032806) 1065.73330 (17032806)
290.0 | 1379.42869 (17122307) 1227.62008 (17122307) 1116.99689 (17122307) 1011.31529 (17122307) 922.05421 (17122307)
300.0 | 1691.26214 (17021408) 1476.21394 (17021408) 1318.44427 (17021408) 1194.67529 (17021408) 1095.50888 (17021408)
310.0 | 1368.91715 (17081707) 1231.40845 (17081707) 1127.65133 (17081707) 1027.60257 (17081707) 897.40700 (17081707)
320.0 | 1460.43580 (17081706) 1343.42853 (17081706) 1217.14725 (17081706) 1109.77785 (17081706) 1017.31865 (17081706)
330.0 | 1623.71818 (17122406) 1412.79978 (17122406) 1255.14716 (17122406) 1151.21685 (17122406) 1048.77935 (17122406)
340.0 | 1212.30237 (17072321) 1074.51336 (17072321) 962.63078 (17072321) 861.33478 (17080220) 775.04978 (17080220)
350.0 | 1508.94292 (17082321) 1349.02797 (17082321) 1202.78801 (17082321) 1082.61470 (17082321) 984.69270 (17082321)
360.0 | 1832.61549 (17072120) 1629.45220 (17072120) 1475.68126 (17072120) 1337.33227 (17072120) 1235.34729 (17072120)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	972.56859 (17010407)	894.10954 (17010407)	826.30679 (17010407)	757.95254 (17010407)	693.89615 (17010407)
20.0	1008.30189 (17123120)	903.81539 (17123120)	836.19634 (17123120)	784.37620 (17123120)	737.06694 (17123120)
30.0	883.13409 (17062706)	811.36034 (17062706)	747.69654 (17062706)	689.75800 (17062706)	643.16806 (17062706)
40.0	940.12435 (17081620)	858.37458 (17081620)	785.00740 (17021906)	725.10513 (17021906)	673.24409 (17021906)
50.0	1075.65031 (17060420)	992.25641 (17060420)	904.61332 (17060420)	831.93871 (17060420)	787.07122 (17060420)
60.0	1090.61557 (17123119)	991.14465 (17123119)	894.38003 (17123119)	819.24331 (17123119)	771.43472 (17123119)
70.0	784.61169 (17030208)	714.01485 (17030208)	661.90500 (17030208)	613.43770 (17030208)	577.76602 (17030208)
80.0	978.12241 (17011821)	889.70913 (17011821)	810.38408 (17011821)	749.28084 (17011821)	706.97427 (17011821)
90.0	701.69984 (17021306)	647.24199 (17021306)	582.70687 (17032121)	551.58077 (17021306)	516.38194 (17021306)
100.0	825.90296 (17090519)	758.86196 (17090519)	703.96906 (17090519)	644.78088 (17090519)	606.21878

(17090519)
110.0 | 1002.94704 (17012421) 914.71753 (17012421) 841.81492 (17012421) 771.65744 (17012421) 716.77510
(17012421)
120.0 | 912.32340 (17032921) 845.89481 (17032921) 794.17927 (17032921) 734.67440 (17032921) 685.35555
(17032921)
130.0 | 1019.40609 (17013021) 959.36408 (17013021) 900.12225 (17013021) 861.10331 (17013021) 788.84680
(17013021)
140.0 | 920.38193 (17012407) 851.55429 (17090620) 789.42757 (17090620) 742.32904 (17090620) 686.74124
(17090620)
150.0 | 1190.31968 (17051206) 1023.86452 (17051206) 958.51011 (17051206) 896.75034 (17051206) 849.78162
(17051206)
160.0 | 1062.96718 (17112521) 1018.98904 (17010421) 951.69014 (17010421) 904.27151 (17010421) 836.31557
(17010421)
170.0 | 945.76148 (17110706) 884.05615 (17110706) 829.40693 (17110706) 776.54298 (17110706) 732.48511
(17110706)
180.0 | 1089.80789 (17121520) 986.39052 (17121520) 921.98017 (17121520) 848.92525 (17121520) 784.44201
(17121520)
190.0 | 788.29807 (17090221) 725.52945 (17090221) 670.76216 (17090221) 720.14029 (17090221) 678.60871
(17090221)
200.0 | 927.57937 (17021406) 681.38798 (17021406) 630.19546 (17021406) 656.01260 (17021406) 616.16061
(17021406)
210.0 | 782.15226 (17110707) 719.98947 (17110707) 665.91248 (17110707) 691.57389 (17110707) 654.51752
(17110707)
220.0 | 789.29134 (17123106) 545.00750 (17070406) 504.04192 (17070406) 468.13551 (17070406) 470.46073
(17123106)
230.0 | 646.65738 (17090407) 599.65405 (17090407) 547.03517 (17090407) 485.18512 (17090407) 464.63406
(17090407)
240.0 | 737.65070 (17011708) 668.06363 (17011708) 574.09052 (17011708) 511.81602 (17011708) 513.56668
(17021106)
250.0 | 821.79818 (17112506) 741.92099 (17112506) 695.30193 (17112506) 610.97515 (17112506) 540.81538
(17112506)
260.0 | 917.75982 (17021207) 819.85098 (17021207) 741.77939 (17021207) 668.89030 (17021207) 634.12070
(17021207)
270.0 | 969.54227 (17120606) 880.43908 (17011907) 800.56772 (17011907) 747.99190 (17011907) 699.42814
(17120606)
280.0 | 959.67481 (17032806) 866.07632 (17032806) 795.88523 (17032806) 739.69457 (17032806) 696.28108
(17032806)
290.0 | 850.08171 (17122307) 785.71492 (17122307) 729.61715 (17122307) 686.52780 (17122307) 638.69942
(17122307)
300.0 | 981.57202 (17021408) 889.95187 (17021408) 813.11952 (17021408) 755.16134 (17021408) 725.50356
(17021408)
310.0 | 840.15138 (17081707) 768.26423 (17081707) 713.03972 (17081707) 646.97104 (17081707) 603.32112
(17081707)
320.0 | 908.26942 (17081706) 823.43263 (17081706) 792.23418 (17081706) 702.53084 (17081706) 652.54444
(17081706)
330.0 | 957.80841 (17122406) 877.91854 (17122406) 790.78260 (17122406) 705.74222 (17122406) 672.55023
(17122406)
340.0 | 696.76765 (17080220) 644.20304 (17080220) 574.05436 (17062920) 533.14325 (17062920) 501.96624
(17062920)
350.0 | 920.46540 (17082321) 842.77864 (17082321) 782.55039 (17082321) 725.74794 (17082321) 680.53667
(17082321)
360.0 | 1137.41859 (17072120) 1051.21500 (17072120) 974.63556 (17072120) 897.72977 (17072120) 832.12147
(17072120)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	6175.07283	(17013020)	TANK	498.87	129.50	5131.88350	(17013021)
TANK	81.43	359.00	51530.24418	(17122007)	TANK	116.79	44.50	35409.48575	(17081620)
TANK	109.20	67.00	29047.80288	(17070120)	TANK	100.70	93.73	24126.22023	(17042507)
TANK	87.91	103.99	34287.43048	(17012421)	TANK	99.82	123.38	36553.39683	(17102921)
TANK	138.00	141.00	26393.46632	(17012407)	TANK	106.00	180.00	39809.98060	(17121520)
TANK	115.60	206.00	31198.27957	(17022007)	TANK	54.00	270.00	68289.56731	(17011907)
TANK	97.00	326.00	38779.30232	(17122406)	TANK	133.94	242.10	25011.84241	(17021106)
TANK	101.99	301.65	36650.69885	(17021408)	TANK	236.54	274.95	12999.37083	(17120606)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	33976.29924 (17072120)	13989.31936 (17072120)	8193.38119 (17010407)	5825.37290 (17010407)	4411.56262 (17010407)
20.0	31386.39745 (17121718)	14428.72297 (17122619)	8938.44872 (17123120)	6268.28526 (17121718)	4684.04332 (17121718)
30.0	30013.26092 (17010119)	13627.56341 (17122106)	8321.39537 (17122106)	5693.85918 (17062706)	4217.23615 (17122106)
40.0	39633.55830 (17123118)	17808.31041 (17081620)	10630.13256 (17081620)	7273.06250 (17081620)	5311.01650 (17060420)
50.0	37602.90889 (17081620)	17069.42402 (17120518)	10505.79422 (17120518)	7121.51590 (17123119)	5112.85036 (17123119)
60.0	33278.33581 (17060420)	12412.14750 (17120519)	7916.38197 (17120519)	5602.95069 (17120519)	4216.81278 (17120519)
70.0	27341.02393 (17013119)	12119.77681 (17013119)	7187.58691 (17013119)	4856.15160 (17030208)	3628.84652 (17030208)
80.0	28643.17900 (17013119)	13535.10021 (17013119)	8316.08115 (17013119)	5732.28526 (17011820)	4251.39243 (17011820)
90.0	23586.81918 (17121518)	10452.60065 (17091219)	6327.01470 (17091219)	4424.21459 (17021306)	3315.80884 (17021306)
100.0	25238.24134 (17081221)	11624.72140 (17060421)	6927.09141 (17032519)	4849.99071 (17032519)	3587.43168 (17032519)
110.0	29902.99560 (17012420)	13895.03772 (17012420)	8373.45862 (17012420)	5626.55917 (17012420)	4165.06221 (17012420)
120.0	31777.99133 (17013121)	14150.76691 (17090619)	8353.05939 (17013021)	5599.15728 (17090619)	4130.76617 (17013020)
130.0	36304.62567 (17013021)	16312.43922 (17050706)	9384.51500 (17050706)	6150.08174 (17050706)	4549.66465 (17121320)
140.0	36676.60772 (17120520)	16054.51433 (17103119)	9496.56460 (17050706)	6421.19809 (17050706)	

4683.05475 (17050706)
150.0 | 37273.08853 (17051206) 17619.08331 (17051206) 10554.61211 (17121321) 6960.45212 (17121321)
4995.93811 (17121321)
160.0 | 39903.41207 (17112521) 18569.15737 (17112521) 10669.55688 (17022721) 7367.96588 (17022721)
5531.95103 (17022721)
170.0 | 41471.31742 (17122620) 16702.02856 (17010421) 9534.66312 (17010421) 6421.45070 (17121120)
4830.59695 (17110706)
180.0 | 39839.06737 (17121521) 17530.45362 (17031007) 10476.85386 (17031007) 7200.55406 (17031007)
5334.49740 (17031007)
190.0 | 37662.99510 (17062806) 15892.50860 (17062806) 9183.52863 (17062806) 6199.39364 (17062806)
4613.92918 (17062806)
200.0 | 34608.68254 (17062806) 14618.06604 (17062806) 8533.02210 (17022006) 5707.55868 (17022006)
4295.66197 (17022006)
210.0 | 34857.75227 (17030807) 14999.32309 (17110707) 8976.02843 (17110707) 6127.41986 (17080520)
4448.76102 (17080520)
220.0 | 29544.79974 (17070406) 12324.21464 (17123106) 7295.13606 (17123106) 5003.09908 (17123106)
3658.47322 (17011906)
230.0 | 28996.63872 (17112508) 11905.82679 (17112508) 6787.28203 (17112508) 4593.35503 (17120308)
3385.47903 (17120308)
240.0 | 33263.48000 (17121721) 13808.35736 (17021407) 8100.74456 (17011708) 5481.46459 (17112506)
4025.88504 (17112506)
250.0 | 35183.01184 (17021106) 14882.87870 (17021106) 8708.20844 (17021407) 5869.79305 (17021407)
4452.82514 (17021407)
260.0 | 32951.04474 (17020107) 14411.96498 (17020107) 8530.48773 (17020107) 5868.14576 (17020107)
4353.86190 (17020107)
270.0 | 36030.67519 (17120606) 15762.58469 (17020106) 9302.33957 (17020106) 6327.21668 (17020106)
4660.55961 (17020106)
280.0 | 34627.67385 (17120606) 14725.59941 (17070606) 8703.97020 (17070606) 5882.63373 (17090406)
4374.62091 (17090406)
290.0 | 31808.25579 (17081907) 13687.41483 (17071606) 8024.00737 (17021408) 5412.50423 (17062306)
4012.17409 (17062306)
300.0 | 34508.20758 (17081907) 14887.05418 (17081907) 8760.34174 (17081907) 5890.75252 (17081907)
4271.40738 (17081907)
310.0 | 30612.45834 (17021408) 12445.92428 (17081707) 7384.28462 (17121720) 4861.39313 (17033006)
3601.65810 (17033006)
320.0 | 32889.14819 (17122406) 14304.34636 (17122406) 8428.80296 (17011908) 5710.79560 (17011908)
4181.25886 (17081706)
330.0 | 35587.27606 (17011908) 15329.57474 (17011908) 9010.07795 (17011908) 6039.29090 (17011908)
4411.46962 (17011908)
340.0 | 29469.87383 (17122406) 11456.98567 (17080220) 6550.77856 (17121808) 4414.78165 (17070906)
3265.09556 (17070906)
350.0 | 26814.53679 (17121719) 11451.61769 (17053106) 7056.75311 (17053106) 4920.59917 (17053106)
3666.20242 (17053106)
360.0 | 36493.92945 (17072120) 15166.56271 (17122007) 8342.81158 (17122007) 5364.75788 (17122007)
3925.19893 (17010120)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 31
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 600.00 700.00 800.00 900.00 1000.00

10.0 | 3494.45782 (17010407) 2812.99186 (17121719) 2310.52107 (17121719) 1900.29431 (17022507) 1662.78936 (17022507)
20.0 | 3680.98119 (17121718) 2972.78006 (17121718) 2459.43587 (17121718) 2105.57757 (17121718) 1819.99352 (17121718)
30.0 | 3307.03488 (17122106) 2678.73223 (17122106) 2200.35111 (17122106) 1855.69945 (17010118) 1612.13260 (17010118)
40.0 | 4005.83268 (17060420) 3164.19960 (17021906) 2623.32030 (17021906) 2211.88130 (17021906) 1924.44898 (17021906)
50.0 | 3930.89355 (17123119) 3006.98270 (17123119) 2423.52317 (17123119) 1967.24145 (17123119) 1699.46072 (17123119)
60.0 | 3300.63579 (17120519) 2661.26146 (17120519) 2141.20228 (17120519) 1823.22328 (17120519) 1693.50784 (17120519)
70.0 | 2813.10220 (17030208) 2274.03266 (17083021) 1865.83814 (17083021) 1655.14160 (17112320) 1438.24994 (17112320)
80.0 | 3231.44692 (17011820) 2535.40558 (17011820) 2103.12665 (17011820) 1958.69894 (17011820) 1723.17766 (17011820)
90.0 | 2600.24806 (17111818) 2039.83238 (17111818) 1779.51941 (17111818) 1516.40201 (17032121) 1327.35291 (17032121)
100.0 | 2829.72359 (17032519) 2208.81467 (17032519) 1946.19143 (17032519) 1656.77722 (17032519) 1449.21090 (17032519)
110.0 | 3248.39536 (17012420) 2501.01958 (17012420) 2240.10738 (17012420) 1975.71268 (17012420) 1704.84433 (17012420)
120.0 | 3188.34789 (17013020) 2477.58550 (17013020) 2203.38666 (17013020) 1994.02322 (17013020) 1709.44758 (17013020)
130.0 | 3544.65695 (17121320) 2728.75363 (17121320) 2350.52266 (17121320) 2176.77693 (17121320) 1896.63664 (17121320)
140.0 | 3647.28703 (17050706) 2712.61799 (17050706) 2174.95203 (17050706) 1851.15332 (17050706) 1719.45739 (17050706)
150.0 | 3832.15459 (17091221) 3060.45270 (17091221) 2509.82592 (17091221) 1986.62637 (17091221) 1720.52198 (17091221)
160.0 | 4331.67054 (17022721) 3530.02459 (17022721) 2856.26241 (17022721) 2260.73543 (17022721) 2017.08851 (17022721)
170.0 | 3781.88258 (17121120) 3046.37307 (17121120) 2513.82944 (17121120) 2288.60651 (17121120) 1765.34288 (17121120)
180.0 | 4164.51799 (17031007) 3353.43824 (17031007) 2755.33743 (17031007) 2337.05132 (17031007) 1966.21092 (17031007)
190.0 | 3610.05838 (17062806) 2887.46502 (17091420) 2372.51766 (17091420) 2017.29355 (17091420) 1719.32710 (17091420)
200.0 | 3333.07214 (17022006) 2676.85139 (17022006) 2187.82888 (17022006) 1836.30954 (17022006) 1565.86056 (17022006)
210.0 | 3443.10786 (17080520) 2925.79112 (17080520) 2293.22620 (17080520) 1949.14704 (17080520) 1617.04012 (17080520)
220.0 | 2753.27468 (17011906) 2458.46749 (17011906) 2028.80098 (17011906) 1568.64057 (17011906) 1335.68739 (17011906)
230.0 | 2695.22053 (17120308) 2128.15343 (17120308) 1752.21390 (17120308) 1480.12818 (17120308) 1280.54494 (17120308)
240.0 | 3200.39258 (17112508) 2522.39861 (17112508) 2066.59050 (17011708) 1736.69097 (17011708) 1491.92864 (17011708)
250.0 | 3430.45374 (17021407) 2757.75997 (17021407) 2276.81897 (17072006) 1946.78969 (17081106) 1627.65412 (17081106)
260.0 | 3418.35773 (17020107) 2761.92684 (17020107) 2286.90438 (17020107) 1946.74885 (17020107) 1677.31605 (17020107)
270.0 | 3708.72175 (17020106) 2959.55417 (17020106) 2461.88955 (17020106) 2055.03898 (17020106) 1722.71937 (17020106)
280.0 | 3411.25154 (17090406) 2774.46508 (17090406) 2287.23744 (17090406) 1912.55556 (17090406) 1657.74393 (17090406)
290.0 | 3116.31984 (17062306) 2523.61196 (17082421) 2094.18259 (17082421) 1773.47445 (17082421) 1534.50304 (17122307)
300.0 | 3325.79371 (17081907) 2663.31923 (17081907) 2186.07919 (17120118) 1880.06682 (17120118) 1649.99574 (17120118)
310.0 | 2805.65563 (17033006) 2294.85316 (17033006) 1925.02235 (17033006) 1644.25859 (17033006)

1406.24104 (17033006)
320.0 | 3278.94592 (17060206) 2685.36005 (17060206) 2270.00379 (17060206) 1952.94177 (17060206)
1664.47723 (17060206)
330.0 | 3422.41408 (17011908) 2712.61555 (17011908) 2295.86718 (17011908) 1960.58296 (17011908)
1653.30126 (17022121)
340.0 | 2557.35203 (17071806) 2074.37120 (17071806) 1756.45335 (17122320) 1505.91667 (17062920)
1310.28708 (17062920)
350.0 | 2865.64750 (17053106) 2334.75382 (17053106) 1976.69934 (17053106) 1712.92675 (17053106)
1491.47246 (17053106)
360.0 | 3115.96634 (17010120) 2545.61802 (17010120) 2141.32444 (17010120) 1833.17635 (17010120)
1593.14080 (17010120)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	1468.24795 (17022507)	1311.73799 (17022507)	1177.20714 (17022507)	1069.69242 (17022507)	977.28860 (17022507)
20.0	1598.42465 (17121718)	1426.23288 (17121718)	1274.00494 (17121718)	1150.32245 (17121718)	1043.84166 (17121718)
30.0	1413.33683 (17010118)	1250.02749 (17010118)	1123.17843 (17010118)	1013.30601 (17010118)	913.25852 (17010118)
40.0	1562.15102 (17021906)	1386.73185 (17021906)	1242.79439 (17021906)	1122.40053 (17021906)	1019.75933 (17021906)
50.0	1532.81887 (17123119)	1314.55123 (17123119)	1158.60102 (17122419)	1061.43145 (17122419)	973.61048 (17122419)
60.0	1502.82631 (17120519)	1317.65149 (17120519)	1201.46853 (17120519)	1094.92841 (17120519)	1007.37005 (17120519)
70.0	1255.46661 (17112320)	1105.13714 (17112320)	980.59502 (17112320)	883.75164 (17031906)	804.44533 (17031906)
80.0	1538.98511 (17011820)	1370.93919 (17011820)	1223.59935 (17011820)	1093.39977 (17011820)	988.04250 (17011820)
90.0	1172.27588 (17032121)	1034.45829 (17021306)	933.08962 (17021306)	845.39690 (17032121)	767.26155 (17032121)
100.0	1269.29831 (17032519)	1128.06798 (17032519)	1040.91252 (17032519)	944.30847 (17032519)	865.21410 (17032519)
110.0	1425.18213 (17012420)	1273.72335 (17012420)	1150.07452 (17012420)	1026.86963 (17012420)	933.68335 (17012420)
120.0	1512.80362 (17013020)	1272.91495 (17013020)	1169.53504 (17013020)	1064.20197 (17013020)	942.91668 (17013020)
130.0	1655.36212 (17121320)	1425.95423 (17121320)	1245.46594 (17121320)	1110.48962 (17121320)	1007.82662 (17121320)
140.0	1509.89328 (17050706)	1343.67616 (17012407)	1188.74269 (17012407)	1083.95600 (17012407)	991.10665 (17090620)
150.0	1697.56480 (17091221)	1485.34410 (17091221)	1324.50245 (17091221)	1197.34656 (17091221)	1156.57665 (17091221)
160.0	1637.89415 (17022721)	1454.36946 (17022721)	1473.49919 (17022721)	1383.33959 (17022721)	1215.87865 (17022721)
170.0	1602.39753 (17091806)	1296.35348 (17121120)	1151.57995 (17121120)	1090.65980 (17091806)	

1040.47636 (17091806)
180.0 | 1777.13159 (17031007) 1501.17081 (17031007) 1248.60796 (17031007) 1116.57084 (17031007)
1111.58077 (17031007)
190.0 | 1514.63438 (17091420) 1352.54728 (17091420) 1152.25995 (17091420) 1072.40145 (17091420)
835.38090 (17091420)
200.0 | 1375.44587 (17022006) 1206.42070 (17022006) 1101.52723 (17022006) 1015.79388 (17110906)
1028.32932 (17112219)
210.0 | 1414.85868 (17080520) 1237.11228 (17080520) 1118.07022 (17080520) 998.45724 (17080520) 970.95823
(17080520)
220.0 | 1128.31672 (17011906) 966.35658 (17011906) 853.53819 (17011906) 764.93996 (17011906) 684.63712
(17011906)
230.0 | 1124.61173 (17120308) 988.34351 (17120308) 848.95252 (17120308) 769.93114 (17120308) 668.83476
(17120308)
240.0 | 1306.73730 (17011708) 1140.41221 (17011708) 1035.31589 (17112508) 925.11041 (17112508) 804.74515
(17112508)
250.0 | 1418.10455 (17081106) 1238.30303 (17081106) 1107.14606 (17081106) 994.86637 (17081106) 891.88119
(17081106)
260.0 | 1467.66174 (17020107) 1298.08150 (17020107) 1155.70643 (17020107) 1031.48230 (17020107)
929.03750 (17020107)
270.0 | 1515.21614 (17071706) 1334.44163 (17071706) 1202.62620 (17020106) 1093.34820 (17020106)
995.30065 (17020106)
280.0 | 1421.84143 (17090406) 1307.43005 (17090406) 1183.91599 (17013106) 1089.42768 (17013106)
1019.70221 (17013106)
290.0 | 1367.10581 (17082421) 1212.54455 (17082421) 1105.16012 (17082421) 1001.63551 (17082421)
914.03584 (17082421)
300.0 | 1482.30439 (17120118) 1299.44385 (17120118) 1162.00863 (17120118) 1053.07232 (17120118) 985.46520
(17120118)
310.0 | 1237.33564 (17081806) 1114.23176 (17081806) 1022.05335 (17081806) 931.34457 (17081806) 811.60494
(17081806)
320.0 | 1457.62638 (17060206) 1340.95487 (17060206) 1214.91568 (17060206) 1107.74765 (17060206)
1015.45809 (17060206)
330.0 | 1479.90099 (17022121) 1299.69504 (17022121) 1159.32351 (17022121) 1059.34425 (17022121)
965.28526 (17022121)
340.0 | 1157.23864 (17062920) 1026.84131 (17062920) 920.02688 (17062920) 835.68979 (17062920) 769.02515
(17062920)
350.0 | 1310.14680 (17053106) 1171.21601 (17053106) 1048.09408 (17053106) 946.06538 (17053106) 861.93159
(17053106)
360.0 | 1395.35178 (17010120) 1240.52164 (17010120) 1114.40211 (17010120) 1008.11367 (17010120) 925.43654
(17010120)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 33
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 1600.00 1700.00 1800.00 1900.00 2000.00

10.0 | 897.47798 (17022507) 825.82596 (17022507) 763.68062 (17022507) 702.22318 (17022507) 644.49385
(17022507)
20.0 | 945.93132 (17121718) 847.20361 (17121718) 783.80125 (17121718) 735.26707 (17121718) 685.07737
(17013006)
30.0 | 830.50760 (17010118) 763.15823 (17010118) 703.72136 (17010118) 649.90485 (17010118) 606.03595

(17010118)					
40.0	931.07873 (17021906)	853.49725 (17021906)	777.22633 (17111821)	717.88117 (17111821)	665.47981
(17111821)					
50.0	883.90992 (17122419)	820.26266 (17122419)	753.92894 (17122419)	697.10890 (17122419)	655.45048
(17122419)					
60.0	924.85611 (17120519)	858.43670 (17120519)	781.72819 (17120519)	723.89712 (17120519)	679.81713
(17120519)					
70.0	750.51543 (17031906)	680.69658 (17031906)	631.42358 (17031906)	584.85654 (17031906)	552.34036
(17031906)					
80.0	899.53818 (17011820)	821.14206 (17011820)	742.70682 (17011820)	702.34899 (17011820)	659.49022
(17011820)					
90.0	699.05662 (17032121)	643.14996 (17121518)	582.10143 (17021306)	548.57638 (17032120)	513.36968
(17032120)					
100.0	795.60843 (17032519)	731.19613 (17032519)	678.40474 (17032519)	621.42505 (17032519)	584.33750
(17032519)					
110.0	874.38259 (17012420)	797.89069 (17012420)	734.49841 (17012420)	673.65860 (17012420)	625.84784
(17012420)					
120.0	867.95805 (17013020)	804.67480 (17013020)	757.16665 (17013020)	699.73402 (17013020)	652.64974
(17013020)					
130.0	933.48992 (17121320)	876.32966 (17121320)	820.91913 (17121320)	782.67700 (17121320)	718.57877
(17121320)					
140.0	907.68704 (17090620)	831.35081 (17012407)	761.82731 (17042221)	717.91010 (17050706)	662.99765
(17050706)					
150.0	1092.28969 (17091221)	945.57527 (17091221)	884.36016 (17091221)	826.92210 (17091221)	782.58017
(17091221)					
160.0	1035.47868 (17022721)	1010.84634 (17022721)	943.27905 (17022721)	894.22340 (17022721)	827.81105
(17022721)					
170.0	927.63978 (17091806)	867.35666 (17091806)	813.94383 (17091806)	762.15879 (17091806)	719.05297
(17091806)					
180.0	1034.57118 (17031007)	937.30446 (17031007)	866.09537 (17031007)	796.16362 (17031007)	738.17093
(17031007)					
190.0	761.31484 (17091420)	697.98628 (17091420)	645.32992 (17091420)	691.54042 (17091420)	651.40329
(17091420)					
200.0	875.83869 (17112219)	654.13236 (17022006)	604.99796 (17022006)	622.05378 (17110906)	581.91800
(17112219)					
210.0	742.52891 (17080520)	683.51730 (17080520)	632.18112 (17080520)	629.70191 (17080520)	596.51272
(17080520)					
220.0	713.00916 (17020606)	521.53559 (17011906)	482.39394 (17011906)	448.11369 (17011906)	430.60604
(17011906)					
230.0	619.96468 (17120308)	576.92988 (17120308)	526.22988 (17120308)	469.82883 (17120308)	446.31547
(17120308)					
240.0	733.66080 (17112508)	663.69387 (17112508)	573.32577 (17021106)	510.75824 (17021106)	508.75658
(17112508)					
250.0	814.19688 (17081106)	735.45886 (17081106)	688.99518 (17081106)	606.15708 (17081106)	536.87559
(17081106)					
260.0	848.57295 (17020107)	759.51087 (17020107)	688.12539 (17020107)	621.61392 (17020107)	588.73243
(17020107)					
270.0	914.11388 (17020106)	829.69766 (17020106)	754.04347 (17020106)	704.62812 (17020106)	658.99110
(17071706)					
280.0	917.62783 (17013106)	826.35618 (17013106)	761.49646 (17013106)	711.99152 (17013106)	673.27556
(17013106)					
290.0	843.33121 (17082421)	779.56059 (17082421)	723.96858 (17082421)	681.64443 (17082421)	633.98898
(17082421)					
300.0	883.69752 (17120118)	810.94985 (17120118)	747.51873 (17120118)	695.96102 (17120118)	665.78422
(17120118)					
310.0	761.18415 (17081806)	695.70609 (17081806)	645.14058 (17081806)	585.01290 (17081806)	545.41471
(17081806)					
320.0	906.52392 (17060206)	821.80803 (17060206)	790.74049 (17060206)	701.12019 (17060206)	651.22398
(17060206)					
330.0	882.63014 (17022121)	817.94223 (17022121)	733.92355 (17022121)	659.41371 (17022121)	627.36106
(17022121)					
340.0	695.69019 (17062920)	642.68563 (17062920)	572.95281 (17080220)	528.79413 (17071806)	498.78007

(17080220)
350.0 | 802.37302 (17053106) 736.65814 (17053106) 683.73929 (17053106) 634.76118 (17053106) 594.61307 (17053106)
360.0 | 851.08363 (17010120) 786.25164 (17010120) 729.17980 (17010120) 675.31594 (17010120) 628.25818 (17010120)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 34
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)
TANK	375.70	118.90	6151.50445	(17032921)	TANK	498.87	129.50	4542.50262	(17121320)
TANK	81.43	359.00	43727.28549	(17072120)	TANK	116.79	44.50	28712.56625	(17123118)
TANK	109.20	67.00	25826.59206	(17011821)	TANK	100.70	93.73	23536.08732	(17121518)
TANK	87.91	103.99	31003.86413	(17081221)	TANK	99.82	123.38	31244.57919	(17090619)
TANK	138.00	141.00	25701.17586	(17103119)	TANK	106.00	180.00	37013.71332	(17121521)
TANK	115.60	206.00	29831.73938	(17051106)	TANK	54.00	270.00	67584.16993	(17120606)
TANK	97.00	326.00	36963.36576	(17011908)	TANK	133.94	242.10	24084.96777	(17021407)
TANK	101.99	301.65	33038.37969	(17081907)	TANK	236.54	274.95	12831.83981	(17021706)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
PAGE 35
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	10374.33002 (17122024)	4756.53469 (17122024)	2931.37833 (17122024)	2045.13859 (17122024)	1519.54817 (17122024)
20.0	9150.13527 (17121724)	3494.87571 (17122024)	2104.53444 (17122108)	1453.94931 (17122108)	1082.46164 (17122108)
30.0	9958.86102 (17123124)	3925.09084 (17123124)	2187.48544 (17123124)	1477.18473 (17122108)	1065.49011 (17122108)
40.0	13663.94103 (17123124)	6023.71917 (17120624)	3687.72024 (17120624)	2565.99817 (17120624)	1918.85625 (17120624)
50.0	13306.11236 (17123124)	5197.36769 (17123124)	2870.78911 (17123124)	1877.98982 (17120624)	1340.22175 (17120624)
60.0	9424.52444 (17030124)	4232.73090 (17030124)	2594.12251 (17030124)	1804.39307 (17030124)	1330.46810 (17030124)
70.0	9481.92839 (17083024)	4066.37159 (17083024)	2424.77434 (17083024)	1647.39719 (17083024)	1195.41173

(17083024)
80.0 | 10752.41012 (17011824) 5068.57765 (17011824) 3123.64665 (17011824) 2149.12199 (17011824)
1594.75156 (17011824)
90.0 | 8128.49994 (17072724) 3714.36311 (17032124) 2302.30068 (17032124) 1603.40811 (17032124) 1189.19304
(17032124)
100.0 | 9638.14141 (17012424) 3789.79137c(17010524) 2218.67889c(17010524) 1493.34493c(17010524)
1087.07350c(17010524)
110.0 | 12278.79846 (17012424) 5560.38843 (17012424) 3305.34015 (17012424) 2215.42091 (17012424)
1618.53881 (17012424)
120.0 | 10003.50285c(17092524) 4425.33958 (17012424) 2673.11307 (17012424) 1805.44327 (17012424)
1321.38772 (17012424)
130.0 | 11505.16931 (17102924) 5020.05983 (17102924) 2937.04989 (17102924) 1942.31379 (17102924)
1409.70080 (17102924)
140.0 | 11214.13562 (17102524) 5222.21692 (17102524) 3145.12110 (17102524) 2131.03021 (17102524)
1556.56307 (17102524)
150.0 | 9774.24997 (17020524) 4468.00589 (17110724) 2764.70268c(17092624) 1897.21919c(17092624)
1406.36502c(17092624)
160.0 | 11023.55540 (17010424) 4934.41103 (17010424) 2883.86147 (17010424) 1945.86060 (17010424)
1431.76975 (17010424)
170.0 | 11699.04040 (17112416) 4272.75383 (17110324) 2682.66527 (17110324) 1873.82218 (17110324)
1389.88955 (17110324)
180.0 | 10376.30029 (17031008) 4508.70338 (17122624) 2695.03374 (17122624) 1856.45825 (17122624)
1378.94224 (17122624)
190.0 | 8754.97940 (17122516) 3729.84339 (17022224) 2156.57476 (17022224) 1443.81807 (17020308)
1056.70316 (17020308)
200.0 | 10759.40979 (17022008) 4552.27874 (17022008) 2586.44768 (17022008) 1710.47499 (17022008)
1240.36036 (17022008)
210.0 | 11369.75491 (17022008) 4973.77133 (17022008) 2939.83357 (17022008) 1997.32835 (17022008)
1455.53738 (17022008)
220.0 | 9085.05926 (17120308) 3837.28543 (17120308) 2246.26436 (17020608) 1524.78650 (17020608)
1120.89095 (17020608)
230.0 | 10565.20034c(17112508) 4351.53221 (17112724) 2518.20707 (17112724) 1686.56988 (17112724)
1222.01728 (17112724)
240.0 | 10982.64226c(17112508) 4422.23071c(17112508) 2514.70788 (17112724) 1669.24350 (17112724)
1213.18016 (17110224)
250.0 | 12328.82196 (17021108) 5152.47226 (17021108) 2959.61133 (17021108) 1970.28358 (17021108)
1454.49813 (17021108)
260.0 | 11794.71747 (17021108) 4833.23154 (17020108) 2842.47505 (17020108) 1937.15856 (17020108)
1424.14282 (17020108)
270.0 | 11090.99356 (17020108) 4668.62551 (17020108) 2694.94971 (17020108) 1793.42422 (17020108)
1301.66151 (17020108)
280.0 | 9273.98513c(17010608) 4096.39403c(17010608) 2377.11353c(17010608) 1611.28781c(17010608)
1157.38375c(17010608)
290.0 | 12289.95496c(17010608) 5669.86533c(17010608) 3484.97398c(17010608) 2415.18128c(17010608)
1803.82443c(17010608)
300.0 | 11081.72828c(17010608) 4719.69013c(17010608) 2688.76845c(17010608) 1771.71607c(17010608)
1265.07144c(17010608)
310.0 | 7669.08965 (17021824) 3195.16928 (17021824) 1915.24443 (17020708) 1348.28288 (17020708)
1018.49684 (17020708)
320.0 | 9193.37877c(17122408) 4141.23130c(17122408) 2456.62364c(17122408) 1666.77457c(17122408)
1215.01494c(17122408)
330.0 | 11626.40878c(17122408) 5291.70649c(17122408) 3199.43758c(17122408) 2209.08509c(17122408)
1644.25830c(17122408)
340.0 | 9654.24027c(17122408) 3811.67722c(17122408) 2096.05904c(17122408) 1387.96276 (17122324)
1042.38633 (17122324)
350.0 | 9104.18181 (17122008) 3848.30695 (17122324) 2293.82509 (17122324) 1560.74514 (17122324)
1144.91214 (17122324)
360.0 | 9220.05022 (17012024) 4103.17102 (17012024) 2490.93980 (17012024) 1729.71389 (17020824)
1323.90426 (17020824)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	1191.59567 (17122024)	963.61053 (17122024)	794.79585 (17122024)	675.28760 (17122024)	573.86677 (17122024)
20.0	844.41636 (17122108)	682.74539 (17122108)	565.09359 (17122108)	479.29868 (17122108)	414.19969 (17122108)
30.0	821.32405 (17122108)	662.33778 (17122108)	535.44638 (17122108)	450.60323 (17010124)	383.35153 (17010124)
40.0	1501.61104 (17120624)	1225.21282 (17120624)	1017.06708 (17120624)	860.16781 (17120624)	742.31575 (17120624)
50.0	1025.79627 (17120624)	844.96707 (17120624)	688.80356 (17120624)	576.61698 (17120624)	483.67559 (17120624)
60.0	1041.96689 (17030124)	836.41481 (17030124)	673.56046 (17030124)	571.16840 (17030124)	507.62248 (17030124)
70.0	897.76394 (17083024)	735.46576 (17083024)	598.95203 (17083024)	508.15865 (17083024)	440.32171 (17083024)
80.0	1210.76639 (17011824)	949.71054 (17011824)	790.04442 (17011824)	732.12263 (17011824)	643.05429 (17011824)
90.0	927.02437 (17032124)	725.73659 (17032124)	625.91247 (17032124)	535.11136 (17032124)	466.60343 (17032124)
100.0	823.99082c(17010524)	646.44816c(17010524)	535.70876c(17010524)	448.20937c(17010524)	387.29722c(17010524)
110.0	1248.43345 (17012424)	962.47916 (17012424)	840.67954 (17012424)	722.88747 (17012424)	618.21951 (17012424)
120.0	1012.56349 (17012424)	798.22807 (17012424)	654.41482 (17012424)	529.94143 (17012424)	460.52182 (17012424)
130.0	1060.52872 (17102924)	822.46557 (17102924)	687.69547 (17102924)	581.79344 (17102924)	503.33075 (17102924)
140.0	1186.29615 (17102524)	918.62079 (17102524)	740.22999 (17012724)	625.44115 (17012724)	568.94867 (17012724)
150.0	1082.98770c(17092624)	862.66904c(17092624)	709.09159c(17092624)	573.95780c(17092624)	489.01507c(17092624)
160.0	1104.51291 (17010424)	888.41248 (17010424)	717.79008 (17010424)	572.13189 (17010424)	504.41532 (17010424)
170.0	1082.60727 (17110324)	877.77165 (17110324)	728.59795 (17110324)	636.18263 (17082808)	518.83771 (17110324)
180.0	1081.68326 (17122624)	874.99879 (17122624)	721.26544 (17122624)	612.73496 (17122624)	515.18922 (17122624)
190.0	813.77010 (17020308)	650.34123 (17020308)	533.77393 (17020308)	455.82664 (17020308)	385.34105 (17020308)
200.0	944.84333 (17022008)	748.51613 (17022008)	608.51603 (17022008)	503.79812 (17022008)	424.70355 (17022008)
210.0	1131.95836 (17022008)	960.15495 (17022008)	760.56730 (17022008)	644.13022 (17022008)	537.19249 (17022008)
220.0	859.23069 (17020608)	734.84160 (17020608)	609.17732 (17020608)	481.31349 (17020608)	411.19968 (17020608)
230.0	934.40241 (17112724)	736.79318 (17011208)	606.67670 (17011208)	512.57468 (17011208)	443.92726 (17011208)
240.0	941.15307 (17011224)	748.27268 (17011224)	619.86301 (17110224)	516.13471 (17110224)	436.77034

(17011224)
250.0 | 1106.34513 (17021108) 890.08198 (17021108) 723.29652 (17011124) 614.24211 (17021108) 518.75688 (17011124)
260.0 | 1096.25464 (17020108) 881.96567 (17020108) 732.63039 (17020108) 615.92856 (17020108) 525.77443 (17020108)
270.0 | 1008.95497 (17020108) 801.72114 (17020108) 653.81604 (17020108) 543.89685 (17020108) 457.27264 (17020108)
280.0 | 874.75137 (17010108) 708.42955 (17010108) 588.39627 (17010108) 495.84803 (17010108) 429.92456 (17010108)
290.0 | 1406.70162c(17010608) 1140.77058c(17010608) 947.13728c(17010608) 803.20003c(17010608) 694.53774c(17010608)
300.0 | 959.02195c(17010608) 754.19887c(17010608) 607.17093c(17010608) 492.16017c(17010608) 413.68350c(17010608)
310.0 | 801.87780 (17020708) 654.77132 (17020708) 549.03306 (17020708) 471.11732 (17020708) 406.55763 (17020708)
320.0 | 929.20064c(17122408) 758.92407 (17121208) 629.89250 (17121208) 530.24403 (17121208) 453.97525 (17121208)
330.0 | 1287.92654c(17122408) 1042.03687c(17122408) 880.11798c(17122408) 758.66582c(17122408) 657.78233c(17122408)
340.0 | 810.40516 (17122324) 652.93877 (17122324) 552.86050 (17122324) 463.58362 (17122324) 400.59236 (17122324)
350.0 | 884.67676 (17122324) 708.24046 (17122324) 592.60086 (17122008) 516.17140 (17122008) 447.75805 (17122008)
360.0 | 1055.49484 (17020824) 861.63647 (17020824) 719.85673 (17020824) 612.79887 (17020824) 532.48606 (17020824)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	504.57791 (17122024)	447.53728 (17010224)	399.32658 (17010224)	358.51288 (17010224)	325.90453 (17010224)
20.0	362.08441 (17122108)	319.75129 (17122108)	286.30542 (17122108)	256.44838 (17122108)	232.34947 (17122108)
30.0	330.74419 (17010124)	291.71573 (17010124)	262.99073 (17010124)	233.71545 (17010124)	209.55231 (17010124)
40.0	619.07176 (17120624)	547.34964 (17120624)	488.30672 (17120624)	438.35615 (17120624)	394.61405 (17120624)
50.0	418.57764 (17091324)	359.87892 (17091324)	321.82183 (17091324)	291.66458 (17091324)	256.41802 (17091324)
60.0	446.35689 (17030124)	391.35603 (17030124)	354.51923 (17030124)	319.26690 (17030124)	289.33625 (17030124)
70.0	383.77680 (17083024)	335.64547 (17083024)	297.08623 (17083024)	267.96022 (17083024)	243.37764 (17083024)
80.0	573.51532 (17011824)	509.61869 (17011824)	454.44109 (17011824)	406.45719 (17011824)	366.99361 (17011824)
90.0	410.98705 (17032124)	364.99652 (17032124)	327.47692 (17032124)	295.73409 (17032124)	268.20577 (17032124)
100.0	330.83912c(17010524)	290.13911c(17010524)	255.37893c(17010524)	230.97948c(17010524)	

211.00136c(17010524)
110.0 | 526.56226 (17012424) 463.07038 (17012424) 418.25419 (17012424) 370.49723 (17012424) 338.55817 (17012424)
120.0 | 385.01768 (17012424) 346.63446 (17012424) 301.89892 (17012424) 270.39466 (17012424) 241.36352 (17012424)
130.0 | 433.18401 (17021324) 378.83527 (17021324) 333.97512 (17021324) 298.95647 (17021324) 271.02321 (17021324)
140.0 | 496.60093 (17012724) 435.80844 (17012724) 387.62235 (17121924) 351.72952 (17121924) 319.11129 (17121924)
150.0 | 455.08684c(17092624) 397.17934c(17092624) 353.84652 (17112424) 319.77040 (17112424) 297.94727c(17092624)
160.0 | 413.27223 (17010424) 364.97895 (17010424) 354.80779 (17010424) 325.15248 (17010424) 285.80308 (17010424)
170.0 | 461.41821 (17110324) 384.31515 (17110324) 339.40777 (17110324) 317.67143 (17110324) 293.00866 (17110324)
180.0 | 465.81676 (17122624) 393.17145 (17122624) 324.44173 (17122624) 291.89025 (17122624) 291.11397 (17122624)
190.0 | 331.15182 (17020308) 293.67737 (17020308) 254.31119 (17020308) 229.27736 (17020308) 195.49299 (17020308)
200.0 | 365.82015 (17022008) 320.47118 (17022008) 283.63668 (17022008) 252.90085 (17022008) 240.99168 (17110908)
210.0 | 467.58859 (17022008) 407.33872 (17022008) 363.64590 (17022008) 324.78447 (17022008) 321.79640 (17022008)
220.0 | 349.18828 (17020608) 300.34091 (17020608) 265.61736 (17020608) 246.68819 (17020608) 222.86636 (17020608)
230.0 | 389.94958 (17011208) 341.69679 (17011208) 294.36199 (17011208) 266.19119 (17011208) 231.61636 (17011208)
240.0 | 377.33210 (17011224) 329.79618 (17110224) 297.60507 (17110224) 264.86631 (17120424) 235.12859 (17110224)
250.0 | 451.02754 (17011124) 395.59969 (17011124) 353.74828 (17011124) 318.12599 (17011124) 285.82323 (17011124)
260.0 | 457.02268 (17020108) 401.38174 (17020108) 356.66201 (17020108) 318.40192 (17020108) 286.82571 (17020108)
270.0 | 399.82590 (17020108) 346.11871 (17020108) 311.19904 (17020108) 278.69709 (17020108) 251.69458 (17020108)
280.0 | 371.49225 (17010108) 324.40096 (17010108) 297.07239 (17010108) 271.60883 (17010108) 240.41390 (17010108)
290.0 | 622.57153c(17010608) 552.13411c(17010608) 498.79249c(17010608) 451.84252c(17010608) 412.16480c(17010608)
300.0 | 356.76605c(17010608) 308.77986c(17010608) 267.27414 (17120708) 239.95312 (17120708) 221.65000 (17120708)
310.0 | 358.72264 (17020708) 321.32312 (17020708) 291.59111 (17020708) 264.77743 (17020708) 235.56313 (17020708)
320.0 | 395.44372 (17121208) 353.24050 (17121208) 318.29876 (17121208) 286.64219 (17121208) 259.01995 (17121208)
330.0 | 578.43804c(17122408) 508.66536c(17122408) 454.15480c(17122408) 415.08953c(17122408) 378.46793c(17122408)
340.0 | 351.49944 (17122324) 312.08546 (17122324) 278.46944 (17122324) 247.67381 (17122324) 226.18401 (17122324)
350.0 | 392.01519 (17122008) 348.58034 (17122008) 310.46669 (17122008) 278.95366 (17122008) 253.53402 (17122008)
360.0 | 468.92101 (17020824) 416.63503 (17020824) 374.29925 (17020824) 338.50816 (17020824) 308.34766 (17020824)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	298.77849 (17010224)	274.85410 (17010224)	253.99531 (17010224)	234.07794 (17010224)	215.29292 (17010224)
20.0	211.20061 (17122108)	191.01480 (17122108)	176.22314 (17122108)	163.53716 (17122108)	152.68104 (17122108)
30.0	187.91975 (17010124)	171.29145 (17010124)	157.83665 (17010124)	145.46984 (17010124)	135.50817 (17010124)
40.0	357.42322 (17120624)	326.34580 (17120624)	300.38521 (17120624)	278.45515 (17120624)	258.89856 (17120624)
50.0	232.19290 (17091324)	213.67055 (17091324)	196.02281 (17091324)	181.17117 (17091324)	165.80003 (17091324)
60.0	265.10091 (17030124)	245.34371 (17030124)	224.28719 (17030124)	207.39854 (17030124)	193.85087 (17030124)
70.0	217.08807 (17083024)	198.11323 (17083024)	181.40082 (17083024)	167.68650 (17083024)	157.49600 (17083024)
80.0	333.61364 (17011824)	304.32770 (17011824)	276.29968 (17011824)	259.62938 (17011824)	244.32037 (17011824)
90.0	244.22841 (17032124)	224.42947 (17032124)	203.17385 (17032124)	190.55270 (17032124)	177.77443 (17032124)
100.0	186.89959c(17010524)	170.15784c(17010524)	157.70210c(17010524)	144.43051c(17010524)	135.76534c(17010524)
110.0	311.34863 (17012424)	284.12877 (17012424)	261.45683 (17012424)	239.88618 (17012424)	222.60563 (17012424)
120.0	221.53619 (17012424)	200.29527 (17012424)	181.96228 (17031824)	168.41506 (17031824)	157.04295 (17031824)
130.0	245.15474 (17021324)	228.02319 (17021324)	212.49813 (17021324)	195.97883 (17021324)	180.60635 (17021324)
140.0	290.01955 (17012724)	268.83746 (17121924)	249.16531 (17121924)	233.90788 (17121924)	216.64973 (17121924)
150.0	277.77367c(17092624)	245.01061c(17092624)	227.19921c(17092624)	212.18160c(17092624)	198.96093c(17092624)
160.0	249.30890 (17010424)	236.80925 (17010424)	220.88743 (17010424)	208.82761 (17010424)	193.28838 (17010424)
170.0	263.12053 (17110324)	243.20737 (17110324)	224.28808 (17082808)	210.03666 (17082808)	198.18870 (17082808)
180.0	270.99125 (17122624)	245.45997 (17122624)	229.11409 (17122624)	212.32084 (17122624)	199.35197 (17122624)
190.0	178.95104 (17020308)	162.17183 (17020308)	148.67282 (17020308)	144.10231 (17020308)	132.41518 (17020308)
200.0	205.48014 (17110908)	176.30662 (17022008)	163.05769 (17022008)	152.89395 (17022008)	140.24562 (17110908)
210.0	246.48434 (17022008)	226.77949 (17022008)	207.90849 (17022008)	213.06284 (17022008)	198.44645 (17022008)
220.0	217.98745 (17020608)	163.26832 (17020608)	150.98158 (17020608)	140.21255 (17020608)	137.29143 (17020608)
230.0	214.20079 (17011208)	200.03765 (17122224)	182.71618 (17122224)	162.86424 (17122224)	154.48222 (17122224)
240.0	212.53267 (17110224)	192.66299 (17120424)	170.00924 (17110224)	152.88950 (17011224)	148.69427 (17120424)
250.0	258.40056 (17011124)	234.35467 (17011124)	217.84932 (17011124)	195.49825 (17011124)	177.26973 (17011124)
260.0	259.03242 (17020108)	234.61224 (17020108)	212.63359 (17020108)	192.16992 (17020108)	180.66263 (17020108)
270.0	231.13346 (17020108)	210.00761 (17020108)	191.09227 (17020108)	173.94420 (17020108)	161.33382

(17020108)
280.0 | 217.66513 (17010108) 197.23026 (17010108) 181.95347 (17010108) 169.90619 (17010108) 160.16670 (17010108)
290.0 | 378.12480c(17010608) 347.51307c(17010608) 321.17752c(17010608) 301.78703c(17010608) 280.15967c(17010608)
300.0 | 198.87180 (17120708) 182.51910 (17120708) 168.25878 (17120708) 156.65077 (17120708) 149.78537 (17120708)
310.0 | 218.84729 (17020708) 200.57221 (17020708) 185.49628 (17020708) 169.78363 (17020708) 157.95011 (17020708)
320.0 | 234.54474 (17121208) 213.57393 (17121208) 197.99441 (17121208) 177.90776 (17121208) 164.90560 (17121208)
330.0 | 346.23646c(17122408) 319.21948c(17122408) 288.52491c(17122408) 259.78701c(17122408) 246.70097c(17122408)
340.0 | 205.15531 (17122324) 189.44797 (17122324) 170.22197 (17122324) 157.66675 (17122324) 148.30347 (17122324)
350.0 | 237.02808 (17122008) 217.26935 (17122008) 201.73877 (17122008) 187.15864 (17122008) 175.45853 (17122008)
360.0 | 282.44432 (17020824) 260.23677 (17020824) 240.93755 (17020824) 223.58248 (17020824) 208.18362 (17020824)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)
TANK	375.70	118.90	2094.59885	(17012424)	TANK	498.87	129.50	1367.90868	(17102924)
TANK	81.43	359.00	11547.72205	(17122324)	TANK	116.79	44.50	11558.50733	(17123124)
TANK	109.20	67.00	8574.02328	(17030124)	TANK	100.70	93.73	7678.31371	(17042416)
TANK	87.91	103.99	13044.18341	(17012424)	TANK	99.82	123.38	10433.41579c	(17092524)
TANK	138.00	141.00	7972.65946	(17012408)	TANK	106.00	180.00	9727.31868	(17031008)
TANK	115.60	206.00	9908.86162	(17022008)	TANK	54.00	270.00	21560.24119	(17020108)
TANK	97.00	326.00	11473.23122c	(17122408)	TANK	133.94	242.10	7488.09635c	(17112508)
TANK	101.99	301.65	10227.72368c	(17010608)	TANK	236.54	274.95	3104.59716	(17102624)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00

10.0 | 9806.41288 (17121724) 4439.39960 (17010224) 2764.96855 (17010224) 1945.40420 (17010224) 1455.64613 (17010224)
20.0 | 8125.46835 (17042824) 3439.79868 (17122108) 2080.04293 (17122024) 1397.77626 (17122024) 1019.39394 (17122024)
30.0 | 9121.49684 (17060424) 3661.39974 (17122108) 2183.95749 (17122108) 1408.42551 (17123124) 1021.96955 (17010124)
40.0 | 12961.55494 (17120624) 5333.79530 (17123124) 2944.39797 (17123124) 1916.30429 (17123124) 1370.99494 (17123124)
50.0 | 9928.96769 (17120624) 4505.79974 (17120624) 2724.21006 (17120624) 1864.60331 (17123124) 1289.82025 (17091324)
60.0 | 8669.02453 (17123124) 3614.04460 (17120524) 2109.32917 (17112324) 1465.35456 (17112324) 1073.80581 (17112324)
70.0 | 9356.48169 (17011824) 4013.84727 (17011824) 2329.68328 (17011824) 1532.24424 (17011824) 1071.44302 (17011824)
80.0 | 9547.61182 (17111824) 4258.63346 (17111824) 2590.10885 (17111824) 1759.80492 (17111824) 1292.25716 (17111824)
90.0 | 8038.19192 (17042524) 3485.14818 (17042524) 2052.25414 (17042524) 1380.15005 (17042524) 1003.04846 (17042524)
100.0 | 8643.00838c(17010524) 3766.49321 (17012424) 2015.81431 (17012424) 1270.54377 (17012424) 897.33872 (17012424)
110.0 | 8951.70181c(17010524) 4095.18660c(17010524) 2441.70465c(17010524) 1655.16374c(17010524) 1188.68108c(17010524)
120.0 | 9238.16689 (17012424) 4017.71607c(17092524) 2219.93727c(17092524) 1482.49643 (17032924) 1094.63599 (17032924)
130.0 | 11470.04798 (17102524) 4936.49177 (17102524) 2887.34839 (17102524) 1915.51569 (17102524) 1378.48772 (17102524)
140.0 | 11187.91469 (17012408) 5019.47082 (17012408) 2992.08155 (17012724) 2066.45792 (17012724) 1529.30446 (17012724)
150.0 | 9733.12392 (17010424) 4462.66022c(17092624) 2703.45088 (17110724) 1850.88634 (17112424) 1372.78810 (17112424)
160.0 | 9121.99263 (17112624) 4123.45636 (17112524) 2458.09070 (17112524) 1655.88560 (17112524) 1211.29762 (17110724)
170.0 | 9169.69324 (17122624) 4213.73571 (17082808) 2544.69357 (17082808) 1774.90967 (17111624) 1314.23487 (17082808)
180.0 | 10257.20966 (17121524) 4398.29223 (17031008) 2525.44925 (17031008) 1691.60783 (17031008) 1232.97841 (17031008)
190.0 | 8395.34355 (17022224) 3598.95743 (17020308) 2137.93765 (17020308) 1441.40055 (17022224) 1041.34232 (17022224)
200.0 | 9142.99576 (17111016) 3896.17949 (17022224) 2276.64559 (17022224) 1522.45308 (17022224) 1108.00328 (17022224)
210.0 | 8936.72075 (17020608) 3838.53946 (17020608) 2291.31421 (17110408) 1576.54133 (17110408) 1163.83684 (17110408)
220.0 | 8843.72808 (17020608) 3830.40674 (17020608) 2214.60027 (17120308) 1483.88231 (17120308) 1062.93846 (17120308)
230.0 | 9944.26158 (17112724) 4054.29475c(17112508) 2363.47168 (17011208) 1614.52427 (17011208) 1181.44985 (17011208)
240.0 | 10151.37496 (17112724) 4370.83198 (17112724) 2495.99356c(17112508) 1665.91230 (17011224) 1205.57191 (17011224)
250.0 | 9977.21177 (17102624) 4522.94698 (17011124) 2731.49609 (17011124) 1874.59534 (17011124) 1386.61997 (17011124)
260.0 | 11454.68292 (17102624) 4701.58335 (17021108) 2632.64589 (17021108) 1715.50693 (17011124) 1249.52855 (17011124)
270.0 | 10762.35033 (17102624) 4420.37717 (17102624) 2538.52167 (17102624) 1687.91019 (17102624) 1226.14659 (17102624)
280.0 | 8364.28565 (17071424) 3562.61166 (17010108) 2171.92564 (17010108) 1522.05771 (17010108) 1127.97203 (17010108)
290.0 | 9348.97505 (17013108) 4131.46491 (17013108) 2462.11292 (17013108) 1679.12351 (17013108) 1218.35371 (17013108)
300.0 | 8452.23287 (17061424) 3407.65354 (17013108) 1921.20161 (17013108) 1315.39141 (17120708) 977.54917 (17120708)
310.0 | 7473.68748 (17102224) 3006.39237 (17010208) 1892.05586 (17010208) 1311.42084 (17010208)

986.41316 (17010208)
320.0 | 8326.54241 (17121208) 3830.99174 (17121208) 2330.44047 (17121208) 1612.29237 (17121208)
1192.80970 (17121208)
330.0 | 8885.21001 (17060524) 3606.75797 (17060524) 2153.36387 (17121808) 1480.96549 (17121808)
1097.07597 (17121808)
340.0 | 9108.38155 (17060524) 3567.58186 (17102824) 2047.75471 (17102824) 1348.75699 (17102824)
987.13424 (17102824)
350.0 | 8586.04655 (17122324) 3797.47444 (17122008) 2233.89672 (17122008) 1518.99224 (17122008)
1113.48045 (17122008)
360.0 | 9166.65307 (17122324) 3752.01850 (17020824) 2426.01962 (17020824) 1709.90544 (17012024)
1270.81732 (17012024)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	1152.76042 (17010224)	938.28673 (17010224)	778.98713 (17010224)	659.75393 (17010224)	571.94131 (17010224)
20.0	771.83731 (17122024)	622.88921 (17122024)	508.21007 (17122024)	419.41475 (17122024)	354.67129 (17122024)
30.0	795.72450 (17010124)	641.54845 (17010124)	535.32243 (17010124)	442.06764 (17122108)	374.36489 (17122108)
40.0	1040.98464 (17123124)	838.37675 (17123124)	681.89819 (17123124)	568.89906 (17123124)	479.82764 (17123124)
50.0	1003.84864 (17091324)	810.11625 (17091324)	662.68973 (17091324)	547.77982 (17091324)	468.79797 (17091324)
60.0	838.42710 (17112324)	672.16456 (17112324)	540.76675 (17112324)	458.93380 (17112324)	406.64383 (17112324)
70.0	791.94042 (17112324)	670.18343 (17112324)	545.55584 (17112324)	445.89787 (17112324)	391.64983 (17112324)
80.0	988.66985 (17111824)	776.71040 (17111824)	641.28966 (17111824)	557.70719 (17111824)	472.00323 (17111824)
90.0	770.14905 (17042524)	595.83494 (17042524)	507.57714 (17042524)	427.85783 (17042524)	370.29690 (17042524)
100.0	639.11237 (17012424)	495.68617 (17012424)	374.27258 (17022424)	313.66995 (17022424)	265.40461 (17022424)
110.0	904.39042c(17010524)	717.83210c(17010524)	602.64622 (17022824)	512.33364 (17022824)	441.76939 (17022824)
120.0	843.18345 (17032924)	659.89484 (17032924)	561.86812 (17032924)	481.79156 (17032924)	416.43552 (17032924)
130.0	1043.41286 (17102524)	817.73877 (17102524)	666.82533 (17102524)	567.65070 (17021324)	494.31963 (17021324)
140.0	1184.12869 (17012724)	917.87067 (17012724)	738.12006 (17102524)	621.92462 (17102524)	555.96359 (17102524)
150.0	1060.47456 (17112424)	845.37547 (17112424)	692.95417 (17112424)	563.33878 (17112424)	480.05012 (17112424)
160.0	939.10679 (17110724)	759.59359 (17110724)	624.82616 (17110724)	513.09317 (17110724)	444.85200 (17110724)
170.0	1031.15350 (17082808)	835.85374 (17082808)	694.35458 (17082808)	610.33434 (17110324)	487.07167

(17082808)
180.0 | 952.43884 (17031008) 755.41816 (17031008) 617.06042 (17031008) 523.96162 (17031008) 441.20577 (17031008)
190.0 | 801.57309 (17022224) 639.59088 (17022224) 522.06715 (17022224) 432.82297 (17022224) 370.82175 (17022224)
200.0 | 847.09049 (17022224) 676.83807 (17022224) 546.49401 (17022224) 456.62645 (17022224) 390.37206 (17022224)
210.0 | 912.43264 (17110408) 760.52530 (17110408) 614.44137 (17110408) 522.16710 (17110408) 439.29770 (17110408)
220.0 | 811.39424 (17120308) 653.76618 (17120308) 553.10240 (17120308) 446.74304 (17120308) 381.64542 (17120308)
230.0 | 933.06778 (17011208) 736.69645 (17112724) 603.84948 (17112724) 508.49784 (17112724) 435.80446 (17122224)
240.0 | 933.08865c(17112508) 747.25608 (17110224) 607.01233 (17011224) 510.45508 (17011224) 435.36224 (17120424)
250.0 | 1085.53022 (17011124) 878.53249 (17011124) 719.45057 (17021108) 610.36818 (17011124) 512.99312 (17021108)
260.0 | 956.55786 (17011124) 773.36169 (17011124) 634.76689 (17011124) 530.51441 (17011124) 447.36082 (17011124)
270.0 | 951.26536 (17102624) 755.68547 (17102624) 624.46801 (17102624) 520.86165 (17102624) 438.54321 (17102624)
280.0 | 863.59397c(17010608) 697.11001c(17010608) 566.45589c(17010608) 466.01274c(17010608) 384.55771c(17010608)
290.0 | 943.82975 (17013108) 751.76790 (17013108) 619.81265 (17013108) 522.78909 (17013108) 438.87660 (17013108)
300.0 | 766.20047 (17120708) 617.12883 (17120708) 510.08877 (17120708) 433.97225 (17120708) 380.27789 (17120708)
310.0 | 767.63010 (17010208) 621.82310 (17010208) 519.99266 (17010208) 438.56905 (17010208) 378.21769 (17010208)
320.0 | 927.42965 (17121208) 741.27246c(17122408) 600.38118c(17122408) 501.29730c(17122408) 425.48162c(17122408)
330.0 | 850.68865 (17121808) 688.64359 (17121808) 566.57904 (17121808) 487.17406 (17121808) 418.34816 (17121808)
340.0 | 762.23131 (17012108) 619.48473 (17012108) 514.38485 (17012108) 439.09968 (17012108) 382.31463 (17012108)
350.0 | 860.06280 (17122008) 698.96094 (17122008) 571.33743 (17122324) 484.53844 (17122324) 415.19776 (17122324)
360.0 | 987.98357 (17012024) 793.49107 (17012024) 662.25748 (17012024) 562.20974 (17012024) 482.58467 (17012024)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	503.39782 (17010224)	442.38401 (17122024)	392.57057 (17122024)	355.71841 (17122024)	322.17339 (17122024)
20.0	300.54316 (17122024)	260.74927 (17122024)	228.57906 (17122024)	203.98020 (17122024)	183.01779 (17122024)
30.0	323.57157 (17122108)	279.89648 (17122108)	246.64843 (17122108)	215.81443 (17122108)	193.73186

(17122108)
40.0 | 411.78220 (17123124) 358.17240 (17123124) 314.08957 (17123124) 278.15155 (17123124) 249.08885 (17123124)
50.0 | 413.45179 (17120624) 354.91469 (17120624) 316.29026 (17120624) 276.89851 (17120624) 250.09785 (17042724)
60.0 | 353.65771 (17112324) 310.25668 (17112324) 275.51760 (17112324) 248.97698 (17112324) 224.79000 (17112324)
70.0 | 337.85524 (17112324) 298.68864 (17112324) 266.32567 (17112324) 236.16410 (17112324) 209.61949 (17112324)
80.0 | 410.49118 (17111824) 365.31205 (17111824) 326.41183 (17111824) 292.79626 (17111824) 261.64337 (17111824)
90.0 | 325.25008 (17042524) 286.96465 (17042524) 254.83505 (17042524) 228.29041 (17042524) 206.34307 (17042524)
100.0 | 228.99611 (17022424) 199.27896 (17022424) 179.06909 (17022424) 159.41776 (17022424) 144.68942 (17022424)
110.0 | 380.52788 (17022824) 336.56316 (17022824) 305.19624 (17022824) 275.91224 (17022824) 251.20209 (17022824)
120.0 | 361.93740 (17031824) 311.88797 (17031824) 284.71601 (17031824) 256.56049 (17031824) 230.27016 (17031824)
130.0 | 430.35902 (17102924) 375.96228 (17102924) 329.63558 (17102924) 290.23796 (17102924) 256.35037 (17102924)
140.0 | 487.70530 (17121924) 434.45208 (17121924) 385.68656 (17012724) 347.28437 (17012724) 317.39950 (17012724)
150.0 | 452.03613 (17112424) 396.53412 (17112424) 352.81984c(17092624) 317.59941c(17092624) 296.52042 (17112424)
160.0 | 374.83397 (17110724) 328.73965 (17110724) 310.57043 (17110724) 284.63218 (17110724) 252.86093 (17110724)
170.0 | 442.16704 (17082808) 351.61462 (17082808) 315.05068 (17082808) 300.39160 (17082808) 286.72338 (17082808)
180.0 | 394.48285 (17031008) 338.24788 (17031008) 280.46249 (17031008) 252.65046 (17031008) 245.85917 (17031008)
190.0 | 323.54785 (17022224) 285.61348 (17022224) 247.64913 (17022224) 220.83471 (17022224) 184.34321 (17022224)
200.0 | 342.58552 (17022224) 297.80248 (17022224) 263.69091 (17110908) 245.74776 (17110908) 218.28427 (17022008)
210.0 | 384.49776 (17110408) 337.34543 (17110408) 304.23372 (17110408) 272.35362 (17110408) 266.71137 (17110408)
220.0 | 323.66668 (17120308) 278.14868 (17120308) 245.97436 (17120308) 227.25414 (17120308) 198.26989 (17120308)
230.0 | 382.73233 (17122224) 337.47953 (17122224) 290.94343 (17122224) 264.53443 (17122224) 229.93613 (17122224)
240.0 | 376.46885 (17110224) 327.83993 (17120424) 295.73667 (17120424) 261.99434 (17110224) 232.30760 (17120424)
250.0 | 446.70493 (17021108) 388.56206 (17021108) 340.85948 (17021108) 306.14655 (17021108) 274.37584 (17021108)
260.0 | 388.02668 (17011124) 343.25925 (17011124) 304.27386 (17011124) 270.18003 (17011124) 243.22135 (17011124)
270.0 | 382.85035 (17102624) 336.21067 (17102624) 300.37229 (17102624) 269.95398 (17102624) 244.39791 (17102624)
280.0 | 330.41224c(17010608) 298.51776 (17123008) 275.08183 (17123008) 252.60319 (17123008) 234.52174 (17123008)
290.0 | 389.83676 (17013108) 341.57723 (17013108) 299.02774 (17010108) 270.47069 (17013108) 240.92773 (17013108)
300.0 | 341.46301 (17120708) 299.47668 (17120708) 261.38645c(17010608) 231.58468c(17010608) 206.16407c(17010608)
310.0 | 333.79552 (17010208) 292.85700 (17010208) 265.22534 (17010208) 236.17533 (17010208) 214.14952 (17010208)
320.0 | 368.32378c(17122408) 318.11241 (17121408) 285.32681 (17121408) 254.64587 (17121408) 232.94477 (17121408)
330.0 | 365.54253 (17121808) 321.68833 (17121808) 283.86848 (17121808) 255.70173 (17121808) 232.72682 (17121808)
340.0 | 334.99820 (17012108) 295.71497 (17012108) 263.43539 (17012108) 239.04764 (17012108) 219.27661

(17012108)
350.0 | 355.97717 (17122324) 310.08463 (17122324) 276.99860 (17122324) 249.96757 (17122324) 227.18438 (17122324)
360.0 | 419.41923 (17012024) 368.21772 (17012024) 329.95491 (17012024) 298.59487 (17010324) 273.00284 (17010324)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	288.93994 (17122024)	262.48714 (17122024)	242.62018 (17122024)	223.21658 (17122024)	204.89065 (17122024)
20.0	165.79930 (17122024)	150.51047 (17122024)	138.08221 (17122024)	123.59491 (17122024)	113.72951 (17122024)
30.0	174.37821 (17122108)	156.86874 (17060324)	144.64346 (17060324)	133.50745 (17060324)	124.44039 (17060324)
40.0	224.92015 (17123124)	206.15018 (17123124)	188.80384 (17123124)	174.94860 (17123124)	162.35575 (17123124)
50.0	227.08344 (17042724)	205.58371 (17042724)	187.77174 (17042724)	172.43570 (17042724)	160.76350 (17042724)
60.0	206.26311 (17112324)	188.39670 (17112324)	171.77958 (17112324)	158.99415 (17112324)	149.23481 (17112324)
70.0	190.18876 (17112324)	173.43313 (17112324)	159.00362 (17112324)	145.26135 (17112324)	136.16806 (17112324)
80.0	234.10101 (17111824)	212.45935 (17111824)	194.53388 (17111824)	182.39987 (17111824)	170.39016 (17111824)
90.0	187.27811 (17042524)	171.95240 (17042524)	154.57567 (17042524)	145.60007 (17042524)	135.80708 (17042524)
100.0	131.13834 (17021224)	120.18880 (17021224)	110.60353 (17021224)	101.42730 (17021224)	94.65469 (17021224)
110.0	229.40216 (17022824)	210.08406 (17022824)	193.63354 (17022824)	178.36129 (17022824)	165.74810 (17022824)
120.0	210.29247 (17031824)	194.52198 (17031824)	179.26243 (17012424)	165.79778 (17012424)	153.10902 (17012424)
130.0	235.26007 (17102924)	213.61336c(17092524)	197.06286 (17102924)	181.51516c(17092524)	167.10542c(17092524)
140.0	288.78369 (17121924)	264.57460 (17012724)	244.22706 (17012724)	227.82716 (17012724)	210.91075 (17012724)
150.0	268.78300 (17112424)	243.85288 (17112424)	225.45389 (17112424)	205.13298 (17112424)	192.57171 (17112424)
160.0	221.41318 (17110724)	210.88552 (17110724)	193.25064 (17110724)	179.53268 (17110724)	165.59233 (17110724)
170.0	255.53715 (17082808)	238.96841 (17082808)	223.21734 (17110324)	208.09025 (17110324)	194.60954 (17110324)
180.0	229.12868 (17031008)	208.18522 (17031008)	193.74039 (17031008)	178.08522 (17031008)	163.83553 (17031008)
190.0	167.25349 (17022224)	153.94091 (17022224)	140.38240 (17022224)	140.06726 (17022224)	130.57663 (17022224)
200.0	204.20239 (17022008)	164.96105 (17022224)	152.54628 (17022224)	150.67906 (17110908)	140.07111

(17022008)
210.0 | 205.34794 (17110408) 188.97430 (17110408) 174.73572 (17110408) 179.27315 (17110408) 168.61281 (17110408)
220.0 | 198.80552 (17120108) 153.42060 (17120308) 139.70713 (17120308) 129.74636 (17120308) 124.45052 (17120108)
230.0 | 213.82218 (17122224) 196.88115 (17011208) 179.68909 (17011208) 161.65166 (17011208) 152.75043 (17011208)
240.0 | 212.33969 (17120424) 192.06346 (17110224) 167.73997 (17011224) 152.81332 (17110224) 146.33221 (17110108)
250.0 | 249.90983 (17021108) 225.86514 (17021108) 203.57689 (17021108) 186.31866 (17021108) 167.69457 (17021108)
260.0 | 219.94395 (17011124) 199.17621 (17011124) 181.45553 (17011124) 165.91800 (17011124) 153.18651 (17011124)
270.0 | 221.22130 (17102624) 200.80926 (17102624) 182.73442 (17102624) 170.14137 (17102624) 158.42505 (17102624)
280.0 | 211.58273 (17123008) 191.17430 (17123008) 176.01225 (17123008) 164.01969 (17123008) 154.27609 (17123008)
290.0 | 220.89923 (17013108) 201.12362 (17010108) 182.52052 (17010108) 169.99626 (17010108) 157.65662 (17010108)
300.0 | 187.34546c(17010608) 167.15200c(17010608) 150.95677c(17010608) 135.87722c(17010608) 128.17225 (17041808)
310.0 | 193.32638 (17010208) 176.82274 (17010208) 163.29444 (17010208) 149.33847 (17010208) 138.82100 (17010208)
320.0 | 210.85739 (17121408) 192.51612 (17121408) 178.02798 (17121408) 164.80047 (17121408) 152.38051 (17121408)
330.0 | 212.09568 (17121808) 192.71590 (17121808) 175.87367 (17121808) 160.83502 (17121808) 149.07098 (17121808)
340.0 | 199.36619 (17012108) 184.03004 (17012108) 165.67028 (17012108) 153.85706 (17012108) 143.74380 (17012108)
350.0 | 201.06055 (17122324) 182.49551 (17122324) 169.17250 (17122324) 156.96330 (17122324) 146.85056 (17122324)
360.0 | 250.58390 (17010324) 231.12509 (17010324) 214.09652 (17010324) 198.47931 (17010324) 184.44006 (17010324)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)
TANK	375.70	118.90	1600.17254	(17032924)	TANK	498.87	129.50	1342.53853	(17102524)
TANK	81.43	359.00	11001.48617	(17012024)	TANK	116.79	44.50	10622.30106	(17120624)
TANK	109.20	67.00	8530.44345	(17083024)	TANK	100.70	93.73	7487.82010c	(17010524)
TANK	87.91	103.99	10212.60550c	(17010524)	TANK	99.82	123.38	9536.25183	(17090624)
TANK	138.00	141.00	7862.28297	(17102524)	TANK	106.00	180.00	9602.96174	(17121524)
TANK	115.60	206.00	7096.31473	(17020608)	TANK	54.00	270.00	21275.06990	(17102624)
TANK	97.00	326.00	8347.90361	(17121208)	TANK	133.94	242.10	7324.85968	(17021108)
TANK	101.99	301.65	7977.14323	(17061424)	TANK	236.54	274.95	3037.70084	(17020108)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	9447.39899 (17010224)	4002.42572 (17121724)	2281.85132 (17121724)	1505.35652 (17121724)	1080.78856 (17121724)
20.0	8009.14763 (17010124)	3362.28311 (17121724)	1881.25507 (17010124)	1229.67179 (17010124)	879.79064 (17010124)
30.0	8426.68755 (17120624)	3496.81443 (17120624)	2023.32465 (17010124)	1384.55329 (17010124)	989.47713 (17123124)
40.0	10851.57835 (17060424)	3682.50883 (17091324)	2085.90731 (17091324)	1371.18147 (17091324)	988.18387 (17091324)
50.0	9654.01248 (17091324)	4283.15038 (17091324)	2578.88727 (17091324)	1776.57338 (17091324)	1287.43923 (17123124)
60.0	8564.68367 (17120524)	3397.29071 (17112324)	2104.84144 (17120524)	1404.69925 (17120524)	1007.60991 (17120524)
70.0	8605.14715 (17030124)	3612.37248 (17030124)	2120.71961 (17112324)	1465.88324 (17112324)	1068.03832 (17112324)
80.0	8425.61582 (17032124)	3483.77370 (17032124)	2046.36568 (17032124)	1354.99877 (17032124)	964.84501 (17032124)
90.0	7845.17442 (17032124)	3355.53759 (17072724)	1928.47033 (17072724)	1282.34682 (17072724)	924.37179 (17072724)
100.0	7572.18237 (17081224)	2945.15369 (17022424)	1661.68123 (17022424)	1091.27848 (17022424)	779.90203 (17022424)
110.0	7654.22491c(17092524)	3602.74551 (17022824)	2222.76708 (17022824)	1535.89299 (17022824)	1137.29740 (17022824)
120.0	8810.40599 (17013024)	3782.50381 (17013024)	2175.42148 (17013024)	1446.78927 (17011724)	1065.18393 (17011724)
130.0	10798.81705 (17090624)	4519.35313c(17092524)	2695.07170c(17092524)	1806.12486c(17092524)	1312.95441c(17092524)
140.0	11082.51017 (17021624)	4970.06811 (17021624)	2989.13157c(17092624)	2027.70762 (17021624)	1486.30366 (17021624)
150.0	9462.60806 (17110724)	4308.44884 (17012408)	2672.08588 (17112424)	1817.50550 (17110724)	1335.21037 (17123024)
160.0	9002.77331 (17112524)	4065.16537 (17112624)	2399.03505 (17112624)	1637.49058 (17110724)	1209.68454 (17112524)
170.0	9124.25337 (17031008)	4106.32585 (17111624)	2544.58870 (17111624)	1724.47330 (17082808)	1287.51826 (17111624)
180.0	9786.50781 (17122624)	4328.94646 (17121524)	2485.59166 (17121524)	1670.34907 (17121524)	1213.29521 (17121524)
190.0	8275.61829 (17121524)	3506.66633 (17113024)	1977.21002 (17113024)	1283.23880 (17113024)	911.71774 (17113024)
200.0	8568.18740 (17113024)	3842.59136 (17113024)	2192.74879 (17113024)	1446.42838 (17113024)	1021.19971 (17113024)
210.0	8629.79973 (17120308)	3788.31528 (17110408)	2245.23159 (17020608)	1515.23401 (17020608)	1090.87518 (17020608)
220.0	8746.14770c(17112508)	3483.62913 (17022008)	1932.58665 (17010924)	1279.72013 (17010924)	933.29779 (17120108)
230.0	9155.90308 (17011208)	4020.50553 (17011208)	2327.55519 (17122224)	1587.65195 (17122224)	1170.76679 (17122224)
240.0	9920.32410 (17021108)	4232.14293 (17011224)	2477.36820 (17011224)	1643.96571 (17110224)	

1203.37347 (17112724)
250.0 | 9851.63353 (17011124) 4321.67809 (17111808) 2545.62964 (17111808) 1711.05427 (17111808) 1269.11435 (17111808)
260.0 | 11151.72344 (17020108) 4620.07659 (17102624) 2585.96585 (17102624) 1713.31793 (17021108) 1210.72074 (17021108)
270.0 | 8533.62654 (17021108) 3403.23966m(17011624) 1994.47983m(17011624) 1343.35173m(17011624) 984.46663m(17011624)
280.0 | 8075.98469 (17102624) 3403.02533 (17012508) 2036.27811 (17012508) 1389.05386 (17012508) 1024.69652 (17012508)
290.0 | 8688.40923 (17061424) 3696.49264 (17010108) 2245.91800 (17010108) 1546.25783 (17010108) 1142.03117 (17010108)
300.0 | 8254.94438 (17013108) 3234.26229 (17061424) 1907.54729 (17120708) 1257.51577 (17013108) 916.30626 (17022208)
310.0 | 6690.97538 (17033008) 2994.12261 (17020708) 1870.87769 (17021824) 1248.31547 (17021824) 897.45712 (17021824)
320.0 | 7656.71545 (17030724) 3325.53494 (17030724) 2034.89442 (17121408) 1416.46254 (17121408) 1061.85937 (17121408)
330.0 | 7785.68057 (17102824) 3566.69894 (17121808) 2038.46448 (17060524) 1352.55312 (17060524) 980.83741 (17060524)
340.0 | 8716.88477 (17102824) 3388.09068 (17072324) 2000.41315 (17122324) 1335.48985c(17122408) 972.62408 (17012108)
350.0 | 8069.83525 (17102824) 3386.48135 (17102824) 1980.33370 (17102824) 1334.75970 (17102824) 988.57007 (17020808)
360.0 | 8059.98362 (17122008) 3656.48297 (17122324) 2257.44074 (17010324) 1585.40531 (17010324) 1201.46238 (17010324)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	814.34878 (17121724)	637.09851 (17121724)	515.87324 (17121724)	425.14181 (17121724)	357.53601 (17121724)
20.0	657.91071 (17010124)	520.54923 (17010124)	422.92919 (17010124)	346.60537 (17010124)	291.91513 (17010124)
30.0	734.20678 (17123124)	571.80113 (17123124)	464.40370 (17123124)	382.19467 (17123124)	326.39857 (17060324)
40.0	746.25103 (17091324)	598.52108 (17091324)	486.53734 (17091324)	406.12334 (17010408)	348.89524 (17010408)
50.0	970.07361 (17123124)	761.69058 (17123124)	613.60457 (17123124)	508.22433 (17123124)	432.50961 (17042724)
60.0	774.72435 (17120524)	607.86398 (17120524)	494.18925 (17120524)	404.93553 (17120524)	351.74683 (17120524)
70.0	768.98012 (17011824)	649.01233 (17011824)	522.07807 (17011824)	396.71428 (17011824)	340.79367 (17011824)
80.0	733.16400 (17032124)	571.63337 (17032124)	465.24940 (17032124)	374.74571 (17032124)	312.73763 (17021224)
90.0	706.61464 (17072724)	545.42504 (17072724)	460.69499 (17072724)	385.04092 (17072724)	332.62518 (17072724)
100.0	589.23046 (17022424)	454.19623 (17022424)	370.42125 (17012424)	302.11040 (17021224)	257.41753

(17021224)
110.0 | 884.65365 (17022824) 691.72653 (17022824) 570.35690c(17010524) 469.67605c(17010524) 399.26971c(17010524)
120.0 | 816.20496 (17011724) 640.13366 (17011724) 553.84176 (17031824) 473.13234 (17031824) 411.30774 (17031824)
130.0 | 998.69341c(17092524) 782.18516c(17092524) 649.40130 (17021324) 564.75723 (17102524) 478.89432 (17102524)
140.0 | 1151.22814 (17021624) 874.98849 (17021624) 706.02606 (17121924) 598.15183 (17121924) 555.79551 (17121924)
150.0 | 1032.63508 (17123024) 827.36114 (17123024) 680.99355 (17123024) 550.98788 (17123024) 472.56131 (17123024)
160.0 | 934.62968 (17112524) 755.27627 (17112524) 614.17963 (17112524) 495.21550 (17112524) 430.67493 (17112524)
170.0 | 991.30925 (17111624) 797.85678 (17111624) 651.23055 (17111624) 525.54153 (17111624) 465.72428 (17111624)
180.0 | 939.37324 (17121524) 747.99468 (17121524) 604.98774 (17121524) 510.22830 (17121524) 427.28505 (17121524)
190.0 | 692.80944 (17121308) 550.62974 (17121308) 454.60090 (17121308) 388.03776 (17121308) 333.85363 (17121308)
200.0 | 791.05501 (17110908) 640.76945 (17110908) 525.19377 (17110908) 440.21018 (17022408) 378.04975 (17022408)
210.0 | 849.68035 (17020608) 713.06580 (17020608) 564.56150 (17020608) 475.29437 (17020608) 394.95402 (17020608)
220.0 | 720.72873 (17120108) 610.97758 (17120108) 524.27660 (17120108) 414.79682 (17120108) 355.22247 (17120108)
230.0 | 920.63998 (17122224) 733.17728 (17122224) 602.85732 (17122224) 507.11556 (17122224) 427.28116 (17112724)
240.0 | 931.60563 (17110224) 739.40896 (17112724) 603.59679 (17120424) 509.67712 (17120424) 433.06087 (17110224)
250.0 | 974.22214 (17111808) 781.88709 (17111808) 640.98848 (17111808) 548.63642 (17111808) 461.51319 (17111808)
260.0 | 920.41166 (17021108) 718.93058 (17021108) 584.19569 (17021108) 479.16117 (17021108) 408.37593 (17021108)
270.0 | 763.31952m(17011624) 612.29172m(17011624) 509.08863m(17011624) 429.20450m(17011624) 365.47363m(17011624)
280.0 | 796.55174 (17012508) 647.62170 (17012508) 534.21350 (17012508) 446.81065 (17012508) 382.38911 (17012508)
290.0 | 886.58425 (17010108) 720.85413 (17010108) 591.67726 (17010108) 493.87208 (17010108) 424.64627 (17010108)
300.0 | 713.42808 (17022208) 569.72856 (17022208) 475.68122 (17022208) 399.73617 (17022208) 347.64866 (17022208)
310.0 | 693.69409 (17021824) 547.75639 (17021824) 454.89140 (17121408) 378.16971 (17033008) 324.29656 (17033008)
320.0 | 823.73337 (17121408) 672.93691 (17121408) 554.62761 (17121408) 475.19641 (17121408) 409.86044 (17121408)
330.0 | 753.16396 (17060524) 601.06609 (17060524) 499.02937 (17060524) 421.69853 (17060524) 361.21005 (17060524)
340.0 | 743.63531 (17102824) 596.22592 (17102824) 494.09531 (17072324) 419.41648 (17072324) 361.67636 (17072324)
350.0 | 773.63043 (17020808) 626.68112 (17020808) 522.43473 (17020808) 441.87931 (17020808) 380.20407 (17020808)
360.0 | 951.58250 (17010324) 773.52912 (17010324) 643.68240 (17010324) 545.24468 (17010324) 471.11733 (17010324)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:08:15

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	301.92490 (17121724)	264.56448 (17121724)	231.65376 (17121724)	201.61417 (17042624)	182.20735 (17122624)
20.0	252.28805c(17042608)	224.55221c(17042608)	200.76534c(17042608)	181.19232c(17042608)	164.44732c(17042608)
30.0	286.19438 (17060324)	253.36688 (17060324)	229.08749 (17060324)	207.63500 (17060324)	187.15276 (17060324)
40.0	292.51758 (17010408)	255.13256 (17010408)	228.19284 (17010408)	203.59058 (17010408)	180.97211 (17010408)
50.0	388.54179 (17042724)	340.99146 (17042724)	303.86147 (17042724)	275.89156 (17042724)	246.55622 (17120624)
60.0	303.13993 (17120524)	264.26527 (17120524)	231.07662 (17120524)	209.84091 (17120524)	184.48860 (17120524)
70.0	294.08059 (17011824)	248.66918 (17011824)	220.00982 (17031908)	198.77962 (17031908)	180.92499 (17031908)
80.0	272.17735 (17021224)	239.55883 (17021224)	214.34609 (17021224)	192.96439 (17021224)	174.36714 (17021224)
90.0	291.94143 (17072724)	256.38076 (17072724)	225.94276 (17072724)	201.61856 (17072724)	182.12300 (17072724)
100.0	223.86396 (17021224)	195.61581 (17021224)	175.97462 (17021224)	158.22622 (17021224)	143.42446 (17021224)
110.0	351.94660c(17010524)	304.04259c(17010524)	270.47784c(17010524)	236.67680c(17010524)	211.38356c(17010524)
120.0	359.79782 (17032924)	311.84948 (17032924)	279.02832 (17032924)	252.16184 (17032924)	224.02738 (17032924)
130.0	415.57389 (17102524)	361.37642 (17102524)	317.55083c(17092524)	282.12984 (17102524)	253.94226 (17102524)
140.0	481.37278 (17102524)	423.19246 (17021624)	373.48836 (17021624)	336.41320 (17021624)	309.15636 (17021624)
150.0	428.35559 (17123024)	373.04671 (17123024)	328.96553 (17123024)	295.76607 (17123024)	269.95018 (17123024)
160.0	358.52395 (17112524)	316.22461 (17112524)	301.63548 (17112524)	275.55947 (17112524)	244.85514 (17112524)
170.0	400.08636 (17111624)	351.50549 (17111624)	307.71935 (17111624)	272.70585 (17111624)	249.91164 (17111624)
180.0	380.27537 (17121524)	324.69209 (17121524)	274.13673 (17121524)	240.91314 (17121524)	232.28593 (17121524)
190.0	293.66975 (17121308)	254.26397 (17121308)	226.70943 (17121308)	197.13210 (17121308)	168.43736 (17121308)
200.0	332.01830 (17022408)	292.37684 (17022408)	261.41727 (17022224)	235.82774 (17022224)	216.03311 (17022408)
210.0	344.54441 (17020608)	300.92642 (17020608)	271.98084 (17020608)	242.66926 (17020608)	236.03225 (17020608)
220.0	303.25201 (17120108)	261.68543 (17120108)	231.63856 (17120108)	214.59609 (17120108)	195.73625 (17120108)
230.0	372.23079 (17112724)	327.87133 (17112724)	282.15626 (17112724)	256.41597 (17112724)	222.76653 (17112724)
240.0	375.28581 (17120424)	327.69574 (17011224)	292.19667c(17112508)	259.90253c(17112508)	230.93516 (17011224)
250.0	402.66509 (17111808)	352.25823 (17111808)	308.25381 (17111808)	272.34642 (17111808)	243.88579 (17111808)
260.0	356.21574 (17021108)	311.63216 (17021208)	277.30313 (17021208)	247.32063 (17021208)	222.63582 (17021208)
270.0	316.85306m(17011624)	278.78419m(17011624)	247.98368m(17011624)	223.83622m(17011624)	

203.31217m(17011624)
280.0 | 328.33736 (17012508) 296.97061 (17012508) 274.17581 (17012508) 245.28117 (17012508) 229.24672 (17012508)
290.0 | 371.45663 (17010108) 329.18209 (17010108) 298.80304 (17013108) 264.78996 (17010108) 238.36687 (17010108)
300.0 | 298.08019 (17022208) 262.66891 (17022208) 232.01569 (17022208) 208.47501 (17022208) 190.23933 (17022208)
310.0 | 284.12323 (17033008) 253.09272 (17033008) 224.67993 (17033008) 205.44404 (17033008) 180.68315 (17081808)
320.0 | 356.79520 (17121408) 313.82787c(17122408) 277.95394c(17122408) 250.35817c(17122408) 216.66271c(17122408)
330.0 | 317.53446 (17121508) 282.67126 (17121508) 253.36702 (17121508) 229.21684 (17121508) 208.26079 (17121508)
340.0 | 317.87206 (17072324) 280.23321 (17072324) 249.72968 (17072324) 224.80576 (17072324) 204.56288 (17072324)
350.0 | 331.81329 (17020808) 295.86944 (17020808) 263.70117 (17020808) 236.67783 (17111908) 213.98524 (17020808)
360.0 | 412.49907 (17010324) 366.30405 (17010324) 329.84559 (17010324) 297.93193 (17012024) 272.42813 (17012024)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	166.43528 (17122624)	152.31840 (17122624)	140.37670 (17122624)	128.13914 (17122624)	117.03595 (17042624)
20.0	149.57905c(17042608)	135.71553c(17042608)	125.36702c(17042608)	117.34441c(17042608)	109.76296c(17042608)
30.0	170.43047 (17060324)	155.76696 (17122108)	138.72114 (17122108)	126.75489 (17122108)	118.19002 (17122108)
40.0	160.25588 (17010408)	146.01405 (17010408)	135.02320 (17010408)	125.38948 (17010408)	116.88648 (17010408)
50.0	223.70014 (17120624)	202.35792 (17120624)	183.43870 (17120624)	166.08882 (17120624)	153.19611 (17120624)
60.0	168.94434 (17120524)	150.80322 (17120524)	141.30583 (17120524)	128.17015 (17120524)	117.84647 (17120524)
70.0	167.06208 (17031908)	152.75799 (17031908)	140.39888 (17031908)	129.34491 (17031908)	120.61233 (17031908)
80.0	159.22888 (17021224)	146.06130 (17021224)	132.75929 (17021224)	125.05482 (17021224)	116.40201 (17021224)
90.0	165.20159 (17072724)	151.62362 (17072724)	136.14108 (17072724)	128.22162 (17072724)	119.52348 (17072724)
100.0	130.90829 (17022424)	119.73896 (17022424)	109.89675 (17022424)	100.86551 (17022424)	93.72972 (17022424)
110.0	191.82774c(17010524)	172.51475c(17010524)	157.17972c(17010524)	144.48009c(17010524)	134.31370c(17010524)
120.0	206.81411 (17032924)	189.73312 (17032924)	174.20905 (17032924)	159.45650 (17032924)	148.29131 (17032924)
130.0	230.69667 (17102524)	213.44897 (17102924)	194.31232c(17092524)	181.47076 (17102924)	166.37163

(17102924)
140.0 | 282.65779 (17021624) 263.35002 (17021624) 241.65965 (17021624) 223.25277 (17021624) 206.42104 (17021624)
150.0 | 246.74904 (17123024) 223.16857 (17123024) 206.87398 (17123024) 189.70343 (17123024) 175.24997 (17123024)
160.0 | 213.13687 (17112524) 200.30894 (17112524) 185.87343 (17112524) 175.15248 (17112524) 162.06415 (17112524)
170.0 | 228.17666 (17111624) 201.64701 (17111624) 187.67912 (17111624) 172.40478 (17111624) 158.60895 (17111624)
180.0 | 216.61985 (17121524) 195.82639 (17121524) 179.84448 (17121524) 163.46448 (17121524) 152.73434 (17121524)
190.0 | 154.10817 (17121308) 141.76249 (17121308) 131.03253 (17121308) 126.65477 (17121308) 118.83253 (17121308)
200.0 | 195.42174 (17022408) 162.58327 (17022408) 150.30302 (17022408) 146.48179 (17022408) 136.14905 (17022224)
210.0 | 180.11537 (17020608) 163.32824 (17020608) 150.62967 (17020608) 154.73651b(17101108) 145.44259b(17101108)
220.0 | 188.61835 (17120308) 142.94704 (17120108) 132.13468 (17120108) 122.66204 (17120108) 123.54985 (17120308)
230.0 | 207.02046 (17112724) 184.82940 (17112724) 167.99348 (17112724) 156.97610 (17112724) 141.67668 (17112724)
240.0 | 207.81922 (17011224) 188.66260 (17110108) 167.17740 (17120424) 150.84026 (17120424) 145.87918 (17110224)
250.0 | 221.85145 (17111808) 200.89908 (17111808) 187.89027 (17111808) 166.37931 (17111808) 152.40081 (17111808)
260.0 | 203.31619 (17021208) 181.76791 (17021208) 164.55054 (17021208) 148.49057 (17021208) 140.71435 (17021208)
270.0 | 186.07055m(17011624) 169.37967m(17011624) 154.76497m(17011624) 144.30341m(17011624) 134.67547m(17011624)
280.0 | 206.15924 (17012508) 185.52583 (17012508) 170.94090 (17012508) 159.84918 (17012508) 148.86944 (17012508)
290.0 | 218.07489 (17010108) 200.86908 (17013108) 180.91317 (17013108) 167.56693 (17013108) 155.90004 (17013108)
300.0 | 172.15871 (17022208) 157.79909 (17022208) 145.64603 (17022208) 135.44940 (17041808) 122.82919 (17022208)
310.0 | 168.98497 (17033008) 154.95576 (17033008) 143.69841 (17033008) 130.54075 (17033008) 122.02089 (17033008)
320.0 | 199.71921c(17122408) 182.17451c(17122408) 166.78466 (17030724) 151.21667 (17030724) 140.36904 (17030724)
330.0 | 190.18834 (17121508) 174.97098 (17121508) 159.99921 (17121508) 146.34751 (17121508) 137.09285 (17121508)
340.0 | 184.74737 (17072324) 169.01784 (17072324) 152.36265 (17072324) 140.51795 (17072324) 130.55341 (17072324)
350.0 | 195.59630 (17020808) 178.50924 (17020808) 164.75566 (17020808) 153.06911 (17020808) 142.90336 (17020808)
360.0 | 248.27436 (17012024) 226.32100 (17012024) 207.61801 (17012024) 191.90883 (17012024) 178.23210 (17012024)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN ORIGIN

SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK :	375.70	118.90	1596.96561	(17011724)	TANK :	498.87	129.50	1300.19929c	(17092524)
TANK :	81.43	359.00	10655.69267	(17122008)	TANK :	116.79	44.50	8425.75883	(17060424)
TANK :	109.20	67.00	7270.46234	(17011824)	TANK :	100.70	93.73	6908.24304	(17042524)
TANK :	87.91	103.99	8804.08737	(17081224)	TANK :	99.82	123.38	9334.58117	(17013024)
TANK :	138.00	141.00	7789.98274	(17021624)	TANK :	106.00	180.00	9250.34617	(17122624)
TANK :	115.60	206.00	6942.09291	(17111016)	TANK :	54.00	270.00	19133.84452	(17021108)
TANK :	97.00	326.00	8164.80452	(17030724)	TANK :	133.94	242.10	6977.60367	(17112724)
TANK :	101.99	301.65	7622.34688	(17013108)	TANK :	236.54	274.95	2556.58529	(17071424)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

** CONC OF HCL IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE
1.	70664.92236	(17020106)	AT (	-54.00, -0.00)	DP	26.	48855.73799	(17021107)	AT (	-54.00, -0.00)	DP
2.	68289.56731	(17011907)	AT (	-54.00, -0.00)	DP	27.	48739.34509	(17010421)	AT (	34.20, -93.97)	GP
3.	67584.16993	(17120606)	AT (	-54.00, -0.00)	DP	28.	48679.49905	(17060420)	AT (	64.28, 76.60)	GP
4.	67097.79377	(17021108)	AT (	-54.00, -0.00)	DP	29.	47959.00640	(17040206)	AT (	-54.00, -0.00)	DP
5.	66902.32933	(17021207)	AT (	-54.00, -0.00)	DP	30.	47164.41385	(17121321)	AT (	50.00, -86.60)	GP
6.	65632.62341	(17021208)	AT (	-54.00, -0.00)	DP	31.	47132.46883	(17020108)	AT (	-54.00, -0.00)	DP
7.	63537.81853	(17021706)	AT (	-54.00, -0.00)	DP	32.	47093.98749	(17011706)	AT (	-54.00, -0.00)	DP
8.	63188.35237	(17071706)	AT (	-54.00, -0.00)	DP	33.	46538.48924	(17123119)	AT (	86.60, 50.00)	GP
9.	61805.65790	(17102620)	AT (	-54.00, -0.00)	DP	34.	46237.63425	(17122620)	AT (	0.00, -100.00)	GP
10.	61143.85101	(17121906)	AT (	-54.00, -0.00)	DP	35.	45954.90596	(17121719)	AT (	-0.00, 100.00)	GP
11.	59691.85891	(17070606)	AT (	-54.00, -0.00)	DP	36.	45807.95414	(17032007)	AT (	-54.00, -0.00)	DP
12.	58723.47317	(17102621)	AT (	-54.00, -0.00)	DP	37.	45541.42355	(17083106)	AT (	-54.00, -0.00)	DP
13.	57286.71945	(17121121)	AT (	-54.00, -0.00)	DP	38.	45432.88356	(17111807)	AT (	-54.00, -0.00)	DP
14.	56012.98129	(17121719)	AT (	-1.42, 81.42)	DP	39.	45377.09770	(17121719)	AT (	17.36, 98.48)	GP
15.	54684.53832	(17020107)	AT (	-54.00, -0.00)	DP	40.	45349.69447	(17123108)	AT (	-54.00, -0.00)	DP
16.	52523.96893	(17070206)	AT (	-54.00, -0.00)	DP	41.	45161.41532	(17123119)	AT (	76.60, 64.28)	GP
17.	52455.00220	(17032107)	AT (	-54.00, -0.00)	DP	42.	45129.56582	(17071421)	AT (	-54.00, -0.00)	DP
18.	51763.48777	(17071906)	AT (	-54.00, -0.00)	DP	43.	45060.54979	(17022107)	AT (	-54.00, -0.00)	DP
19.	51606.87782	(17031319)	AT (	-54.00, -0.00)	DP	44.	44981.47448	(17072106)	AT (	-54.00, -0.00)	DP
20.	51563.63702	(17072706)	AT (	-54.00, -0.00)	DP	45.	44951.50049	(17061506)	AT (	-54.00, -0.00)	DP
21.	51530.24418	(17122007)	AT (	-1.42, 81.42)	DP	46.	44736.41933	(17032806)	AT (	-54.00, -0.00)	DP
22.	51366.40335	(17052706)	AT (	-54.00, -0.00)	DP	47.	44538.58283	(17060406)	AT (	-54.00, -0.00)	DP
23.	51043.69084	(17060420)	AT (	76.60, 64.28)	GP	48.	44532.28339	(17121321)	AT (	34.20, -93.97)	GP
24.	50195.81654	(17081106)	AT (	-54.00, -0.00)	DP	49.	44190.51747	(17090406)	AT (	-54.00, -0.00)	DP
25.	50075.52894	(17012506)	AT (	-54.00, -0.00)	DP	50.	44186.96608	(17122306)	AT (	-54.00, -0.00)	DP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE MAXIMUM 50 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

** CONC OF HCL IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE	RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE
1.	21560.24119	(17020108) AT	(-54.00, -0.00) DP	26.	12289.95496c	(17010608) AT	(-93.97, 34.20) GP
2.	21275.06990	(17102624) AT	(-54.00, -0.00) DP	27.	12278.79846	(17012424) AT	(93.97, -34.20) GP
3.	19133.84452	(17021108) AT	(-54.00, -0.00) DP	28.	12238.98341	(17041016) AT	(-54.00, -0.00) DP
4.	16904.42810	(17071424) AT	(-54.00, -0.00) DP	29.	12231.27452	(17022108) AT	(-54.00, -0.00) DP
5.	16570.49137	(17021208) AT	(-54.00, -0.00) DP	30.	12180.31502	(17071708) AT	(-54.00, -0.00) DP
6.	15016.07490	(17042016) AT	(-54.00, -0.00) DP	31.	12073.35800b	(17032708) AT	(-54.00, -0.00) DP
7.	14854.48705	(17011124) AT	(-54.00, -0.00) DP	32.	12060.95703	(17041516) AT	(-54.00, -0.00) DP
8.	14807.50731m	(17011624) AT	(-54.00, -0.00) DP	33.	11953.40296	(17123008) AT	(-54.00, -0.00) DP
9.	14467.85915	(17061216) AT	(-54.00, -0.00) DP	34.	11909.35416	(17102724) AT	(-54.00, -0.00) DP
10.	14466.81417b	(17011616) AT	(-54.00, -0.00) DP	35.	11794.71747	(17021108) AT	(-98.48, -17.36) GP
11.	13663.94103	(17123124) AT	(64.28, 76.60) GP	36.	11740.97097	(17071316) AT	(-54.00, -0.00) DP
12.	13368.80106m	(17101016) AT	(-54.00, -0.00) DP	37.	11699.04040	(17112416) AT	(17.36, -98.48) GP
13.	13306.11236	(17123124) AT	(76.60, 64.28) GP	38.	11655.38478	(17071416) AT	(-54.00, -0.00) DP
14.	13253.91097	(17060416) AT	(-54.00, -0.00) DP	39.	11626.40878c	(17122408) AT	(-50.00, 86.60) GP
15.	13164.82662	(17061924) AT	(-54.00, -0.00) DP	40.	11619.80182	(17030516) AT	(-54.00, -0.00) DP
16.	13151.24728	(17041916) AT	(-54.00, -0.00) DP	41.	11558.50733	(17123124) AT	(81.86, 83.30) DP
17.	13080.62414	(17011116) AT	(-54.00, -0.00) DP	42.	11547.72205	(17122324) AT	(-1.42, 81.42) DP
18.	13044.18341	(17012424) AT	(85.30, -21.25) DP	43.	11505.16931	(17102924) AT	(76.60, -64.28) GP
19.	12961.55494	(17120624) AT	(64.28, 76.60) GP	44.	11473.23122c	(17122408) AT	(-54.24, 80.42) DP
20.	12868.45702	(17031208) AT	(-54.00, -0.00) DP	45.	11470.04798	(17102524) AT	(76.60, -64.28) GP
21.	12859.17258	(17102116) AT	(-54.00, -0.00) DP	46.	11454.68292	(17102624) AT	(-98.48, -17.36) GP
22.	12700.56496	(17030616) AT	(-54.00, -0.00) DP	47.	11433.34864	(17112816) AT	(-54.00, -0.00) DP
23.	12530.67061	(17111808) AT	(-54.00, -0.00) DP	48.	11369.75491	(17022008) AT	(-50.00, -86.60) GP
24.	12383.04596	(17112124) AT	(-54.00, -0.00) DP	49.	11338.18693m	(17011024) AT	(-54.00, -0.00) DP
25.	12328.82196	(17021108) AT	(-93.97, -34.20) GP	50.	11214.13562	(17102524) AT	(64.28, -76.60) GP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	2151.59248 AT (-54.00, -0.00, 7.66, 7.66, 0.00) DP	
	2ND HIGHEST VALUE IS	1301.73875 AT (-86.60, -50.00, 7.10, 7.10, 0.00) GP	POL1
	3RD HIGHEST VALUE IS	1287.38608 AT (-76.60, -64.28, 6.80, 6.80, 0.00) GP	POL1
	4TH HIGHEST VALUE IS	1228.29127 AT (-93.97, -34.20, 7.30, 7.30, 0.00) GP	POL1
	5TH HIGHEST VALUE IS	1217.34243 AT (-64.28, -76.60, 6.40, 6.40, 0.00) GP	POL1
	6TH HIGHEST VALUE IS	1102.54677 AT (-50.00, -86.60, 6.40, 6.40, 0.00) GP	POL1
	7TH HIGHEST VALUE IS	1084.39651 AT (-98.48, -17.36, 7.50, 7.50, 0.00) GP	POL1
	8TH HIGHEST VALUE IS	957.82521 AT (-34.20, -93.97, 6.40, 6.40, 0.00) GP	POL1

9TH HIGHEST VALUE IS 928.84060 AT (-100.00, -0.00, 7.80, 7.80, 0.00) GP POL1
10TH HIGHEST VALUE IS 870.57131 AT (86.60, 50.00, 7.20, 7.20, 0.00) GP POL1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	70664.92236	ON 17020106: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 2ND HIGH VALUE IS	68289.56731	ON 17011907: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 3RD HIGH VALUE IS	67584.16993	ON 17120606: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:08:15
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	21560.24119	ON 17020108: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 2ND HIGH VALUE IS	21275.06990	ON 17102624: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 3RD HIGH VALUE IS	19133.84452	ON 17021108: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2017 *** 12/09/22

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 3 Warning Message(s)
A Total of 145 Informational Message(s)

A Total of 8760 Hours Were Processed

A Total of 79 Calm Hours Identified

A Total of 66 Missing Hours Identified (0.75 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 356 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 356 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
ME W531 356 MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for SITEDATA

****
*** AERMOD Finishes Successfully ***
****

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**USEgeneric12018withAERMAPProcessedElevs

CO STARTING
CO TITLEONE USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018
CO MODELOPT DFAULT CONC ELEV
**CO MODELOPT CONC ELEVATED
CO AVERTIME 1 8 PERIOD
CO POLLUTID HCL
CO RUNORNOT RUN
**CO URBANOPT UrbPop (UrbName) (UrbRoughness)
CO URBANOPT 397809
CO FINISHED

SO STARTING
SO LOCATION TANK  AREA  0.0 0.0 0.0
SO URBANSRC ALL
**SO EMISFACT SrcID or SrcRange Qflag Qfact(i), i=1,n  HOUR-OF-Day Specific factor
** HOURLY SPECIFIC EMISSIONS ADJUSTMENT: 1-5 0  6-21 1.0  22 -24 0
SO EMISFACT TANK HROFDY 5*0.0 16*1.0 3*0.0
SO SRCPARAM TANK 1.0 6.096 6.096
SO SRCGROUP ALL
SO FINISHED

RE STARTING

** AERMAP - VERSION 18081                                    12/09/22
**                                                  14:52:07
**  Using USGS_ned_1_N28W083_GRIDFLOAT.TIF
**  With NAD27 Anchor Point
** A total of       1  NED files were used
** A total of     736  receptors were processed
** DOMAINXY  361366.0 3090645.0 17 369209.0 3097023.0 17
** ANCHORXY  0.0      0.0     364725.57  3093695.53  17  0
** Terrain heights were extracted by default

RE ELEVUNIT METERS
  GRIDPOLR POL1 STA
        POL1 ORIG   0.0   0.0
        POL1 DIST   100.   200. 300. 400. 500. 600. 700. 800. 900. 1000. 1100. 1200. 1300. 1400. 1500. 1600. 1700. 1800.
1900. 2000.
        POL1 GDIR   36     10.    10.
  GRIDPOLR POL1     ELEV    1      8.3      9.2      9.0      8.7      8.8      8.1
  GRIDPOLR POL1     ELEV    1      6.9      6.5      8.2      9.2      9.4      9.8
  GRIDPOLR POL1     ELEV    1      9.4      9.8     10.0     10.1      9.8      9.6
  GRIDPOLR POL1     ELEV    1      8.5      7.3
  GRIDPOLR POL1     ELEV    2      8.2      8.7      8.6      8.6      8.4      8.4
  GRIDPOLR POL1     ELEV    2      7.3      6.5      7.1      8.2      9.4      9.6
  GRIDPOLR POL1     ELEV    2      9.1      8.9      8.6      7.9      6.4      6.4
  GRIDPOLR POL1     ELEV    2      6.9      7.3
  GRIDPOLR POL1     ELEV    3      7.8      8.4      8.5      8.5      8.8      8.1
  GRIDPOLR POL1     ELEV    3      7.6      7.3      6.3      6.5      6.3      6.0
  GRIDPOLR POL1     ELEV    3      6.7      6.9      6.1      5.7      5.7      5.5
  GRIDPOLR POL1     ELEV    3      5.1      5.1
  GRIDPOLR POL1     ELEV    4      7.4      7.8      8.1      8.3      8.4      8.6
  GRIDPOLR POL1     ELEV    4      6.4      5.8      5.1      5.4      2.0      2.0
  GRIDPOLR POL1     ELEV    4      2.0      2.0      2.0      2.0      2.0      2.0
  GRIDPOLR POL1     ELEV    4      2.0      2.0
  GRIDPOLR POL1     ELEV    5      7.2      7.6      7.4      6.8      7.8      7.6
  GRIDPOLR POL1     ELEV    5      4.6      3.4      2.0      2.0      5.6      6.2
  GRIDPOLR POL1     ELEV    5      6.3      7.4      8.0      7.1      7.7      7.1
  GRIDPOLR POL1     ELEV    5      6.7      7.3
  GRIDPOLR POL1     ELEV    6      7.2      7.4      6.8      6.0      6.8      4.7
```

GRIDPOLR POL1	ELEV	6	3.8	2.0	2.0	6.2	7.0	5.7
GRIDPOLR POL1	ELEV	6	7.0	7.6	8.5	8.6	9.4	7.7
GRIDPOLR POL1	ELEV	6	7.4	7.9				
GRIDPOLR POL1	ELEV	7	7.1	7.0	6.4	5.9	7.1	10.0
GRIDPOLR POL1	ELEV	7	2.6	2.0	10.0	7.7	7.8	7.4
GRIDPOLR POL1	ELEV	7	7.1	7.0	6.9	9.0	7.1	7.3
GRIDPOLR POL1	ELEV	7	7.0	8.1				
GRIDPOLR POL1	ELEV	8	6.8	6.9	5.8	5.4	5.1	3.2
GRIDPOLR POL1	ELEV	8	2.0	2.0	7.3	8.4	10.1	10.1
GRIDPOLR POL1	ELEV	8	9.4	8.2	7.8	7.6	7.2	5.7
GRIDPOLR POL1	ELEV	8	7.6	8.2				
GRIDPOLR POL1	ELEV	9	6.6	6.4	5.8	4.8	4.6	4.2
GRIDPOLR POL1	ELEV	9	2.0	4.8	5.6	6.7	7.7	7.6
GRIDPOLR POL1	ELEV	9	8.1	8.5	8.0	7.4	7.5	5.2
GRIDPOLR POL1	ELEV	9	6.7	7.0				
GRIDPOLR POL1	ELEV	10	6.6	6.1	5.8	4.9	3.5	4.0
GRIDPOLR POL1	ELEV	10	2.0	5.1	4.9	5.6	5.3	5.3
GRIDPOLR POL1	ELEV	10	7.6	7.8	8.3	8.6	8.3	8.5
GRIDPOLR POL1	ELEV	10	7.3	7.9				
GRIDPOLR POL1	ELEV	11	6.5	6.2	5.7	4.0	4.0	4.0
GRIDPOLR POL1	ELEV	11	2.0	6.3	8.7	8.1	5.1	5.4
GRIDPOLR POL1	ELEV	11	6.4	6.4	7.3	8.6	8.0	7.7
GRIDPOLR POL1	ELEV	11	7.0	6.8				
GRIDPOLR POL1	ELEV	12	6.7	6.0	5.2	4.1	4.2	3.5
GRIDPOLR POL1	ELEV	12	2.0	4.5	10.1	8.2	9.3	4.8
GRIDPOLR POL1	ELEV	12	6.8	7.5	5.8	6.3	6.7	7.6
GRIDPOLR POL1	ELEV	12	7.3	7.3				
GRIDPOLR POL1	ELEV	13	6.6	6.4	5.3	4.3	4.3	4.0
GRIDPOLR POL1	ELEV	13	2.0	3.1	7.7	8.0	7.5	5.7
GRIDPOLR POL1	ELEV	13	4.4	3.8	3.7	4.2	5.1	5.7
GRIDPOLR POL1	ELEV	13	7.0	6.2				
GRIDPOLR POL1	ELEV	14	6.5	6.3	5.4	4.7	3.9	4.2
GRIDPOLR POL1	ELEV	14	1.2	0.0	0.0	3.3	3.3	3.4
GRIDPOLR POL1	ELEV	14	3.2	3.5	4.2	4.2	5.1	5.2
GRIDPOLR POL1	ELEV	14	5.8	5.4				
GRIDPOLR POL1	ELEV	15	6.3	5.8	5.0	5.0	4.6	3.6
GRIDPOLR POL1	ELEV	15	2.9	2.3	0.0	0.0	3.8	3.2
GRIDPOLR POL1	ELEV	15	3.0	3.0	5.6	7.2	4.1	4.6
GRIDPOLR POL1	ELEV	15	4.9	5.6				
GRIDPOLR POL1	ELEV	16	6.2	5.6	4.5	4.8	5.3	5.2
GRIDPOLR POL1	ELEV	16	5.3	3.8	1.5	2.3	0.0	0.0
GRIDPOLR POL1	ELEV	16	3.7	5.3	3.8	1.6	3.3	3.6
GRIDPOLR POL1	ELEV	16	4.4	4.1				
GRIDPOLR POL1	ELEV	17	6.1	5.0	4.7	3.5	5.0	5.0
GRIDPOLR POL1	ELEV	17	4.8	4.5	9.4	2.4	3.6	0.0
GRIDPOLR POL1	ELEV	17	0.0	1.7	3.2	2.3	2.8	3.3
GRIDPOLR POL1	ELEV	17	3.6	4.1				
GRIDPOLR POL1	ELEV	18	6.1	5.1	4.7	4.9	4.9	5.1
GRIDPOLR POL1	ELEV	18	5.0	4.5	4.5	3.3	4.4	2.6
GRIDPOLR POL1	ELEV	18	0.0	0.0	2.7	3.2	2.7	3.0
GRIDPOLR POL1	ELEV	18	3.1	3.7				
GRIDPOLR POL1	ELEV	19	6.3	5.0	4.7	4.8	5.2	5.5
GRIDPOLR POL1	ELEV	19	5.3	4.8	4.9	4.4	4.7	4.9
GRIDPOLR POL1	ELEV	19	3.2	4.1	0.2	0.0	0.0	0.0
GRIDPOLR POL1	ELEV	19	3.4	3.7				
GRIDPOLR POL1	ELEV	20	6.4	5.0	4.8	4.2	5.0	5.2
GRIDPOLR POL1	ELEV	20	5.6	5.0	4.4	3.8	3.8	3.4
GRIDPOLR POL1	ELEV	20	4.1	5.4	12.4	7.3	0.0	0.0
GRIDPOLR POL1	ELEV	20	2.8	3.0				
GRIDPOLR POL1	ELEV	21	6.4	4.8	5.3	5.2	4.6	4.9
GRIDPOLR POL1	ELEV	21	7.3	4.7	4.6	3.2	3.1	2.7
GRIDPOLR POL1	ELEV	21	2.9	2.6	6.3	0.0	0.0	0.1

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GRIDPOLR POL1    ELEV  21     2.7     3.1
GRIDPOLR POL1    ELEV  22     6.4     5.1     5.6     5.9     5.6     4.9
GRIDPOLR POL1    ELEV  22    16.0    11.8     5.0     4.5     3.4     2.6
GRIDPOLR POL1    ELEV  22     2.3     3.0     3.1     7.9     0.0     0.0
GRIDPOLR POL1    ELEV  22     0.0     1.7
GRIDPOLR POL1    ELEV  23     6.8     6.2     5.8     6.1     5.8     6.6
GRIDPOLR POL1    ELEV  23     5.4     4.9     4.6     4.6     4.7     4.4
GRIDPOLR POL1    ELEV  23     3.0     3.2     2.0     2.4     2.9     2.6
GRIDPOLR POL1    ELEV  23     1.6     2.2
GRIDPOLR POL1    ELEV  24     7.1     6.4     6.4     6.3     6.5     7.4
GRIDPOLR POL1    ELEV  24     6.2     5.9     5.6     5.3     5.2     4.6
GRIDPOLR POL1    ELEV  24     5.1     4.8     3.3     3.3     2.9     1.4
GRIDPOLR POL1    ELEV  24     0.8     2.0
GRIDPOLR POL1    ELEV  25     7.3     7.3     7.1     6.9     8.1     7.5
GRIDPOLR POL1    ELEV  25     7.8     7.7     7.9     6.5     6.2     5.6
GRIDPOLR POL1    ELEV  25     5.5     5.3     4.8     4.7     4.1     4.5
GRIDPOLR POL1    ELEV  25     3.0     1.9
GRIDPOLR POL1    ELEV  26     7.5     7.9     7.7     8.4     8.2     8.4
GRIDPOLR POL1    ELEV  26     8.4     8.3     8.6     8.3     8.1     7.9
GRIDPOLR POL1    ELEV  26     7.6     7.1     6.7     6.6     5.6     4.9
GRIDPOLR POL1    ELEV  26     4.0     4.5
GRIDPOLR POL1    ELEV  27     7.8     8.3     8.4     8.5     8.2     9.1
GRIDPOLR POL1    ELEV  27     8.4     8.6     7.9     6.7     6.9     6.6
GRIDPOLR POL1    ELEV  27     6.8     7.0     7.0     7.1     6.6     6.0
GRIDPOLR POL1    ELEV  27     6.2     6.4
GRIDPOLR POL1    ELEV  28     8.2     8.8     9.3     8.2     8.5     8.3
GRIDPOLR POL1    ELEV  28     8.3     7.7     6.9     6.9     6.0     7.3
GRIDPOLR POL1    ELEV  28     8.6     9.5    11.1    10.0     8.8     8.6
GRIDPOLR POL1    ELEV  28     8.9     9.6
GRIDPOLR POL1    ELEV  29     8.3     9.1     9.0     8.4     8.7     8.0
GRIDPOLR POL1    ELEV  29     7.8     7.5     7.3     7.3     8.5     8.6
GRIDPOLR POL1    ELEV  29     9.5     9.6     9.7    10.1    10.3    10.5
GRIDPOLR POL1    ELEV  29    11.3    11.1
GRIDPOLR POL1    ELEV  30     8.6     8.6     8.9     8.5     8.3     8.1
GRIDPOLR POL1    ELEV  30     7.6     7.4     7.8     8.4     9.7     8.8
GRIDPOLR POL1    ELEV  30     8.6     8.7    10.3     9.0     8.8     8.6
GRIDPOLR POL1    ELEV  30     8.7    10.1
GRIDPOLR POL1    ELEV  31     8.9     9.4     8.7     8.7     8.1     7.7
GRIDPOLR POL1    ELEV  31     8.0     8.2     8.8     8.0     8.3     9.1
GRIDPOLR POL1    ELEV  31    10.7    11.3     8.2     9.6     9.1     9.3
GRIDPOLR POL1    ELEV  31     7.9     7.9
GRIDPOLR POL1    ELEV  32     8.5     8.9     9.0     8.7     8.0     8.1
GRIDPOLR POL1    ELEV  32     8.5     9.2     9.7     8.6     8.4    10.4
GRIDPOLR POL1    ELEV  32    11.0    11.5    11.9    10.2     9.3    11.6
GRIDPOLR POL1    ELEV  32     8.9     8.7
GRIDPOLR POL1    ELEV  33     8.5     8.6     9.0     8.8     8.4     8.2
GRIDPOLR POL1    ELEV  33     8.2     9.9    10.9    11.0    12.7    11.4
GRIDPOLR POL1    ELEV  33    10.9    11.7    11.7    11.5    11.9     9.8
GRIDPOLR POL1    ELEV  33     8.0     9.0
GRIDPOLR POL1    ELEV  34     8.5     8.8     8.7     8.8     7.6     7.8
GRIDPOLR POL1    ELEV  34     7.4     9.4    10.8    10.8    11.3    10.7
GRIDPOLR POL1    ELEV  34    10.4    10.9    12.3    10.6    10.9     8.0
GRIDPOLR POL1    ELEV  34     8.0     8.6
GRIDPOLR POL1    ELEV  35     8.6     9.0     9.0     8.7     7.9     7.5
GRIDPOLR POL1    ELEV  35     7.6     8.5     9.8    10.0     9.8    10.2
GRIDPOLR POL1    ELEV  35     9.9     9.7     9.7    10.9    10.6    10.8
GRIDPOLR POL1    ELEV  35    10.7    11.0
GRIDPOLR POL1    ELEV  36     8.3     9.1     8.7     8.7     8.2     7.2
GRIDPOLR POL1    ELEV  36     7.1     8.4     9.4     9.4     8.2     8.5
GRIDPOLR POL1    ELEV  36     9.2     9.3    10.2    10.5    10.7    10.8
GRIDPOLR POL1    ELEV  36    10.2     9.8
GRIDPOLR POL1    HILL   1     8.3     9.2     9.0     8.7     8.8     8.1
```

GRIDPOLR	POL1	HILL	1	6.9	6.5	8.2	9.2	9.4	9.8
GRIDPOLR	POL1	HILL	1	9.4	9.8	10.0	10.1	9.8	9.6
GRIDPOLR	POL1	HILL	1	8.5	7.3				
GRIDPOLR	POL1	HILL	2	8.2	9.5	8.6	8.6	8.4	8.4
GRIDPOLR	POL1	HILL	2	7.3	6.5	7.1	8.2	9.4	9.6
GRIDPOLR	POL1	HILL	2	9.1	8.9	8.6	7.9	6.4	6.4
GRIDPOLR	POL1	HILL	2	6.9	7.3				
GRIDPOLR	POL1	HILL	3	7.8	8.4	8.5	8.5	8.8	8.1
GRIDPOLR	POL1	HILL	3	7.6	7.3	6.3	6.5	6.3	6.0
GRIDPOLR	POL1	HILL	3	6.7	6.9	6.1	5.7	5.7	5.5
GRIDPOLR	POL1	HILL	3	5.1	5.1				
GRIDPOLR	POL1	HILL	4	7.4	7.8	8.1	8.3	8.4	8.6
GRIDPOLR	POL1	HILL	4	6.4	5.8	5.1	6.2	2.0	2.0
GRIDPOLR	POL1	HILL	4	2.0	2.0	2.0	2.0	2.0	2.0
GRIDPOLR	POL1	HILL	4	2.0	5.1				
GRIDPOLR	POL1	HILL	5	7.2	7.6	7.4	6.8	7.8	7.6
GRIDPOLR	POL1	HILL	5	4.6	3.4	2.0	2.0	5.6	6.2
GRIDPOLR	POL1	HILL	5	6.3	7.4	8.0	7.1	7.7	7.1
GRIDPOLR	POL1	HILL	5	7.9	7.3				
GRIDPOLR	POL1	HILL	6	7.2	7.4	6.8	6.0	6.8	12.5
GRIDPOLR	POL1	HILL	6	7.1	2.0	6.5	6.2	7.0	5.7
GRIDPOLR	POL1	HILL	6	7.0	7.6	8.5	8.6	9.4	7.7
GRIDPOLR	POL1	HILL	6	7.4	7.9				
GRIDPOLR	POL1	HILL	7	7.1	7.0	6.4	5.9	11.6	11.2
GRIDPOLR	POL1	HILL	7	5.0	2.0	10.0	7.7	7.8	7.4
GRIDPOLR	POL1	HILL	7	7.1	7.0	15.1	16.4	7.1	7.3
GRIDPOLR	POL1	HILL	7	7.0	8.1				
GRIDPOLR	POL1	HILL	8	6.8	6.9	5.8	5.4	5.1	4.1
GRIDPOLR	POL1	HILL	8	2.0	9.3	7.3	8.4	10.1	10.1
GRIDPOLR	POL1	HILL	8	9.4	8.2	7.8	7.6	7.2	5.7
GRIDPOLR	POL1	HILL	8	7.6	8.2				
GRIDPOLR	POL1	HILL	9	6.6	6.4	5.8	4.8	5.2	4.2
GRIDPOLR	POL1	HILL	9	2.0	5.9	5.6	6.7	7.7	7.6
GRIDPOLR	POL1	HILL	9	8.1	8.5	8.0	7.4	7.5	5.2
GRIDPOLR	POL1	HILL	9	6.7	7.0				
GRIDPOLR	POL1	HILL	10	6.6	6.1	5.8	4.9	3.5	4.0
GRIDPOLR	POL1	HILL	10	2.0	7.8	7.1	5.6	5.3	5.3
GRIDPOLR	POL1	HILL	10	7.6	7.8	8.3	8.6	8.3	8.5
GRIDPOLR	POL1	HILL	10	7.3	7.9				
GRIDPOLR	POL1	HILL	11	6.5	6.2	5.7	4.0	4.0	4.0
GRIDPOLR	POL1	HILL	11	2.0	9.5	8.7	8.1	5.1	5.4
GRIDPOLR	POL1	HILL	11	6.4	6.4	7.3	8.6	8.0	7.7
GRIDPOLR	POL1	HILL	11	7.0	6.8				
GRIDPOLR	POL1	HILL	12	6.7	6.0	5.2	4.1	4.2	3.5
GRIDPOLR	POL1	HILL	12	2.0	8.8	10.1	14.4	15.9	15.9
GRIDPOLR	POL1	HILL	12	6.8	7.5	5.8	6.3	6.7	7.6
GRIDPOLR	POL1	HILL	12	7.3	7.3				
GRIDPOLR	POL1	HILL	13	6.6	6.4	5.3	4.3	4.3	4.0
GRIDPOLR	POL1	HILL	13	4.0	3.8	7.7	8.0	8.3	13.2
GRIDPOLR	POL1	HILL	13	6.7	3.8	3.7	4.2	5.1	5.7
GRIDPOLR	POL1	HILL	13	7.0	6.2				
GRIDPOLR	POL1	HILL	14	6.5	6.3	5.4	4.7	3.9	4.2
GRIDPOLR	POL1	HILL	14	3.1	0.0	0.0	3.3	3.3	3.4
GRIDPOLR	POL1	HILL	14	3.2	3.5	4.2	4.2	5.1	5.2
GRIDPOLR	POL1	HILL	14	5.8	5.4				
GRIDPOLR	POL1	HILL	15	6.3	5.8	5.0	5.0	4.6	3.6
GRIDPOLR	POL1	HILL	15	2.9	2.3	0.0	0.0	3.8	3.2
GRIDPOLR	POL1	HILL	15	3.0	3.0	9.8	7.2	4.1	4.6
GRIDPOLR	POL1	HILL	15	4.9	5.6				
GRIDPOLR	POL1	HILL	16	6.2	5.6	4.5	4.8	5.3	5.2
GRIDPOLR	POL1	HILL	16	12.0	13.1	13.1	2.9	0.0	0.0
GRIDPOLR	POL1	HILL	16	3.7	5.3	3.8	3.1	3.3	3.6

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GRIDPOLR POL1    HILL  16    4.4    4.1
GRIDPOLR POL1    HILL  17    6.1    5.0    4.7    3.5    5.0    5.0
GRIDPOLR POL1    HILL  17    4.8   13.1    9.4    2.4    3.6    4.1
GRIDPOLR POL1    HILL  17    0.0    1.7    3.2    2.3    2.8    3.3
GRIDPOLR POL1    HILL  17    3.6    4.1
GRIDPOLR POL1    HILL  18    6.1    5.1    4.7    4.9    4.9    5.1
GRIDPOLR POL1    HILL  18    5.0    4.5    4.5    3.3    4.4    2.6
GRIDPOLR POL1    HILL  18    0.0    0.0    2.7    3.2    2.7    3.0
GRIDPOLR POL1    HILL  18    3.1    3.7
GRIDPOLR POL1    HILL  19    6.3    5.0    4.7    4.8    5.2    5.5
GRIDPOLR POL1    HILL  19    5.3    4.8    4.9    4.4    4.7    4.9
GRIDPOLR POL1    HILL  19   12.5   13.3   13.6   13.6    0.0    0.0
GRIDPOLR POL1    HILL  19    3.4    3.7
GRIDPOLR POL1    HILL  20    6.4    5.0    4.8    4.2    5.0    5.2
GRIDPOLR POL1    HILL  20    5.6    5.0    4.4    3.8    3.8    3.4
GRIDPOLR POL1    HILL  20    4.1   14.1   12.4   12.9   12.9    0.0
GRIDPOLR POL1    HILL  20    2.8    3.0
GRIDPOLR POL1    HILL  21    6.4    4.8    5.3    5.2    4.6   16.4
GRIDPOLR POL1    HILL  21   16.9   16.5    4.6    3.2    3.1    2.7
GRIDPOLR POL1    HILL  21    2.9    4.3   10.8   11.0    0.0    2.4
GRIDPOLR POL1    HILL  21    2.7    3.1
GRIDPOLR POL1    HILL  22    6.4    5.1    5.6    5.9    5.6   16.8
GRIDPOLR POL1    HILL  22   16.0   16.7   16.1    4.5    3.4    2.6
GRIDPOLR POL1    HILL  22    2.3    3.0    9.4    9.2    9.1    0.0
GRIDPOLR POL1    HILL  22    0.0    1.7
GRIDPOLR POL1    HILL  23    6.8    6.2    5.8    6.1    5.8    6.6
GRIDPOLR POL1    HILL  23   16.8   16.8   16.4    4.6    4.7    4.4
GRIDPOLR POL1    HILL  23    3.0    3.2    2.0    2.4    2.9    2.6
GRIDPOLR POL1    HILL  23    1.6    9.6
GRIDPOLR POL1    HILL  24    7.1    6.4    6.4    6.3    6.5    7.4
GRIDPOLR POL1    HILL  24    6.2    5.9    5.6    5.3    5.2    4.6
GRIDPOLR POL1    HILL  24    5.1    4.8    3.3    3.3    2.9    1.4
GRIDPOLR POL1    HILL  24    0.8    2.0
GRIDPOLR POL1    HILL  25    7.3    7.3    7.1    6.9    8.1    7.5
GRIDPOLR POL1    HILL  25    7.8    7.7    7.9    7.6    6.2    5.6
GRIDPOLR POL1    HILL  25    5.9    5.3    4.8    4.7    4.1    4.5
GRIDPOLR POL1    HILL  25    3.0    1.9
GRIDPOLR POL1    HILL  26    7.5    7.9    7.7    8.4    8.2    8.4
GRIDPOLR POL1    HILL  26    8.4    8.3    8.6    8.3    8.1    7.9
GRIDPOLR POL1    HILL  26    7.6    7.1    6.7    6.6    5.6    4.9
GRIDPOLR POL1    HILL  26    4.0    4.5
GRIDPOLR POL1    HILL  27    7.8    8.3    8.4    8.5    8.2    9.1
GRIDPOLR POL1    HILL  27    8.4    8.6    7.9    6.7    6.9    6.6
GRIDPOLR POL1    HILL  27    6.8    7.0    7.0    7.1    6.6   12.2
GRIDPOLR POL1    HILL  27   14.2   14.2
GRIDPOLR POL1    HILL  28    8.2    8.8    9.3    9.3    8.5    8.3
GRIDPOLR POL1    HILL  28    8.3    7.7    6.9    6.9    6.0    7.3
GRIDPOLR POL1    HILL  28    8.6    9.5   11.1   10.0    8.8    8.6
GRIDPOLR POL1    HILL  28    8.9    9.6
GRIDPOLR POL1    HILL  29    8.3    9.1    9.0    8.4    8.7    8.0
GRIDPOLR POL1    HILL  29    7.8    7.5    7.3    7.3    8.5    8.6
GRIDPOLR POL1    HILL  29    9.5    9.6    9.7   10.1   10.3   10.5
GRIDPOLR POL1    HILL  29   11.3   11.1
GRIDPOLR POL1    HILL  30    8.6    8.6    8.9    8.5    8.3    8.1
GRIDPOLR POL1    HILL  30    7.6    7.4    7.8    8.4    9.7    8.8
GRIDPOLR POL1    HILL  30    8.6    8.7   10.3    9.0    8.8    8.6
GRIDPOLR POL1    HILL  30    9.5   10.1
GRIDPOLR POL1    HILL  31    8.9    9.4    8.7    8.7    8.1    7.7
GRIDPOLR POL1    HILL  31    8.0    8.2    8.8    8.0    8.3    9.1
GRIDPOLR POL1    HILL  31   14.9   15.4    8.2    9.6    9.1    9.3
GRIDPOLR POL1    HILL  31    7.9    7.9
GRIDPOLR POL1    HILL  32    8.5    8.9    9.0    8.8    8.0    8.1
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  GRIDPOLR POL1     HILL  32     8.5     9.2     9.7     8.6     8.4    10.4
  GRIDPOLR POL1     HILL  32    11.0    11.5    11.9    10.2     9.3    11.6
  GRIDPOLR POL1     HILL  32     8.9     8.7
  GRIDPOLR POL1     HILL  33     8.5     8.6     9.0     8.8     8.4     8.2
  GRIDPOLR POL1     HILL  33     8.2     9.9    10.9    11.0    12.7    11.4
  GRIDPOLR POL1     HILL  33    10.9    11.7    11.7    11.5    11.9     9.8
  GRIDPOLR POL1     HILL  33     8.0     9.0
  GRIDPOLR POL1     HILL  34     8.5     8.8     8.7     8.8     7.6     7.8
  GRIDPOLR POL1     HILL  34     7.4     9.4    10.8    10.8    11.3    10.7
  GRIDPOLR POL1     HILL  34    10.4    10.9    12.3    16.6    10.9     8.0
  GRIDPOLR POL1     HILL  34     8.0     8.6
  GRIDPOLR POL1     HILL  35     8.6     9.0     9.0     8.7     7.9     7.5
  GRIDPOLR POL1     HILL  35     7.6     8.5     9.8    10.0     9.8    10.2
  GRIDPOLR POL1     HILL  35     9.9     9.7     9.7    10.9    10.6    10.8
  GRIDPOLR POL1     HILL  35    10.7    11.0
  GRIDPOLR POL1     HILL  36     8.3     9.1     8.7     8.7     8.2     7.2
  GRIDPOLR POL1     HILL  36     7.1     8.4     9.4     9.4     8.2     8.5
  GRIDPOLR POL1     HILL  36     9.2     9.3    10.2    10.5    10.7    10.8
  GRIDPOLR POL1     HILL  36    10.2    11.9
  GRIDPOLR POL1 END
  DISCPOLR TANK          375.70    118.90     4.13     4.13
  DISCPOLR TANK          498.87    129.50     4.28     4.28
  DISCPOLR TANK           81.43    359.00     8.22     8.22
  DISCPOLR TANK          116.79     44.50     7.45     7.45
  DISCPOLR TANK          109.20     67.00     7.18     7.18
  DISCPOLR TANK          100.70     93.73     6.54     6.54
  DISCPOLR TANK           87.91    103.99     6.86     6.86
  DISCPOLR TANK           99.82    123.38     6.79     6.79
  DISCPOLR TANK          138.00    141.00     5.94     5.94
  DISCPOLR TANK          106.00    180.00     5.90     5.90
  DISCPOLR TANK          115.60    206.00     5.94     5.94
  DISCPOLR TANK           54.00    270.00     7.66     7.66
  DISCPOLR TANK           97.00    326.00     8.52     8.52
  DISCPOLR TANK          133.94    242.10     7.16     7.16
  DISCPOLR TANK          101.99    301.65     8.70     8.70
  DISCPOLR TANK          236.54    274.95     8.35     8.35

RE FINISHED

ME STARTING
  SURFFILE  TPA2018_V19191.sfc
  PROFFILE  TPA2018_V19191.pfl
  SURFDATA  12842  2018
  UAIRDATA 12842  2018
  SITEDATA  12842  2018
  PROFBASE  0.0  METERS
ME FINISHED

OU STARTING
OU RECTABLE  ALLAVE  FIRST-THIRD
OU MAXTABLE  ALLAVE  50
OU SUMMFILE USECOLO1.SUM
OU FINISHED


 *** Message Summary For AERMOD Model Setup ***

 --------- Summary of Total Messages --------

A Total of         0 Fatal Error Message(s)
A Total of         3 Warning Message(s)
A Total of         0 Informational Message(s)
```

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 356 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 356 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
ME W531 356 MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for SITEDATA

****
*** SETUP Finishes Successfully ***
****

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 1
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY ***
- -

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 1 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 397809.0 ; Urban Roughness Length = 1.000 m

**Model Uses Regulatory DEFAULT Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.
6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
ADJ_U* - Use ADJ_U* option for SBL in AERMET
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: HCL

**Model Calculates 2 Short Term Average(s) of: 1-HR 8-HR
and Calculates PERIOD Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 736 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)
and: 1 AREA type source(s)

and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 19191

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 0.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: GenericUSE1GramWithElevs2018f.inp
**Output Print File: GenericUSE1GramWithElevs2018f.out

**File for Summary of Results: USECOLO1.SUM
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 2
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
TANK	0	0.10000E+01	0.0	0.0	0.0	6.10	6.10	6.10	0.00	0.00	YES	HROFDY

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 3
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	TANK ,

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
397809.	TANK	,

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = TANK ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.10000E+01
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.10000E+01	20	.10000E+01	21	.10000E+01	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 0.00 ; Y-ORIG = 0.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

100.0, 200.0, 300.0, 400.0, 500.0, 600.0, 700.0, 800.0, 900.0, 1000.0,
1100.0, 1200.0, 1300.0, 1400.0, 1500.0, 1600.0, 1700.0, 1800.0, 1900.0, 2000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00	600.00	700.00	800.00	900.00
10.00	8.30	9.20	9.00	8.70	8.80	8.10	6.90	6.50	8.20
20.00	8.20	8.70	8.60	8.60	8.40	8.40	7.30	6.50	7.10
30.00	7.80	8.40	8.50	8.50	8.80	8.10	7.60	7.30	6.30
40.00	7.40	7.80	8.10	8.30	8.40	8.60	6.40	5.80	5.10
50.00	7.20	7.60	7.40	6.80	7.80	7.60	4.60	3.40	2.00
60.00	7.20	7.40	6.80	6.00	6.80	4.70	3.80	2.00	2.00
70.00	7.10	7.00	6.40	5.90	7.10	10.00	2.60	2.00	10.00
80.00	6.80	6.90	5.80	5.40	5.10	3.20	2.00	2.00	7.30
90.00	6.60	6.40	5.80	4.80	4.60	4.20	2.00	4.80	5.60
100.00	6.60	6.10	5.80	4.90	3.50	4.00	2.00	5.10	4.90
110.00	6.50	6.20	5.70	4.00	4.00	4.00	2.00	6.30	8.70
120.00	6.70	6.00	5.20	4.10	4.20	3.50	2.00	4.50	10.10
130.00	6.60	6.40	5.30	4.30	4.30	4.00	2.00	3.10	7.70
140.00	6.50	6.30	5.40	4.70	3.90	4.20	1.20	0.00	0.00
150.00	6.30	5.80	5.00	5.00	4.60	3.60	2.90	2.30	0.00
160.00	6.20	5.60	4.50	4.80	5.30	5.20	5.30	3.80	1.50
170.00	6.10	5.00	4.70	3.50	5.00	5.00	4.80	4.50	9.40
180.00	6.10	5.10	4.70	4.90	4.90	5.10	5.00	4.50	4.50
190.00	6.30	5.00	4.70	4.80	5.20	5.50	5.30	4.80	4.90
200.00	6.40	5.00	4.80	4.20	5.00	5.20	5.60	5.00	4.40
210.00	6.40	4.80	5.30	5.20	4.60	4.90	7.30	4.70	4.60
220.00	6.40	5.10	5.60	5.90	5.60	4.90	16.00	11.80	5.00
230.00	6.80	6.20	5.80	6.10	5.80	6.60	5.40	4.90	4.60
240.00	7.10	6.40	6.40	6.30	6.50	7.40	6.20	5.90	5.60
250.00	7.30	7.30	7.10	6.90	8.10	7.50	7.80	7.70	7.90
260.00	7.50	7.90	7.70	8.40	8.20	8.40	8.40	8.30	8.60
270.00	7.80	8.30	8.40	8.50	8.20	9.10	8.40	8.60	7.90
280.00	8.20	8.80	9.30	8.20	8.50	8.30	8.30	7.70	6.90
290.00	8.30	9.10	9.00	8.40	8.70	8.00	7.80	7.50	7.30
300.00	8.60	8.60	8.90	8.50	8.30	8.10	7.60	7.40	7.80
310.00	8.90	9.40	8.70	8.70	8.10	7.70	8.00	8.20	8.80
320.00	8.50	8.90	9.00	8.70	8.00	8.10	8.50	9.20	9.70
330.00	8.50	8.60	9.00	8.80	8.40	8.20	8.20	9.90	10.90
340.00	8.50	8.80	8.70	8.80	7.60	7.80	7.40	9.40	10.80
350.00	8.60	9.00	9.00	8.70	7.90	7.50	7.60	8.50	9.80
360.00	8.30	9.10	8.70	8.70	8.20	7.20	7.10	8.40	9.40

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00

10.00	9.20	9.40	9.80	9.40	9.80	10.00	10.10	9.80	9.60
20.00	8.20	9.40	9.60	9.10	8.90	8.60	7.90	6.40	6.40
30.00	6.50	6.30	6.00	6.70	6.90	6.10	5.70	5.70	5.50
40.00	5.40	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
50.00	2.00	5.60	6.20	6.30	7.40	8.00	7.10	7.70	7.10
60.00	6.20	7.00	5.70	7.00	7.60	8.50	8.60	9.40	7.70
70.00	7.70	7.80	7.40	7.10	7.00	6.90	9.00	7.10	7.30
80.00	8.40	10.10	10.10	9.40	8.20	7.80	7.60	7.20	5.70
90.00	6.70	7.70	7.60	8.10	8.50	8.00	7.40	7.50	5.20
100.00	5.60	5.30	5.30	7.60	7.80	8.30	8.60	8.30	8.50
110.00	8.10	5.10	5.40	6.40	6.40	7.30	8.60	8.00	7.70
120.00	8.20	9.30	4.80	6.80	7.50	5.80	6.30	6.70	7.60
130.00	8.00	7.50	5.70	4.40	3.80	3.70	4.20	5.10	5.70
140.00	3.30	3.30	3.40	3.20	3.50	4.20	4.20	5.10	5.20
150.00	0.00	3.80	3.20	3.00	3.00	5.60	7.20	4.10	4.60
160.00	2.30	0.00	0.00	3.70	5.30	3.80	1.60	3.30	3.60
170.00	2.40	3.60	0.00	0.00	1.70	3.20	2.30	2.80	3.30
180.00	3.30	4.40	2.60	0.00	0.00	2.70	3.20	2.70	3.00
190.00	4.40	4.70	4.90	3.20	4.10	0.20	0.00	0.00	0.00
200.00	3.80	3.80	3.40	4.10	5.40	12.40	7.30	0.00	0.00
210.00	3.20	3.10	2.70	2.90	2.60	6.30	0.00	0.00	0.10
220.00	4.50	3.40	2.60	2.30	3.00	3.10	7.90	0.00	0.00
230.00	4.60	4.70	4.40	3.00	3.20	2.00	2.40	2.90	2.60
240.00	5.30	5.20	4.60	5.10	4.80	3.30	3.30	2.90	1.40
250.00	6.50	6.20	5.60	5.50	5.30	4.80	4.70	4.10	4.50
260.00	8.30	8.10	7.90	7.60	7.10	6.70	6.60	5.60	4.90
270.00	6.70	6.90	6.60	6.80	7.00	7.00	7.10	6.60	6.00
280.00	6.90	6.00	7.30	8.60	9.50	11.10	10.00	8.80	8.60
290.00	7.30	8.50	8.60	9.50	9.60	9.70	10.10	10.30	10.50
300.00	8.40	9.70	8.80	8.60	8.70	10.30	9.00	8.80	8.60
310.00	8.00	8.30	9.10	10.70	11.30	8.20	9.60	9.10	9.30
320.00	8.60	8.40	10.40	11.00	11.50	11.90	10.20	9.30	11.60
330.00	11.00	12.70	11.40	10.90	11.70	11.70	11.50	11.90	9.80
340.00	10.80	11.30	10.70	10.40	10.90	12.30	10.60	10.90	8.00
350.00	10.00	9.80	10.20	9.90	9.70	9.70	10.90	10.60	10.80
360.00	9.40	8.20	8.50	9.20	9.30	10.20	10.50	10.70	10.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	8.50	7.30
20.00	6.90	7.30
30.00	5.10	5.10
40.00	2.00	2.00
50.00	6.70	7.30
60.00	7.40	7.90
70.00	7.00	8.10
80.00	7.60	8.20
90.00	6.70	7.00
100.00	7.30	7.90
110.00	7.00	6.80
120.00	7.30	7.30

130.00	7.00	6.20
140.00	5.80	5.40
150.00	4.90	5.60
160.00	4.40	4.10
170.00	3.60	4.10
180.00	3.10	3.70
190.00	3.40	3.70
200.00	2.80	3.00
210.00	2.70	3.10
220.00	0.00	1.70
230.00	1.60	2.20
240.00	0.80	2.00
250.00	3.00	1.90
260.00	4.00	4.50
270.00	6.20	6.40
280.00	8.90	9.60
290.00	11.30	11.10
300.00	8.70	10.10
310.00	7.90	7.90
320.00	8.90	8.70
330.00	8.00	9.00
340.00	8.00	8.60
350.00	10.70	11.00
360.00	10.20	9.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00	600.00	700.00	800.00	900.00
10.00	8.30	9.20	9.00	8.70	8.80	8.10	6.90	6.50	8.20
20.00	8.20	9.50	8.60	8.60	8.40	8.40	7.30	6.50	7.10
30.00	7.80	8.40	8.50	8.50	8.80	8.10	7.60	7.30	6.30
40.00	7.40	7.80	8.10	8.30	8.40	8.60	6.40	5.80	5.10
50.00	7.20	7.60	7.40	6.80	7.80	7.60	4.60	3.40	2.00
60.00	7.20	7.40	6.80	6.00	6.80	12.50	7.10	2.00	6.50
70.00	7.10	7.00	6.40	5.90	11.60	11.20	5.00	2.00	10.00
80.00	6.80	6.90	5.80	5.40	5.10	4.10	2.00	9.30	7.30
90.00	6.60	6.40	5.80	4.80	5.20	4.20	2.00	5.90	5.60
100.00	6.60	6.10	5.80	4.90	3.50	4.00	2.00	7.80	7.10
110.00	6.50	6.20	5.70	4.00	4.00	4.00	2.00	9.50	8.70
120.00	6.70	6.00	5.20	4.10	4.20	3.50	2.00	8.80	10.10
130.00	6.60	6.40	5.30	4.30	4.30	4.00	4.00	3.80	7.70
140.00	6.50	6.30	5.40	4.70	3.90	4.20	3.10	0.00	0.00
150.00	6.30	5.80	5.00	5.00	4.60	3.60	2.90	2.30	0.00
160.00	6.20	5.60	4.50	4.80	5.30	5.20	12.00	13.10	13.10
170.00	6.10	5.00	4.70	3.50	5.00	5.00	4.80	13.10	9.40
180.00	6.10	5.10	4.70	4.90	4.90	5.10	5.00	4.50	4.50
190.00	6.30	5.00	4.70	4.80	5.20	5.50	5.30	4.80	4.90
200.00	6.40	5.00	4.80	4.20	5.00	5.20	5.60	5.00	4.40
210.00	6.40	4.80	5.30	5.20	4.60	16.40	16.90	16.50	4.60
220.00	6.40	5.10	5.60	5.90	5.60	16.80	16.00	16.70	16.10
230.00	6.80	6.20	5.80	6.10	5.80	6.60	16.80	16.80	16.40
240.00	7.10	6.40	6.40	6.30	6.50	7.40	6.20	5.90	5.60

250.00	7.30	7.30	7.10	6.90	8.10	7.50	7.80	7.70	7.90
260.00	7.50	7.90	7.70	8.40	8.20	8.40	8.40	8.30	8.60
270.00	7.80	8.30	8.40	8.50	8.20	9.10	8.40	8.60	7.90
280.00	8.20	8.80	9.30	9.30	8.50	8.30	8.30	7.70	6.90
290.00	8.30	9.10	9.00	8.40	8.70	8.00	7.80	7.50	7.30
300.00	8.60	8.60	8.90	8.50	8.30	8.10	7.60	7.40	7.80
310.00	8.90	9.40	8.70	8.70	8.10	7.70	8.00	8.20	8.80
320.00	8.50	8.90	9.00	8.80	8.00	8.10	8.50	9.20	9.70
330.00	8.50	8.60	9.00	8.80	8.40	8.20	8.20	9.90	10.90
340.00	8.50	8.80	8.70	8.80	7.60	7.80	7.40	9.40	10.80
350.00	8.60	9.00	9.00	8.70	7.90	7.50	7.60	8.50	9.80
360.00	8.30	9.10	8.70	8.70	8.20	7.20	7.10	8.40	9.40

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00
10.00	9.20	9.40	9.80	9.40	9.80	10.00	10.10	9.80	9.60
20.00	8.20	9.40	9.60	9.10	8.90	8.60	7.90	6.40	6.40
30.00	6.50	6.30	6.00	6.70	6.90	6.10	5.70	5.70	5.50
40.00	6.20	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
50.00	2.00	5.60	6.20	6.30	7.40	8.00	7.10	7.70	7.10
60.00	6.20	7.00	5.70	7.00	7.60	8.50	8.60	9.40	7.70
70.00	7.70	7.80	7.40	7.10	7.00	15.10	16.40	7.10	7.30
80.00	8.40	10.10	10.10	9.40	8.20	7.80	7.60	7.20	5.70
90.00	6.70	7.70	7.60	8.10	8.50	8.00	7.40	7.50	5.20
100.00	5.60	5.30	5.30	7.60	7.80	8.30	8.60	8.30	8.50
110.00	8.10	5.10	5.40	6.40	6.40	7.30	8.60	8.00	7.70
120.00	14.40	15.90	15.90	6.80	7.50	5.80	6.30	6.70	7.60
130.00	8.00	8.30	13.20	6.70	3.80	3.70	4.20	5.10	5.70
140.00	3.30	3.30	3.40	3.20	3.50	4.20	4.20	5.10	5.20
150.00	0.00	3.80	3.20	3.00	3.00	9.80	7.20	4.10	4.60
160.00	2.90	0.00	0.00	3.70	5.30	3.80	3.10	3.30	3.60
170.00	2.40	3.60	4.10	0.00	1.70	3.20	2.30	2.80	3.30
180.00	3.30	4.40	2.60	0.00	0.00	2.70	3.20	2.70	3.00
190.00	4.40	4.70	4.90	12.50	13.30	13.60	13.60	0.00	0.00
200.00	3.80	3.80	3.40	4.10	14.10	12.40	12.90	12.90	0.00
210.00	3.20	3.10	2.70	2.90	4.30	10.80	11.00	0.00	2.40
220.00	4.50	3.40	2.60	2.30	3.00	9.40	9.20	9.10	0.00
230.00	4.60	4.70	4.40	3.00	3.20	2.00	2.40	2.90	2.60
240.00	5.30	5.20	4.60	5.10	4.80	3.30	3.30	2.90	1.40
250.00	7.60	6.20	5.60	5.90	5.30	4.80	4.70	4.10	4.50
260.00	8.30	8.10	7.90	7.60	7.10	6.70	6.60	5.60	4.90
270.00	6.70	6.90	6.60	6.80	7.00	7.00	7.10	6.60	12.20
280.00	6.90	6.00	7.30	8.60	9.50	11.10	10.00	8.80	8.60
290.00	7.30	8.50	8.60	9.50	9.60	9.70	10.10	10.30	10.50
300.00	8.40	9.70	8.80	8.60	8.70	10.30	9.00	8.80	8.60
310.00	8.00	8.30	9.10	14.90	15.40	8.20	9.60	9.10	9.30
320.00	8.60	8.40	10.40	11.00	11.50	11.90	10.20	9.30	11.60
330.00	11.00	12.70	11.40	10.90	11.70	11.70	11.50	11.90	9.80
340.00	10.80	11.30	10.70	10.40	10.90	12.30	16.60	10.90	8.00
350.00	10.00	9.80	10.20	9.90	9.70	9.70	10.90	10.60	10.80
360.00	9.40	8.20	8.50	9.20	9.30	10.20	10.50	10.70	10.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	8.50	7.30
20.00	6.90	7.30
30.00	5.10	5.10
40.00	2.00	5.10
50.00	7.90	7.30
60.00	7.40	7.90
70.00	7.00	8.10
80.00	7.60	8.20
90.00	6.70	7.00
100.00	7.30	7.90
110.00	7.00	6.80
120.00	7.30	7.30
130.00	7.00	6.20
140.00	5.80	5.40
150.00	4.90	5.60
160.00	4.40	4.10
170.00	3.60	4.10
180.00	3.10	3.70
190.00	3.40	3.70
200.00	2.80	3.00
210.00	2.70	3.10
220.00	0.00	1.70
230.00	1.60	9.60
240.00	0.80	2.00
250.00	3.00	1.90
260.00	4.00	4.50
270.00	14.20	14.20
280.00	8.90	9.60
290.00	11.30	11.10
300.00	9.50	10.10
310.00	7.90	7.90
320.00	8.90	8.70
330.00	8.00	9.00
340.00	8.00	8.60
350.00	10.70	11.00
360.00	10.20	11.90

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE POLAR RECEPTORS ***
ORIGIN: (DIST, DIR, ZELEV, ZHILL, ZFLAG)
SRCID: (METERS,DEG,METERS,METERS,METERS)

TANK : (375.7, 118.9, 4.1, 4.1, 0.0); TANK : (498.9, 129.5, 4.3, 4.3, 0.0);
TANK : (81.4, 359.0, 8.2, 8.2, 0.0); TANK : (116.8, 44.5, 7.5, 7.5, 0.0);

```
 TANK       : (    109.2,    67.0,     7.2,     7.2,     0.0);  TANK       : (    100.7,    93.7,     6.5,     6.5,     0.0);
 TANK       : (     87.9,   104.0,     6.9,     6.9,     0.0);  TANK       : (     99.8,   123.4,     6.8,     6.8,     0.0);
 TANK       : (    138.0,   141.0,     5.9,     5.9,     0.0);  TANK       : (    106.0,   180.0,     5.9,     5.9,     0.0);
 TANK       : (    115.6,   206.0,     5.9,     5.9,     0.0);  TANK       : (     54.0,   270.0,     7.7,     7.7,     0.0);
 TANK       : (     97.0,   326.0,     8.5,     8.5,     0.0);  TANK       : (    133.9,   242.1,     7.2,     7.2,     0.0);
 TANK       : (    102.0,   301.6,     8.7,     8.7,     0.0);  TANK       : (    236.5,   274.9,     8.4,     8.4,     0.0);
♀ *** AERMOD - VERSION  19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018             ***
12/09/22
 *** AERMET - VERSION  19191 ***   ***                                                          ***        15:10:23
                                                                                         PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                          *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                          (1=YES; 0=NO)

          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1

          NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN
THE DATA FILE.


                   *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                        (METERS/SEC)

                              1.54,   3.09,   5.14,   8.23,  10.80,
♀ *** AERMOD - VERSION  19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018             ***
12/09/22
 *** AERMET - VERSION  19191 ***   ***                                                          ***        15:10:23
                                                                                         PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                        *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

  Surface file:   TPA2018_V19191.sfc                                           Met Version:  19191
  Profile file:   TPA2018_V19191.pfl
  Surface format: FREE
  Profile format: FREE
  Surface station no.:    12842               Upper air station no.:    12842
           Name: UNKNOWN                                 Name: UNKNOWN
           Year:   2018                            Year:   2018

 First 24 hours of scalar data
 YR MO DY JDY HR    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF
TA    HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 18 01 01   1 01   -8.2  0.120 -9.000 -9.000 -999.  100.     19.3  0.15   0.34   1.00    1.30  127.    7.9  291.4    2.0
 18 01 01   1 02  -12.9  0.153 -9.000 -9.000 -999.  143.     25.6  0.15   0.34   1.00    1.60  108.    7.9  290.9    2.0
 18 01 01   1 03  -12.4  0.149 -9.000 -9.000 -999.  139.     24.6  0.15   0.34   1.00    1.57   97.    7.9  290.9    2.0
 18 01 01   1 04  -20.4  0.209 -9.000 -9.000 -999.  229.     48.1  0.15   0.34   1.00    2.15  118.    7.9  290.9    2.0
 18 01 01   1 05  -21.9  0.224 -9.000 -9.000 -999.  254.     55.1  0.15   0.34   1.00    2.32  135.    7.9  290.9    2.0
 18 01 01   1 06  -30.6  0.313 -9.000 -9.000 -999.  420.    107.7  0.15   0.34   1.00    3.20  141.    7.9  290.9    2.0
 18 01 01   1 07  -28.8  0.294 -9.000 -9.000 -999.  383.     95.1  0.13   0.34   1.00    3.10  154.    7.9  290.4    2.0
 18 01 01   1 08  -13.2  0.153 -9.000 -9.000 -999.  157.     25.8  0.13   0.34   0.70    1.67  158.    7.9  290.9    2.0
 18 01 01   1 09    1.0  0.321  0.072  0.005   13.  436.  -2970.3  0.23   0.34   0.33    2.83   56.    7.9  290.4    2.0
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18 01 01   1 10   8.3  0.435  0.210  0.007   41.  689.   -902.9  0.10   0.34   0.21    4.71   10.    7.9  288.1    2.0
18 01 01   1 11  13.9  0.519  0.290  0.005   64.  897.   -920.2  0.04   0.34   0.18    6.96  353.    7.9  285.4    2.0
18 01 01   1 12  17.6  0.492  0.343  0.006   84.  829.   -616.0  0.04   0.34   0.17    6.57  360.    7.9  284.9    2.0
18 01 01   1 13  18.9  0.497  0.374  0.006  101.  841.   -592.9  0.10   0.34   0.16    5.36   7.     7.9  284.2    2.0
18 01 01   1 14  17.8  0.497  0.389  0.006  120.  841.   -627.8  0.10   0.34   0.17    5.36   19.    7.9  284.2    2.0
18 01 01   1 15  14.1  0.528  0.375  0.005  136.  921.   -955.6  0.10   0.34   0.18    5.72   8.     7.9  282.5    2.0
18 01 01   1 16   8.1  0.553  0.319  0.005  146.  987.  -1896.6  0.10   0.34   0.21    6.01   8.     7.9  281.4    2.0
18 01 01   1 17  11.6  0.574  0.376  0.005  166. 1043.  -1487.1  0.10   0.34   0.31    6.23   9.     7.9  280.9    2.0
18 01 01   1 18 -55.9  0.586 -9.000 -9.000 -999. 1076.    377.7  0.10   0.34   0.63    6.43   9.     7.9  279.9    2.0
18 01 01   1 19 -60.8  0.595 -9.000 -9.000 -999. 1100.    389.0  0.10   0.34   1.00    6.53   16.    7.9  279.9    2.0
18 01 01   1 20 -64.0  0.624 -9.000 -9.000 -999. 1182.    428.7  0.10   0.34   1.00    6.86   13.    7.9  279.2    2.0
18 01 01   1 21 -63.2  0.614 -9.000 -9.000 -999. 1157.    415.3  0.10   0.34   1.00    6.74   18.    7.9  278.8    2.0
18 01 01   1 22 -64.0  0.675 -9.000 -9.000 -999. 1328.    500.9  0.10   0.34   1.00    7.38   20.    7.9  278.1    2.0
18 01 01   1 23 -61.4  0.595 -9.000 -9.000 -999. 1109.    388.9  0.10   0.34   1.00    6.53   17.    7.9  278.1    2.0
18 01 01   1 24 -62.4  0.605 -9.000 -9.000 -999. 1129.    402.6  0.10   0.34   1.00    6.64   14.    7.9  278.1    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 18 01 01 01    7.9 1  127.    1.30   291.5   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018            ***
12/09/22
 *** AERMET - VERSION  19191 ***   ***                                                    ***       15:10:23
                                                                                    PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                        *** THE PERIOD (  8760 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL
***
                          INCLUDING SOURCE(S):     TANK       ,

                           *** NETWORK ID: POL1     ;  NETWORK TYPE: GRIDPOLR ***

                              ** CONC OF HCL      IN MICROGRAMS/M**3                    **

  DIRECTION |                                    DISTANCE (METERS)
  (DEGREES) |      100.00      200.00      300.00      400.00      500.00      600.00      700.00      800.00      900.00
 ---------------------------------------------------------------------------------------------

      10.00 |   665.52474   213.59590   106.56734    64.65118    43.51292    31.76283    24.40754    19.28378    15.43985
      20.00 |   654.87730   204.41118    98.63908    58.05748    38.47703    27.32154    20.78880    16.31521    12.98465
      30.00 |   702.62281   216.30504   103.77705    61.22322    40.39278    29.14167    22.08454    17.30913
14.05188
      40.00 |   835.49883   259.00029   123.94939    73.02257    48.43040    34.53047    26.71817    20.93320
16.93018
      50.00 |   936.52754   290.57919   140.99604    84.37935    55.26656    39.74078    30.89194    24.35847
19.71659
      60.00 |   956.97576   298.42987   145.77891    87.32870    57.41103    41.92754    31.76762    25.00906    20.14972
      70.00 |   934.24342   291.60628   140.88381    83.12976    54.00074    37.07990    29.90896    23.31201
17.61228
      80.00 |   861.92955   269.59993   131.30390    77.04004    50.65815    36.46905    27.42215    21.21279
16.09930
      90.00 |   729.12133   235.72708   115.69190    69.27718    46.07699    32.98071    25.08989    19.29834    15.47877
     100.00 |   619.07158   207.59879   102.91918    62.33582    42.25855    29.99931    23.02466    17.47442
14.09220
     110.00 |   617.92576   215.48343   110.89317    69.52640    46.79246    33.82231    26.28433    19.56185
15.34396
     120.00 |   686.34192   259.73187   140.72330    89.66526    61.99594    45.95442    35.69478    28.15402
21.86918
     130.00 |   751.23634   292.40643   163.85893   106.07990    74.53573    55.57465    43.49520    34.80165
28.12265
```

140.00	748.33174	293.97575	164.11353	105.91147	74.74109	55.15762	43.65522	34.93173	28.58475
150.00	700.25226	277.76198	154.37519	98.28543	68.95228	51.72715	40.30937	32.36755	26.81843
160.00	665.42164	262.89149	146.88419	92.45661	63.79740	47.38017	36.64777	29.81508	25.01215
170.00	676.87259	270.16204	147.77473	95.94606	65.25368	48.28988	37.54589	30.15477	23.21296
180.00	697.96614	272.78943	148.71531	94.40506	66.18102	49.26532	38.59986	31.14270	25.68482
190.00	724.02566	273.73218	144.28336	89.42839	61.18270	44.64895	34.42055	27.52111	22.48084
200.00	799.75797	294.92595	152.55710	94.77755	63.65363	46.51207	35.27423	28.16785	23.04358
210.00	921.17136	337.99366	172.64624	106.79290	73.67659	53.82331	40.44788	32.86458	26.91748
220.00	1063.30506	387.75029	199.93445	123.93408	85.65808	63.28587	43.63194	37.30639	31.95739
230.00	1184.02830	431.92476	228.46602	142.81518	99.08052	73.13153	56.89643	45.60781	37.48428
240.00	1243.35888	455.92568	240.85976	151.65207	105.17815	77.71189	60.69836	48.77983	40.21551
250.00	1199.52083	424.37504	222.84290	139.34528	94.95503	70.49329	54.43777	43.64862	35.76895
260.00	1077.95215	362.30706	185.68500	112.03066	76.42422	55.53841	42.40612	33.71473	27.29295
270.00	956.46811	314.57859	158.33100	96.06148	65.29585	46.64141	35.93993	28.31168	23.22155
280.00	889.03342	298.84108	152.28478	96.05361	65.37171	48.04186	36.99814	29.60494	24.35628
290.00	868.89400	294.46338	153.76426	96.68439	66.39035	49.34256	38.23799	30.60581	25.19751
300.00	834.99785	285.55359	145.47180	90.24325	61.72983	45.23150	34.84890	27.73096	22.55391
310.00	787.56337	261.99891	135.67737	83.06844	56.93689	41.68668	31.72591	25.13204	20.44422
320.00	752.40991	247.53229	125.71539	77.61599	53.49684	39.05550	29.90409	23.74327	19.39225
330.00	680.37240	222.45240	111.09116	68.04630	46.42627	33.82722	25.83742	20.16837	16.28249
340.00	590.05492	188.05938	93.68685	56.45208	38.71643	27.92380	21.31109	16.43758	13.22525
350.00	539.33540	172.66971	85.52595	51.73917	35.21587	25.41740	19.23735	14.98480	11.96940
360.00	602.54050	195.47429	98.75492	59.84642	40.75391	29.85665	22.71700	17.73039	14.23945

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:10:23

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00

10.00	12.70869	10.73473	9.20261	8.02734	7.04202	6.22772	5.58966	5.05270	4.58224
20.00	10.48529	8.66468	7.36718	6.37169	5.55125	4.90192	4.37947	3.96915	3.56901
30.00	11.54327	9.71223	8.31238	7.16503	6.27555	5.56389	4.96250	4.44448	4.02824
40.00	13.90343	11.90318	10.13196	8.76022	7.64027	6.73895	6.00164	5.38070	4.83744
50.00	16.22543	13.37886	11.39629	9.86505	8.59266	7.58572	6.80511	6.08456	5.51672
60.00	16.33152	13.69655	11.79087	10.14831	8.88829	7.83063	6.99871	6.26727	5.71726
70.00	14.80756	12.41156	10.61574	9.18425	8.03494	7.09552	6.24552	5.65825	5.10473
80.00	13.01998	10.67840	9.01961	7.80970	6.86130	6.06307	5.38286	4.80805	4.37626
90.00	12.70759	10.62441	9.07485	7.84796	6.88024	6.09500	5.44608	4.87500	4.43449
100.00	11.55040	9.70089	8.26811	7.04512	6.15208	5.41716	4.81121	4.32189	3.91015
110.00	12.84115	11.15227	9.52869	8.15365	7.15275	6.26934	5.51868	4.98739	4.51664
120.00	18.77528	15.87897	14.15764	12.25697	10.75951	9.66663	8.64687	7.80676	7.07757
130.00	23.65729	20.35573	17.81157	15.66876	13.87987	12.37903	11.13352	10.07714	9.16721
140.00	23.72048	20.22256	17.45183	15.27446	13.48127	11.96749	10.73113	9.67026	8.79051
150.00	22.45157	18.68933	16.21495	14.21216	12.50953	11.04054	9.84434	9.01405	8.17188
160.00	20.70450	17.96421	15.46468	13.16139	11.50670	10.33585	9.38643	8.38630	7.60538
170.00	21.08851	17.73654	15.78542	13.73827	11.95059	10.48641	9.45870	8.50594	7.67886
180.00	21.71202	18.54626	16.13854	14.17873	12.53009	11.24089	10.13032	9.17774	8.38639
190.00	18.84380	15.97212	13.73871	12.11428	10.63158	9.73207	8.70871	7.84904	7.11220
200.00	19.27730	16.35115	14.09948	12.14597	10.53619	8.63906	8.16548	8.00195	7.24190
210.00	22.62440	19.22689	16.60252	14.49413	12.79462	11.24976	10.27527	9.26879	8.42812
220.00	26.79005	22.86289	19.74866	17.26990	15.24122	13.63003	12.13076	10.93866	9.95485
230.00	31.52298	26.90215	23.31398	20.38709	18.06801	16.05718	14.48702	13.14271	11.95687
240.00	33.85923	28.95151	25.10364	22.04013	19.54458	17.42634	15.71090	14.22756	12.87678
250.00	30.20509	25.79702	22.35366	19.57411	17.34784	15.49977	13.92525	12.61366	11.48264
260.00	22.80951	19.37505	16.66733	14.57233	12.87578	11.46668	10.27648	9.31693	8.48427
270.00	19.53836	16.49194	14.21584	12.34029	10.85477	9.62035	8.58423	7.76756	7.07251
280.00	20.37765	17.42247	14.95125	12.97951	11.40513	10.09346	9.12734	8.30901	7.55131
290.00	21.18611	18.06338	15.69722	13.78359	12.20569	10.90949	9.82851	8.93754	8.16069
300.00	18.76249	15.78705	13.70607	11.94689	10.54445	9.31233	8.40894	7.59933	6.90731
310.00	17.14692	14.52177	12.44419	10.73950	9.46419	8.54626	7.62848	6.90621	6.27110
320.00	16.34760	13.93964	11.95896	10.44787	9.24296	8.23693	7.46318	6.77537	6.13871
330.00	13.55787	11.34821	9.90449	8.65663	7.59171	6.76468	6.08311	5.45817	5.03670
340.00	11.01684	9.33012	8.06338	7.03493	6.20282	5.47617	4.95503	4.47609	4.11516
350.00	9.90357	8.37965	7.17676	6.24655	5.50033	4.86513	4.30993	3.89035	3.52338
360.00	11.84237	10.11362	8.68705	7.51589	6.61775	5.84316	5.22857	4.70362	4.26350

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:10:23

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	4.19746	3.86766
20.00	3.22061	2.92841
30.00	3.66874	3.36379
40.00	4.39086	4.00440
50.00	5.03386	4.60201
60.00	5.21138	4.75615
70.00	4.64500	4.23449
80.00	3.88466	3.51177

90.00	4.00327	3.65701
100.00	3.57161	3.25314
110.00	4.12445	3.76099
120.00	6.47354	5.93033
130.00	8.37221	7.70636
140.00	8.00391	7.35503
150.00	7.46334	6.81231
160.00	6.92629	6.35982
170.00	6.97989	6.37116
180.00	7.68832	7.08691
190.00	6.34241	5.78978
200.00	6.34714	5.76278
210.00	7.65261	7.00243
220.00	9.10297	8.46099
230.00	10.91975	10.06392
240.00	11.74755	10.92185
250.00	10.52648	9.69094
260.00	7.77623	7.09764
270.00	6.45096	5.91407
280.00	6.89123	6.31305
290.00	7.47594	6.88301
300.00	6.30821	5.75947
310.00	5.76565	5.29071
320.00	5.64926	5.19673
330.00	4.62403	4.22090
340.00	3.74984	3.44457
350.00	3.21813	2.94669
360.00	3.90340	3.58679

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 19
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC
TANK :	375.70	118.90	96.75124	TANK :	498.87	129.50	74.11969
TANK :	81.43	359.00	797.51603	TANK :	116.79	44.50	694.02077
TANK :	109.20	67.00	823.37136	TANK :	100.70	93.73	673.47176
TANK :	87.91	103.99	714.93686	TANK :	99.82	123.38	711.88622
TANK :	138.00	141.00	497.80994	TANK :	106.00	180.00	650.71935
TANK :	115.60	206.00	717.52894	TANK :	54.00	270.00	2223.43797
TANK :	97.00	326.00	745.23335	TANK :	133.94	242.10	818.82986
TANK :	101.99	301.65	802.74886	TANK :	236.54	274.95	231.19013

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 20
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	37535.46695 (18020621)	17235.07753 (18020621)	10621.87167 (18020621)	7395.35579 (18020621)	5540.78769 (18020621)
20.0	37434.15544 (18112521)	15433.39176 (18112521)	9376.24505 (18011119)	6571.26351 (18011119)	4943.25760 (18011119)
30.0	47083.41194 (18112521)	20604.47799 (18112521)	12292.32440 (18112521)	8410.52164 (18112521)	6247.29841 (18112521)
40.0	38552.69342 (18011120)	16451.07224 (18020519)	10082.30077 (18020519)	7014.32971 (18020519)	5261.09302 (18020519)
50.0	46682.86524 (18022421)	20620.66289 (18011120)	12316.01859 (18011120)	8369.56083 (18011120)	6286.95447 (18011120)
60.0	42894.96822 (18022421)	18165.29239 (18022421)	10657.91458 (18123018)	7278.94052 (18123018)	5436.34142 (18123018)
70.0	34036.71148 (18122918)	15405.87001 (18112318)	9273.47717 (18112318)	6333.68381 (18112318)	4730.65679 (18112318)
80.0	40829.46034 (18112507)	17186.04424 (18112507)	9886.75242 (18112507)	6513.03305 (18112507)	4646.42172 (18112507)
90.0	43316.16200 (18112520)	18299.79727 (18112520)	10496.37548 (18112520)	6905.63441 (18112520)	5034.11162 (18112507)
100.0	43417.24526 (18041906)	19085.73648 (18041906)	11249.07446 (18041906)	7544.76200 (18041906)	5389.85827 (18041906)
110.0	36374.18917 (18123020)	16712.07926 (18123020)	10013.26022 (18123020)	6691.62974 (18123020)	4955.53609 (18123020)
120.0	39146.71800 (18123021)	18045.63462 (18123021)	10748.93396 (18123021)	7228.22121 (18123021)	5367.69789 (18123021)
130.0	42748.51281 (18070320)	17888.78817 (18070320)	10125.32655 (18070320)	6584.77776 (18070320)	4789.62656 (18070320)
140.0	41505.94578 (18102921)	17517.25968 (18070320)	10229.64816 (18070320)	6845.61982 (18070320)	4961.12125 (18070320)
150.0	41345.26936 (18042007)	18213.14616 (18102921)	10738.89204 (18102921)	7324.38009 (18102921)	5380.96847 (18102921)
160.0	50678.29298 (18042007)	22408.81728 (18042007)	13068.52945 (18042007)	8966.97517 (18042007)	6715.15521 (18042007)
170.0	46597.96291 (18091406)	19565.79786 (18062706)	11639.52144 (18062706)	7786.26661 (18062706)	5970.16232 (18062706)
180.0	46578.96631 (18091406)	19852.02864 (18091406)	11522.82325 (18091406)	7827.87745 (18091406)	5790.03093 (18091406)
190.0	32187.05694 (18031607)	13046.78073 (18121806)	7620.79826 (18121806)	5123.87599 (18121806)	3786.00422 (18121806)
200.0	40536.81112 (18031607)	16752.88678 (18031607)	9686.45604 (18031607)	6436.33376 (18031607)	4859.94979 (18031607)
210.0	36708.58750 (18031607)	14913.03064 (18031607)	8729.72184 (18091306)	5952.58575 (18091306)	4352.68137 (18091306)
220.0	32289.74127 (18071406)	12811.20035 (18040406)	7506.43206 (18040406)	5095.39316 (18040406)	3674.95214 (18040406)
230.0	31646.24429 (18010919)	13459.69084 (18010919)	7842.97079 (18010919)	5379.44970 (18010919)	3952.91308 (18010919)
240.0	36320.60841 (18122407)	15401.05101 (18122407)	9056.22294 (18122407)	6157.48304 (18122407)	4585.91204 (18122407)
250.0	32211.73330 (18041806)	14280.50993 (18041806)	8502.61956 (18041806)	5809.02514 (18041806)	4421.49182 (18041806)
260.0	37295.73909 (18121608)	16072.82226 (18121608)	9473.91814 (18121608)	6544.05998 (18121608)	4829.09056 (18121608)
270.0	37645.93623 (18122406)	15530.33851 (18040207)	9090.10792 (18040207)	6112.94799 (18040207)	

4497.28397 (18012821)
280.0 | 38401.12908 (18121606) 16759.00158 (18121606) 10038.19008 (18121606) 6774.79391 (18121606)
5061.20094 (18121606)
290.0 | 35787.98596 (18061706) 15912.42782 (18042806) 9578.57797 (18042806) 6546.19795 (18042806)
4895.73079 (18042806)
300.0 | 38901.19272 (18121607) 16893.65362 (18121607) 10034.08703 (18121607) 6812.11983 (18121607)
5033.30265 (18121607)
310.0 | 39747.73731 (18071320) 16559.19217 (18071320) 9453.30448 (18071320) 6327.96779 (18071320)
4509.98858 (18071320)
320.0 | 34395.53454 (18081906) 14626.84531 (18052421) 8816.62193 (18052421) 6061.88826 (18052421)
4467.94834 (18052421)
330.0 | 37460.15259 (18110521) 16468.85644 (18110521) 9828.55501 (18110521) 6719.58128 (18110521)
4962.35697 (18110521)
340.0 | 35845.16969 (18020619) 16080.39903 (18020619) 9676.09782 (18020619) 6671.45002 (18020619)
4875.29290 (18020619)
350.0 | 36980.15169 (18112506) 16076.39628 (18112506) 9505.78071 (18112506) 6425.25993 (18112506)
4670.54899 (18112506)
360.0 | 38913.18516 (18112506) 16097.23419 (18112506) 9253.02994 (18112506) 6152.80364 (18112506)
4490.08009 (18112506)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 21
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 600.00 700.00 800.00 900.00 1000.00

10.0 | 4329.79627 (18020621) 3464.33691 (18020621) 2869.22446 (18020621) 2501.42146 (18020621)
2188.27465 (18020621)
20.0 | 3899.71154 (18011119) 3145.53436 (18011119) 2599.53030 (18011119) 2237.09809 (18011119) 1972.50405
(18011119)
30.0 | 4833.16713 (18112521) 3886.33259 (18112521) 3224.02546 (18112521) 2687.14043 (18112521) 2338.62148
(18112521)
40.0 | 4153.66221 (18020519) 3318.53319 (18112421) 2749.57315 (18112421) 2317.33990 (18112421) 2020.08637
(18112421)
50.0 | 4911.75298 (18011120) 3761.68115 (18011120) 3039.47867 (18011120) 2465.99023 (18011120) 2134.14533
(18011120)
60.0 | 4139.64737 (18123018) 3295.00217 (18123018) 2617.21699 (18123018) 2220.85344 (18123018)
2049.67419 (18123018)
70.0 | 3761.71350 (18112318) 2763.84516 (18112318) 2247.03486 (18112318) 2170.08271 (18112318) 1843.56161
(18112318)
80.0 | 3439.52032 (18112507) 2653.77330 (18112507) 2207.15736 (18112507) 1950.39875 (18112507) 1654.48874
(18112507)
90.0 | 3869.71332 (18112507) 2951.12823 (18112507) 2563.84133 (18112507) 2212.77966 (18112507) 1956.86957
(18112507)
100.0 | 4261.56717 (18041906) 3227.51600 (18041906) 2958.90777 (18041906) 2507.54682 (18041906)
2209.95913 (18041906)
110.0 | 3871.76085 (18123020) 2954.33168 (18123020) 2749.59965 (18123020) 2444.85726 (18123020)
2103.66677 (18123020)
120.0 | 4127.04685 (18123021) 3190.09870 (18123021) 2856.49295 (18123021) 2675.38452 (18123021)
2265.74237 (18123021)
130.0 | 3646.31121 (18112621) 2805.88117 (18112621) 2417.50830 (18112621) 2240.91648 (18112621) 1952.65256

(18112621)
140.0 | 3893.99120 (18070320) 2837.24407 (18070320) 2271.18760 (18070320) 1931.28469 (18070320) 1825.47845 (18070320)
150.0 | 4111.05219 (18102921) 3264.52263 (18102921) 2665.76682 (18102921) 2092.88010 (18110419) 1812.65839 (18110419)
160.0 | 5240.80726 (18042007) 4261.43350 (18042007) 3432.52185 (18042007) 2706.74052 (18042007) 2413.59669 (18042007)
170.0 | 4677.54490 (18062706) 3785.08563 (18062706) 3138.87564 (18062706) 2944.33252 (18062706) 2179.68266 (18062706)
180.0 | 4546.26441 (18091406) 3659.54371 (18091406) 3004.60515 (18091406) 2538.38183 (18091406) 2135.04456 (18091406)
190.0 | 2952.54189 (18121806) 2379.60407 (18080520) 1967.11024 (18080520) 1679.40847 (18080520) 1439.39103 (18080520)
200.0 | 3806.36095 (18031607) 3094.50219 (18031607) 2526.83962 (18031607) 2105.79389 (18031607) 1785.55480 (18031607)
210.0 | 3414.36738 (18091306) 2903.80154 (18091306) 2288.39391 (18091306) 1943.53388 (18091306) 1615.98721 (18091306)
220.0 | 2785.05135 (18040406) 2578.42944 (18040406) 2088.84319 (18040406) 1604.03743 (18040406) 1365.58843 (18040406)
230.0 | 3150.41808 (18010919) 2474.47638 (18010919) 2031.59712 (18010919) 1711.97344 (18010919) 1477.95557 (18010919)
240.0 | 3670.09244 (18122407) 2887.38978 (18122407) 2388.65866 (18122407) 2017.63824 (18122407) 1732.54503 (18122407)
250.0 | 3426.82917 (18041806) 2805.20947 (18041806) 2338.88618 (18041806) 2004.68774 (18041806) 1679.74145 (18041806)
260.0 | 3782.54075 (18121608) 3068.81703 (18121608) 2556.93628 (18121608) 2195.56478 (18121608) 1890.45903 (18121608)
270.0 | 3580.17428 (18012821) 2869.47077 (18012821) 2396.14786 (18012821) 2007.54713 (18012821) 1687.50096 (18012821)
280.0 | 3947.67311 (18121606) 3206.63744 (18121606) 2637.65032 (18121606) 2200.94573 (18121606) 1905.74351 (18121606)
290.0 | 3787.55177 (18042806) 3064.48465 (18042806) 2540.72366 (18042806) 2155.43921 (18042806) 1868.34074 (18042806)
300.0 | 3921.89365 (18121607) 3144.25125 (18121607) 2604.29669 (18121607) 2228.46832 (18121607) 1944.54461 (18121607)
310.0 | 3485.89186 (18081906) 2850.43039 (18081906) 2390.49011 (18081906) 2058.61231 (18081906) 1755.12917 (18081906)
320.0 | 3507.51345 (18052421) 2872.60664 (18052421) 2429.02484 (18052421) 2089.20971 (18052421) 1776.79945 (18052421)
330.0 | 3869.75378 (18110521) 3136.62130 (18110521) 2678.39787 (18110521) 2304.36287 (18110521) 1997.38309 (18110521)
340.0 | 3831.27208 (18020619) 3086.19347 (18020619) 2676.87627 (18020619) 2334.01941 (18020619) 2026.86118 (18020619)
350.0 | 3618.60597 (18112506) 2942.35221 (18112506) 2464.00224 (18112506) 2089.84660 (18112506) 1814.31428 (18112506)
360.0 | 3382.13917 (18112506) 2711.60217 (18052120) 2299.70846 (18052120) 1982.27107 (18052120) 1725.51216 (18052120)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)

(DEGREES)	1100.00	1200.00	1300.00	1400.00	1500.00
10.0	1922.77891 (18020621)	1719.54686 (18020621)	1535.33248 (18020621)	1397.71494 (18020621)	1277.39129 (18020621)
20.0	1761.58700 (18011119)	1572.00651 (18011119)	1403.96702 (18011119)	1267.56090 (18011119)	1150.11369 (18011119)
30.0	2043.29009 (18112521)	1799.86299 (18112521)	1630.78649 (18112521)	1471.50708 (18112521)	1313.15554 (18112521)
40.0	1633.31984 (18112421)	1449.91013 (18112421)	1299.41904 (18112421)	1174.04290 (18112421)	1068.21751 (18112421)
50.0	2059.43145 (18011120)	1838.04049 (18011120)	1644.20612 (18011120)	1518.28497 (18011120)	1400.11312 (18011120)
60.0	1828.58818 (18123018)	1584.60641 (18123018)	1453.69113 (18123018)	1306.05935 (18123018)	1193.38866 (18122918)
70.0	1606.48820 (18110518)	1420.86831 (18110518)	1269.41832 (18110518)	1146.44623 (18110518)	1042.37482 (18110518)
80.0	1415.91624 (18112507)	1214.55284 (18112507)	1078.85490 (18112507)	955.31777 (18112507)	862.65822 (18112507)
90.0	1690.42295 (18112507)	1471.42678 (18112507)	1330.88986 (18112507)	1213.07560 (18112507)	1093.74531 (18112507)
100.0	1926.32185 (18041906)	1710.68635 (18041906)	1620.14165 (18041906)	1471.46998 (18041906)	1354.38766 (18041906)
110.0	1741.14600 (18123020)	1557.20111 (18123020)	1427.51363 (18123020)	1290.76353 (18123020)	1197.80329 (18123020)
120.0	2024.76932 (18123021)	1649.90051 (18123021)	1545.27636 (18123021)	1417.78915 (18123021)	1244.80424 (18123021)
130.0	1704.09297 (18112621)	1467.41014 (18112621)	1281.38318 (18112621)	1142.44899 (18112621)	1036.88400 (18112621)
140.0	1586.86807 (18070320)	1411.96599 (18070320)	1257.15223 (18070320)	1147.60294 (18070320)	1065.76241 (18070320)
150.0	1788.79890 (18110419)	1564.94985 (18110419)	1395.46819 (18110419)	1261.53524 (18110419)	1219.62709 (18110419)
160.0	1956.25086 (18042007)	1735.27199 (18042007)	1760.06364 (18042007)	1655.67705 (18042007)	1452.22534 (18042007)
170.0	1991.47855 (18062706)	1559.24709 (18062706)	1397.84830 (18062706)	1341.65159 (18062706)	1289.58515 (18062706)
180.0	1890.82567 (18091406)	1612.49885 (18091406)	1336.41742 (18091406)	1207.73924 (18091406)	1165.60637 (18091406)
190.0	1271.72677 (18080520)	1133.77374 (18080520)	974.26558 (18080520)	901.37556 (18080520)	710.01189 (18080520)
200.0	1566.20436 (18031607)	1371.71029 (18031607)	1259.02998 (18031607)	1182.57106 (18031607)	1203.51680 (18031607)
210.0	1414.13125 (18091306)	1237.22228 (18091306)	1117.83752 (18091306)	998.68765 (18091306)	1014.07628 (18091306)
220.0	1156.15694 (18040406)	991.10116 (18040406)	875.69939 (18040406)	791.41160 (18040406)	712.27560 (18040406)
230.0	1295.14803 (18010919)	1135.87756 (18010919)	972.52817 (18010919)	880.53006 (18010919)	764.10295 (18010919)
240.0	1517.04417 (18122407)	1322.40585 (18122407)	1204.49859 (18122407)	1078.56182 (18122407)	931.86342 (18122407)
250.0	1464.28415 (18041806)	1279.80287 (18041806)	1144.48118 (18041806)	1028.74845 (18041806)	922.92781 (18041806)
260.0	1653.02530 (18121608)	1461.16464 (18121608)	1300.02931 (18121608)	1159.24041 (18121608)	1043.37773 (18121608)
270.0	1483.20097 (18021606)	1306.77041 (18021606)	1177.00121 (18021606)	1068.61647 (18021606)	971.97487 (18021606)
280.0	1631.71733 (18121606)	1500.40951 (18121606)	1388.72562 (18121606)	1278.93707 (18121606)	1201.68181 (18121606)
290.0	1690.05805 (18042806)	1505.36292 (18042806)	1376.03186 (18042806)	1247.07542 (18042806)	1138.00271 (18042806)
300.0	1746.72099 (18121607)	1523.09859 (18121607)	1359.94523 (18121607)	1232.42144 (18121607)	

1160.73841 (18121607)
310.0 | 1540.76251 (18081906) 1390.40388 (18051106) 1283.44038 (18051106) 1172.75106 (18051106)
1008.13970 (18051106)
320.0 | 1554.14584 (18052421) 1429.86178 (18052421) 1294.35346 (18052421) 1179.50037 (18052421)
1080.93122 (18052421)
330.0 | 1802.22605 (18110521) 1572.58220 (18110521) 1399.92827 (18110521) 1283.77937 (18110521)
1169.60422 (18110521)
340.0 | 1796.71071 (18020619) 1583.79784 (18020619) 1414.71364 (18020619) 1290.61311 (18020619)
1202.03642 (18020619)
350.0 | 1588.91994 (18112506) 1422.56376 (18112506) 1269.14306 (18112506) 1142.78857 (18112506)
1024.38418 (18112506)
360.0 | 1503.73355 (18052120) 1343.06053 (18052120) 1215.57212 (18052120) 1101.97050 (18052120)
1013.63476 (18052120)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 1600.00 1700.00 1800.00 1900.00 2000.00

10.0 | 1172.67614 (18020621) 1075.63495 (18020621) 992.49458 (18020621) 905.04399 (18020621) 823.40595
(18020621)
20.0 | 1042.04156 (18011119) 932.94726 (18011119) 863.12511 (18011119) 809.90983 (18011119) 761.25772
(18011119)
30.0 | 1187.09715 (18112521) 1087.06482 (18112521) 997.64216 (18112521) 916.01790 (18112521) 853.48700
(18112521)
40.0 | 977.87759 (18112421) 899.98969 (18112421) 832.24820 (18112421) 772.87205 (18112421) 720.46534
(18112421)
50.0 | 1257.70884 (18011120) 1173.46562 (18011120) 1071.26704 (18011120) 986.09167 (18011120) 932.18744
(18011120)
60.0 | 1086.28990 (18122918) 1007.18729 (18123018) 905.69938 (18123018) 836.60996 (18123018) 788.01194
(18123018)
70.0 | 986.37607 (18110518) 882.65223 (18110518) 819.62226 (18110518) 757.56708 (18110518) 720.27628
(18110518)
80.0 | 786.77499 (18112507) 718.04062 (18112507) 641.08195 (18112507) 583.75678 (18040419) 548.06675
(18040419)
90.0 | 988.89351 (18112507) 912.61951 (18112507) 799.29663 (18112507) 768.38072 (18112507) 698.56661
(18112507)
100.0 | 1248.25946 (18041906) 1142.55805 (18041906) 1061.51526 (18041906) 959.98617 (18041906) 907.80951
(18041906)
110.0 | 1125.52606 (18123020) 1025.24232 (18123020) 942.91884 (18123020) 863.20547 (18123020) 801.48802
(18123020)
120.0 | 1153.05448 (18123021) 1071.22515 (18123021) 1010.46136 (18123021) 932.97218 (18123021) 870.14528
(18123021)
130.0 | 960.57310 (18112621) 901.91425 (18112621) 844.98547 (18112621) 805.81119 (18112621) 739.72218
(18112621)
140.0 | 968.05957 (18070320) 867.51089 (18070320) 801.79018 (18070320) 756.51193 (18070320) 698.08775
(18070320)
150.0 | 1152.51159 (18110419) 996.62399 (18110419) 932.27724 (18110419) 871.82608 (18110419) 825.27619
(18110419)
160.0 | 1233.52350 (18042007) 1206.49418 (18042007) 1126.18942 (18042007) 1068.52536 (18042007)

988.80045 (18042007)
170.0 | 1144.55350 (18062706) 1072.78932 (18062706) 1009.09594 (18062706) 946.17509 (18062706) 894.66371 (18062706)
180.0 | 1086.58673 (18091406) 982.56312 (18091406) 918.79063 (18091406) 856.45285 (18091406) 814.60231 (18091406)
190.0 | 649.52711 (18080520) 597.37016 (18080520) 552.00168 (18080520) 581.84941 (18080520) 547.29560 (18080520)
200.0 | 999.29965 (18031607) 736.93498 (18031607) 681.59718 (18031607) 715.75312 (18031607) 672.77494 (18031607)
210.0 | 744.86315 (18091306) 685.65420 (18091306) 634.14738 (18091306) 660.94480 (18091306) 625.75052 (18091306)
220.0 | 742.51994 (18010920) 535.87288 (18040406) 495.61097 (18040406) 460.32423 (18040406) 448.65390 (18040406)
230.0 | 706.73786 (18010919) 662.16943 (18010919) 603.82503 (18010919) 534.13277 (18010919) 512.72556 (18010919)
240.0 | 853.28238 (18122407) 772.22942 (18122407) 661.77984 (18122407) 589.52496 (18122407) 592.88790 (18122407)
250.0 | 842.68003 (18041806) 761.85163 (18041806) 713.32654 (18041806) 629.04473 (18041806) 558.37045 (18041806)
260.0 | 952.79510 (18121608) 851.50659 (18121608) 770.65002 (18121608) 695.19326 (18121608) 658.91577 (18121608)
270.0 | 891.83640 (18021606) 810.33801 (18021606) 737.36414 (18021606) 688.79340 (18021606) 645.83371 (18021606)
280.0 | 1077.64045 (18121606) 967.07120 (18121606) 890.53747 (18121606) 833.17107 (18121606) 789.14156 (18121606)
290.0 | 1050.85789 (18042806) 971.68101 (18042806) 902.66301 (18042806) 851.46427 (18042806) 791.36651 (18042806)
300.0 | 1034.73151 (18121607) 948.48073 (18121607) 873.37110 (18121607) 813.28724 (18121607) 781.65270 (18121607)
310.0 | 950.56889 (18051106) 866.96446 (18051106) 805.40943 (18051106) 725.54011 (18051106) 676.57198 (18051106)
320.0 | 962.92500 (18052421) 871.93949 (18052421) 840.97352 (18052421) 743.49745 (18052421) 690.41871 (18052421)
330.0 | 1068.25493 (18110521) 989.68516 (18110521) 882.39966 (18110521) 787.87906 (18110521) 751.85205 (18110521)
340.0 | 1071.95957 (18020619) 992.58689 (18020619) 867.21224 (18020619) 805.61252 (18020619) 761.66991 (18020619)
350.0 | 915.74832 (18112506) 838.63825 (18112506) 778.87605 (18112506) 722.34113 (18112506) 677.48711 (18112506)
360.0 | 932.50962 (18052120) 861.55754 (18052120) 798.91451 (18052120) 738.53597 (18052120) 686.21629 (18052120)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	7809.87295	(18123021)	TANK	498.87	129.50	4672.63411	(18112621)
TANK	81.43	359.00	50031.70760	(18112506)	TANK	116.79	44.50	38053.44136	(18011120)
TANK	109.20	67.00	34491.29789	(18122918)	TANK	100.70	93.73	43944.13270	(18112520)

TANK : 87.91 103.99 45577.04800 (18041906) TANK : 99.82 123.38 36836.00857 (18123021)
TANK : 138.00 141.00 29021.65667 (18102921) TANK : 106.00 180.00 43628.59822 (18091406)
TANK : 115.60 206.00 33453.87214 (18031607) TANK : 54.00 270.00 77177.77372 (18122406)
TANK : 97.00 326.00 37177.73302 (18110521) TANK : 133.94 242.10 25631.41114 (18122407)
TANK : 101.99 301.65 38078.51654 (18071320) TANK : 236.54 274.95 12616.71915 (18121606)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	32759.38527 (18110520)	15084.30296 (18110520)	9275.58276 (18110520)	6447.85762 (18110520)	4787.53273 (18110520)
20.0	34035.40586 (18020621)	15062.24937 (18011119)	8782.11715 (18110520)	5918.40248 (18110520)	4324.81047 (18110520)
30.0	42006.28206 (18122919)	18955.27183 (18122919)	11507.67862 (18122919)	7963.36848 (18122919)	5963.57273 (18122919)
40.0	37004.14149 (18122920)	16087.17790 (18112421)	9946.25637 (18112421)	6967.18815 (18112421)	5249.95128 (18112421)
50.0	46482.30986 (18011120)	20147.36872 (18022421)	11817.44968 (18022421)	7979.94758 (18033021)	5978.13914 (18033021)
60.0	39967.85991 (18122918)	17806.77072 (18122918)	10612.69479 (18122918)	7179.52848 (18122918)	5339.79068 (18122918)
70.0	33653.78030 (18112318)	14736.60372 (18122918)	8678.25334 (18110518)	6010.50241 (18110518)	4529.35232 (18110518)
80.0	28387.51492 (18112520)	12572.57691 (18112318)	7507.51241 (18112318)	5000.02916 (18112318)	3650.49025 (18112318)
90.0	39438.33822 (18112507)	17526.97997 (18112507)	10281.64964 (18112507)	6851.24123 (18112507)	4996.54986 (18112520)
100.0	39496.80164 (18110418)	17800.83401 (18110418)	10590.59487 (18110418)	7147.45618 (18110418)	5137.21456 (18110418)
110.0	32353.80068 (18123021)	13632.63193 (18091507)	8261.11317 (18042606)	5626.06583 (18042606)	4180.12515 (18042606)
120.0	29571.62647 (18101120)	13960.81044 (18091506)	8496.38517 (18091506)	5781.91369 (18091506)	4300.18197 (18091506)
130.0	31808.17569 (18112621)	15137.26073 (18112621)	9230.41887 (18112621)	6293.85080 (18112621)	4680.49226 (18112621)
140.0	39732.75350 (18070320)	17271.67431 (18102921)	9737.50467 (18102921)	6322.86897 (18102921)	4507.71818 (18102921)
150.0	40483.36532 (18102921)	16702.20496 (18110419)	10196.14504 (18110419)	7056.76154 (18110419)	5240.70480 (18110419)
160.0	39497.06352 (18090721)	17775.36238 (18080720)	10598.41388 (18080720)	7295.06873 (18080720)	5455.61478 (18080720)
170.0	44555.39557 (18060620)	19317.74215 (18060620)	11314.23419 (18060620)	7484.33931 (18060620)	5738.82526 (18060620)
180.0	36824.62421 (18040407)	16108.39562 (18040407)	9444.91399 (18040407)	6460.42944 (18040407)	4791.87716 (18040407)
190.0	30381.45306 (18040407)	13003.14780 (18040407)	7432.15751 (18040407)	4982.04458 (18080520)	3729.51628 (18080520)
200.0	33269.34453 (18071406)	12886.51535 (18091306)	7427.92576 (18070906)	5010.79212 (18070906)	

3773.42003 (18070906)
210.0 | 36180.46632 (18071406) 14630.71462 (18091306) 8523.96534 (18031607) 5645.50248 (18071406)
4087.32937 (18071406)
220.0 | 31082.48549 (18040406) 12314.73698 (18071406) 6917.11358 (18071406) 4711.81086 (18010920)
3469.60509 (18010920)
230.0 | 31079.53611 (18120820) 13030.42116 (18040406) 7537.80108 (18040406) 5112.15068 (18040406)
3696.08892 (18081907)
240.0 | 34848.59145 (18120820) 14587.56625 (18120820) 8551.42444 (18120820) 5804.57825 (18120820)
4320.40489 (18120820)
250.0 | 32095.95363 (18091906) 14111.64396 (18091906) 8366.30955 (18091906) 5704.52156 (18091906)
4340.97099 (18091906)
260.0 | 36923.79132 (18122406) 15340.98618 (18122406) 8945.09199 (18020806) 6188.45848 (18020806)
4578.22964 (18020806)
270.0 | 36442.21976 (18040207) 15372.57583 (18122406) 8832.84863 (18012821) 6069.10689 (18012821)
4459.79028 (18040207)
280.0 | 33646.21774 (18091907) 15031.43573 (18091907) 9080.62194 (18091907) 6188.66792 (18091907)
4631.01849 (18091907)
290.0 | 35713.98357 (18042806) 15831.91199 (18061706) 9496.44463 (18061706) 6477.19771 (18061706)
4843.02400 (18061706)
300.0 | 37752.37840 (18071320) 16260.41269 (18071320) 9582.57856 (18071320) 6454.12763 (18071320)
4721.01397 (18071320)
310.0 | 33230.36995 (18081906) 14915.77283 (18081906) 8930.10145 (18081906) 6113.23666 (18081906)
4493.35057 (18081906)
320.0 | 32795.24363 (18031021) 14381.20019 (18081906) 8486.66057 (18071506) 5783.86838 (18071506)
4244.97957 (18071506)
330.0 | 31522.32051 (18071221) 14079.43830 (18071221) 8423.15545 (18071221) 5749.75675 (18071221)
4243.73603 (18071221)
340.0 | 31959.51375 (18120819) 14145.36595 (18120819) 8420.07125 (18120819) 5706.59142 (18120819)
4144.83721 (18120819)
350.0 | 35599.29473 (18011121) 15648.51817 (18011121) 9293.02333 (18011121) 6296.65427 (18011121)
4592.16892 (18011121)
360.0 | 37548.33500 (18011121) 15665.12389 (18011121) 9045.96616 (18011121) 6026.35635 (18011121)
4399.37805 (18011121)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	3717.23399 (18110520)	2966.59523 (18110520)	2459.50826 (18110520)	2139.02417 (18110520)	1864.51801 (18082207)
20.0	3415.68736 (18111221)	2776.94899 (18111221)	2306.74167 (18111221)	1981.84083 (18111221)	1733.24473 (18111221)
30.0	4647.25377 (18122919)	3749.04956 (18122919)	3113.32114 (18122919)	2601.12387 (18122919)	2263.14349 (18122919)
40.0	4152.96505 (18112421)	3309.78398 (18020519)	2740.26266 (18020519)	2307.60226 (18020519)	2009.87725 (18020519)
50.0	4663.34378 (18033021)	3571.44281 (18033021)	2885.12204 (18033021)	2341.40862 (18033021)	2026.11760 (18033021)
60.0	4016.79447 (18122918)	3184.28037 (18122918)	2505.27234 (18122918)	2130.73119 (18122918)	

2021.91210 (18122918)
70.0 | 3605.16622 (18110518) 2695.73805 (18110518) 2206.07069 (18110518) 2138.78549 (18110518) 1822.89971 (18110518)
80.0 | 2774.75102 (18112318) 2168.11425 (18112318) 1766.26253 (18112318) 1592.98176 (18040419) 1389.90042 (18040419)
90.0 | 3787.44808 (18112520) 2881.41494 (18112520) 2544.74756 (18112520) 2112.27258 (18112520) 1859.74956 (18112520)
100.0 | 4058.09015 (18110418) 3091.96268 (18110418) 2807.21658 (18110418) 2379.03455 (18110418) 2091.24752 (18110418)
110.0 | 3271.67020 (18042606) 2523.84406 (18042606) 2297.49209 (18042606) 2016.85441 (18042606) 1741.30085 (18042606)
120.0 | 3316.93633 (18091506) 2573.97419 (18091506) 2293.55222 (18091506) 2116.22981 (18091506) 1807.18619 (18091506)
130.0 | 3639.30272 (18070320) 2794.34871 (18070320) 2381.83783 (18102521) 2205.30586 (18102521) 1924.36707 (18102521)
140.0 | 3405.32161 (18112508) 2584.55175 (18112508) 2089.31026 (18112508) 1778.85441 (18112508) 1684.66160 (18112508)
150.0 | 4037.50197 (18110419) 3223.68225 (18110419) 2643.41459 (18110419) 2088.72593 (18102921) 1808.41838 (18102921)
160.0 | 4251.31373 (18080720) 3444.57626 (18080720) 2780.35197 (18080720) 2205.20042 (18080720) 1955.28651 (18080720)
170.0 | 4469.62815 (18060620) 3595.40572 (18060620) 2964.46433 (18060620) 2778.11232 (18060620) 2042.89240 (18060620)
180.0 | 3756.44311 (18040407) 3030.87361 (18040407) 2489.32393 (18040407) 2116.43975 (18011707) 1793.02985 (18011707)
190.0 | 2938.01622 (18080520) 2345.44047 (18121806) 1930.36599 (18121807) 1649.39271 (18121807) 1414.19602 (18121807)
200.0 | 2962.51706 (18070906) 2409.39191 (18070906) 1978.67062 (18070906) 1656.71718 (18070906) 1408.87692 (18070906)
210.0 | 3221.34997 (18071406) 2816.19916 (18071406) 2161.72180 (18071406) 1834.51289 (18071406) 1504.51611 (18071406)
220.0 | 2664.24458 (18010920) 2461.19215 (18010920) 2024.73359 (18010920) 1537.47269 (18010920) 1312.23981 (18010920)
230.0 | 2940.97608 (18081907) 2319.87619 (18081907) 1909.67749 (18081907) 1613.23191 (18081907) 1396.66178 (18081907)
240.0 | 3459.03273 (18120820) 2715.32998 (18120820) 2244.08595 (18120820) 1893.64653 (18120820) 1624.43760 (18120820)
250.0 | 3358.92433 (18091906) 2738.60379 (18091906) 2274.42890 (18021607) 1948.67699 (18021607) 1633.62795 (18021607)
260.0 | 3589.54399 (18020806) 2916.34740 (18020806) 2431.77428 (18020806) 2088.17106 (18020806) 1799.33694 (18020806)
270.0 | 3523.73198 (18021606) 2833.32788 (18021606) 2375.81185 (18021606) 1996.53127 (18021606) 1680.98453 (18021606)
280.0 | 3620.27297 (18091907) 2944.11104 (18091907) 2426.90629 (18091907) 2029.35605 (18091907) 1757.68558 (18091907)
290.0 | 3744.48559 (18061706) 3028.61053 (18061706) 2509.76749 (18061706) 2127.89186 (18061706) 1842.95646 (18061706)
300.0 | 3682.03531 (18123006) 2962.75091 (18123006) 2463.09761 (18123006) 2119.74240 (18123006) 1862.67685 (18123006)
310.0 | 3467.75094 (18071320) 2817.02538 (18051106) 2362.85450 (18051106) 2039.30888 (18051106) 1740.04223 (18051106)
320.0 | 3332.11911 (18071506) 2722.11949 (18071506) 2278.23199 (18071506) 1940.05677 (18071506) 1648.27589 (18071506)
330.0 | 3317.30468 (18071221) 2691.36518 (18071221) 2278.39499 (18071221) 1955.07390 (18071221) 1700.17253 (18071221)
340.0 | 3250.37271 (18120819) 2616.27051 (18120819) 2149.74217 (18120819) 1857.99381 (18120819) 1613.33755 (18120819)
350.0 | 3562.00582 (18011121) 2897.19251 (18011121) 2418.74366 (18011121) 2052.18114 (18011121) 1784.80003 (18011121)
360.0 | 3325.55182 (18052120) 2647.06817 (18112506) 2244.52717 (18112506) 1878.70051 (18072706) 1631.56605 (18072706)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	1643.73033 (18082207)	1466.94203 (18082207)	1313.74961 (18082207)	1187.76444 (18082207)	1078.67123 (18082207)
20.0	1531.53969 (18111221)	1360.23177 (18111221)	1214.17395 (18111221)	1094.57522 (18111221)	993.44747 (18111221)
30.0	1979.46552 (18122919)	1746.56705 (18122919)	1590.96092 (18122919)	1444.68686 (18122919)	1291.49329 (18122919)
40.0	1622.08642 (18020519)	1439.87800 (18020519)	1290.38699 (18020519)	1165.84579 (18020519)	1060.13242 (18020519)
50.0	1970.83383 (18033021)	1768.11280 (18033021)	1581.81745 (18033021)	1447.29656 (18033021)	1327.69031 (18033021)
60.0	1771.80020 (18122918)	1531.46073 (18122918)	1408.28403 (18122918)	1289.23844 (18122918)	1180.12294 (18123018)
70.0	1602.79477 (18112318)	1403.15439 (18112318)	1246.95814 (18112318)	1125.57430 (18112318)	1022.94306 (18112318)
80.0	1225.45341 (18040419)	1093.18935 (18040419)	983.08631 (18040419)	885.99894 (18040419)	804.97351 (18040419)
90.0	1621.39820 (18112520)	1407.33097 (18112519)	1275.07752 (18112519)	1144.67626 (18112520)	1031.53723 (18112520)
100.0	1822.90279 (18110418)	1617.43498 (18110418)	1523.30501 (18110418)	1383.27850 (18110418)	1272.22818 (18110418)
110.0	1462.23075 (18042606)	1304.88119 (18042606)	1189.81878 (18042606)	1075.53105 (18042606)	994.61530 (18042606)
120.0	1612.44230 (18091506)	1330.24189 (18091506)	1240.89371 (18091506)	1136.72975 (18091506)	1002.33518 (18091506)
130.0	1682.02386 (18102521)	1451.03780 (18102521)	1268.79528 (18102521)	1132.25459 (18102521)	1028.12855 (18102521)
140.0	1479.95602 (18112508)	1317.55084 (18112508)	1176.32244 (18112508)	1070.35115 (18112508)	986.78665 (18112508)
150.0	1743.23119 (18102921)	1519.18293 (18102921)	1352.72703 (18102921)	1222.58696 (18102921)	1194.70030 (18102921)
160.0	1592.90830 (18042006)	1408.98505 (18080720)	1428.62335 (18080720)	1339.40524 (18080720)	1178.90115 (18080720)
170.0	1859.48015 (18060620)	1458.82354 (18060620)	1300.94885 (18060620)	1248.64539 (18060620)	1202.61649 (18060620)
180.0	1601.85704 (18011707)	1370.16084 (18011707)	1139.21628 (18011707)	1029.65319 (18011707)	1008.19620 (18110621)
190.0	1250.81194 (18121807)	1116.28605 (18121807)	958.64867 (18121807)	888.42687 (18121807)	698.64434 (18121807)
200.0	1233.39407 (18070906)	1082.76556 (18070906)	990.01038 (18070906)	923.30965 (18070906)	904.77458 (18070906)
210.0	1314.77859 (18071406)	1145.02305 (18071406)	1036.60587 (18071406)	922.94018 (18071406)	967.37004 (18071406)
220.0	1113.52399 (18010920)	957.22564 (18010920)	846.26067 (18010920)	783.86943 (18010920)	712.13686 (18010920)
230.0	1228.86065 (18081907)	1081.83975 (18081907)	926.86918 (18081907)	843.34792 (18081907)	729.88965

(18081907)
240.0 | 1421.09677 (18120820) 1237.22922 (18120820) 1126.27079 (18120820) 1007.43493 (18120820)
868.91287 (18120820)
250.0 | 1424.13116 (18021607) 1244.94764 (18021607) 1113.34461 (18021607) 1000.81876 (18021607) 898.00324
(18021607)
260.0 | 1574.14539 (18020806) 1392.04191 (18020806) 1239.13248 (18020806) 1105.65723 (18020806)
995.64578 (18020806)
270.0 | 1482.10007 (18012821) 1301.18450 (18012821) 1171.33761 (18012821) 1064.67714 (18012821)
969.26633 (18012821)
280.0 | 1507.76481 (18091907) 1383.43377 (18091907) 1277.83300 (18091907) 1175.28126 (18091907)
1101.35433 (18091907)
290.0 | 1665.26876 (18061706) 1481.74266 (18061706) 1352.79395 (18061706) 1224.70329 (18061706)
1116.84749 (18061706)
300.0 | 1678.52993 (18123006) 1467.43823 (18123006) 1311.23760 (18123006) 1188.35011 (18123006)
1115.98722 (18123006)
310.0 | 1539.38121 (18051106) 1362.91090 (18081906) 1245.50349 (18081906) 1138.64953 (18081906) 975.45472
(18081906)
320.0 | 1442.22133 (18071506) 1328.89043 (18071506) 1204.44723 (18071506) 1092.31513 (18071506)
984.26717 (18071506)
330.0 | 1529.91213 (18071221) 1339.27853 (18071221) 1193.81310 (18071221) 1084.82238 (18071221)
975.53460 (18071221)
340.0 | 1394.94478 (18120819) 1215.11789 (18120819) 1063.82369 (18120819) 960.13342 (18120819) 894.17982
(18120819)
350.0 | 1563.59078 (18011121) 1399.78223 (18011121) 1249.20607 (18011121) 1122.10018 (18011121) 1003.31454
(18011121)
360.0 | 1425.15855 (18072706) 1267.30230 (18072706) 1139.48252 (18072706) 1028.56902 (18072706)
944.17755 (18072706)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	984.67472 (18082207)	901.46996 (18082207)	829.24749 (18082207)	761.25103 (18082207)	698.89417 (18082207)
20.0	902.09113 (18111221)	811.20379 (18111221)	750.46224 (18111221)	703.32919 (18111221)	660.45708 (18111221)
30.0	1171.53481 (18122919)	1078.49254 (18122919)	992.70494 (18122919)	912.96609 (18122919)	851.17162 (18122919)
40.0	968.76472 (18020519)	888.84203 (18020519)	818.12926 (18020519)	755.38485 (18020519)	700.59833 (18020519)
50.0	1192.73641 (18033021)	1112.08890 (18033021)	1015.36297 (18033021)	934.70197 (18033021)	883.46908 (18033021)
60.0	1079.80555 (18123018)	987.75177 (18122918)	899.41359 (18122918)	823.48653 (18122918)	761.86424 (18122918)
70.0	972.45904 (18112318)	866.30809 (18112318)	804.68983 (18112318)	743.19759 (18112318)	704.17254 (18020720)
80.0	736.51676 (18040419)	675.76681 (18040419)	614.24885 (18040419)	564.37218 (18112507)	532.84124 (18112507)
90.0	932.10242 (18112520)	830.04786 (18112520)	752.43876 (18112519)	694.35275 (18112519)	651.80567

(18112519)
100.0 | 1172.11749 (18110418) 1073.63592 (18110418) 997.27163 (18110418) 903.97644 (18110418) 853.98205 (18110418)
110.0 | 930.13368 (18042606) 849.45968 (18042606) 782.30522 (18042606) 718.13908 (18042606) 667.35479 (18042606)
120.0 | 927.37884 (18091506) 860.79442 (18091506) 810.33012 (18091506) 748.74742 (18091506) 698.35995 (18091506)
130.0 | 952.26563 (18102521) 893.59161 (18102521) 836.87578 (18102521) 797.43387 (18102521) 732.41637 (18102521)
140.0 | 903.78201 (18112508) 844.26859 (18112508) 782.34283 (18112508) 733.68108 (18112508) 679.99809 (18112508)
150.0 | 1094.20641 (18102921) 970.60061 (18102921) 902.79718 (18102921) 829.06614 (18102921) 770.69486 (18102921)
160.0 | 1003.86566 (18080720) 977.77185 (18080720) 905.86470 (18080720) 848.99956 (18080720) 783.61050 (18080720)
170.0 | 1065.93921 (18060620) 999.71138 (18060620) 940.90202 (18060620) 882.50256 (18060620) 832.40513 (18060620)
180.0 | 935.98399 (18110621) 850.23092 (18110621) 793.12614 (18110621) 738.80378 (18110621) 699.35033 (18110621)
190.0 | 639.60350 (18121807) 588.69603 (18121807) 544.41778 (18121807) 571.69135 (18013121) 537.57131 (18062806)
200.0 | 788.66939 (18070906) 589.20158 (18070906) 544.89923 (18070906) 566.71655 (18070906) 532.14134 (18070906)
210.0 | 666.49817 (18071406) 614.88680 (18071406) 570.44829 (18071406) 611.71773 (18071406) 581.59308 (18071406)
220.0 | 713.18660 (18040406) 519.58412 (18010920) 480.50877 (18010920) 446.25745 (18010920) 447.48736 (18010920)
230.0 | 679.56100 (18081907) 638.00173 (18081907) 582.52466 (18081907) 516.02299 (18081907) 495.20274 (18081907)
240.0 | 794.96145 (18120820) 718.62522 (18120820) 614.04856 (18120820) 545.08091 (18120820) 550.00723 (18120820)
250.0 | 819.94314 (18021607) 741.42720 (18021607) 694.11433 (18021607) 612.34883 (18021607) 543.66838 (18021607)
260.0 | 909.35424 (18020806) 813.54788 (18020806) 736.84617 (18020806) 665.34307 (18020806) 630.29309 (18020806)
270.0 | 890.13043 (18012821) 808.52066 (18012821) 735.42693 (18012821) 687.05676 (18012821) 644.27302 (18012821)
280.0 | 989.62009 (18091907) 889.84496 (18091907) 819.75306 (18091907) 766.67368 (18091907) 725.49227 (18091907)
290.0 | 1031.25272 (18061706) 953.59065 (18061706) 885.89344 (18061706) 835.83221 (18061706) 776.77545 (18061706)
300.0 | 997.57266 (18123006) 914.92226 (18123006) 842.90232 (18123006) 784.86661 (18123006) 752.96415 (18123006)
310.0 | 920.87943 (18081906) 839.36007 (18081906) 779.87032 (18081906) 701.46320 (18081906) 654.09581 (18081906)
320.0 | 884.82357 (18071506) 800.95466 (18071506) 750.61191 (18071506) 668.48962 (18071506) 617.57435 (18071506)
330.0 | 880.94938 (18071221) 808.66092 (18071221) 726.51484 (18071221) 660.66799 (18071221) 616.52234 (18071221)
340.0 | 797.79263 (18010108) 738.35560 (18120819) 652.48946 (18010108) 606.18570 (18010108) 571.83633 (18010108)
350.0 | 911.58498 (18022606) 833.74445 (18022606) 771.77963 (18022606) 716.16462 (18022606) 671.31693 (18022606)
360.0 | 868.49150 (18072706) 802.37115 (18072706) 744.05779 (18072706) 688.28028 (18072706) 639.80519 (18072706)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL

***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	6332.35964	(18091506)	TANK	498.87	129.50	4621.68185	(18070320)
TANK	81.43	359.00	48125.46060	(18011121)	TANK	116.79	44.50	31775.11334	(18033021)
TANK	109.20	67.00	30598.67185	(18012018)	TANK	100.70	93.73	41776.67995	(18041906)
TANK	87.91	103.99	41889.17324	(18110418)	TANK	99.82	123.38	34729.16209	(18070320)
TANK	138.00	141.00	26801.44916	(18070320)	TANK	106.00	180.00	34597.97179	(18040407)
TANK	115.60	206.00	29641.15617	(18071406)	TANK	54.00	270.00	71532.90126	(18121608)
TANK	97.00	326.00	32775.36589	(18052421)	TANK	133.94	242.10	24316.56859	(18120820)
TANK	101.99	301.65	37955.63461	(18121607)	TANK	236.54	274.95	11403.92101	(18091907)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:10:23

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	31384.68401 (18082207)	14457.92759 (18082207)	8974.30066 (18082207)	6273.00472 (18082207)	4696.18580 (18082207)
20.0	33594.11867 (18110520)	14826.13217 (18110520)	8737.19461 (18112521)	5697.77772 (18111221)	4312.64010 (18111221)
30.0	40351.39062 (18122920)	18387.47022 (18122920)	11176.98466 (18122920)	7721.92807 (18122920)	5742.23639 (18122920)
40.0	35431.13136 (18081306)	15801.45722 (18011120)	9034.43855 (18122920)	5940.98238 (18122920)	4355.51646 (18061520)
50.0	44304.40768 (18033021)	19645.09099 (18033021)	11743.37840 (18033021)	7924.26539 (18022421)	5887.49571 (18022421)
60.0	38285.40389 (18123018)	17577.67619 (18123018)	10467.75995 (18022421)	6931.66214 (18022421)	4977.61644 (18022421)
70.0	31121.38122 (18012018)	14161.87155 (18012018)	8567.68478 (18122918)	5871.42624 (18020720)	4422.67170 (18020720)
80.0	28112.77196 (18112318)	11472.12637 (18121818)	7079.07507 (18121818)	4846.30746 (18121818)	3559.64836 (18121818)
90.0	37597.05590 (18041906)	16345.13514 (18112519)	9633.09804 (18112519)	6440.41152 (18112519)	4711.76293 (18112519)
100.0	39052.26814 (18112520)	17076.98198 (18112520)	9929.35355 (18112520)	6593.24521 (18112520)	4710.12911 (18112520)
110.0	30309.89082 (18041906)	13494.86286 (18042606)	8201.27795 (18091507)	5510.55241 (18091507)	4064.18481 (18091507)
120.0	29167.56525 (18091506)	13325.32714 (18101121)	8154.83407 (18021720)	5615.60566 (18021720)	4189.87023 (18021720)
130.0	31417.67206 (18031321)	14671.26215 (18102521)	9017.83142 (18102521)	6176.12295 (18102521)	

4599.10629 (18102521)
140.0 | 30123.01668 (18121719) 14063.40324 (18121719) 8482.28105 (18121719) 5835.54955 (18112508)
4326.62743 (18112508)
150.0 | 38280.72574 (18042006) 16451.89871 (18042006) 9347.40140 (18042006) 6128.55061 (18042006)
4391.65876 (18092420)
160.0 | 38193.49831 (18080720) 17580.02636 (18090721) 10461.32082 (18042006) 7182.58655 (18042006)
5345.64107 (18042006)
170.0 | 42981.03975 (18062706) 18556.55910 (18091406) 10539.38447 (18070321) 7107.48439 (18070321)
5419.52659 (18070321)
180.0 | 35793.79495 (18060620) 15195.55202 (18060620) 9139.01748 (18120406) 6322.99071 (18120406)
4706.45466 (18120406)
190.0 | 30038.82647 (18091406) 12134.24179 (18021707) 7244.90239 (18080520) 4952.97485 (18121807)
3687.55551 (18121807)
200.0 | 30407.16105 (18091306) 12595.58178 (18121806) 7395.22756 (18121806) 4992.29437 (18121806)
3691.86841 (18121806)
210.0 | 32974.38825 (18091306) 14203.89600 (18071406) 8358.65592 (18071406) 5583.48661 (18031607)
4043.68973 (18031607)
220.0 | 26914.04447 (18010920) 11573.01863 (18010920) 6865.23834 (18010920) 4462.86277 (18071406)
3247.00489 (18071406)
230.0 | 31019.51670 (18040406) 12546.17662 (18081907) 7331.14357 (18081907) 5023.45600 (18081907)
3687.04251 (18040406)
240.0 | 29490.84119 (18010919) 12346.71091 (18082007) 7262.73076 (18122419) 4974.79095 (18122419)
3704.69774 (18122419)
250.0 | 32027.76523 (18122407) 13897.35224 (18021607) 8283.59494 (18021607) 5661.60983 (18021607)
4304.03562 (18021607)
260.0 | 34600.29814 (18040207) 15052.08926 (18020806) 8881.82639 (18122406) 6113.03610 (18122406)
4501.19195 (18122406)
270.0 | 35725.25021 (18121608) 14764.75044 (18012821) 8784.04309 (18122406) 5962.73600 (18021606)
4424.36438 (18021606)
280.0 | 33402.08498 (18030606) 14738.57160 (18030606) 8811.03939 (18030606) 5958.46617 (18030606)
4395.22920 (18030606)
290.0 | 34885.95756 (18030606) 15366.76548 (18030607) 9290.87853 (18030607) 6357.60215 (18030607)
4755.72429 (18030607)
300.0 | 34404.51466 (18071306) 15322.34676 (18071306) 9222.97148 (18123006) 6341.25392 (18123006)
4711.63709 (18123006)
310.0 | 33037.26392 (18121607) 14346.95934 (18051106) 8690.41211 (18051106) 5994.59277 (18051106)
4428.71708 (18051106)
320.0 | 32614.90840 (18052421) 14151.01152 (18071506) 8258.88056 (18081906) 5509.05131 (18081906)
3898.18835 (18081906)
330.0 | 28973.75106 (18031021) 11903.41699 (18020620) 7299.72485 (18020620) 5088.80678 (18020620)
3805.05815 (18020620)
340.0 | 31468.55646 (18110521) 11856.97267 (18010108) 7253.33566 (18010108) 5030.28654 (18010108)
3728.19033 (18010108)
350.0 | 35108.87615 (18120819) 15174.35117 (18120819) 8916.46982 (18120819) 5990.83410 (18120819)
4365.69542 (18120819)
360.0 | 29168.07169 (18022606) 12391.41178 (18052120) 7892.50203 (18052120) 5588.60454 (18052120)
4229.39252 (18052120)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)

(DEGREES)	600.00	700.00	800.00	900.00	1000.00
10.0	3683.55981 (18082207)	2965.90443 (18082207)	2457.74313 (18082207)	2131.19127 (18082207)	1820.86309 (18110520)
20.0	3284.99898 (18110520)	2625.94736 (18110520)	2167.24312 (18110520)	1825.95818 (18031119)	1602.67512 (18031119)
30.0	4459.58822 (18122920)	3577.36855 (18122920)	2957.37214 (18122920)	2473.49758 (18122920)	2152.48094 (18122920)
40.0	3373.72576 (18031807)	2744.17051 (18031807)	2286.09445 (18031807)	1936.14734 (18031807)	1686.36782 (18031807)
50.0	4525.09856 (18022421)	3503.78861 (18022421)	2826.94044 (18022421)	2309.43811 (18022421)	1969.54472 (18022421)
60.0	3731.07571 (18022421)	2924.64220 (18022421)	2328.71449 (18022421)	1947.62237 (18022421)	1753.75243 (18022421)
70.0	3512.87730 (18020720)	2643.37605 (18020720)	2164.24094 (18020720)	2086.49608 (18020720)	1781.62257 (18020720)
80.0	2713.76052 (18121818)	2128.09481 (18121818)	1759.36610 (18040419)	1561.74922 (18071521)	1336.39563 (18121818)
90.0	3602.77582 (18112519)	2752.01305 (18112519)	2416.26636 (18112519)	2087.00317 (18112519)	1793.61101 (18112519)
100.0	3671.88979 (18112520)	2820.24479 (18112520)	2472.42689 (18041021)	2097.44333 (18041021)	1844.43220 (18041021)
110.0	3176.95586 (18091507)	2436.42808 (18091507)	2154.91653 (18091507)	1890.47144 (18091507)	1629.75127 (18091507)
120.0	3249.86707 (18021720)	2543.70668 (18021720)	2239.93167 (18021720)	2014.84946 (18021720)	1735.10102 (18021720)
130.0	3586.17914 (18102521)	2764.90174 (18102521)	2303.83131 (18022420)	2120.41744 (18022420)	1847.45872 (18022420)
140.0	3385.35587 (18102921)	2571.47833 (18102921)	2049.37942 (18102921)	1726.29870 (18102920)	1648.67764 (18102920)
150.0	3383.43552 (18092420)	2700.74418 (18022020)	2214.66798 (18022020)	1751.53553 (18022020)	1516.59053 (18022020)
160.0	4154.27909 (18042006)	3352.03556 (18042006)	2714.60903 (18042006)	2190.11633 (18042006)	1911.64895 (18042006)
170.0	4245.35413 (18070321)	3434.58264 (18070321)	2847.18460 (18070321)	2601.26634 (18070321)	1995.17181 (18070321)
180.0	3691.59684 (18011707)	2999.29406 (18011707)	2485.88074 (18011707)	2111.14135 (18040407)	1775.58557 (18110621)
190.0	2886.67692 (18121807)	2334.46405 (18121807)	1920.19698 (18062806)	1640.56459 (18062806)	1406.70550 (18062806)
200.0	2865.94976 (18012020)	2335.97138 (18012020)	1926.44731 (18012020)	1619.25065 (18012020)	1381.74466 (18012020)
210.0	3091.88561 (18031607)	2561.00821 (18111007)	2003.82867 (18031607)	1701.47593 (18031607)	1409.20966 (18031607)
220.0	2424.94808 (18110707)	2194.39245 (18110707)	1832.59597 (18110707)	1400.17859 (18110707)	1197.15432 (18110707)
230.0	2910.47705 (18040406)	2284.97985 (18040406)	1877.42619 (18040406)	1584.46276 (18040406)	1368.43699 (18040406)
240.0	2938.40659 (18122419)	2331.77615 (18122419)	1927.94183 (18122419)	1626.78523 (18122419)	1396.01848 (18122419)
250.0	3336.19993 (18021607)	2728.91736 (18021607)	2273.60768 (18091906)	1943.37756 (18020520)	1629.75959 (18020520)
260.0	3494.22951 (18122406)	2800.55379 (18122406)	2300.24958 (18122406)	1965.19294 (18122406)	1690.59018 (18122406)
270.0	3506.09300 (18040207)	2785.09893 (18090907)	2336.80524 (18090907)	1967.03624 (18090907)	1659.81272 (18090907)
280.0	3428.22084 (18030606)	2787.47047 (18030606)	2296.83668 (18030606)	1919.73276 (18030606)	1659.25289 (18030606)
290.0	3681.93670 (18030607)	2979.90791 (18030607)	2471.25657 (18030607)	2096.86175 (18030607)	1817.67182 (18030607)
300.0	3659.91218 (18071320)	2933.69478 (18071320)	2434.32200 (18071320)	2094.28532 (18071320)	

1810.79497 (18071320)
310.0 | 3444.60130 (18051106) 2792.80711 (18071320) 2242.59660 (18071320) 1928.42767 (18071320)
1639.78892 (18071320)
320.0 | 3029.67038 (18081906) 2361.41911 (18081906) 1983.29677 (18112407) 1703.67611 (18112407)
1460.39686 (18112407)
330.0 | 2987.94321 (18020620) 2434.93655 (18020620) 2076.81510 (18020620) 1792.59364 (18020620)
1560.19036 (18020620)
340.0 | 2933.96108 (18010108) 2373.10829 (18010108) 2025.55544 (18010108) 1741.19964 (18010108)
1506.12970 (18010108)
350.0 | 3368.76191 (18120819) 2688.47588 (18022606) 2282.24741 (18022606) 1985.98870 (18022606)
1729.12456 (18022606)
360.0 | 3316.91616 (18011121) 2596.08992 (18072706) 2209.34762 (18011121) 1859.19739 (18112506)
1596.25626 (18120818)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 32
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 1100.00 1200.00 1300.00 1400.00 1500.00

10.0 | 1574.75264 (18110520) 1408.35087 (18110520) 1258.58928 (18110520) 1145.48303 (18110520) 1034.89679
(18110520)
20.0 | 1423.11454 (18031119) 1269.33327 (18031119) 1136.58182 (18031119) 1025.06636 (18031119) 928.96736
(18031119)
30.0 | 1883.85006 (18122920) 1663.29187 (18122920) 1505.34751 (18122920) 1347.64891 (18122920)
1206.68197 (18122920)
40.0 | 1386.50655 (18031807) 1230.88709 (18031807) 1103.15775 (18031807) 996.72115 (18031807) 906.86235
(18031807)
50.0 | 1864.74284 (18022421) 1646.95229 (18123019) 1480.34990 (18123019) 1365.55613 (18123019)
1256.78227 (18123019)
60.0 | 1483.00096 (18022421) 1301.74544 (18022421) 1143.40430 (18032521) 1035.60166 (18032521) 955.96009
(18112420)
70.0 | 1570.18024 (18020720) 1389.23488 (18020720) 1241.46581 (18020720) 1121.32100 (18020720)
1019.62742 (18020720)
80.0 | 1162.67792 (18121818) 1034.37843 (18071521) 928.19524 (18071521) 833.72572 (18071521) 756.67951
(18071521)
90.0 | 1586.13662 (18112519) 1397.13671 (18112520) 1255.53393 (18112520) 1134.64869 (18112519) 1012.59928
(18112519)
100.0 | 1609.64032 (18041021) 1429.62256 (18041021) 1344.24055 (18041021) 1220.42510 (18041021)
1121.87164 (18041021)
110.0 | 1358.54014 (18091507) 1214.26015 (18091507) 1109.61997 (18091507) 990.56365 (18091507) 880.57734
(18110920)
120.0 | 1540.66519 (18021720) 1294.68497 (18021720) 1197.33463 (18021720) 1093.95353 (18021720)
970.70766 (18021720)
130.0 | 1614.03388 (18022420) 1393.80055 (18022420) 1219.35508 (18022420) 1087.99038 (18022420)
987.51835 (18022420)
140.0 | 1448.32570 (18102920) 1289.75108 (18102920) 1150.80503 (18102920) 1048.04953 (18102920)
968.23634 (18102920)
150.0 | 1496.39194 (18092420) 1308.86504 (18092420) 1166.84597 (18092420) 1054.68011 (18092420)
1018.88025 (18092420)
160.0 | 1589.26687 (18080720) 1401.04121 (18042006) 1390.78411 (18042006) 1287.40327 (18042006)

1145.91765 (18042006)
170.0 | 1800.71238 (18070321) 1436.26313 (18070321) 1287.61375 (18070321) 1221.18200 (18070321)
1152.67205 (18070321)
180.0 | 1595.68507 (18110621) 1361.78047 (18110621) 1129.16944 (18110621) 1020.57999 (18110621)
1002.80204 (18011707)
190.0 | 1244.04168 (18062806) 1110.14765 (18062806) 954.04492 (18013121) 883.61095 (18062806) 697.59874
(18013121)
200.0 | 1208.41987 (18012020) 1060.59809 (18012020) 967.49720 (18012020) 899.00973 (18012020) 902.81540
(18012020)
210.0 | 1232.25642 (18031607) 1072.65761 (18031607) 961.34294 (18111007) 856.99299 (18111007) 886.02021
(18111007)
220.0 | 1017.70566 (18110707) 876.02044 (18110707) 774.99853 (18110707) 720.19198 (18110707) 657.36229
(18110707)
230.0 | 1191.04349 (18082006) 1045.97478 (18082006) 896.92708 (18040406) 812.37265 (18082006) 707.42175
(18040406)
240.0 | 1220.94816 (18122419) 1067.14261 (18122419) 969.68098 (18122419) 869.56359 (18122419) 756.69912
(18122419)
250.0 | 1420.89378 (18020520) 1242.29241 (18020520) 1111.00469 (18020520) 998.76386 (18020520) 896.25513
(18020520)
260.0 | 1477.34819 (18122406) 1305.21544 (18122406) 1160.68533 (18122406) 1034.37355 (18122406)
930.58014 (18122406)
270.0 | 1465.41339 (18090907) 1292.63394 (18090907) 1165.06151 (18090907) 1058.54636 (18090907)
963.73372 (18090907)
280.0 | 1425.85542 (18030606) 1278.85810 (18120821) 1180.06874 (18120821) 1085.17441 (18120821)
1014.49037 (18120821)
290.0 | 1643.52755 (18030607) 1463.94039 (18030607) 1337.80396 (18030607) 1212.44554 (18030607)
1106.40971 (18030607)
300.0 | 1616.68970 (18071306) 1411.47639 (18071306) 1260.86263 (18071306) 1142.69403 (18071306)
1074.43642 (18071306)
310.0 | 1423.33417 (18071320) 1227.84961 (18071320) 1138.00735 (18071320) 998.25449 (18021706) 887.16536
(18071320)
320.0 | 1280.03152 (18112407) 1166.24660 (18112407) 1053.21132 (18112407) 957.89466 (18112407) 876.55269
(18112407)
330.0 | 1387.34336 (18020620) 1224.92824 (18020620) 1094.02086 (18020620) 992.74832 (18020620) 901.74808
(18020620)
340.0 | 1328.30945 (18010108) 1175.48517 (18010108) 1052.24037 (18010108) 958.35644 (18010108) 887.62317
(18010108)
350.0 | 1516.58830 (18022606) 1352.68637 (18022606) 1206.73507 (18022606) 1085.74356 (18022606)
985.53892 (18022606)
360.0 | 1399.38209 (18120818) 1249.36289 (18120818) 1128.59142 (18120818) 1023.38430 (18120818)
938.90384 (18120818)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 33
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 1600.00 1700.00 1800.00 1900.00 2000.00
- -

10.0 | 928.40175 (18110520) 839.37068 (18110520) 762.29045 (18110520) 700.59018 (18110520) 650.68744
(18110520)
20.0 | 843.61554 (18031119) 763.12568 (18031119) 702.83794 (18031119) 653.03104 (18031119) 609.00198

(18031119)
30.0 | 1088.58574 (18122920) 998.92711 (18111321) 920.45805 (18111321) 848.11439 (18111321) 790.82020 (18111321)
40.0 | 829.69968 (18031807) 762.32315 (18031807) 702.86124 (18031807) 649.82323 (18031807) 602.35942 (18031807)
50.0 | 1133.64501 (18123019) 1055.58365 (18123019) 966.22083 (18123019) 890.97700 (18123019) 840.56592 (18123019)
60.0 | 877.48905 (18112420) 816.06490 (18112420) 738.08513 (18112420) 682.87681 (18032521) 641.26004 (18032521)
70.0 | 963.70991 (18020720) 863.33726 (18020720) 801.61420 (18020720) 741.05926 (18020720) 695.71618 (18112318)
80.0 | 691.99221 (18071521) 634.32452 (18071521) 574.59147 (18071521) 544.29436 (18071921) 510.93957 (18071921)
90.0 | 909.48370 (18112519) 821.93157 (18112519) 751.90944 (18112520) 678.82055 (18112520) 629.21492 (18112520)
100.0 | 1033.30122 (18041021) 946.78589 (18041021) 879.28507 (18041021) 797.92855 (18041021) 753.37363 (18041021)
110.0 | 819.72298 (18110920) 750.45699 (18110920) 691.98261 (18110920) 636.83847 (18110920) 592.24789 (18110920)
120.0 | 896.73319 (18021720) 831.37634 (18021720) 780.44512 (18021720) 721.97948 (18021720) 673.49962 (18021720)
130.0 | 914.15223 (18022420) 857.34234 (18022420) 802.63433 (18022420) 764.21712 (18022420) 702.24517 (18022420)
140.0 | 886.79024 (18102920) 830.55071 (18102920) 769.85230 (18102920) 723.15491 (18102920) 669.52329 (18102920)
150.0 | 962.07231 (18092420) 832.86316 (18092420) 778.87392 (18092420) 728.22801 (18092420) 689.12075 (18092420)
160.0 | 976.26460 (18042006) 946.31312 (18042006) 866.55038 (18042006) 808.68418 (18041221) 749.31607 (18041221)
170.0 | 1026.81237 (18070321) 959.84103 (18111006) 901.61235 (18070321) 845.05318 (18070321) 798.51623 (18070321)
180.0 | 924.74618 (18011707) 839.17248 (18011707) 783.25324 (18011707) 729.73407 (18011707) 691.53986 (18011707)
190.0 | 638.62110 (18013121) 587.77036 (18013121) 543.54350 (18013121) 571.49691 (18062806) 537.54615 (18013121)
200.0 | 778.07397 (18012020) 583.05980 (18012020) 539.19700 (18012020) 555.99174 (18012020) 521.73738 (18012020)
210.0 | 646.24155 (18031607) 594.88400 (18031607) 550.21211 (18031607) 567.29504 (18111007) 538.44559 (18111007)
220.0 | 681.66663 (18110707) 477.23442 (18110707) 441.30543 (18110707) 409.79804 (18110707) 416.29648 (18110707)
230.0 | 652.90042 (18082006) 608.37984 (18082006) 554.45819 (18082006) 494.08467 (18082006) 469.49640 (18082006)
240.0 | 692.85701 (18122419) 628.19966 (18122419) 542.18616 (18122419) 484.28021 (18122419) 484.34210 (18122419)
250.0 | 818.36680 (18020520) 740.09449 (18020520) 692.81160 (18020520) 611.38617 (18020520) 542.93883 (18020520)
260.0 | 849.63463 (18122406) 758.74066 (18122406) 686.35914 (18122406) 618.84873 (18122406) 586.73139 (18122406)
270.0 | 884.88795 (18090907) 804.69721 (18090907) 732.99133 (18090907) 684.47061 (18090907) 641.56111 (18090907)
280.0 | 913.85394 (18120821) 823.79297 (18120821) 759.29075 (18120821) 709.80015 (18120821) 670.88621 (18120821)
290.0 | 1021.59006 (18030607) 944.59132 (18030607) 877.47113 (18030607) 827.52916 (18030607) 769.18794 (18030607)
300.0 | 959.34822 (18071306) 879.66792 (18071306) 810.24970 (18071306) 754.49194 (18071306) 724.56369 (18071306)
310.0 | 812.37079 (18021706) 741.76281 (18021706) 688.91920 (18021706) 622.34653 (18021706) 580.37845 (18021706)
320.0 | 787.74105 (18112407) 716.48726 (18112407) 683.88734 (18112407) 612.23359 (18112407) 569.12569 (18112407)
330.0 | 822.50336 (18020620) 758.44179 (18020620) 686.33337 (18020620) 623.44899 (18020620) 585.59751

(18020620)
340.0 | 797.42362 (18120819) 738.08605 (18010108) 645.09798 (18120819) 599.26125 (18120819) 566.56003 (18120819)
350.0 | 901.06475 (18011121) 825.47992 (18011121) 766.63726 (18011121) 711.06835 (18011121) 666.86250 (18011121)
360.0 | 863.34371 (18120818) 797.51695 (18120818) 739.61881 (18120818) 685.28733 (18120818) 637.71899 (18120818)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 34
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)
TANK	375.70	118.90	6191.86310	(18101121)	TANK	498.87	129.50	4611.96985	(18102521)
TANK	81.43	359.00	37681.58669	(18022606)	TANK	116.79	44.50	30849.28860	(18022421)
TANK	109.20	67.00	28779.07171	(18112318)	TANK	100.70	93.73	36922.57796	(18112519)
TANK	87.91	103.99	40753.28032	(18123020)	TANK	99.82	123.38	31196.07078	(18101120)
TANK	138.00	141.00	21705.61183	(18121719)	TANK	106.00	180.00	33625.42794	(18060620)
TANK	115.60	206.00	28586.79376	(18091306)	TANK	54.00	270.00	70429.77671	(18040207)
TANK	97.00	326.00	32424.97379	(18031021)	TANK	133.94	242.10	21338.09163	(18091906)
TANK	101.99	301.65	33569.67381	(18071306)	TANK	236.54	274.95	10939.86298	(18090907)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 35
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	13310.49982c(18123124)	5862.78577c(18123124)	3526.92250c(18123124)	2425.64151c(18123124)	1770.58294c(18123124)
20.0	8956.60450 (18031124)	3592.74351 (18031124)	2032.09542m(18011124)	1345.37974m(18011124)	979.17307m(18011124)
30.0	11911.70281c(18122924)	5350.57556c(18122924)	3244.09310c(18122924)	2241.03969c(18122924)	1672.25845c(18122924)
40.0	10992.06668c(18122924)	4695.60402 (18111224)	2797.37736 (18111224)	1906.91722 (18111224)	1406.90561 (18111224)
50.0	9858.23593 (18032424)	4340.05656 (18032424)	2615.72751 (18032424)	1812.84424 (18032424)	1331.24613 (18032424)
60.0	11549.72648 (18033024)	4682.28517 (18033024)	2694.54150 (18032524)	1866.09818 (18032524)	

1373.15037 (18032524)
70.0 | 10643.80258 (18033024) 4286.29942 (18033024) 2434.20337 (18033024) 1600.91691 (18033024)
1157.36543 (18112424)
80.0 | 11496.25671 (18112524) 4123.74215 (18112524) 2153.45841 (18112524) 1311.39020 (18112524)
936.00793c(18071524)
90.0 | 13859.69491 (18112524) 6055.54913 (18112524) 3546.34298 (18112524) 2368.06543 (18112524)
1726.11361 (18112524)
100.0 | 10863.67767 (18112524) 4877.09015 (18112524) 2858.26574 (18112524) 1902.99198 (18112524)
1365.29966 (18112524)
110.0 | 9282.89971 (18081024) 3758.15011 (18022324) 2270.40917 (18022324) 1549.32694 (18022324)
1136.94328 (18022324)
120.0 | 10235.53068 (18101124) 4837.72718 (18101124) 2920.20125 (18101124) 1974.61925 (18101124)
1454.93883 (18101124)
130.0 | 10751.21971 (18041724) 4700.96896 (18041724) 2787.73350 (18041724) 1870.22729 (18041724)
1367.04953 (18031524)
140.0 | 12453.86424 (18102924) 5680.34972 (18102924) 3398.88691 (18102924) 2290.32835 (18102924)
1665.55549 (18102924)
150.0 | 11077.89106 (18042008) 4647.77484 (18102824) 2809.69446 (18102824) 1890.36618 (18102824)
1372.91757 (18102824)
160.0 | 12088.01045 (18042008) 5264.81236 (18042008) 3067.94077 (18042008) 2093.95675 (18042008)
1558.90865 (18042008)
170.0 | 9663.27502 (18010524) 4379.55203 (18010524) 2599.83778 (18010524) 1775.20724 (18112024)
1292.00780 (18112024)
180.0 | 10822.48954 (18010524) 5244.25975 (18010524) 3240.43725 (18010524) 2242.35060 (18010524)
1666.02598 (18010524)
190.0 | 9837.54218 (18121808) 4556.21881 (18121808) 2713.28180 (18121808) 1850.98104 (18121808)
1377.09066 (18121808)
200.0 | 8824.00907 (18120624) 4022.86498 (18120624) 2333.06384 (18120624) 1544.68909 (18120624)
1105.54794 (18120624)
210.0 | 9476.26597m(18010624) 3974.22886m(18010624) 2207.37150m(18010624) 1436.87818m(18010624)
1021.87700m(18010624)
220.0 | 10465.91980m(18010624) 4504.02548m(18010624) 2575.08532m(18010624) 1722.82370m(18010624)
1243.56890m(18010624)
230.0 | 9856.48218 (18112924) 4152.71388 (18112924) 2346.77376 (18112924) 1580.74168 (18010924)
1146.68136 (18010924)
240.0 | 9879.63691 (18020208) 4307.26365 (18112924) 2503.82072 (18112924) 1678.03830 (18112924)
1223.72520 (18112924)
250.0 | 8628.19891 (18020208) 3641.71213 (18092808) 2191.55712 (18021908) 1501.81902 (18021908)
1116.23590 (18021908)
260.0 | 9249.29947 (18020808) 3990.47522 (18020808) 2338.40115 (18020808) 1581.20418 (18020808)
1153.12894 (18020808)
270.0 | 10215.57030 (18020808) 4351.42615 (18020808) 2511.07506 (18020808) 1668.41507 (18020808)
1201.40473 (18020808)
280.0 | 10178.60639 (18121608) 3953.36657 (18113024) 2384.38008 (18113024) 1654.37427 (18113024)
1215.54824 (18113024)
290.0 | 13119.51508b(18112008) 5794.43699b(18112008) 3448.87310b(18112008) 2341.33482b(18112008)
1708.85574b(18112008)
300.0 | 13432.74806b(18112008) 5726.93595b(18112008) 3275.89381b(18112008) 2172.54373b(18112008)
1554.80701b(18112008)
310.0 | 9832.34330b(18112008) 3575.31390b(18112008) 1916.55264 (18021708) 1312.68217 (18021708)
965.15796 (18021708)
320.0 | 9577.96965 (18121416) 3488.07863 (18112408) 2144.53454 (18112408) 1496.38434 (18112408)
1117.10194 (18112408)
330.0 | 10914.11152 (18121416) 3391.23947 (18112408) 1999.51797 (18112408) 1370.69807m(18123108)
1006.27822m(18123108)
340.0 | 8223.35810 (18051724) 3360.35019 (18020624) 1992.68277 (18020624) 1356.34961 (18020624)
1014.50150 (18030108)
350.0 | 8408.94530 (18022608) 3933.68837 (18022608) 2422.61507 (18022608) 1690.22439 (18022608)
1262.41101 (18022608)
360.0 | 11785.15938c(18123124) 5590.63701c(18123124) 3491.05868c(18123124) 2424.40090c(18123124)
1821.61789c(18123124)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	1388.74874c(18123124)	1118.94264c(18123124)	919.88093c(18123124)	753.77928c(18123124)	644.41508c(18123124)
20.0	744.31665m(18011124)	596.81456m(18011124)	489.74104m(18011124)	406.86743m(18011124)	346.87069m(18011124)
30.0	1300.97743c(18122924)	1046.63116c(18122924)	867.24190c(18122924)	724.94592c(18122924)	630.80349c(18122924)
40.0	1089.97971 (18111224)	894.22816 (18111224)	733.36057 (18111224)	613.82566 (18111224)	529.52597 (18111224)
50.0	1044.59944 (18032424)	851.97339 (18032424)	700.23865 (18032424)	579.78526 (18032424)	496.90583 (18032424)
60.0	1071.21405 (18032524)	855.66183 (18032524)	690.87272 (18032524)	579.95017 (18032524)	525.75286 (18032524)
70.0	876.29542 (18112424)	718.24332 (18112424)	587.40692 (18112424)	505.80208 (18112424)	438.83705 (18112424)
80.0	715.87038c(18071524)	562.02001c(18071524)	459.26583 (18031724)	387.26617 (18031724)	328.94343 (18031724)
90.0	1318.97644 (18112524)	1009.31010 (18112524)	884.92793 (18112524)	751.96689 (18112524)	654.65454 (18112524)
100.0	1056.14784 (18112524)	822.87596 (18112524)	686.46517 (18112524)	575.15315 (18112524)	492.16531 (18112524)
110.0	871.40532 (18022324)	680.60428 (18022324)	579.44749 (18022324)	488.53754 (18022324)	421.33444 (18022324)
120.0	1113.32117 (18101124)	866.31904 (18101124)	749.08632 (18101124)	655.94934 (18101124)	562.30735 (18101124)
130.0	1049.90699 (18031524)	817.31378 (18031524)	682.88623 (18031524)	592.21019 (18031524)	512.92767 (18031524)
140.0	1275.08232 (18102924)	983.19269 (18102924)	791.75948 (18102924)	660.46694 (18102924)	604.95601 (18102724)
150.0	1051.25951 (18102824)	833.53388 (18102824)	676.02305 (18102824)	558.03906 (18102824)	470.92296 (18102824)
160.0	1213.72616 (18042008)	984.55615 (18042008)	797.66250 (18042008)	638.88141 (18042008)	565.38569 (18042008)
170.0	1002.92402 (18112024)	802.91955 (18112024)	662.56670 (18112024)	546.58267 (18112024)	471.59059 (18112024)
180.0	1307.17286 (18010524)	1055.81775 (18010524)	872.53906 (18010524)	740.00004 (18010524)	630.34238 (18010524)
190.0	1078.94896 (18121808)	868.18578 (18121808)	714.18625 (18121808)	609.72337 (18121808)	522.87948 (18121808)
200.0	845.81630 (18120624)	658.64277 (18120624)	540.70989 (18120624)	450.03826 (18120624)	379.78674 (18120624)
210.0	765.98555m(18010624)	631.52581 (18012008)	495.66673 (18012008)	420.96870 (18012008)	351.85534 (18010608)
220.0	937.87843m(18010624)	721.64486m(18010624)	632.71708m(18010624)	523.32520m(18010624)	439.42762m(18010624)
230.0	900.37612 (18010924)	708.57620 (18120724)	582.42898 (18120724)	487.12037 (18120724)	421.77086

(18120724)
240.0 | 950.77583 (18112924) 758.23489 (18112924) 620.91350 (18112924) 522.38887 (18112924) 446.91391 (18112924)
250.0 | 873.22923 (18021908) 705.65103 (18021908) 582.46783 (18021908) 496.12140 (18021908) 420.19918 (18021908)
260.0 | 892.56521 (18020808) 719.90582 (18020808) 598.19901 (18020808) 511.00506 (18020808) 437.25180 (18020808)
270.0 | 915.89146 (18020808) 719.86338 (18020808) 590.97094 (18020808) 492.14364 (18020808) 415.35700 (18020808)
280.0 | 938.47517 (18113024) 762.93135 (18113024) 630.84453 (18113024) 528.49030 (18113024) 450.95732 (18113024)
290.0 | 1327.26284b(18112008) 1056.10983b(18112008) 873.54805b(18112008) 732.80708b(18112008) 624.84741b(18112008)
300.0 | 1193.76792b(18112008) 926.75407b(18112008) 757.92611b(18112008) 631.15804b(18112008) 535.94291b(18112008)
310.0 | 751.97082 (18021708) 611.73733 (18021708) 506.11636 (18021708) 434.08679 (18021708) 371.47946 (18021708)
320.0 | 867.11063 (18112408) 708.42220 (18112408) 586.22069 (18112408) 500.61971 (18112408) 430.63782 (18112408)
330.0 | 775.03135m(18123108) 630.80787m(18123108) 513.13292m(18123108) 429.84620m(18123108) 372.43499m(18123108)
340.0 | 797.05931 (18030108) 646.93182 (18030108) 543.55191 (18030108) 464.69703 (18030108) 404.11984 (18030108)
350.0 | 989.07637 (18022608) 806.33754 (18022608) 679.29107 (18022608) 582.30080 (18022608) 504.16313 (18022608)
360.0 | 1429.77826c(18123124) 1149.72413c(18123124) 944.38875c(18123124) 800.46552c(18123124) 683.23158c(18123124)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	558.21990c(18123124)	487.22805c(18123124)	430.30766c(18123124)	385.86657c(18123124)	342.21446c(18123124)
20.0	298.74444m(18011124)	266.70365m(18011124)	234.94915m(18011124)	209.19290m(18011124)	189.84957m(18011124)
30.0	551.90223c(18122924)	487.12270c(18122924)	442.32977c(18122924)	398.90511c(18122924)	356.88218c(18122924)
40.0	448.06802 (18111224)	391.75148 (18111224)	348.51290 (18111224)	314.17187 (18111224)	284.26916 (18111224)
50.0	443.89811 (18032424)	395.07684 (18032424)	353.75272 (18032424)	318.31540 (18032424)	286.20457 (18032424)
60.0	457.26616 (18032524)	400.93730 (18032524)	359.36950 (18032524)	324.09244 (18032524)	294.72425 (18032524)
70.0	382.89811 (18112424)	335.49098 (18112424)	297.17915 (18112424)	268.01213 (18112424)	242.57267 (18112424)
80.0	284.26942 (18031724)	251.21567 (18031724)	224.87928 (18031724)	202.47872 (18031724)	183.72869 (18031724)
90.0	576.45037 (18112524)	505.64522 (18112524)	456.22536 (18112524)	411.66965 (18112524)	370.20041

(18112524)
100.0 | 417.56926 (18112524) 361.42786 (18112524) 324.90443 (18112524) 286.93974 (18112524) 257.27364 (18112524)
110.0 | 363.27760 (18022324) 319.60865 (18022324) 288.86905 (18022324) 255.22027 (18022324) 233.39390 (18022324)
120.0 | 492.28997 (18101124) 416.61915 (18101124) 380.11976 (18101124) 345.06240 (18101124) 305.13102 (18101124)
130.0 | 447.81995 (18031524) 389.81239 (18031524) 342.44075 (18031524) 305.43072 (18031524) 275.69378 (18031524)
140.0 | 527.85490 (18102724) 467.58610 (18102724) 416.85999 (18102724) 378.69836 (18102724) 346.96575 (18102724)
150.0 | 415.94247 (18102924) 363.76636 (18102924) 324.18871 (18102924) 291.88343 (18102924) 266.51575 (18102924)
160.0 | 466.72894 (18042008) 413.68752 (18042008) 414.18443 (18042008) 386.77017 (18042008) 342.43227 (18042008)
170.0 | 411.10845 (18112024) 351.17306 (18112024) 308.60226 (18112024) 281.07871 (18112024) 261.13968 (18112024)
180.0 | 558.59857 (18010524) 482.52473 (18010524) 405.23331 (18010524) 364.32711 (18010524) 348.51514 (18010524)
190.0 | 462.43287 (18121808) 409.97972 (18121808) 354.59259 (18121808) 323.10967 (18121808) 258.61406 (18121808)
200.0 | 325.40705 (18120624) 283.51911 (18120624) 256.26473 (18010608) 229.00250 (18010608) 213.87890 (18010608)
210.0 | 307.59669 (18010608) 268.98306 (18010608) 236.83327 (18010608) 211.82401 (18010608) 203.43591 (18012008)
220.0 | 377.91636m(18010624) 328.58705m(18010624) 286.71231m(18010624) 256.89626m(18010624) 234.12332m(18010624)
230.0 | 365.91332 (18120724) 322.08964 (18120724) 278.34229 (18120724) 252.43471 (18120724) 219.78895 (18120724)
240.0 | 384.89093 (18112924) 336.75753 (18112924) 301.39155 (18112924) 270.10708 (18112924) 239.02588 (18112924)
250.0 | 365.56016 (18021908) 320.03955 (18021908) 285.01974 (18021908) 253.44912 (18021908) 226.82828 (18021908)
260.0 | 380.52914 (18020808) 333.11862 (18020808) 295.24144 (18020808) 262.64334 (18020808) 235.29499 (18020808)
270.0 | 356.10420 (18020808) 310.10812 (18020808) 270.07615 (18020808) 241.50814 (18020808) 214.59012 (18020808)
280.0 | 388.28567 (18113024) 347.71763 (18113024) 310.54794 (18113024) 284.99620 (18113024) 254.21659 (18113024)
290.0 | 549.39285b(18112008) 489.26930b(18112008) 437.46570b(18112008) 396.01134b(18112008) 355.02640b(18112008)
300.0 | 457.55400b(18112008) 396.59635b(18112008) 341.98869b(18112008) 308.45576b(18112008) 272.00779b(18112008)
310.0 | 327.31769 (18021708) 287.30451 (18021708) 258.62800 (18021708) 236.07220 (18021708) 204.55405 (18021708)
320.0 | 377.24028 (18112408) 335.30480 (18112408) 302.60650 (18112408) 269.58652 (18112408) 246.05301 (18112408)
330.0 | 318.46134m(18123108) 281.05609m(18123108) 249.38720m(18123108) 225.45759m(18123108) 203.81693m(18123108)
340.0 | 355.77464 (18030108) 315.80559 (18030108) 282.34928 (18030108) 254.52369 (18030108) 233.04424 (18030108)
350.0 | 442.52296 (18022608) 394.43082 (18022608) 353.07200 (18022608) 318.61107 (18022608) 289.89452 (18022608)
360.0 | 598.19783c(18123124) 529.09149c(18123124) 465.55509c(18123124) 421.05504c(18123124) 382.85010c(18123124)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL

***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	309.64925c(18123124)	284.77096c(18123124)	263.19171c(18123124)	242.76958c(18123124)	223.51452c(18123124)
20.0	172.08422m(18011124)	154.34494m(18011124)	142.57792m(18011124)	131.59323 (18120324)	122.83367 (18120324)
30.0	322.87436c(18122924)	295.30521c(18122924)	271.01592c(18122924)	249.07805c(18122924)	232.15046c(18122924)
40.0	256.11632 (18111224)	232.15393 (18111224)	214.43279 (18111224)	197.39869 (18111224)	182.40094 (18111224)
50.0	259.78292 (18032424)	237.71408 (18032424)	218.24703 (18032424)	201.52794 (18032424)	188.75828 (18032424)
60.0	267.24409 (18032524)	244.99983 (18032524)	223.61265 (18032524)	206.76180 (18032524)	193.74673 (18032524)
70.0	228.62475 (18020724)	205.26402 (18020724)	190.39786 (18020724)	175.70633 (18020724)	164.49317 (18020724)
80.0	167.33592 (18031724)	152.55039 (18031724)	139.52878 (18031724)	128.30082 (18031724)	119.44807 (18031724)
90.0	334.45352 (18112524)	302.45218 (18112524)	273.64889 (18112524)	253.02909 (18112524)	236.29530 (18112524)
100.0	232.61909 (18112524)	211.12939 (18112524)	191.60540 (18112524)	176.42779 (18112524)	161.97495 (18112524)
110.0	211.41812 (18022324)	192.34032 (18022324)	177.18370 (18022324)	163.08398 (18022324)	151.59230 (18022324)
120.0	282.09493 (18101124)	260.08458 (18101124)	237.78737 (18101124)	219.31781 (18101124)	203.58279 (18101124)
130.0	250.05008 (18031524)	229.99032 (18031524)	214.20744 (18031524)	201.82508 (18031524)	185.91464 (18031524)
140.0	316.11131 (18102724)	293.26943 (18102724)	270.91592 (18102724)	251.28560 (18102724)	232.23261 (18102724)
150.0	243.70072 (18102924)	217.38377 (18102924)	200.67094 (18102924)	185.82064 (18102924)	169.68647 (18102924)
160.0	292.93740 (18042008)	285.08277 (18042008)	264.42945 (18042008)	248.87529 (18042008)	230.89786 (18042008)
170.0	234.02440 (18112024)	212.65647 (18112024)	193.43384 (18112024)	179.87556 (18112024)	166.22330 (18112024)
180.0	322.37253 (18010524)	293.23779 (18010524)	271.61757 (18010524)	249.68509 (18010524)	235.40299 (18010524)
190.0	236.75813 (18121808)	217.91306 (18121808)	201.52205 (18121808)	206.30693 (18121808)	192.99181 (18121808)
200.0	195.42394 (18010608)	160.46910 (18120624)	146.28006 (18120624)	141.78034 (18010608)	132.91791 (18010608)
210.0	165.69523 (18010608)	152.41515 (18010608)	139.42827 (18010608)	135.72569 (18010608)	126.15609 (18010608)
220.0	220.67355 (18011008)	179.80917m(18010624)	166.06641m(18010624)	153.74299m(18010624)	148.58344m(18010624)
230.0	204.06789 (18120724)	187.81050 (18120724)	171.49161 (18120724)	155.49764 (18120724)	145.39004 (18120724)
240.0	216.50818 (18112924)	196.43465 (18112924)	172.25350 (18112924)	156.56891 (18112924)	151.69404 (18112924)
250.0	206.39364 (18021908)	187.28925 (18021908)	174.80654 (18021908)	155.66502 (18021908)	142.36736 (18021908)
260.0	214.85905 (18020808)	192.30346 (18020808)	174.25054 (18020808)	158.27193 (18020808)	149.05708

(18020808)
270.0 | 194.24351 (18020808) 175.58953 (18020808) 159.61913 (18020808) 146.79700 (18020808) 136.20475 (18031108)
280.0 | 230.42448 (18113024) 210.80294 (18113024) 190.35409 (18113024) 177.49154 (18113024) 167.53957 (18113024)
290.0 | 326.49944b(18112008) 295.89893b(18112008) 272.34404b(18112008) 251.57828b(18112008) 233.64737b(18112008)
300.0 | 243.95055b(18112008) 223.77944b(18112008) 206.03538b(18112008) 187.40462b(18112008) 172.22999b(18112008)
310.0 | 192.19231 (18021708) 175.51331 (18021708) 162.52917 (18021708) 147.31480 (18021708) 136.89870 (18021708)
320.0 | 221.98518 (18112408) 202.33335 (18112408) 189.69065 (18112408) 173.06907 (18112408) 160.75209 (18112408)
330.0 | 184.08328m(18123108) 166.37646m(18123108) 152.96259m(18123108) 141.58177m(18123108) 129.90742m(18123108)
340.0 | 212.14078 (18030108) 195.91648 (18030108) 176.63266 (18030108) 164.08599 (18030108) 154.19118 (18030108)
350.0 | 267.78869 (18022608) 245.00277 (18022608) 225.95426 (18022608) 209.09189 (18022608) 195.72991 (18022608)
360.0 | 347.81535c(18123124) 319.13322c(18123124) 290.92132c(18123124) 266.62783c(18123124) 245.02917c(18123124)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 39
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	2129.66308	(18101124)	TANK	498.87	129.50	1343.04701	(18031524)
TANK	81.43	359.00	13389.66009c	(18123124)	TANK	116.79	44.50	8558.72125	(18111224)
TANK	109.20	67.00	10324.62265	(18033024)	TANK	100.70	93.73	13234.56795	(18112524)
TANK	87.91	103.99	10659.41709c	(18071524)	TANK	99.82	123.38	9700.37164	(18101124)
TANK	138.00	141.00	8853.48490	(18102924)	TANK	106.00	180.00	10230.69573	(18010524)
TANK	115.60	206.00	7103.72982m	(18010624)	TANK	54.00	270.00	19390.83978	(18020808)
TANK	97.00	326.00	11562.63125	(18121416)	TANK	133.94	242.10	6914.90308	(18020208)
TANK	101.99	301.65	12751.09691b	(18112008)	TANK	236.54	274.95	3111.79184	(18020808)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 40
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)

(DEGREES)	100.00	200.00	300.00	400.00	500.00
10.0	9665.77281 (18122824)	4418.36704 (18122824)	2707.90571 (18122824)	1888.17379 (18122824)	1404.55624 (18122824)
20.0	8941.42388m(18011124)	3547.41516m(18011124)	2009.92255 (18031124)	1303.17070 (18120324)	954.34600 (18120324)
30.0	10348.83044m(18011124)	4087.16098 (18031124)	2436.42084 (18111324)	1681.72782 (18111324)	1253.35230 (18111324)
40.0	10533.43100m(18011124)	4239.70780m(18011124)	2348.52282m(18011124)	1507.68204m(18011124)	1054.63323m(18011124)
50.0	9611.63888 (18123024)	4140.19473 (18123024)	2444.86330 (18123024)	1653.55343 (18123024)	1207.27976 (18123024)
60.0	10098.59166c(18110524)	4408.70467 (18032524)	2659.54331 (18033024)	1749.45097 (18033024)	1225.77041 (18033024)
70.0	8939.56671 (18022624)	3828.07760 (18022624)	2277.92668 (18112424)	1573.42517 (18112424)	1131.31876 (18033024)
80.0	8519.43652 (18060216)	3194.65007c(18071524)	1918.65767c(18071524)	1287.28500c(18071524)	923.75829 (18031724)
90.0	10111.70101c(18071524)	4198.45083c(18071524)	2454.42542c(18071524)	1647.40191c(18071524)	1197.84983c(18071524)
100.0	9950.89263c(18071524)	3999.40485 (18041024)	2341.06426 (18041024)	1566.13512 (18041024)	1129.23141 (18041024)
110.0	8720.82958 (18101124)	3653.27013 (18123024)	2088.13245 (18123024)	1367.08081 (18123024)	974.87531 (18123024)
120.0	9367.87741 (18112624)	4410.45680c(18102024)	2705.69276c(18102024)	1851.24975c(18102024)	1357.27069c(18102024)
130.0	10378.84289 (18102924)	4576.22547 (18031524)	2753.39980 (18031524)	1861.75071 (18031524)	1363.71317 (18041724)
140.0	10106.26300 (18102724)	4964.39301 (18102724)	3104.91319 (18102724)	2156.08695 (18102724)	1599.40761 (18102724)
150.0	9973.16137 (18102924)	4603.16859 (18102924)	2750.24829 (18102924)	1858.96890 (18102924)	1352.99301 (18102924)
160.0	9501.15733 (18112024)	4342.92095 (18112024)	2600.43707 (18112024)	1732.81276 (18112024)	1253.25624 (18112024)
170.0	9411.36527 (18011708)	4154.37267 (18112024)	2561.63543 (18112024)	1760.94391 (18010524)	1250.60278 (18010524)
180.0	10523.99364 (18011708)	5078.12284 (18011708)	3080.09215 (18011708)	2125.93184 (18011708)	1582.62949 (18011708)
190.0	9428.20932 (18120624)	4391.85707 (18120624)	2604.88535 (18120624)	1755.01700 (18120624)	1283.19556 (18120624)
200.0	8453.62311 (18011516)	3580.79858 (18121808)	2056.83405 (18121808)	1365.58375 (18121808)	992.44019 (18010608)
210.0	8393.78327 (18012008)	3550.42122 (18012008)	2041.81523 (18012008)	1361.02007 (18012008)	984.66620 (18012008)
220.0	9388.37656 (18010924)	3961.75540 (18010924)	2295.27766 (18010924)	1536.74269 (18010924)	1123.65440 (18010924)
230.0	9451.96566 (18010924)	4051.87600 (18010924)	2343.91853 (18010924)	1555.62169 (18120724)	1142.76848 (18120724)
240.0	9818.85385 (18112924)	4187.64059 (18020208)	2400.02980 (18020208)	1609.77053 (18020208)	1148.96067 (18020208)
250.0	8606.65211 (18092808)	3629.56177 (18021908)	2123.97376 (18092808)	1444.01434 (18010824)	1076.38357 (18092808)
260.0	8374.48133 (18101824)	3617.51834 (18101824)	2121.54006 (18101824)	1414.80657 (18101824)	1019.65321 (18101824)
270.0	9263.65644 (18121608)	3619.35127 (18121608)	1996.26674 (18121608)	1300.76456 (18121608)	940.27967 (18031108)
280.0	9219.18147b(18112008)	3837.55069b(18112008)	2142.85350b(18112008)	1429.83042b(18112008)	1013.40953 (18011108)
290.0	11189.36356c(18123008)	4888.43225c(18123008)	2900.92426c(18123008)	1963.77050c(18123008)	1424.67729c(18123008)
300.0	10654.46155c(18123008)	4460.55918c(18123008)	2534.01681c(18123008)	1667.08785c(18123008)	

1195.91981c(18123008)
310.0 | 8186.77727 (18092524) 3211.78973 (18092524) 1913.47352b(18112008) 1182.60199b(18112008) 855.04086 (18111424)
320.0 | 8146.11129 (18111424) 3411.34239 (18111424) 2054.95674m(18123108) 1440.34839m(18123108) 1079.94567m(18123108)
330.0 | 7751.29174 (18063024) 3324.56396m(18123108) 1982.43067m(18123108) 1355.76302 (18112408) 994.30363 (18112408)
340.0 | 7659.90234 (18020624) 3049.45371 (18030108) 1911.52374 (18030108) 1340.76135 (18030108) 984.78208 (18020624)
350.0 | 6613.55946 (18020624) 2781.58145c(18123124) 1668.46635c(18123124) 1131.94413c(18123124) 833.33157c(18123124)
360.0 | 8720.01807 (18121524) 3771.29089 (18121524) 2239.89025 (18121524) 1515.48200 (18121524) 1114.58434 (18121524)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	1103.16376 (18122824)	895.96723 (18122824)	745.34656 (18122824)	624.56462 (18122824)	538.68924 (18122824)
20.0	734.79145 (18120324)	590.80394 (18120324)	483.26918 (18120324)	406.61734 (18120324)	345.98575 (18120324)
30.0	985.07954 (18111324)	798.60817 (18111324)	664.32516 (18111324)	559.71586 (18111324)	484.64351 (18111324)
40.0	787.02289m(18011124)	642.07411 (18032924)	533.95707 (18032924)	450.09160 (18032924)	389.71958 (18032924)
50.0	933.29273 (18123024)	760.09319 (18111224)	621.81508 (18111224)	517.38478 (18111224)	439.19222 (18111224)
60.0	948.46056 (18022824)	761.79625 (18022824)	614.98670 (18022824)	519.60065 (18022824)	457.81825 (18022824)
70.0	847.02407 (18020724)	687.04690 (18033024)	556.94392 (18033024)	496.15921 (18020724)	424.12665 (18020724)
80.0	709.01338 (18031724)	557.86842 (18031724)	452.03941c(18071524)	378.31169c(18071524)	319.78209c(18071524)
90.0	922.56866c(18071524)	713.61040c(18071524)	603.91032c(18071524)	513.30791c(18071524)	445.76278c(18071524)
100.0	870.61718 (18041024)	672.00990 (18041024)	571.28232 (18041024)	482.69379 (18041024)	414.85094 (18041024)
110.0	740.07330 (18123024)	574.86565 (18123024)	483.73105 (18123024)	407.71686 (18123024)	349.65861 (18123024)
120.0	1041.77862c(18102024)	818.90741c(18102024)	682.43568c(18102024)	570.02468c(18102024)	496.88815c(18102024)
130.0	1036.96398 (18041724)	807.15626 (18041724)	674.12025 (18041724)	576.51189 (18041724)	493.49991 (18041724)
140.0	1251.41351 (18102724)	956.69247 (18102724)	771.57226 (18102724)	653.17426 (18102724)	593.80794 (18102924)
150.0	1037.72800 (18102924)	827.23137 (18102924)	675.40424 (18102924)	539.69889 (18102924)	465.60597 (18102924)
160.0	952.30855 (18112024)	761.85602 (18112024)	621.35623 (18112024)	506.11055 (18112024)	431.14683

(18112024)
170.0 | 936.71609 (18010524) 750.25192 (18010524) 614.69699 (18120408) 507.28309 (18120408) 435.95710 (18120408)
180.0 | 1243.63747 (18011708) 1005.22271 (18011708) 828.99638 (18011708) 701.13038 (18011708) 592.52024 (18011708)
190.0 | 990.86994 (18120624) 788.13607 (18120624) 650.19791 (18120624) 545.37437 (18120624) 467.99562 (18120624)
200.0 | 777.89659 (18010608) 629.69520 (18010608) 515.90662 (18010608) 430.35952 (18010608) 366.24232 (18010608)
210.0 | 756.02943 (18012008) 604.66491m(18010624) 492.55940m(18010624) 417.00764 (18010608) 348.79110 (18012008)
220.0 | 848.68420 (18010924) 708.99634 (18010924) 590.96846 (18010924) 474.49511 (18010924) 405.26896 (18010924)
230.0 | 889.28890 (18120724) 707.59370 (18010924) 576.68968 (18010924) 481.13041 (18010924) 412.88445 (18010924)
240.0 | 896.40815 (18020208) 702.63744 (18020208) 569.23497 (18120724) 480.16740 (18120724) 410.00887 (18020208)
250.0 | 840.11595 (18010824) 683.27778 (18010824) 563.41312 (18010824) 479.73583 (18010824) 407.10183 (18010824)
260.0 | 780.10641 (18101824) 625.04144 (18101824) 509.06416 (18101824) 417.98812 (18101824) 360.18633 (18101824)
270.0 | 740.63410 (18031108) 594.27010 (18031108) 492.29388 (18031108) 413.52229 (18031108) 351.40243 (18031108)
280.0 | 786.37203 (18011108) 630.79726 (18011108) 524.53307 (18011108) 443.02175 (18011108) 384.30710 (18011108)
290.0 | 1105.21013c(18123008) 868.08285c(18123008) 708.97441c(18123008) 602.40985c(18123008) 512.22327c(18123008)
300.0 | 906.29861c(18123008) 725.03527c(18123008) 578.38342c(18123008) 486.03165c(18123008) 409.94054c(18123008)
310.0 | 653.04891 (18111424) 526.01963 (18111424) 437.12142 (18111424) 362.48524 (18111424) 308.09700 (18111424)
320.0 | 844.78151m(18123108) 687.13022m(18123108) 576.78681m(18123108) 494.24966m(18123108) 426.17763m(18123108)
330.0 | 762.46325 (18112408) 610.31472 (18112408) 493.83310 (18112408) 413.38896 (18112408) 347.44275 (18112408)
340.0 | 771.04773 (18020624) 612.87099 (18020624) 522.24586 (18020624) 440.90892 (18020624) 383.12939 (18020624)
350.0 | 630.13836c(18123124) 490.14188c(18123124) 392.42224c(18123124) 328.59903 (18121508) 282.05836 (18121508)
360.0 | 862.98998 (18121524) 691.56375 (18121524) 570.41987 (18121524) 477.60348 (18121524) 410.19613 (18121524)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	466.06336 (18122824)	411.87120 (18122824)	368.11085 (18122824)	326.05787 (18122824)	294.13206 (18122824)
20.0	298.14341 (18120324)	260.17857 (18120324)	232.41429 (18120324)	208.00348 (18120324)	187.78303

(18120324)
30.0 | 423.40608 (18111324) 373.42855 (18111324) 336.46206 (18111324) 303.82116 (18111324) 272.82471 (18111324)
40.0 | 328.76735 (18032924) 288.28013 (18032924) 257.78607 (18032924) 230.86501 (18032924) 209.65793 (18032924)
50.0 | 382.12547 (18111224) 341.07608 (18111224) 300.07940 (18123024) 267.28160 (18123024) 245.73245 (18123024)
60.0 | 396.99957 (18022824) 349.22687 (18022824) 314.96711 (18022824) 281.77737 (18022824) 255.76919 (18022824)
70.0 | 373.29179 (18020724) 330.28759 (18020724) 295.16423 (18020724) 266.60208 (18020724) 242.42599 (18020724)
80.0 | 273.27398c(18071524) 236.51806c(18071524) 209.50346c(18071524) 188.10727c(18071524) 170.64083c(18071524)
90.0 | 384.80288c(18071524) 338.98836c(18071524) 304.65116c(18071524) 276.40805c(18071524) 249.71250c(18071524)
100.0 | 358.56745 (18041024) 312.51599 (18041024) 287.00322 (18041024) 259.35158 (18041024) 234.42176 (18041024)
110.0 | 293.40616 (18123024) 259.71002 (18123024) 229.14444 (18123024) 206.82606 (18123024) 186.02444 (18123024)
120.0 | 422.10045c(18102024) 378.11916c(18102024) 331.18175c(18102024) 300.36501c(18102024) 268.50547c(18102024)
130.0 | 430.22043 (18041924) 372.85942 (18041724) 328.43209 (18041724) 291.92898 (18031424) 264.29583 (18041924)
140.0 | 516.47139 (18102924) 443.08699 (18102924) 391.72260 (18102924) 353.37856 (18010424) 324.61906 (18010424)
150.0 | 413.70327 (18102824) 360.72837 (18102824) 317.30347 (18102824) 280.61907 (18102824) 257.94926 (18102824)
160.0 | 366.63019 (18112024) 321.79433 (18112024) 291.01121 (18102824) 261.33003 (18112024) 235.05616 (18112024)
170.0 | 376.87704 (18120408) 319.44279 (18010524) 284.85458 (18120408) 257.53300 (18120408) 233.97509 (18120408)
180.0 | 530.49910 (18011708) 451.45904 (18011708) 378.17240 (18011708) 339.15078 (18011708) 332.72771 (18011708)
190.0 | 406.62497 (18120624) 362.26804 (18120624) 313.99414 (18120624) 283.67347 (18120624) 236.58055 (18120624)
200.0 | 320.70253 (18010608) 281.88464 (18010608) 250.23315 (18120624) 219.46797 (18120624) 192.75947 (18032308)
210.0 | 304.96879 (18012008) 266.17440 (18012008) 235.30480 (18012008) 209.91988 (18012008) 199.27127 (18010608)
220.0 | 343.96407 (18010924) 295.73163 (18010924) 261.50767 (18010924) 239.52263 (18011008) 218.33426 (18011008)
230.0 | 362.52795 (18010924) 316.57739 (18010924) 273.00881 (18010924) 245.86691 (18010924) 214.73033 (18010924)
240.0 | 356.10211 (18102224) 310.16392 (18102224) 277.93355 (18102224) 249.17807 (18102224) 218.74338 (18102224)
250.0 | 355.58729 (18010824) 312.19238 (18010824) 279.35105 (18010824) 251.34536 (18010824) 225.65874 (18010824)
260.0 | 311.89295 (18101824) 270.58778 (18101824) 238.84622 (18101824) 213.49077 (18010824) 191.29172 (18010824)
270.0 | 310.67506 (18031108) 275.14879 (18031108) 248.56811 (18031108) 226.10579 (18031108) 204.09193 (18031108)
280.0 | 332.64388 (18011108) 293.37304 (18091108) 270.16116 (18091108) 248.04752 (18091108) 231.33818 (18091108)
290.0 | 444.00652c(18123008) 385.87780c(18123008) 345.13156c(18123008) 302.83935c(18123008) 271.90238c(18123008)
300.0 | 360.41165c(18123008) 315.38058c(18123008) 275.36105c(18123008) 247.07068 (18092524) 223.24935 (18092524)
310.0 | 267.65818 (18111424) 237.20458 (18111424) 216.68247 (18082108) 195.13017 (18082108) 172.67595 (18082108)
320.0 | 373.98669m(18123108) 334.89154m(18123108) 298.84304m(18123108) 268.92050m(18123108) 243.34869m(18123108)
330.0 | 302.40572 (18112408) 267.87135 (18112408) 233.61075 (18112408) 206.44381 (18112408) 188.21120

(18112408)
340.0 | 333.59670 (18020624) 290.57799 (18020624) 259.31066 (18020624) 236.45368 (18020624) 212.60667 (18020624)
350.0 | 248.64817 (18121508) 221.04453 (18121508) 196.51747 (18121508) 174.35963 (18121508) 154.51764 (18121508)
360.0 | 356.72333 (18121524) 315.12191 (18121524) 281.69926 (18121524) 253.71503 (18121524) 230.47891 (18121524)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	268.93037 (18122824)	247.16923 (18122824)	226.32092 (18122824)	208.71058 (18122824)	193.16520 (18122824)
20.0	170.38370 (18120324)	154.07851 (18120324)	142.14574 (18120324)	130.48806m(18011124)	122.32369m(18011124)
30.0	247.67553 (18111324)	227.50989 (18111324)	209.46058 (18111324)	193.03928 (18111324)	179.79948 (18111324)
40.0	191.22640 (18032924)	174.95740 (18032924)	161.60709 (18032924)	149.01314 (18032924)	138.65009 (18032924)
50.0	221.62921 (18123024)	200.61467 (18080824)	183.91874 (18080824)	169.57168 (18080824)	158.64395 (18080824)
60.0	233.93009 (18022824)	214.09900 (18022824)	197.38693 (18022824)	181.43626 (18022824)	168.52483 (18022824)
70.0	217.40533 (18112424)	199.54378 (18112424)	182.08977 (18112424)	168.51301 (18112424)	159.44893 (18112424)
80.0	156.02633c(18071524)	142.80023c(18071524)	129.50444c(18071524)	115.88138c(18071524)	105.62851c(18071524)
90.0	225.74664c(18071524)	204.30318c(18071524)	187.18429c(18071524)	171.14367c(18071524)	160.11239c(18071524)
100.0	212.31377 (18041024)	193.21748 (18041024)	179.26891 (18041024)	163.32576 (18041024)	153.00889 (18041024)
110.0	168.92356 (18123024)	153.87346 (18123024)	141.51917 (18123024)	129.55570 (18123024)	119.19939 (18123024)
120.0	242.93564c(18102024)	221.98959c(18102024)	206.86189c(18102024)	188.47077c(18102024)	169.34087c(18102024)
130.0	243.26803 (18031424)	226.27336 (18031424)	210.42516 (18031424)	197.83357 (18031424)	182.48126 (18031424)
140.0	296.39724 (18010424)	274.46122 (18010424)	253.34307 (18010424)	237.54579 (18010424)	220.03099 (18010424)
150.0	232.61229 (18102824)	212.32535 (18102824)	192.82013 (18102824)	176.41701 (18102824)	161.12470 (18102824)
160.0	207.92813 (18102824)	190.63059 (18112024)	176.33181 (18112024)	162.10208 (18112024)	148.45944 (18102824)
170.0	209.67966 (18120408)	194.73070 (18120408)	181.38426 (18120408)	162.98446 (18120408)	152.34567 (18120408)
180.0	308.40108 (18011708)	279.73314 (18011708)	259.81946 (18011708)	240.69598 (18011708)	225.89658 (18011708)
190.0	215.03928 (18120624)	197.85926 (18120624)	182.43547 (18120624)	179.38214 (18120624)	166.71295

(18120624)
200.0 | 177.40075 (18120624) 156.01688 (18010608) 144.20505 (18010608) 133.25931 (18120624) 120.17461 (18120624)
210.0 | 157.05502 (18012008) 144.05643 (18012008) 133.21304 (18012008) 135.09240 (18012008) 124.82114 (18012008)
220.0 | 220.47095m(18010624) 164.61304 (18010924) 148.58220 (18010924) 137.98253 (18010924) 138.37684 (18011008)
230.0 | 197.12519 (18010924) 179.16511 (18010924) 163.22675 (18010924) 148.03674 (18010924) 138.70115 (18010924)
240.0 | 199.97789 (18102224) 181.51239 (18102224) 159.54579 (18102224) 142.83315 (18102224) 140.01210 (18102224)
250.0 | 203.54780 (18010824) 184.47612 (18010824) 171.32830 (18010824) 153.84075 (18010824) 139.80047 (18010824)
260.0 | 171.67191 (18010824) 156.05745 (18010824) 142.06976 (18010824) 130.06419 (18010824) 118.67663 (18010824)
270.0 | 185.27607 (18031108) 169.22354 (18031108) 155.02016 (18031108) 145.04164 (18031108) 134.51012 (18020808)
280.0 | 208.59816 (18091108) 188.25251 (18091108) 173.54251 (18091108) 162.18448 (18091108) 153.19280 (18091108)
290.0 | 250.80608c(18123008) 227.22757c(18123008) 202.15392c(18123008) 189.87363c(18123008) 175.06720c(18123008)
300.0 | 201.38432c(18123008) 183.44917 (18092524) 168.86527 (18092524) 156.68561 (18092524) 148.45089 (18092524)
310.0 | 158.11924 (18082108) 143.18827 (18082108) 132.49159 (18082108) 120.34626 (18082108) 112.14667 (18082108)
320.0 | 221.40834m(18123108) 202.13884m(18123108) 188.75641m(18123108) 171.28016m(18123108) 159.00156m(18123108)
330.0 | 168.77450 (18112408) 150.97683 (18112408) 140.52661 (18112408) 131.63601 (18112408) 117.43148 (18112408)
340.0 | 191.20996 (18020624) 175.91601 (18020624) 158.70679 (18020624) 143.85939 (18020624) 135.37883 (18020624)
350.0 | 142.28629 (18121508) 130.75148 (18121508) 121.32991 (18121508) 112.68241 (18121508) 104.09736 (18121508)
360.0 | 209.77563 (18121524) 192.16500 (18121524) 176.53538 (18121524) 162.63659 (18121524) 150.52045 (18121524)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK :	375.70	118.90	1986.04878c	(18102024)	TANK :	498.87	129.50	1332.30130	(18041724)
TANK :	81.43	359.00	10286.26435	(18121524)	TANK :	116.79	44.50	8164.07705m	(18011124)
TANK :	109.20	67.00	8602.20517	(18022624)	TANK :	100.70	93.73	10328.37139c	(18071524)
TANK :	87.91	103.99	10398.77297	(18041024)	TANK :	99.82	123.38	9479.39956	(18112624)
TANK :	138.00	141.00	7240.41334	(18102724)	TANK :	106.00	180.00	9987.23481	(18011708)
TANK :	115.60	206.00	6667.62998	(18012008)	TANK :	54.00	270.00	19362.32687	(18051216)
TANK :	97.00	326.00	8125.75456	(18112408)	TANK :	133.94	242.10	6784.19273	(18112924)
TANK :	101.99	301.65	9980.45301c	(18123008)	TANK :	236.54	274.95	2978.02724	(18121608)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 ***

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	8928.74447 (18120324)	3964.79246 (18012224)	2448.97452 (18012224)	1721.94466 (18012224)	1288.85778 (18012224)
20.0	8194.72337 (18062824)	3272.23205 (18120324)	1931.79348 (18120324)	1301.61464 (18031124)	924.96145 (18031124)
30.0	9403.55035 (18031124)	4071.85439m(18011124)	2428.31475 (18031124)	1650.53116 (18031124)	1205.94537 (18031124)
40.0	10528.22194 (18111224)	4230.70512c(18122924)	2280.31283c(18122924)	1434.04617c(18122924)	994.62600c(18122924)
50.0	9545.66438 (18080824)	3962.31755 (18080824)	2357.70782 (18111224)	1641.65993 (18111224)	1198.38081 (18111224)
60.0	9745.27612 (18032524)	4010.05161 (18112424)	2398.80059 (18022824)	1655.96880 (18022824)	1209.87044 (18022824)
70.0	8607.00059 (18091516)	3683.12168 (18112424)	2244.27749 (18022624)	1500.70542 (18022624)	1076.24077 (18020724)
80.0	8211.29436 (18061124)	3134.18362 (18031724)	1883.02040 (18031724)	1269.38397 (18031724)	876.72671 (18112524)
90.0	8736.90877 (18112516)	3289.96595 (18041024)	1902.19171 (18041024)	1262.26265 (18041024)	906.59972 (18041024)
100.0	9235.08026 (18041024)	3667.70093c(18071524)	1921.07155c(18071524)	1225.68232 (18120924)	872.44808 (18120924)
110.0	8601.37857 (18123024)	3604.70583 (18101124)	2017.58306 (18101124)	1321.32533 (18101124)	923.49154 (18101124)
120.0	9150.97695c(18102024)	4295.52867 (18112624)	2562.36130 (18112624)	1723.46647 (18112624)	1235.44654 (18112624)
130.0	10156.65627 (18031324)	4470.36463 (18031324)	2681.26330 (18101224)	1814.84712 (18101224)	1328.09237 (18101224)
140.0	9352.03169 (18011316)	4548.07069 (18010424)	2842.85348 (18010424)	1971.07156 (18010424)	1461.43094 (18010424)
150.0	9880.91187 (18102824)	4243.00252 (18042008)	2298.29107b(18121724)	1535.11104b(18121724)	1116.40183b(18121724)
160.0	8244.91230 (18112824)	3961.87033 (18102824)	2433.02676 (18102824)	1645.84178 (18102824)	1199.66573 (18102824)
170.0	9134.67996 (18030216)	4152.12921 (18011708)	2385.64638 (18120408)	1623.86400 (18120408)	1196.15762 (18120408)
180.0	9604.30633 (18030216)	4557.95138 (18111724)	2817.34795 (18111724)	1930.37628 (18111724)	1430.44080 (18111724)
190.0	8924.74796 (18010516)	3568.06288 (18122524)	2138.25540 (18122524)	1450.14995 (18122524)	1070.72941 (18122524)
200.0	7895.34393 (18011816)	3263.90479 (18010608)	1972.99884 (18010608)	1347.73999 (18010608)	978.15598 (18121808)
210.0	7230.76568 (18010924)	3163.84415 (18011008)	1902.87223 (18010608)	1302.45316 (18010608)	963.62434 (18010608)
220.0	8424.46245 (18012008)	3588.69309 (18012008)	2074.05578 (18012008)	1407.34692 (18011008)	1039.31275 (18011008)
230.0	8933.44531 (18020208)	3876.67130 (18120724)	2298.91962 (18120724)	1531.36169 (18112924)	

1084.35776 (18112924)
240.0 | 8961.09215 (18102224) 3996.16384 (18120724) 2337.95332 (18120724) 1555.93702 (18120724)
1141.77055 (18120724)
250.0 | 8331.99282 (18012124) 3500.50754 (18101824) 2094.47923 (18010824) 1431.33807 (18092808)
1070.75370 (18010824)
260.0 | 8052.26935 (18100816) 3425.23673 (18010824) 2028.24125 (18010824) 1346.30322 (18010824)
992.17364 (18010824)
270.0 | 8679.90077 (18021608) 3465.54579 (18021608) 1925.22478 (18021608) 1282.18625 (18031108)
913.38433 (18121608)
280.0 | 8639.77147 (18113024) 3814.51564 (18121608) 2067.75571c(18123008) 1388.60406c(18123008)
1002.51121c(18123008)
290.0 | 10756.48246 (18030608) 4624.69914 (18030608) 2710.53423 (18030608) 1812.24004 (18113024)
1323.82270 (18030608)
300.0 | 10423.27360 (18030608) 4233.10192 (18030608) 2350.65404 (18030608) 1532.35812 (18030608)
1111.77009 (18092524)
310.0 | 7673.66731 (18113024) 3149.74324 (18021708) 1823.79923 (18092524) 1182.25245 (18092524) 851.45063
(18092524)
320.0 | 7385.56006 (18112408) 3313.34834m(18123108) 1976.64528 (18111424) 1329.34916 (18111424)
965.23238 (18111424)
330.0 | 7597.28018 (18112408) 3118.49802 (18121416) 1693.40261 (18020624) 1138.64789 (18020624) 838.10151
(18020624)
340.0 | 7381.03537 (18121416) 2986.69492 (18051724) 1735.10434 (18022608) 1171.80953 (18022608)
864.97929 (18022608)
350.0 | 6143.65638 (18120824) 2712.17198 (18120824) 1589.90107 (18120824) 1063.96135 (18120824)
774.30244 (18120824)
360.0 | 7425.41261 (18053024) 3282.63347 (18122824) 2030.50795 (18122824) 1391.28453 (18122824)
1035.32763 (18122824)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 46
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 600.00 700.00 800.00 900.00 1000.00

10.0 | 1019.52438 (18012224) 830.92698 (18012224) 692.30532 (18012224) 591.31935 (18012224) 509.82357
(18012224)
20.0 | 690.35186 (18031124) 545.49500 (18031124) 436.77879 (18031124) 361.66667 (18031124) 302.17656
(18031124)
30.0 | 939.09009 (18031124) 757.37758 (18031124) 617.52720 (18031124) 515.02506 (18031124) 442.74015
(18031124)
40.0 | 779.80221 (18032924) 628.38977 (18042324) 519.15544 (18042324) 436.42797 (18042324) 372.40866
(18042324)
50.0 | 929.96205 (18111224) 734.56996 (18123024) 596.27810 (18123024) 487.40793 (18123024) 417.61076
(18123024)
60.0 | 935.11452 (18033024) 734.42080 (18033024) 590.52923 (18033024) 487.34952 (18033024) 403.69145
(18112424)
70.0 | 833.35433 (18033024) 659.84425 (18022624) 533.55731 (18022624) 463.91730 (18033024) 400.37069
(18033024)
80.0 | 660.19231c(18040624) 516.02631c(18040624) 423.14985c(18040624) 348.14974c(18040624)
291.28519c(18040624)
90.0 | 680.32239 (18041024) 537.21173 (18041024) 419.18650 (18041024) 348.56083 (18041024) 292.87823

(18062224)
100.0 | 668.11205 (18120924) 511.48665 (18120924) 437.07371 (18120924) 364.78408 (18120924) 310.81632 (18120924)
110.0 | 687.34524 (18101124) 541.87326c(18102024) 444.57951 (18091508) 374.89955 (18091508) 323.01595 (18091508)
120.0 | 951.41091 (18112624) 747.36037 (18112624) 602.23064 (18112624) 474.65239 (18112624) 412.73022 (18112624)
130.0 | 1013.76248 (18041924) 792.15509 (18101224) 667.40256 (18041924) 574.93999 (18041924) 492.88755 (18041924)
140.0 | 1146.11582 (18010424) 871.93208 (18010424) 705.07594 (18010424) 597.65763 (18010424) 559.82595 (18010424)
150.0 | 860.63206b(18121724) 676.51281b(18121724) 542.19011b(18121724) 453.95105b(18121724) 383.33328b(18121724)
160.0 | 918.87882 (18102824) 739.66893 (18102824) 606.13588 (18102824) 492.55731 (18102824) 426.62499 (18102824)
170.0 | 921.72839 (18120408) 738.61709 (18120408) 605.07737 (18010524) 474.70242 (18010524) 426.05141 (18010524)
180.0 | 1110.31417 (18111724) 893.43563 (18111724) 730.94002 (18111724) 623.21170 (18111724) 530.92788 (18111724)
190.0 | 831.01004 (18122524) 667.63350 (18122524) 549.04981 (18122524) 464.98822 (18122524) 398.41657 (18122524)
200.0 | 727.34731 (18121808) 580.62765 (18121808) 471.33674 (18121808) 392.01642 (18121808) 331.17400 (18121808)
210.0 | 747.98988 (18010608) 602.75761 (18010608) 491.59656 (18010608) 407.14414m(18010624) 342.64632m(18010624)
220.0 | 802.37309 (18011008) 688.20909 (18011008) 587.71832 (18011008) 463.17350 (18011008) 396.58837 (18011008)
230.0 | 821.63841 (18112924) 644.86362 (18112924) 515.41745 (18112924) 426.37647 (18112924) 358.32728 (18112924)
240.0 | 879.65661 (18102224) 699.00583 (18102224) 567.34880 (18102224) 477.86358 (18020208) 408.34453 (18102224)
250.0 | 829.38071 (18092808) 673.27472 (18092808) 557.28956 (18092808) 474.42231 (18092808) 397.82972 (18092808)
260.0 | 753.38935 (18010824) 611.03721 (18010824) 498.25792 (18010824) 416.09349 (18010824) 356.78924 (18010824)
270.0 | 702.50452 (18103124) 565.61623 (18121324) 471.14121 (18121324) 396.58233 (18121324) 337.83560 (18121324)
280.0 | 760.96074c(18123008) 619.05066 (18091108) 512.20130 (18091108) 429.93422 (18091108) 372.67451 (18091108)
290.0 | 1017.67802 (18113024) 813.04014 (18113024) 662.91601 (18113024) 557.97502 (18113024) 474.84866 (18113024)
300.0 | 849.61726 (18092524) 674.58912 (18092524) 555.99137 (18092524) 473.59959 (18092524) 406.41150 (18092524)
310.0 | 634.28961 (18092524) 505.21866 (18092524) 419.10163 (18082108) 359.53252 (18082108) 307.98442 (18082108)
320.0 | 747.40145 (18111424) 598.08102 (18111424) 493.91603c(18022508) 423.90839c(18022508) 365.04077c(18022508)
330.0 | 638.15031 (18020624) 511.61519 (18020624) 417.94003 (18020624) 349.50272 (18020624) 299.29701 (18020624)
340.0 | 656.78463 (18022608) 514.38281 (18022608) 412.88980 (18010108) 346.21548 (18010108) 299.50265 (18010108)
350.0 | 588.49444 (18120824) 471.36077 (18030108) 390.78815 (18121508) 317.24070 (18120824) 266.93699 (18120824)
360.0 | 807.45079 (18122824) 647.49741 (18122824) 518.74036 (18122824) 428.65965 (18122824) 363.37299 (18122824)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL

***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	445.23294 (18012224)	394.56124 (18012224)	353.30054 (18012224)	319.34338 (18012224)	291.03177 (18012224)
20.0	254.21281 (18031124)	219.83886 (18031124)	192.91805 (18031124)	173.22763 (18031124)	154.01986 (18031124)
30.0	381.09144 (18031124)	334.81133 (18031124)	294.74592 (18031124)	260.03460 (18031124)	233.63099 (18031124)
40.0	315.01118 (18042324)	277.58052 (18042324)	245.14655 (18042324)	218.56851 (18042324)	197.86859 (18042324)
50.0	376.02013 (18123024)	336.01148 (18123024)	299.79188 (18111224)	266.47614 (18111224)	240.63901 (18080824)
60.0	346.03955 (18022624)	302.90489 (18022624)	269.06150 (18022624)	240.17038 (18112424)	218.29924 (18022624)
70.0	347.01658 (18033024)	305.18978 (18033024)	271.69302 (18033024)	243.43732 (18033024)	220.19194 (18033024)
80.0	245.06278c(18040624)	208.33918c(18040624)	185.85910c(18040624)	166.97134c(18040624)	151.31574c(18040624)
90.0	253.16833 (18062224)	220.00723 (18062224)	196.67513 (18062224)	176.88059 (18062224)	158.07720 (18062224)
100.0	268.27883 (18120924)	236.08563 (18120924)	213.42420 (18120924)	191.72692 (18120924)	172.51649 (18120924)
110.0	269.67538 (18091508)	241.04170 (18091508)	211.22550 (18091508)	189.40978 (18091508)	165.33205 (18091508)
120.0	348.74640 (18112624)	317.19491 (18112624)	273.23752 (18112624)	242.36388 (18112624)	216.33354 (18112624)
130.0	426.08571 (18041724)	372.67165 (18041924)	326.78806 (18031424)	291.52094 (18041924)	264.22762 (18031424)
140.0	490.90981 (18010424)	436.57961 (18010424)	388.81063 (18010424)	351.93725 (18102924)	318.27088 (18102924)
150.0	338.13167 (18110724)	295.90430 (18110724)	263.58817 (18110724)	237.65438 (18110724)	224.54849 (18110724)
160.0	357.60401 (18102824)	316.68243 (18102824)	289.82471 (18112024)	261.18324 (18102824)	234.68664 (18102824)
170.0	365.98853 (18010524)	317.98740 (18120408)	281.41036 (18010524)	249.20264 (18010524)	225.51059 (18120424)
180.0	459.51509 (18111724)	401.26113 (18111724)	340.77415 (18111724)	307.25809 (18111724)	290.38869 (18111724)
190.0	349.57865 (18122524)	309.75203 (18122524)	269.88703 (18122524)	244.84751 (18122524)	200.52893 (18122524)
200.0	283.12481 (18121808)	246.26620 (18032308)	223.36366 (18032308)	201.48984 (18032308)	185.45384 (18120624)
210.0	292.80924m(18010624)	253.02429m(18010624)	227.35683m(18010624)	202.50220m(18010624)	182.36591m(18010624)
220.0	338.12768 (18011008)	291.57961 (18011008)	258.11392 (18011008)	236.54607 (18010924)	215.28657 (18010924)
230.0	306.02228 (18020208)	266.31331 (18112924)	231.32698 (18020208)	208.40579 (18112924)	182.12553 (18020208)
240.0	355.01817 (18020208)	306.63060 (18020208)	271.55866 (18120724)	242.66012 (18120724)	213.54361 (18120724)
250.0	346.18693 (18092808)	302.45048 (18092808)	270.35444 (18092808)	243.29525 (18092808)	218.62141 (18092808)
260.0	306.33757 (18010824)	267.56443 (18010824)	238.56279 (18010824)	212.95445 (18101824)	190.46260

(18101824)
270.0 | 291.89512 (18121324) 257.96747 (18121324) 232.08574 (18121324) 210.39255 (18121324) 188.34389 (18121324)
280.0 | 320.77985 (18091108) 291.43059 (18011108) 263.38783 (18011108) 235.64139 (18011108) 213.88998 (18011108)
290.0 | 414.55356 (18113024) 366.61238 (18113024) 326.12857 (18030608) 293.39527 (18113024) 265.15134 (18113024)
300.0 | 353.02474 (18092524) 308.23831 (18092524) 273.73312 (18092524) 244.63979c(18123008) 223.08094c(18123008)
310.0 | 266.76569 (18082108) 236.87699 (18082108) 209.26157 (18111424) 190.16668 (18111424) 165.74933 (18111424)
320.0 | 320.43681c(18022508) 290.58433c(18022508) 262.13983c(18022508) 237.48523c(18022508) 215.75352c(18022508)
330.0 | 257.46086c(18110524) 224.97695 (18020624) 200.77725 (18020624) 183.39705c(18110524) 167.08632c(18110524)
340.0 | 262.53516 (18010108) 232.52371 (18010108) 205.55219 (18010108) 184.32396 (18010108) 168.65380 (18010108)
350.0 | 227.93966 (18120824) 199.96889m(18011124) 178.45801m(18011124) 160.30003m(18011124) 143.33065m(18011124)
360.0 | 318.39195 (18122824) 280.27593 (18122824) 247.92918 (18120224) 223.59781 (18120224) 203.17297 (18120224)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 48
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	266.86358 (18012224)	245.17839 (18012224)	225.85427 (18012224)	208.39474 (18012224)	192.32251 (18012224)
20.0	137.63531 (18031124)	126.87184 (18031124)	114.27736 (18072624)	104.34591 (18031124)	97.55723 (18091024)
30.0	212.55104 (18031124)	193.93688 (18031124)	176.73046 (18031124)	163.05238 (18031124)	151.95135 (18031124)
40.0	180.36710 (18042324)	165.29144 (18042324)	152.19955 (18042324)	139.83108 (18042324)	128.51507 (18042324)
50.0	217.95070 (18080824)	199.12469 (18111224)	182.61948 (18111224)	167.76728 (18111224)	157.65653 (18123024)
60.0	197.74987 (18022624)	181.65778 (18022624)	165.98873 (18022624)	153.13224 (18022624)	142.09879 (18022624)
70.0	203.05807 (18033024)	183.48217 (18033024)	169.50967 (18033024)	156.41293 (18033024)	146.50856 (18033024)
80.0	138.13536c(18040624)	126.47581c(18040624)	114.62800c(18040624)	101.86567c(18040624)	92.38451c(18040624)
90.0	142.19039 (18062224)	129.17944 (18062224)	117.86056 (18062224)	108.92676 (18062224)	101.43053 (18062224)
100.0	156.03243 (18041908)	142.81976 (18041908)	132.68941 (18041908)	120.22812 (18120924)	113.47619 (18041908)
110.0	152.09840 (18091508)	138.73905 (18091508)	126.39017 (18091508)	115.76895 (18091508)	104.95282 (18091508)
120.0	198.17932 (18112624)	179.81402 (18091424)	166.56154 (18091424)	153.15841 (18091424)	142.07077

(18091424)
130.0 | 242.25703 (18041924) 224.07906 (18041924) 208.97561 (18041924) 192.00108 (18041924) 176.86104 (18041924)
140.0 | 285.86612 (18102924) 266.59141 (18102924) 241.57505 (18031624) 226.79398 (18031624) 209.96640 (18031624)
150.0 | 209.57425 (18110724) 184.50530 (18110724) 171.82068 (18110724) 160.32936 (18110724) 149.61101 (18110724)
160.0 | 206.28098 (18112024) 189.52979 (18102824) 174.17605 (18102824) 160.45301 (18102824) 148.10942 (18112024)
170.0 | 203.13252 (18120424) 186.67068 (18120424) 173.64009 (18120424) 161.44110 (18120424) 149.37635 (18120424)
180.0 | 262.10333 (18111724) 238.43193 (18111724) 221.54748 (18111724) 203.52313 (18111724) 189.59413 (18111724)
190.0 | 182.96587 (18122524) 167.73770 (18122524) 154.96796 (18122524) 157.48484 (18122524) 147.32494 (18122524)
200.0 | 173.44656 (18032308) 138.53833 (18121808) 127.98728 (18121808) 125.13909 (18032308) 117.11771 (18032308)
210.0 | 155.50961m(18010624) 142.07320m(18010624) 128.34126m(18010624) 122.56816 (18100408) 113.98702 (18100408)
220.0 | 212.11413 (18010924) 159.28859 (18011008) 147.27431 (18011008) 136.74452 (18011008) 135.82810 (18010924)
230.0 | 167.79272 (18112924) 152.94813 (18020208) 139.27109 (18012108) 127.71189 (18112924) 118.28083 (18020208)
240.0 | 195.08782 (18120724) 176.86753 (18120724) 157.46295 (18020208) 142.39060 (18120724) 135.79381 (18120724)
250.0 | 199.86799 (18092808) 180.81069 (18092808) 169.10715 (18092808) 149.55753 (18092808) 133.10046 (18092808)
260.0 | 169.50805 (18101824) 154.99038 (18101824) 141.27335 (18101824) 129.90967 (18101824) 117.64002 (18090424)
270.0 | 170.00862 (18121324) 154.72757 (18121324) 141.30393 (18121324) 130.87263 (18121324) 122.43860 (18121324)
280.0 | 194.12530 (18011108) 176.94447 (18011108) 161.57640 (18011108) 150.19860 (18011108) 137.66515 (18081808)
290.0 | 236.33119 (18030608) 218.49821 (18030608) 201.82651 (18113024) 184.15785 (18113024) 171.27673 (18113024)
300.0 | 201.38166 (18092524) 180.47200c(18123008) 164.53638c(18123008) 153.19771c(18123008) 141.46873c(18123008)
310.0 | 155.08973 (18111424) 141.65493 (18111424) 129.24761 (18111424) 119.01193 (18111424) 109.07637 (18111424)
320.0 | 195.79938c(18022508) 178.64835c(18022508) 165.78097c(18022508) 151.41322c(18022508) 140.24093c(18022508)
330.0 | 152.60785c(18110524) 141.38359c(18110524) 126.05709c(18110524) 112.55415c(18110524) 107.40744c(18110524)
340.0 | 152.15502 (18010108) 140.45727 (18010108) 125.10738 (18010108) 116.20285 (18010108) 108.90975 (18010108)
350.0 | 128.72354m(18011124) 117.92570m(18011124) 109.51961m(18011124) 101.58119m(18011124) 95.26607m(18011124)
360.0 | 184.76306 (18120224) 168.75471 (18120224) 154.91626 (18120224) 143.11273 (18120224) 132.75085 (18120224)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23
PAGE 49
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK :	375.70	118.90	1836.12886	(18112624)	TANK :	498.87	129.50	1319.71361	(18041924)
TANK :	81.43	359.00	9354.16104	(18022608)	TANK :	116.79	44.50	7674.56393c	(18122924)
TANK :	109.20	67.00	7807.90930	(18112424)	TANK :	100.70	93.73	8566.91947	(18041024)
TANK :	87.91	103.99	9802.12448	(18112524)	TANK :	99.82	123.38	9353.32988	(18041924)
TANK :	138.00	141.00	6679.33301	(18010424)	TANK :	106.00	180.00	8818.51263	(18030216)
TANK :	115.60	206.00	6480.18953	(18120624)	TANK :	54.00	270.00	18911.07985	(18121608)
TANK :	97.00	326.00	8050.70071	(18063024)	TANK :	133.94	242.10	6336.79011	(18102224)
TANK :	101.99	301.65	9809.44926	(18030608)	TANK :	236.54	274.95	2698.10407	(18021608)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

** CONC OF HCL IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE
1.	77177.77372	(18122406)	AT (	-54.00, -0.00)	DP
2.	71532.90126	(18121608)	AT (	-54.00, -0.00)	DP
3.	70429.77671	(18040207)	AT (	-54.00, -0.00)	DP
4.	63978.71675	(18020806)	AT (	-54.00, -0.00)	DP
5.	62954.96048	(18012821)	AT (	-54.00, -0.00)	DP
6.	61706.49840	(18020807)	AT (	-54.00, -0.00)	DP
7.	61314.42667	(18121606)	AT (	-54.00, -0.00)	DP
8.	59806.10507	(18021606)	AT (	-54.00, -0.00)	DP
9.	58121.19861	(18062006)	AT (	-54.00, -0.00)	DP
10.	57670.36525	(18090907)	AT (	-54.00, -0.00)	DP
11.	55494.18187	(18083021)	AT (	-54.00, -0.00)	DP
12.	51736.30620	(18091907)	AT (	-54.00, -0.00)	DP
13.	50678.29298	(18042007)	AT (	34.20, -93.97)	GP
14.	50031.70760	(18112506)	AT (	-1.42, 81.42)	DP
15.	50016.66003	(18022407)	AT (	-54.00, -0.00)	DP
16.	48642.71206	(18090421)	AT (	-54.00, -0.00)	DP
17.	48261.11647	(18071220)	AT (	-54.00, -0.00)	DP
18.	48125.46060	(18011121)	AT (	-1.42, 81.42)	DP
19.	48097.24597	(18031107)	AT (	-54.00, -0.00)	DP
20.	47083.41194	(18112521)	AT (	50.00, 86.60)	GP
21.	46682.86524	(18022421)	AT (	76.60, 64.28)	GP
22.	46597.96291	(18091406)	AT (	17.36, -98.48)	GP
23.	46578.96631	(18091406)	AT (	0.00, -100.00)	GP
24.	46556.51284	(18090819)	AT (	-54.00, -0.00)	DP
25.	46482.30986	(18011120)	AT (	76.60, 64.28)	GP
26.	45680.45917	(18041807)	AT (	-54.00, -0.00)	DP
27.	45577.04800	(18041906)	AT (	85.30, -21.25)	DP
28.	45193.37045	(18073121)	AT (	-54.00, -0.00)	DP
29.	44760.87595	(18062606)	AT (	-54.00, -0.00)	DP
30.	44760.83606	(18030606)	AT (	-54.00, -0.00)	DP
31.	44555.39557	(18060620)	AT (	17.36, -98.48)	GP
32.	44304.40768	(18033021)	AT (	76.60, 64.28)	GP
33.	43944.13270	(18112520)	AT (	100.49, -6.55)	DP
34.	43628.59822	(18091406)	AT (	0.00, -106.00)	DP
35.	43564.26375	(18032407)	AT (	-54.00, -0.00)	DP
36.	43417.24526	(18041906)	AT (	98.48, -17.36)	GP
37.	43390.72855	(18020106)	AT (	-54.00, -0.00)	DP
38.	43385.45494	(18092806)	AT (	-54.00, -0.00)	DP
39.	43316.16200	(18112520)	AT (	100.00, 0.00)	GP
40.	43283.55259	(18080306)	AT (	-54.00, -0.00)	DP
41.	42981.03975	(18062706)	AT (	17.36, -98.48)	GP
42.	42894.96822	(18022421)	AT (	86.60, 50.00)	GP
43.	42748.51281	(18070320)	AT (	76.60, -64.28)	GP
44.	42715.90775	(18082719)	AT (	-54.00, -0.00)	DP
45.	42654.94836	(18081806)	AT (	-54.00, -0.00)	DP
46.	42615.38867	(18090821)	AT (	-54.00, -0.00)	DP
47.	42006.28206	(18122919)	AT (	50.00, 86.60)	GP
48.	41889.17324	(18110418)	AT (	85.30, -21.25)	DP
49.	41776.67995	(18041906)	AT (	100.49, -6.55)	DP
50.	41505.94578	(18102921)	AT (	64.28, -76.60)	GP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE MAXIMUM 50 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

** CONC OF HCL IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE	RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE
1.	19390.83978	(18020808) AT	(-54.00, -0.00) DP	26.	12656.20906	(18101824) AT	(-54.00, -0.00) DP
2.	19362.32687	(18051216) AT	(-54.00, -0.00) DP	27.	12634.65111	(18092316) AT	(-54.00, -0.00) DP
3.	18911.07985	(18121608) AT	(-54.00, -0.00) DP	28.	12601.20439	(18100616) AT	(-54.00, -0.00) DP
4.	17164.15314	(18021608) AT	(-54.00, -0.00) DP	29.	12499.71941	(18092516) AT	(-54.00, -0.00) DP
5.	16935.60609	(18100816) AT	(-54.00, -0.00) DP	30.	12453.86424	(18102924) AT	(64.28, -76.60) GP
6.	16592.80703	(18052616) AT	(-54.00, -0.00) DP	31.	12451.53613	(18020324) AT	(-54.00, -0.00) DP
7.	15485.26844	(18090516) AT	(-54.00, -0.00) DP	32.	12414.82567	(18082724) AT	(-54.00, -0.00) DP
8.	14965.97316	(18051224) AT	(-54.00, -0.00) DP	33.	12399.73684	(18040208) AT	(-54.00, -0.00) DP
9.	14965.67043	(18090216) AT	(-54.00, -0.00) DP	34.	12253.49351	(18062008) AT	(-54.00, -0.00) DP
10.	14694.91677	(18031108) AT	(-54.00, -0.00) DP	35.	12218.26296	(18090908) AT	(-54.00, -0.00) DP
11.	13997.44052	(18122408) AT	(-54.00, -0.00) DP	36.	12153.19032	(18103116) AT	(-54.00, -0.00) DP
12.	13859.69491	(18112524) AT	(100.00, 0.00) GP	37.	12151.35951	(18050216) AT	(-54.00, -0.00) DP
13.	13845.17819	(18103124) AT	(-54.00, -0.00) DP	38.	12100.15962	(18032408) AT	(-54.00, -0.00) DP
14.	13647.85496	(18091908) AT	(-54.00, -0.00) DP	39.	12088.01045	(18042008) AT	(34.20, -93.97) GP
15.	13467.56051	(18041808) AT	(-54.00, -0.00) DP	40.	12047.54561	(18082916) AT	(-54.00, -0.00) DP
16.	13432.74806b	(18112008) AT	(-86.60, 50.00) GP	41.	11942.61654	(18090424) AT	(-54.00, -0.00) DP
17.	13395.56226	(18050316) AT	(-54.00, -0.00) DP	42.	11911.70281c	(18122924) AT	(50.00, 86.60) GP
18.	13389.66009c	(18123124) AT	(-1.42, 81.42) DP	43.	11838.48549	(18100516) AT	(-54.00, -0.00) DP
19.	13310.49982c	(18123124) AT	(17.36, 98.48) GP	44.	11821.12441	(18052124) AT	(-54.00, -0.00) DP
20.	13234.56795	(18112524) AT	(100.49, -6.55) DP	45.	11785.15938c	(18123124) AT	(-0.00, 100.00) GP
21.	13119.51508b	(18112008) AT	(-93.97, 34.20) GP	46.	11783.57425	(18012208) AT	(-54.00, -0.00) DP
22.	12927.77838	(18092124) AT	(-54.00, -0.00) DP	47.	11768.19780	(18093024) AT	(-54.00, -0.00) DP
23.	12751.09691b	(18112008) AT	(-86.82, 53.52) DP	48.	11744.00299	(18051324) AT	(-54.00, -0.00) DP
24.	12730.18771	(18010824) AT	(-54.00, -0.00) DP	49.	11595.41415	(18102216) AT	(-54.00, -0.00) DP
25.	12710.45996	(18051416) AT	(-54.00, -0.00) DP	50.	11572.02495	(18022216) AT	(-54.00, -0.00) DP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	2223.43797 AT (-54.00, -0.00, 7.66, 7.66, 0.00) DP	
	2ND HIGHEST VALUE IS	1243.35888 AT (-86.60, -50.00, 7.10, 7.10, 0.00) GP	POL1
	3RD HIGHEST VALUE IS	1199.52083 AT (-93.97, -34.20, 7.30, 7.30, 0.00) GP	POL1
	4TH HIGHEST VALUE IS	1184.02830 AT (-76.60, -64.28, 6.80, 6.80, 0.00) GP	POL1
	5TH HIGHEST VALUE IS	1077.95215 AT (-98.48, -17.36, 7.50, 7.50, 0.00) GP	POL1
	6TH HIGHEST VALUE IS	1063.30506 AT (-64.28, -76.60, 6.40, 6.40, 0.00) GP	POL1

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 7TH HIGHEST VALUE IS    956.97576 AT (     86.60,      50.00,    7.20,    7.20,    0.00)  GP  POL1
 8TH HIGHEST VALUE IS    956.46811 AT (   -100.00,      -0.00,    7.80,    7.80,    0.00)  GP  POL1
 9TH HIGHEST VALUE IS    936.52754 AT (     76.60,      64.28,    7.20,    7.20,    0.00)  GP  POL1
10TH HIGHEST VALUE IS    934.24342 AT (     93.97,      34.20,    7.10,    7.10,    0.00)  GP  POL1


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018           ***
12/09/22
 *** AERMET - VERSION  19191 ***   ***                                                    ***       15:10:23
                                                                                      PAGE  53
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                            ** CONC OF HCL      IN MICROGRAMS/M**3                  **

                                      DATE                                    NETWORK
GROUP ID                 AVERAGE CONC     (YYMMDDHH)          RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF
TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS   77177.77372  ON 18122406: AT (    -54.00,      -0.00,    7.66,    7.66,    0.00)  DP

       HIGH   2ND HIGH VALUE IS   71532.90126  ON 18121608: AT (    -54.00,      -0.00,    7.66,    7.66,    0.00)  DP
       HIGH   3RD HIGH VALUE IS   70429.77671  ON 18040207: AT (    -54.00,      -0.00,    7.66,    7.66,    0.00)  DP


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018           ***
12/09/22
 *** AERMET - VERSION  19191 ***   ***                                                    ***       15:10:23
                                                                                      PAGE  54
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** THE SUMMARY OF HIGHEST  8-HR RESULTS ***


                            ** CONC OF HCL      IN MICROGRAMS/M**3                  **

                                      DATE                                    NETWORK
GROUP ID                 AVERAGE CONC     (YYMMDDHH)          RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF
TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS   19390.83978  ON 18020808: AT (    -54.00,      -0.00,    7.66,    7.66,    0.00)  DP

       HIGH   2ND HIGH VALUE IS   19362.32687  ON 18051216: AT (    -54.00,      -0.00,    7.66,    7.66,    0.00)  DP
       HIGH   3RD HIGH VALUE IS   18911.07985  ON 18121608: AT (    -54.00,      -0.00,    7.66,    7.66,    0.00)  DP


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
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♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2018 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:10:23

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 3 Warning Message(s)
A Total of 102 Informational Message(s)

A Total of 8760 Hours Were Processed

A Total of 59 Calm Hours Identified

A Total of 43 Missing Hours Identified (0.49 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 356 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 356 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
ME W531 356 MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for SITEDATA

****
*** AERMOD Finishes Successfully ***
****

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**USEgeneric12019withAERMAPProcessedElevs

CO STARTING
CO TITLEONE USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019
CO MODELOPT DFAULT CONC ELEV
**CO MODELOPT CONC ELEVATED
CO AVERTIME 1 8 PERIOD
CO POLLUTID HCL
CO RUNORNOT RUN
**CO URBANOPT UrbPop (UrbName) (UrbRoughness)
CO URBANOPT 397809
CO FINISHED

SO STARTING
SO LOCATION TANK  AREA  0.0 0.0 0.0
SO URBANSRC ALL
**SO EMISFACT SrcID or SrcRange Qflag Qfact(i), i=1,n  HOUR-OF-Day Specific factor
** HOURLY SPECIFIC EMISSIONS ADJUSTMENT: 1-5 0  6-21 1.0  22 -24 0
SO EMISFACT TANK HROFDY 5*0.0 16*1.0 3*0.0
SO SRCPARAM TANK 1.0 6.096 6.096
SO SRCGROUP ALL
SO FINISHED

RE STARTING

** AERMAP - VERSION 18081                                    12/09/22
**                                                  14:52:07
**  Using USGS_ned_1_N28W083_GRIDFLOAT.TIF
**  With NAD27 Anchor Point
** A total of       1  NED files were used
** A total of     736  receptors were processed
** DOMAINXY  361366.0 3090645.0 17 369209.0 3097023.0 17
** ANCHORXY  0.0      0.0     364725.57  3093695.53  17  0
** Terrain heights were extracted by default

RE ELEVUNIT METERS
  GRIDPOLR POL1 STA
        POL1 ORIG   0.0   0.0
        POL1 DIST   100.   200. 300. 400. 500. 600. 700. 800. 900. 1000. 1100. 1200. 1300. 1400. 1500. 1600. 1700. 1800.
1900. 2000.
        POL1 GDIR   36     10.    10.
  GRIDPOLR POL1     ELEV    1      8.3      9.2      9.0      8.7      8.8      8.1
  GRIDPOLR POL1     ELEV    1      6.9      6.5      8.2      9.2      9.4      9.8
  GRIDPOLR POL1     ELEV    1      9.4      9.8     10.0     10.1      9.8      9.6
  GRIDPOLR POL1     ELEV    1      8.5      7.3
  GRIDPOLR POL1     ELEV    2      8.2      8.7      8.6      8.6      8.4      8.4
  GRIDPOLR POL1     ELEV    2      7.3      6.5      7.1      8.2      9.4      9.6
  GRIDPOLR POL1     ELEV    2      9.1      8.9      8.6      7.9      6.4      6.4
  GRIDPOLR POL1     ELEV    2      6.9      7.3
  GRIDPOLR POL1     ELEV    3      7.8      8.4      8.5      8.5      8.8      8.1
  GRIDPOLR POL1     ELEV    3      7.6      7.3      6.3      6.5      6.3      6.0
  GRIDPOLR POL1     ELEV    3      6.7      6.9      6.1      5.7      5.7      5.5
  GRIDPOLR POL1     ELEV    3      5.1      5.1
  GRIDPOLR POL1     ELEV    4      7.4      7.8      8.1      8.3      8.4      8.6
  GRIDPOLR POL1     ELEV    4      6.4      5.8      5.1      5.4      2.0      2.0
  GRIDPOLR POL1     ELEV    4      2.0      2.0      2.0      2.0      2.0      2.0
  GRIDPOLR POL1     ELEV    4      2.0      2.0
  GRIDPOLR POL1     ELEV    5      7.2      7.6      7.4      6.8      7.8      7.6
  GRIDPOLR POL1     ELEV    5      4.6      3.4      2.0      2.0      5.6      6.2
  GRIDPOLR POL1     ELEV    5      6.3      7.4      8.0      7.1      7.7      7.1
  GRIDPOLR POL1     ELEV    5      6.7      7.3
  GRIDPOLR POL1     ELEV    6      7.2      7.4      6.8      6.0      6.8      4.7
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GRIDPOLR POL1	ELEV	6	3.8	2.0	2.0	6.2	7.0	5.7
GRIDPOLR POL1	ELEV	6	7.0	7.6	8.5	8.6	9.4	7.7
GRIDPOLR POL1	ELEV	6	7.4	7.9				
GRIDPOLR POL1	ELEV	7	7.1	7.0	6.4	5.9	7.1	10.0
GRIDPOLR POL1	ELEV	7	2.6	2.0	10.0	7.7	7.8	7.4
GRIDPOLR POL1	ELEV	7	7.1	7.0	6.9	9.0	7.1	7.3
GRIDPOLR POL1	ELEV	7	7.0	8.1				
GRIDPOLR POL1	ELEV	8	6.8	6.9	5.8	5.4	5.1	3.2
GRIDPOLR POL1	ELEV	8	2.0	2.0	7.3	8.4	10.1	10.1
GRIDPOLR POL1	ELEV	8	9.4	8.2	7.8	7.6	7.2	5.7
GRIDPOLR POL1	ELEV	8	7.6	8.2				
GRIDPOLR POL1	ELEV	9	6.6	6.4	5.8	4.8	4.6	4.2
GRIDPOLR POL1	ELEV	9	2.0	4.8	5.6	6.7	7.7	7.6
GRIDPOLR POL1	ELEV	9	8.1	8.5	8.0	7.4	7.5	5.2
GRIDPOLR POL1	ELEV	9	6.7	7.0				
GRIDPOLR POL1	ELEV	10	6.6	6.1	5.8	4.9	3.5	4.0
GRIDPOLR POL1	ELEV	10	2.0	5.1	4.9	5.6	5.3	5.3
GRIDPOLR POL1	ELEV	10	7.6	7.8	8.3	8.6	8.3	8.5
GRIDPOLR POL1	ELEV	10	7.3	7.9				
GRIDPOLR POL1	ELEV	11	6.5	6.2	5.7	4.0	4.0	4.0
GRIDPOLR POL1	ELEV	11	2.0	6.3	8.7	8.1	5.1	5.4
GRIDPOLR POL1	ELEV	11	6.4	6.4	7.3	8.6	8.0	7.7
GRIDPOLR POL1	ELEV	11	7.0	6.8				
GRIDPOLR POL1	ELEV	12	6.7	6.0	5.2	4.1	4.2	3.5
GRIDPOLR POL1	ELEV	12	2.0	4.5	10.1	8.2	9.3	4.8
GRIDPOLR POL1	ELEV	12	6.8	7.5	5.8	6.3	6.7	7.6
GRIDPOLR POL1	ELEV	12	7.3	7.3				
GRIDPOLR POL1	ELEV	13	6.6	6.4	5.3	4.3	4.3	4.0
GRIDPOLR POL1	ELEV	13	2.0	3.1	7.7	8.0	7.5	5.7
GRIDPOLR POL1	ELEV	13	4.4	3.8	3.7	4.2	5.1	5.7
GRIDPOLR POL1	ELEV	13	7.0	6.2				
GRIDPOLR POL1	ELEV	14	6.5	6.3	5.4	4.7	3.9	4.2
GRIDPOLR POL1	ELEV	14	1.2	0.0	0.0	3.3	3.3	3.4
GRIDPOLR POL1	ELEV	14	3.2	3.5	4.2	4.2	5.1	5.2
GRIDPOLR POL1	ELEV	14	5.8	5.4				
GRIDPOLR POL1	ELEV	15	6.3	5.8	5.0	5.0	4.6	3.6
GRIDPOLR POL1	ELEV	15	2.9	2.3	0.0	0.0	3.8	3.2
GRIDPOLR POL1	ELEV	15	3.0	3.0	5.6	7.2	4.1	4.6
GRIDPOLR POL1	ELEV	15	4.9	5.6				
GRIDPOLR POL1	ELEV	16	6.2	5.6	4.5	4.8	5.3	5.2
GRIDPOLR POL1	ELEV	16	5.3	3.8	1.5	2.3	0.0	0.0
GRIDPOLR POL1	ELEV	16	3.7	5.3	3.8	1.6	3.3	3.6
GRIDPOLR POL1	ELEV	16	4.4	4.1				
GRIDPOLR POL1	ELEV	17	6.1	5.0	4.7	3.5	5.0	5.0
GRIDPOLR POL1	ELEV	17	4.8	4.5	9.4	2.4	3.6	0.0
GRIDPOLR POL1	ELEV	17	0.0	1.7	3.2	2.3	2.8	3.3
GRIDPOLR POL1	ELEV	17	3.6	4.1				
GRIDPOLR POL1	ELEV	18	6.1	5.1	4.7	4.9	4.9	5.1
GRIDPOLR POL1	ELEV	18	5.0	4.5	4.5	3.3	4.4	2.6
GRIDPOLR POL1	ELEV	18	0.0	0.0	2.7	3.2	2.7	3.0
GRIDPOLR POL1	ELEV	18	3.1	3.7				
GRIDPOLR POL1	ELEV	19	6.3	5.0	4.7	4.8	5.2	5.5
GRIDPOLR POL1	ELEV	19	5.3	4.8	4.9	4.4	4.7	4.9
GRIDPOLR POL1	ELEV	19	3.2	4.1	0.2	0.0	0.0	0.0
GRIDPOLR POL1	ELEV	19	3.4	3.7				
GRIDPOLR POL1	ELEV	20	6.4	5.0	4.8	4.2	5.0	5.2
GRIDPOLR POL1	ELEV	20	5.6	5.0	4.4	3.8	3.8	3.4
GRIDPOLR POL1	ELEV	20	4.1	5.4	12.4	7.3	0.0	0.0
GRIDPOLR POL1	ELEV	20	2.8	3.0				
GRIDPOLR POL1	ELEV	21	6.4	4.8	5.3	5.2	4.6	4.9
GRIDPOLR POL1	ELEV	21	7.3	4.7	4.6	3.2	3.1	2.7
GRIDPOLR POL1	ELEV	21	2.9	2.6	6.3	0.0	0.0	0.1

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GRIDPOLR POL1    ELEV  21     2.7     3.1
GRIDPOLR POL1    ELEV  22     6.4     5.1     5.6     5.9     5.6     4.9
GRIDPOLR POL1    ELEV  22    16.0    11.8     5.0     4.5     3.4     2.6
GRIDPOLR POL1    ELEV  22     2.3     3.0     3.1     7.9     0.0     0.0
GRIDPOLR POL1    ELEV  22     0.0     1.7
GRIDPOLR POL1    ELEV  23     6.8     6.2     5.8     6.1     5.8     6.6
GRIDPOLR POL1    ELEV  23     5.4     4.9     4.6     4.6     4.7     4.4
GRIDPOLR POL1    ELEV  23     3.0     3.2     2.0     2.4     2.9     2.6
GRIDPOLR POL1    ELEV  23     1.6     2.2
GRIDPOLR POL1    ELEV  24     7.1     6.4     6.4     6.3     6.5     7.4
GRIDPOLR POL1    ELEV  24     6.2     5.9     5.6     5.3     5.2     4.6
GRIDPOLR POL1    ELEV  24     5.1     4.8     3.3     3.3     2.9     1.4
GRIDPOLR POL1    ELEV  24     0.8     2.0
GRIDPOLR POL1    ELEV  25     7.3     7.3     7.1     6.9     8.1     7.5
GRIDPOLR POL1    ELEV  25     7.8     7.7     7.9     6.5     6.2     5.6
GRIDPOLR POL1    ELEV  25     5.5     5.3     4.8     4.7     4.1     4.5
GRIDPOLR POL1    ELEV  25     3.0     1.9
GRIDPOLR POL1    ELEV  26     7.5     7.9     7.7     8.4     8.2     8.4
GRIDPOLR POL1    ELEV  26     8.4     8.3     8.6     8.3     8.1     7.9
GRIDPOLR POL1    ELEV  26     7.6     7.1     6.7     6.6     5.6     4.9
GRIDPOLR POL1    ELEV  26     4.0     4.5
GRIDPOLR POL1    ELEV  27     7.8     8.3     8.4     8.5     8.2     9.1
GRIDPOLR POL1    ELEV  27     8.4     8.6     7.9     6.7     6.9     6.6
GRIDPOLR POL1    ELEV  27     6.8     7.0     7.0     7.1     6.6     6.0
GRIDPOLR POL1    ELEV  27     6.2     6.4
GRIDPOLR POL1    ELEV  28     8.2     8.8     9.3     8.2     8.5     8.3
GRIDPOLR POL1    ELEV  28     8.3     7.7     6.9     6.9     6.0     7.3
GRIDPOLR POL1    ELEV  28     8.6     9.5    11.1    10.0     8.8     8.6
GRIDPOLR POL1    ELEV  28     8.9     9.6
GRIDPOLR POL1    ELEV  29     8.3     9.1     9.0     8.4     8.7     8.0
GRIDPOLR POL1    ELEV  29     7.8     7.5     7.3     7.3     8.5     8.6
GRIDPOLR POL1    ELEV  29     9.5     9.6     9.7    10.1    10.3    10.5
GRIDPOLR POL1    ELEV  29    11.3    11.1
GRIDPOLR POL1    ELEV  30     8.6     8.6     8.9     8.5     8.3     8.1
GRIDPOLR POL1    ELEV  30     7.6     7.4     7.8     8.4     9.7     8.8
GRIDPOLR POL1    ELEV  30     8.6     8.7    10.3     9.0     8.8     8.6
GRIDPOLR POL1    ELEV  30     8.7    10.1
GRIDPOLR POL1    ELEV  31     8.9     9.4     8.7     8.7     8.1     7.7
GRIDPOLR POL1    ELEV  31     8.0     8.2     8.8     8.0     8.3     9.1
GRIDPOLR POL1    ELEV  31    10.7    11.3     8.2     9.6     9.1     9.3
GRIDPOLR POL1    ELEV  31     7.9     7.9
GRIDPOLR POL1    ELEV  32     8.5     8.9     9.0     8.7     8.0     8.1
GRIDPOLR POL1    ELEV  32     8.5     9.2     9.7     8.6     8.4    10.4
GRIDPOLR POL1    ELEV  32    11.0    11.5    11.9    10.2     9.3    11.6
GRIDPOLR POL1    ELEV  32     8.9     8.7
GRIDPOLR POL1    ELEV  33     8.5     8.6     9.0     8.8     8.4     8.2
GRIDPOLR POL1    ELEV  33     8.2     9.9    10.9    11.0    12.7    11.4
GRIDPOLR POL1    ELEV  33    10.9    11.7    11.7    11.5    11.9     9.8
GRIDPOLR POL1    ELEV  33     8.0     9.0
GRIDPOLR POL1    ELEV  34     8.5     8.8     8.7     8.8     7.6     7.8
GRIDPOLR POL1    ELEV  34     7.4     9.4    10.8    10.8    11.3    10.7
GRIDPOLR POL1    ELEV  34    10.4    10.9    12.3    10.6    10.9     8.0
GRIDPOLR POL1    ELEV  34     8.0     8.6
GRIDPOLR POL1    ELEV  35     8.6     9.0     9.0     8.7     7.9     7.5
GRIDPOLR POL1    ELEV  35     7.6     8.5     9.8    10.0     9.8    10.2
GRIDPOLR POL1    ELEV  35     9.9     9.7     9.7    10.9    10.6    10.8
GRIDPOLR POL1    ELEV  35    10.7    11.0
GRIDPOLR POL1    ELEV  36     8.3     9.1     8.7     8.7     8.2     7.2
GRIDPOLR POL1    ELEV  36     7.1     8.4     9.4     9.4     8.2     8.5
GRIDPOLR POL1    ELEV  36     9.2     9.3    10.2    10.5    10.7    10.8
GRIDPOLR POL1    ELEV  36    10.2     9.8
GRIDPOLR POL1    HILL   1     8.3     9.2     9.0     8.7     8.8     8.1
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GRIDPOLR	POL1	HILL	1	6.9	6.5	8.2	9.2	9.4	9.8
GRIDPOLR	POL1	HILL	1	9.4	9.8	10.0	10.1	9.8	9.6
GRIDPOLR	POL1	HILL	1	8.5	7.3				
GRIDPOLR	POL1	HILL	2	8.2	9.5	8.6	8.6	8.4	8.4
GRIDPOLR	POL1	HILL	2	7.3	6.5	7.1	8.2	9.4	9.6
GRIDPOLR	POL1	HILL	2	9.1	8.9	8.6	7.9	6.4	6.4
GRIDPOLR	POL1	HILL	2	6.9	7.3				
GRIDPOLR	POL1	HILL	3	7.8	8.4	8.5	8.5	8.8	8.1
GRIDPOLR	POL1	HILL	3	7.6	7.3	6.3	6.5	6.3	6.0
GRIDPOLR	POL1	HILL	3	6.7	6.9	6.1	5.7	5.7	5.5
GRIDPOLR	POL1	HILL	3	5.1	5.1				
GRIDPOLR	POL1	HILL	4	7.4	7.8	8.1	8.3	8.4	8.6
GRIDPOLR	POL1	HILL	4	6.4	5.8	5.1	6.2	2.0	2.0
GRIDPOLR	POL1	HILL	4	2.0	2.0	2.0	2.0	2.0	2.0
GRIDPOLR	POL1	HILL	4	2.0	5.1				
GRIDPOLR	POL1	HILL	5	7.2	7.6	7.4	6.8	7.8	7.6
GRIDPOLR	POL1	HILL	5	4.6	3.4	2.0	2.0	5.6	6.2
GRIDPOLR	POL1	HILL	5	6.3	7.4	8.0	7.1	7.7	7.1
GRIDPOLR	POL1	HILL	5	7.9	7.3				
GRIDPOLR	POL1	HILL	6	7.2	7.4	6.8	6.0	6.8	12.5
GRIDPOLR	POL1	HILL	6	7.1	2.0	6.5	6.2	7.0	5.7
GRIDPOLR	POL1	HILL	6	7.0	7.6	8.5	8.6	9.4	7.7
GRIDPOLR	POL1	HILL	6	7.4	7.9				
GRIDPOLR	POL1	HILL	7	7.1	7.0	6.4	5.9	11.6	11.2
GRIDPOLR	POL1	HILL	7	5.0	2.0	10.0	7.7	7.8	7.4
GRIDPOLR	POL1	HILL	7	7.1	7.0	15.1	16.4	7.1	7.3
GRIDPOLR	POL1	HILL	7	7.0	8.1				
GRIDPOLR	POL1	HILL	8	6.8	6.9	5.8	5.4	5.1	4.1
GRIDPOLR	POL1	HILL	8	2.0	9.3	7.3	8.4	10.1	10.1
GRIDPOLR	POL1	HILL	8	9.4	8.2	7.8	7.6	7.2	5.7
GRIDPOLR	POL1	HILL	8	7.6	8.2				
GRIDPOLR	POL1	HILL	9	6.6	6.4	5.8	4.8	5.2	4.2
GRIDPOLR	POL1	HILL	9	2.0	5.9	5.6	6.7	7.7	7.6
GRIDPOLR	POL1	HILL	9	8.1	8.5	8.0	7.4	7.5	5.2
GRIDPOLR	POL1	HILL	9	6.7	7.0				
GRIDPOLR	POL1	HILL	10	6.6	6.1	5.8	4.9	3.5	4.0
GRIDPOLR	POL1	HILL	10	2.0	7.8	7.1	5.6	5.3	5.3
GRIDPOLR	POL1	HILL	10	7.6	7.8	8.3	8.6	8.3	8.5
GRIDPOLR	POL1	HILL	10	7.3	7.9				
GRIDPOLR	POL1	HILL	11	6.5	6.2	5.7	4.0	4.0	4.0
GRIDPOLR	POL1	HILL	11	2.0	9.5	8.7	8.1	5.1	5.4
GRIDPOLR	POL1	HILL	11	6.4	6.4	7.3	8.6	8.0	7.7
GRIDPOLR	POL1	HILL	11	7.0	6.8				
GRIDPOLR	POL1	HILL	12	6.7	6.0	5.2	4.1	4.2	3.5
GRIDPOLR	POL1	HILL	12	2.0	8.8	10.1	14.4	15.9	15.9
GRIDPOLR	POL1	HILL	12	6.8	7.5	5.8	6.3	6.7	7.6
GRIDPOLR	POL1	HILL	12	7.3	7.3				
GRIDPOLR	POL1	HILL	13	6.6	6.4	5.3	4.3	4.3	4.0
GRIDPOLR	POL1	HILL	13	4.0	3.8	7.7	8.0	8.3	13.2
GRIDPOLR	POL1	HILL	13	6.7	3.8	3.7	4.2	5.1	5.7
GRIDPOLR	POL1	HILL	13	7.0	6.2				
GRIDPOLR	POL1	HILL	14	6.5	6.3	5.4	4.7	3.9	4.2
GRIDPOLR	POL1	HILL	14	3.1	0.0	0.0	3.3	3.3	3.4
GRIDPOLR	POL1	HILL	14	3.2	3.5	4.2	4.2	5.1	5.2
GRIDPOLR	POL1	HILL	14	5.8	5.4				
GRIDPOLR	POL1	HILL	15	6.3	5.8	5.0	5.0	4.6	3.6
GRIDPOLR	POL1	HILL	15	2.9	2.3	0.0	0.0	3.8	3.2
GRIDPOLR	POL1	HILL	15	3.0	3.0	9.8	7.2	4.1	4.6
GRIDPOLR	POL1	HILL	15	4.9	5.6				
GRIDPOLR	POL1	HILL	16	6.2	5.6	4.5	4.8	5.3	5.2
GRIDPOLR	POL1	HILL	16	12.0	13.1	13.1	2.9	0.0	0.0
GRIDPOLR	POL1	HILL	16	3.7	5.3	3.8	3.1	3.3	3.6

GRIDPOLR POL1	HILL	16	4.4	4.1				
GRIDPOLR POL1	HILL	17	6.1	5.0	4.7	3.5	5.0	5.0
GRIDPOLR POL1	HILL	17	4.8	13.1	9.4	2.4	3.6	4.1
GRIDPOLR POL1	HILL	17	0.0	1.7	3.2	2.3	2.8	3.3
GRIDPOLR POL1	HILL	17	3.6	4.1				
GRIDPOLR POL1	HILL	18	6.1	5.1	4.7	4.9	4.9	5.1
GRIDPOLR POL1	HILL	18	5.0	4.5	4.5	3.3	4.4	2.6
GRIDPOLR POL1	HILL	18	0.0	0.0	2.7	3.2	2.7	3.0
GRIDPOLR POL1	HILL	18	3.1	3.7				
GRIDPOLR POL1	HILL	19	6.3	5.0	4.7	4.8	5.2	5.5
GRIDPOLR POL1	HILL	19	5.3	4.8	4.9	4.4	4.7	4.9
GRIDPOLR POL1	HILL	19	12.5	13.3	13.6	13.6	0.0	0.0
GRIDPOLR POL1	HILL	19	3.4	3.7				
GRIDPOLR POL1	HILL	20	6.4	5.0	4.8	4.2	5.0	5.2
GRIDPOLR POL1	HILL	20	5.6	5.0	4.4	3.8	3.8	3.4
GRIDPOLR POL1	HILL	20	4.1	14.1	12.4	12.9	12.9	0.0
GRIDPOLR POL1	HILL	20	2.8	3.0				
GRIDPOLR POL1	HILL	21	6.4	4.8	5.3	5.2	4.6	16.4
GRIDPOLR POL1	HILL	21	16.9	16.5	4.6	3.2	3.1	2.7
GRIDPOLR POL1	HILL	21	2.9	4.3	10.8	11.0	0.0	2.4
GRIDPOLR POL1	HILL	21	2.7	3.1				
GRIDPOLR POL1	HILL	22	6.4	5.1	5.6	5.9	5.6	16.8
GRIDPOLR POL1	HILL	22	16.0	16.7	16.1	4.5	3.4	2.6
GRIDPOLR POL1	HILL	22	2.3	3.0	9.4	9.2	9.1	0.0
GRIDPOLR POL1	HILL	22	0.0	1.7				
GRIDPOLR POL1	HILL	23	6.8	6.2	5.8	6.1	5.8	6.6
GRIDPOLR POL1	HILL	23	16.8	16.8	16.4	4.6	4.7	4.4
GRIDPOLR POL1	HILL	23	3.0	3.2	2.0	2.4	2.9	2.6
GRIDPOLR POL1	HILL	23	1.6	9.6				
GRIDPOLR POL1	HILL	24	7.1	6.4	6.4	6.3	6.5	7.4
GRIDPOLR POL1	HILL	24	6.2	5.9	5.6	5.3	5.2	4.6
GRIDPOLR POL1	HILL	24	5.1	4.8	3.3	3.3	2.9	1.4
GRIDPOLR POL1	HILL	24	0.8	2.0				
GRIDPOLR POL1	HILL	25	7.3	7.3	7.1	6.9	8.1	7.5
GRIDPOLR POL1	HILL	25	7.8	7.7	7.9	7.6	6.2	5.6
GRIDPOLR POL1	HILL	25	5.9	5.3	4.8	4.7	4.1	4.5
GRIDPOLR POL1	HILL	25	3.0	1.9				
GRIDPOLR POL1	HILL	26	7.5	7.9	7.7	8.4	8.2	8.4
GRIDPOLR POL1	HILL	26	8.4	8.3	8.6	8.3	8.1	7.9
GRIDPOLR POL1	HILL	26	7.6	7.1	6.7	6.6	5.6	4.9
GRIDPOLR POL1	HILL	26	4.0	4.5				
GRIDPOLR POL1	HILL	27	7.8	8.3	8.4	8.5	8.2	9.1
GRIDPOLR POL1	HILL	27	8.4	8.6	7.9	6.7	6.9	6.6
GRIDPOLR POL1	HILL	27	6.8	7.0	7.0	7.1	6.6	12.2
GRIDPOLR POL1	HILL	27	14.2	14.2				
GRIDPOLR POL1	HILL	28	8.2	8.8	9.3	9.3	8.5	8.3
GRIDPOLR POL1	HILL	28	8.3	7.7	6.9	6.9	6.0	7.3
GRIDPOLR POL1	HILL	28	8.6	9.5	11.1	10.0	8.8	8.6
GRIDPOLR POL1	HILL	28	8.9	9.6				
GRIDPOLR POL1	HILL	29	8.3	9.1	9.0	8.4	8.7	8.0
GRIDPOLR POL1	HILL	29	7.8	7.5	7.3	7.3	8.5	8.6
GRIDPOLR POL1	HILL	29	9.5	9.6	9.7	10.1	10.3	10.5
GRIDPOLR POL1	HILL	29	11.3	11.1				
GRIDPOLR POL1	HILL	30	8.6	8.6	8.9	8.5	8.3	8.1
GRIDPOLR POL1	HILL	30	7.6	7.4	7.8	8.4	9.7	8.8
GRIDPOLR POL1	HILL	30	8.6	8.7	10.3	9.0	8.8	8.6
GRIDPOLR POL1	HILL	30	9.5	10.1				
GRIDPOLR POL1	HILL	31	8.9	9.4	8.7	8.7	8.1	7.7
GRIDPOLR POL1	HILL	31	8.0	8.2	8.8	8.0	8.3	9.1
GRIDPOLR POL1	HILL	31	14.9	15.4	8.2	9.6	9.1	9.3
GRIDPOLR POL1	HILL	31	7.9	7.9				
GRIDPOLR POL1	HILL	32	8.5	8.9	9.0	8.8	8.0	8.1

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  GRIDPOLR POL1     HILL  32      8.5     9.2     9.7     8.6     8.4    10.4
  GRIDPOLR POL1     HILL  32     11.0    11.5    11.9    10.2     9.3    11.6
  GRIDPOLR POL1     HILL  32      8.9     8.7
  GRIDPOLR POL1     HILL  33      8.5     8.6     9.0     8.8     8.4     8.2
  GRIDPOLR POL1     HILL  33      8.2     9.9    10.9    11.0    12.7    11.4
  GRIDPOLR POL1     HILL  33     10.9    11.7    11.7    11.5    11.9     9.8
  GRIDPOLR POL1     HILL  33      8.0     9.0
  GRIDPOLR POL1     HILL  34      8.5     8.8     8.7     8.8     7.6     7.8
  GRIDPOLR POL1     HILL  34      7.4     9.4    10.8    10.8    11.3    10.7
  GRIDPOLR POL1     HILL  34     10.4    10.9    12.3    16.6    10.9     8.0
  GRIDPOLR POL1     HILL  34      8.0     8.6
  GRIDPOLR POL1     HILL  35      8.6     9.0     9.0     8.7     7.9     7.5
  GRIDPOLR POL1     HILL  35      7.6     8.5     9.8    10.0     9.8    10.2
  GRIDPOLR POL1     HILL  35      9.9     9.7     9.7    10.9    10.6    10.8
  GRIDPOLR POL1     HILL  35     10.7    11.0
  GRIDPOLR POL1     HILL  36      8.3     9.1     8.7     8.7     8.2     7.2
  GRIDPOLR POL1     HILL  36      7.1     8.4     9.4     9.4     8.2     8.5
  GRIDPOLR POL1     HILL  36      9.2     9.3    10.2    10.5    10.7    10.8
  GRIDPOLR POL1     HILL  36     10.2    11.9
  GRIDPOLR POL1 END
  DISCPOLR TANK          375.70   118.90    4.13    4.13
  DISCPOLR TANK          498.87   129.50    4.28    4.28
  DISCPOLR TANK           81.43   359.00    8.22    8.22
  DISCPOLR TANK          116.79    44.50    7.45    7.45
  DISCPOLR TANK          109.20    67.00    7.18    7.18
  DISCPOLR TANK          100.70    93.73    6.54    6.54
  DISCPOLR TANK           87.91   103.99    6.86    6.86
  DISCPOLR TANK           99.82   123.38    6.79    6.79
  DISCPOLR TANK          138.00   141.00    5.94    5.94
  DISCPOLR TANK          106.00   180.00    5.90    5.90
  DISCPOLR TANK          115.60   206.00    5.94    5.94
  DISCPOLR TANK           54.00   270.00    7.66    7.66
  DISCPOLR TANK           97.00   326.00    8.52    8.52
  DISCPOLR TANK          133.94   242.10    7.16    7.16
  DISCPOLR TANK          101.99   301.65    8.70    8.70
  DISCPOLR TANK          236.54   274.95    8.35    8.35

RE FINISHED

ME STARTING
  SURFFILE  TPA2019_V19191.sfc
  PROFFILE  TPA2019_V19191.pfl
  SURFDATA  12842  2019
  UAIRDATA 12842  2019
  SITEDATA  12842  2019
  PROFBASE  0.0  METERS
ME FINISHED

OU STARTING
OU RECTABLE  ALLAVE  FIRST-THIRD
OU MAXTABLE  ALLAVE  50
OU SUMMFILE USECOLO1.SUM
OU FINISHED


 *** Message Summary For AERMOD Model Setup ***

 --------- Summary of Total Messages --------

A Total of         0 Fatal Error Message(s)
A Total of         3 Warning Message(s)
A Total of         0 Informational Message(s)
```

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 356 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 356 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
ME W531 356 MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for SITEDATA

****
*** SETUP Finishes Successfully ***
****

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY ***
- -

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 1 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 397809.0 ; Urban Roughness Length = 1.000 m

**Model Uses Regulatory DEFAULT Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.
6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
ADJ_U* - Use ADJ_U* option for SBL in AERMET
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: HCL

**Model Calculates 2 Short Term Average(s) of: 1-HR 8-HR
and Calculates PERIOD Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 736 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)
and: 1 AREA type source(s)

and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 19191

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 0.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: GenericUSE1GramWithElevs2019f.inp
**Output Print File: GenericUSE1GramWithElevs2019f.out

**File for Summary of Results: USECOLO1.SUM
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
TANK	0	0.10000E+01	0.0	0.0	0.0	6.10	6.10	6.10	0.00	0.00	YES	HROFDY

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
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*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	TANK ,

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
397809.	TANK	,

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = TANK ; SOURCE TYPE = AREA :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.10000E+01
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.10000E+01	20	.10000E+01	21	.10000E+01	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 0.00 ; Y-ORIG = 0.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

100.0, 200.0, 300.0, 400.0, 500.0, 600.0, 700.0, 800.0, 900.0, 1000.0,
1100.0, 1200.0, 1300.0, 1400.0, 1500.0, 1600.0, 1700.0, 1800.0, 1900.0, 2000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00	600.00	700.00	800.00	900.00
10.00	8.30	9.20	9.00	8.70	8.80	8.10	6.90	6.50	8.20
20.00	8.20	8.70	8.60	8.60	8.40	8.40	7.30	6.50	7.10
30.00	7.80	8.40	8.50	8.50	8.80	8.10	7.60	7.30	6.30
40.00	7.40	7.80	8.10	8.30	8.40	8.60	6.40	5.80	5.10
50.00	7.20	7.60	7.40	6.80	7.80	7.60	4.60	3.40	2.00
60.00	7.20	7.40	6.80	6.00	6.80	4.70	3.80	2.00	2.00
70.00	7.10	7.00	6.40	5.90	7.10	10.00	2.60	2.00	10.00
80.00	6.80	6.90	5.80	5.40	5.10	3.20	2.00	2.00	7.30
90.00	6.60	6.40	5.80	4.80	4.60	4.20	2.00	4.80	5.60
100.00	6.60	6.10	5.80	4.90	3.50	4.00	2.00	5.10	4.90
110.00	6.50	6.20	5.70	4.00	4.00	4.00	2.00	6.30	8.70
120.00	6.70	6.00	5.20	4.10	4.20	3.50	2.00	4.50	10.10
130.00	6.60	6.40	5.30	4.30	4.30	4.00	2.00	3.10	7.70
140.00	6.50	6.30	5.40	4.70	3.90	4.20	1.20	0.00	0.00
150.00	6.30	5.80	5.00	5.00	4.60	3.60	2.90	2.30	0.00
160.00	6.20	5.60	4.50	4.80	5.30	5.20	5.30	3.80	1.50
170.00	6.10	5.00	4.70	3.50	5.00	5.00	4.80	4.50	9.40
180.00	6.10	5.10	4.70	4.90	4.90	5.10	5.00	4.50	4.50
190.00	6.30	5.00	4.70	4.80	5.20	5.50	5.30	4.80	4.90
200.00	6.40	5.00	4.80	4.20	5.00	5.20	5.60	5.00	4.40
210.00	6.40	4.80	5.30	5.20	4.60	4.90	7.30	4.70	4.60
220.00	6.40	5.10	5.60	5.90	5.60	4.90	16.00	11.80	5.00
230.00	6.80	6.20	5.80	6.10	5.80	6.60	5.40	4.90	4.60
240.00	7.10	6.40	6.40	6.30	6.50	7.40	6.20	5.90	5.60
250.00	7.30	7.30	7.10	6.90	8.10	7.50	7.80	7.70	7.90
260.00	7.50	7.90	7.70	8.40	8.20	8.40	8.40	8.30	8.60
270.00	7.80	8.30	8.40	8.50	8.20	9.10	8.40	8.60	7.90
280.00	8.20	8.80	9.30	8.20	8.50	8.30	8.30	7.70	6.90
290.00	8.30	9.10	9.00	8.40	8.70	8.00	7.80	7.50	7.30
300.00	8.60	8.60	8.90	8.50	8.30	8.10	7.60	7.40	7.80
310.00	8.90	9.40	8.70	8.70	8.10	7.70	8.00	8.20	8.80
320.00	8.50	8.90	9.00	8.70	8.00	8.10	8.50	9.20	9.70
330.00	8.50	8.60	9.00	8.80	8.40	8.20	8.20	9.90	10.90
340.00	8.50	8.80	8.70	8.80	7.60	7.80	7.40	9.40	10.80
350.00	8.60	9.00	9.00	8.70	7.90	7.50	7.60	8.50	9.80
360.00	8.30	9.10	8.70	8.70	8.20	7.20	7.10	8.40	9.40

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00

10.00	9.20	9.40	9.80	9.40	9.80	10.00	10.10	9.80	9.60
20.00	8.20	9.40	9.60	9.10	8.90	8.60	7.90	6.40	6.40
30.00	6.50	6.30	6.00	6.70	6.90	6.10	5.70	5.70	5.50
40.00	5.40	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
50.00	2.00	5.60	6.20	6.30	7.40	8.00	7.10	7.70	7.10
60.00	6.20	7.00	5.70	7.00	7.60	8.50	8.60	9.40	7.70
70.00	7.70	7.80	7.40	7.10	7.00	6.90	9.00	7.10	7.30
80.00	8.40	10.10	10.10	9.40	8.20	7.80	7.60	7.20	5.70
90.00	6.70	7.70	7.60	8.10	8.50	8.00	7.40	7.50	5.20
100.00	5.60	5.30	5.30	7.60	7.80	8.30	8.60	8.30	8.50
110.00	8.10	5.10	5.40	6.40	6.40	7.30	8.60	8.00	7.70
120.00	8.20	9.30	4.80	6.80	7.50	5.80	6.30	6.70	7.60
130.00	8.00	7.50	5.70	4.40	3.80	3.70	4.20	5.10	5.70
140.00	3.30	3.30	3.40	3.20	3.50	4.20	4.20	5.10	5.20
150.00	0.00	3.80	3.20	3.00	3.00	5.60	7.20	4.10	4.60
160.00	2.30	0.00	0.00	3.70	5.30	3.80	1.60	3.30	3.60
170.00	2.40	3.60	0.00	0.00	1.70	3.20	2.30	2.80	3.30
180.00	3.30	4.40	2.60	0.00	0.00	2.70	3.20	2.70	3.00
190.00	4.40	4.70	4.90	3.20	4.10	0.20	0.00	0.00	0.00
200.00	3.80	3.80	3.40	4.10	5.40	12.40	7.30	0.00	0.00
210.00	3.20	3.10	2.70	2.90	2.60	6.30	0.00	0.00	0.10
220.00	4.50	3.40	2.60	2.30	3.00	3.10	7.90	0.00	0.00
230.00	4.60	4.70	4.40	3.00	3.20	2.00	2.40	2.90	2.60
240.00	5.30	5.20	4.60	5.10	4.80	3.30	3.30	2.90	1.40
250.00	6.50	6.20	5.60	5.50	5.30	4.80	4.70	4.10	4.50
260.00	8.30	8.10	7.90	7.60	7.10	6.70	6.60	5.60	4.90
270.00	6.70	6.90	6.60	6.80	7.00	7.00	7.10	6.60	6.00
280.00	6.90	6.00	7.30	8.60	9.50	11.10	10.00	8.80	8.60
290.00	7.30	8.50	8.60	9.50	9.60	9.70	10.10	10.30	10.50
300.00	8.40	9.70	8.80	8.60	8.70	10.30	9.00	8.80	8.60
310.00	8.00	8.30	9.10	10.70	11.30	8.20	9.60	9.10	9.30
320.00	8.60	8.40	10.40	11.00	11.50	11.90	10.20	9.30	11.60
330.00	11.00	12.70	11.40	10.90	11.70	11.70	11.50	11.90	9.80
340.00	10.80	11.30	10.70	10.40	10.90	12.30	10.60	10.90	8.00
350.00	10.00	9.80	10.20	9.90	9.70	9.70	10.90	10.60	10.80
360.00	9.40	8.20	8.50	9.20	9.30	10.20	10.50	10.70	10.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	8.50	7.30
20.00	6.90	7.30
30.00	5.10	5.10
40.00	2.00	2.00
50.00	6.70	7.30
60.00	7.40	7.90
70.00	7.00	8.10
80.00	7.60	8.20
90.00	6.70	7.00
100.00	7.30	7.90
110.00	7.00	6.80
120.00	7.30	7.30

130.00	7.00	6.20
140.00	5.80	5.40
150.00	4.90	5.60
160.00	4.40	4.10
170.00	3.60	4.10
180.00	3.10	3.70
190.00	3.40	3.70
200.00	2.80	3.00
210.00	2.70	3.10
220.00	0.00	1.70
230.00	1.60	2.20
240.00	0.80	2.00
250.00	3.00	1.90
260.00	4.00	4.50
270.00	6.20	6.40
280.00	8.90	9.60
290.00	11.30	11.10
300.00	8.70	10.10
310.00	7.90	7.90
320.00	8.90	8.70
330.00	8.00	9.00
340.00	8.00	8.60
350.00	10.70	11.00
360.00	10.20	9.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00	600.00	700.00	800.00	900.00
10.00	8.30	9.20	9.00	8.70	8.80	8.10	6.90	6.50	8.20
20.00	8.20	9.50	8.60	8.60	8.40	8.40	7.30	6.50	7.10
30.00	7.80	8.40	8.50	8.50	8.80	8.10	7.60	7.30	6.30
40.00	7.40	7.80	8.10	8.30	8.40	8.60	6.40	5.80	5.10
50.00	7.20	7.60	7.40	6.80	7.80	7.60	4.60	3.40	2.00
60.00	7.20	7.40	6.80	6.00	6.80	12.50	7.10	2.00	6.50
70.00	7.10	7.00	6.40	5.90	11.60	11.20	5.00	2.00	10.00
80.00	6.80	6.90	5.80	5.40	5.10	4.10	2.00	9.30	7.30
90.00	6.60	6.40	5.80	4.80	5.20	4.20	2.00	5.90	5.60
100.00	6.60	6.10	5.80	4.90	3.50	4.00	2.00	7.80	7.10
110.00	6.50	6.20	5.70	4.00	4.00	4.00	2.00	9.50	8.70
120.00	6.70	6.00	5.20	4.10	4.20	3.50	2.00	8.80	10.10
130.00	6.60	6.40	5.30	4.30	4.30	4.00	4.00	3.80	7.70
140.00	6.50	6.30	5.40	4.70	3.90	4.20	3.10	0.00	0.00
150.00	6.30	5.80	5.00	5.00	4.60	3.60	2.90	2.30	0.00
160.00	6.20	5.60	4.50	4.80	5.30	5.20	12.00	13.10	13.10
170.00	6.10	5.00	4.70	3.50	5.00	5.00	4.80	13.10	9.40
180.00	6.10	5.10	4.70	4.90	4.90	5.10	5.00	4.50	4.50
190.00	6.30	5.00	4.70	4.80	5.20	5.50	5.30	4.80	4.90
200.00	6.40	5.00	4.80	4.20	5.00	5.20	5.60	5.00	4.40
210.00	6.40	4.80	5.30	5.20	4.60	16.40	16.90	16.50	4.60
220.00	6.40	5.10	5.60	5.90	5.60	16.80	16.00	16.70	16.10
230.00	6.80	6.20	5.80	6.10	5.80	6.60	16.80	16.80	16.40
240.00	7.10	6.40	6.40	6.30	6.50	7.40	6.20	5.90	5.60

250.00	7.30	7.30	7.10	6.90	8.10	7.50	7.80	7.70	7.90
260.00	7.50	7.90	7.70	8.40	8.20	8.40	8.40	8.30	8.60
270.00	7.80	8.30	8.40	8.50	8.20	9.10	8.40	8.60	7.90
280.00	8.20	8.80	9.30	9.30	8.50	8.30	8.30	7.70	6.90
290.00	8.30	9.10	9.00	8.40	8.70	8.00	7.80	7.50	7.30
300.00	8.60	8.60	8.90	8.50	8.30	8.10	7.60	7.40	7.80
310.00	8.90	9.40	8.70	8.70	8.10	7.70	8.00	8.20	8.80
320.00	8.50	8.90	9.00	8.80	8.00	8.10	8.50	9.20	9.70
330.00	8.50	8.60	9.00	8.80	8.40	8.20	8.20	9.90	10.90
340.00	8.50	8.80	8.70	8.80	7.60	7.80	7.40	9.40	10.80
350.00	8.60	9.00	9.00	8.70	7.90	7.50	7.60	8.50	9.80
360.00	8.30	9.10	8.70	8.70	8.20	7.20	7.10	8.40	9.40

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00
10.00	9.20	9.40	9.80	9.40	9.80	10.00	10.10	9.80	9.60
20.00	8.20	9.40	9.60	9.10	8.90	8.60	7.90	6.40	6.40
30.00	6.50	6.30	6.00	6.70	6.90	6.10	5.70	5.70	5.50
40.00	6.20	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
50.00	2.00	5.60	6.20	6.30	7.40	8.00	7.10	7.70	7.10
60.00	6.20	7.00	5.70	7.00	7.60	8.50	8.60	9.40	7.70
70.00	7.70	7.80	7.40	7.10	7.00	15.10	16.40	7.10	7.30
80.00	8.40	10.10	10.10	9.40	8.20	7.80	7.60	7.20	5.70
90.00	6.70	7.70	7.60	8.10	8.50	8.00	7.40	7.50	5.20
100.00	5.60	5.30	5.30	7.60	7.80	8.30	8.60	8.30	8.50
110.00	8.10	5.10	5.40	6.40	6.40	7.30	8.60	8.00	7.70
120.00	14.40	15.90	15.90	6.80	7.50	5.80	6.30	6.70	7.60
130.00	8.00	8.30	13.20	6.70	3.80	3.70	4.20	5.10	5.70
140.00	3.30	3.30	3.40	3.20	3.50	4.20	4.20	5.10	5.20
150.00	0.00	3.80	3.20	3.00	3.00	9.80	7.20	4.10	4.60
160.00	2.90	0.00	0.00	3.70	5.30	3.80	3.10	3.30	3.60
170.00	2.40	3.60	4.10	0.00	1.70	3.20	2.30	2.80	3.30
180.00	3.30	4.40	2.60	0.00	0.00	2.70	3.20	2.70	3.00
190.00	4.40	4.70	4.90	12.50	13.30	13.60	13.60	0.00	0.00
200.00	3.80	3.80	3.40	4.10	14.10	12.40	12.90	12.90	0.00
210.00	3.20	3.10	2.70	2.90	4.30	10.80	11.00	0.00	2.40
220.00	4.50	3.40	2.60	2.30	3.00	9.40	9.20	9.10	0.00
230.00	4.60	4.70	4.40	3.00	3.20	2.00	2.40	2.90	2.60
240.00	5.30	5.20	4.60	5.10	4.80	3.30	3.30	2.90	1.40
250.00	7.60	6.20	5.60	5.90	5.30	4.80	4.70	4.10	4.50
260.00	8.30	8.10	7.90	7.60	7.10	6.70	6.60	5.60	4.90
270.00	6.70	6.90	6.60	6.80	7.00	7.00	7.10	6.60	12.20
280.00	6.90	6.00	7.30	8.60	9.50	11.10	10.00	8.80	8.60
290.00	7.30	8.50	8.60	9.50	9.60	9.70	10.10	10.30	10.50
300.00	8.40	9.70	8.80	8.60	8.70	10.30	9.00	8.80	8.60
310.00	8.00	8.30	9.10	14.90	15.40	8.20	9.60	9.10	9.30
320.00	8.60	8.40	10.40	11.00	11.50	11.90	10.20	9.30	11.60
330.00	11.00	12.70	11.40	10.90	11.70	11.70	11.50	11.90	9.80
340.00	10.80	11.30	10.70	10.40	10.90	12.30	16.60	10.90	8.00
350.00	10.00	9.80	10.20	9.90	9.70	9.70	10.90	10.60	10.80
360.00	9.40	8.20	8.50	9.20	9.30	10.20	10.50	10.70	10.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	8.50	7.30
20.00	6.90	7.30
30.00	5.10	5.10
40.00	2.00	5.10
50.00	7.90	7.30
60.00	7.40	7.90
70.00	7.00	8.10
80.00	7.60	8.20
90.00	6.70	7.00
100.00	7.30	7.90
110.00	7.00	6.80
120.00	7.30	7.30
130.00	7.00	6.20
140.00	5.80	5.40
150.00	4.90	5.60
160.00	4.40	4.10
170.00	3.60	4.10
180.00	3.10	3.70
190.00	3.40	3.70
200.00	2.80	3.00
210.00	2.70	3.10
220.00	0.00	1.70
230.00	1.60	9.60
240.00	0.80	2.00
250.00	3.00	1.90
260.00	4.00	4.50
270.00	14.20	14.20
280.00	8.90	9.60
290.00	11.30	11.10
300.00	9.50	10.10
310.00	7.90	7.90
320.00	8.90	8.70
330.00	8.00	9.00
340.00	8.00	8.60
350.00	10.70	11.00
360.00	10.20	11.90

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE POLAR RECEPTORS ***
ORIGIN: (DIST, DIR, ZELEV, ZHILL, ZFLAG)
SRCID: (METERS,DEG,METERS,METERS,METERS)

TANK : (375.7, 118.9, 4.1, 4.1, 0.0); TANK : (498.9, 129.5, 4.3, 4.3, 0.0);
TANK : (81.4, 359.0, 8.2, 8.2, 0.0); TANK : (116.8, 44.5, 7.5, 7.5, 0.0);

```
 TANK        : (    109.2,    67.0,     7.2,     7.2,     0.0);  TANK        : (    100.7,    93.7,     6.5,     6.5,     0.0);
 TANK        : (     87.9,   104.0,     6.9,     6.9,     0.0);  TANK        : (     99.8,   123.4,     6.8,     6.8,     0.0);
 TANK        : (    138.0,   141.0,     5.9,     5.9,     0.0);  TANK        : (    106.0,   180.0,     5.9,     5.9,     0.0);
 TANK        : (    115.6,   206.0,     5.9,     5.9,     0.0);  TANK        : (     54.0,   270.0,     7.7,     7.7,     0.0);
 TANK        : (     97.0,   326.0,     8.5,     8.5,     0.0);  TANK        : (    133.9,   242.1,     7.2,     7.2,     0.0);
 TANK        : (    102.0,   301.6,     8.7,     8.7,     0.0);  TANK        : (    236.5,   274.9,     8.4,     8.4,     0.0);
♀ *** AERMOD - VERSION  19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019              ***
12/09/22
 *** AERMET - VERSION  19191 ***   ***                                                                       ***        15:12:07
                                                                                                  PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                   *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                      (1=YES; 0=NO)

          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1

           NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN
THE DATA FILE.


                          *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                    (METERS/SEC)

                                    1.54,   3.09,   5.14,   8.23,  10.80,
♀ *** AERMOD - VERSION  19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019              ***
12/09/22
 *** AERMET - VERSION  19191 ***   ***                                                                       ***        15:12:07
                                                                                                  PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

  Surface file:   TPA2019_V19191.sfc                                                  Met Version:  19191
  Profile file:   TPA2019_V19191.pfl
  Surface format: FREE
  Profile format: FREE
  Surface station no.:    12842                Upper air station no.:    12842
           Name: UNKNOWN                                   Name: UNKNOWN
           Year:   2019                              Year:   2019

 First 24 hours of scalar data
 YR MO DY JDY HR    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF
TA    HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 19 01 01   1 01  -11.0  0.141 -9.000 -9.000 -999.  127.     22.9  0.15   0.34   1.00    1.50  135.    7.9  294.9    2.0
 19 01 01   1 02  -18.2  0.187 -9.000 -9.000 -999.  195.     38.6  0.15   0.34   1.00    1.96  147.    7.9  294.2    2.0
 19 01 01   1 03  -13.5  0.156 -9.000 -9.000 -999.  148.     26.7  0.15   0.34   1.00    1.65  128.    7.9  293.8    2.0
 19 01 01   1 04  -10.2  0.135 -9.000 -9.000 -999.  119.     22.0  0.15   0.34   1.00    1.43  107.    7.9  293.1    2.0
 19 01 01   1 05   -4.9  0.094 -9.000 -9.000 -999.  69.     15.4  0.23   0.34   1.00    0.89   46.    7.9  291.4    2.0
 19 01 01   1 06   -4.8  0.092 -9.000 -9.000 -999.  67.     14.8  0.17   0.34   1.00    0.96   82.    7.9  292.5    2.0
 19 01 01   1 07  -10.8  0.139 -9.000 -9.000 -999.  125.     22.7  0.15   0.34   1.00    1.47   98.    7.9  292.5    2.0
 19 01 01   1 08  -12.9  0.153 -9.000 -9.000 -999.  143.     25.6  0.15   0.34   0.70    1.60  106.    7.9  292.5    2.0
 19 01 01   1 09   11.4  0.218  0.244  0.005   46.  244.    -82.7  0.15   0.34   0.33    2.01  114.    7.9  294.9    2.0
```

```
19 01 01   1 10   42.4  0.278  0.501  0.005  108.  352.    -46.3  0.15   0.34   0.21    2.50  142.    7.9  296.4    2.0
19 01 01   1 11   66.9  0.344  0.838  0.005  320.  485.    -55.6  0.13   0.34   0.18    3.22  166.    7.9  298.8    2.0
19 01 01   1 12   78.4  0.266  1.026  0.005  502.  332.    -21.8  0.04   0.34   0.17    3.13  221.    7.9  297.5    2.0
19 01 01   1 13   84.0  0.295  1.124  0.005  616.  385.    -27.8  0.04   0.34   0.16    3.54  225.    7.9  299.2    2.0
19 01 01   1 14   80.0  0.339  1.157  0.005  706.  474.    -44.4  0.04   0.34   0.17    4.19  214.    7.9  299.2    2.0
19 01 01   1 15   67.0  0.264  1.162  0.008  853.  329.    -25.1  0.04   0.34   0.18    3.15  224.    7.9  299.2    2.0
19 01 01   1 16   46.7  0.214  1.061  0.012  931.  238.    -19.0  0.04   0.34   0.21    2.49  232.    7.9  299.9    2.0
19 01 01   1 17   17.1  0.277  0.765  0.012  953.  351.   -113.8  0.06   0.34   0.31    3.23  270.    7.9  298.8    2.0
19 01 01   1 18  -19.8  0.225 -9.000 -9.000 -999.  257.     55.8  0.05   0.34   0.63    2.95  254.    7.9  296.4    2.0
19 01 01   1 19  -11.7  0.140 -9.000 -9.000 -999.  128.     21.6  0.06   0.34   1.00    1.84  295.    7.9  295.9    2.0
19 01 01   1 20  -13.3  0.147 -9.000 -9.000 -999.  135.     23.6  0.04   0.34   1.00    2.13  331.    7.9  295.4    2.0
19 01 01   1 21  -24.4  0.252 -9.000 -9.000 -999.  303.     69.8  0.10   0.34   1.00    2.86   10.    7.9  295.4    2.0
19 01 01   1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.34   1.00    0.00    0.    7.9  294.9    2.0
19 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.34   1.00    0.00    0.    7.9  294.9    2.0
19 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.34   1.00    0.00    0.    7.9  294.2    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 19 01 01 01    7.9 1  135.    1.50   294.9   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019            ***
12/09/22
 *** AERMET - VERSION  19191 ***   ***                                                    ***       15:12:07
                                                                                 PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                        *** THE PERIOD (  8760 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL
***
                          INCLUDING SOURCE(S):     TANK       ,

                          *** NETWORK ID: POL1     ;  NETWORK TYPE: GRIDPOLR ***

                            ** CONC OF HCL      IN MICROGRAMS/M**3                    **

  DIRECTION |                                    DISTANCE (METERS)
  (DEGREES) |      100.00      200.00      300.00      400.00      500.00      600.00      700.00      800.00      900.00
 ---------------------------------------------------------------------------------------------------------------------

      10.00 |   686.18653   224.89332   113.80844    69.79943    47.35545    34.76348    26.82882    21.29878    17.12588
      20.00 |   679.42714   216.82788   106.34107    63.32495    42.34549    30.31662    23.18489    18.23736
14.61535
      30.00 |   698.11413   216.49280   104.36370    61.81832    40.87216    29.60491    22.46812    17.63573    14.35036
      40.00 |   804.32576   247.19615   117.56284    69.00884    45.64248    32.53833    25.10895    19.67912    15.91252
      50.00 |   898.57052   272.49577   129.59018    76.25556    49.22858    34.98440    27.01587    21.15254
17.08055
      60.00 |   918.87579   280.50181   134.50775    79.39151    51.68245    37.39752    28.11924    22.03254    17.62382
      70.00 |   893.57450   275.80347   132.04983    77.45929    50.19685    34.53023    27.49382    21.38180
16.30832
      80.00 |   833.06644   258.94496   125.50169    73.36884    48.14431    34.57008    25.94800    20.05036
15.24102
      90.00 |   728.65301   235.36013   115.34869    69.00014    45.77855    32.69644    24.88171    19.07919    15.25921
     100.00 |   630.81776   213.86588   106.95478    65.12649    44.33315    31.69626    24.35271    18.62751
15.05350
     110.00 |   621.46428   219.07696   113.59803    71.62185    48.38814    35.08547    27.31079    20.39938
16.04226
     120.00 |   687.32474   261.76586   142.35054    90.87570    62.93092    46.68320    36.29955    28.54743
22.14825
     130.00 |   744.90663   292.60253   164.77096   107.01115    75.30483    56.19181    44.00291    35.36097
28.59344
     140.00 |   739.26506   291.52070   163.45952   105.87294    74.85831    55.39224    43.87742    35.16971
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28.77786
150.00 | 714.67774 280.68288 155.50355 98.81131 69.22420 51.87241 40.34490 32.40980
26.93091
160.00 | 696.92087 271.80734 151.01430 94.86295 65.40675 48.50023 37.53324 30.51739
25.55662
170.00 | 699.96920 273.06152 147.52874 95.17756 64.44534 47.65519 36.98527 29.67726
23.03295
180.00 | 731.83045 276.86074 147.31333 91.63295 63.21386 46.30576 35.81182 28.65929
23.42829
190.00 | 806.36726 302.60612 158.84539 98.29367 67.09016 49.00161 37.71937 30.16011
24.52468
200.00 | 919.22115 343.45390 180.09098 113.07939 77.25611 56.96941 43.76340 35.09715
28.88314
210.00 | 1031.24947 379.07694 194.27714 120.43576 83.03768 60.79831 45.69241 37.07102
30.34261
220.00 | 1139.74035 409.00832 208.46169 128.29977 88.02774 64.68216 44.45439 37.81620
32.29359
230.00 | 1227.67476 437.90014 228.38641 141.31843 97.55375 71.56565 55.46916 44.27710
36.27081
240.00 | 1251.99536 450.16877 234.79938 146.55453 100.83316 74.03989 57.50467 45.98480
37.82340
250.00 | 1161.28357 406.04270 211.56854 131.64842 89.50461 66.28273 51.06172 40.83348
33.46940
260.00 | 989.94142 330.67366 169.00202 101.97483 69.60968 50.60654 38.60152 30.65638
24.88754
270.00 | 824.84448 268.68464 134.38225 81.15156 54.89974 39.10391 29.97576 23.56425
19.26349
280.00 | 720.46018 238.21930 120.41168 75.53729 51.23275 37.56739 28.83565 23.03026
18.93518
290.00 | 677.56465 226.59631 117.53764 73.62114 50.42040 37.38483 28.91825 23.15854
19.06578
300.00 | 650.05595 221.43976 112.64092 69.84963 47.79541 34.94850 26.94469 21.44898
17.42962
310.00 | 626.27815 209.14576 108.89205 66.93436 46.09653 33.90288 25.91887 20.63203
16.81078
320.00 | 611.06323 201.34157 102.50761 63.48957 43.81466 31.99688 24.55098 19.43785
15.89617
330.00 | 563.11215 183.23161 91.27838 55.85662 38.20655 27.77868 21.23497 16.54510 13.37913
340.00 | 509.66469 161.30938 79.96438 48.03894 32.89760 23.67697 18.04424 13.90907 11.14205
350.00 | 504.37338 160.49166 79.04247 47.58572 32.26546 23.22409 17.52068 13.61138 10.84654
360.00 | 599.98192 195.55953 99.00515 60.09875 40.96659 30.01140 22.86971 17.83790 14.37642

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:12:07

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00
10.00	14.21154	12.02045	10.34393	9.01287	7.92282	7.04774	6.32564	5.71843	5.19562
20.00	11.91806	9.87835	8.41539	7.31247	6.39951	5.65367	5.05709	4.57595	4.13058
30.00	11.83539	9.98749	8.54137	7.35567	6.45547	5.73756	5.12466	4.61269	4.17965

40.00	13.07644	11.16122	9.50014	8.21714	7.18019	6.34202	5.64839	5.06964	4.58566
50.00	13.95229	11.31427	9.57186	8.23126	7.11124	6.23176	5.57423	4.97485	4.50411
60.00	14.20632	11.89207	10.20216	8.75589	7.63373	6.73731	5.98592	5.37165	4.87509
70.00	13.64708	11.43475	9.75217	8.42938	7.37266	6.49588	5.73491	5.17685	4.66700
80.00	12.32200	10.10774	8.58586	7.43091	6.52752	5.73738	5.06575	4.52392	4.11953
90.00	12.48346	10.43240	8.90379	7.69654	6.71761	5.94219	5.30232	4.75302	4.32580
100.00	12.40127	10.45183	8.97440	7.64587	6.69209	5.91179	5.27561	4.74300	4.27631
110.00	13.45383	11.74759	10.04057	8.63487	7.58673	6.66147	5.87765	5.31786	4.81787
120.00	19.04288	16.05975	14.37703	12.42115	10.92039	9.82053	8.80404	7.94382	7.18312
130.00	24.08982	20.76274	18.14835	15.96250	14.15485	12.65179	11.38384	10.31494	9.39417
140.00	23.92315	20.43825	17.65099	15.45225	13.65748	12.14361	10.89892	9.78821	8.92485
150.00	22.49504	18.72282	16.23123	14.19182	12.51651	11.02247	9.77587	8.99405	8.13057
160.00	21.19372	18.35478	15.80063	13.43628	11.77198	10.58706	9.58609	8.57994	7.75911
170.00	20.72966	17.49868	15.46568	13.47392	11.77247	10.38161	9.36296	8.43200	7.66010
180.00	19.75463	16.64351	14.51166	12.92363	11.35414	9.91018	8.86459	8.01867	7.25463
190.00	20.55085	17.39497	14.97114	13.16121	11.56279	10.56054	9.44646	8.51328	7.70620
200.00	24.27692	20.70777	17.90585	15.61303	13.76670	11.91200	10.96854	10.07141	9.16239
210.00	25.46353	21.64897	18.67534	16.27952	14.37528	12.55912	11.50392	10.37398	9.42466
220.00	26.96850	22.96224	19.80973	17.26614	15.19861	13.55533	12.03469	10.85101	9.86166
230.00	30.39443	25.91478	22.39807	19.53675	17.28101	15.32928	13.79793	12.53624	11.39174
240.00	31.68140	26.93699	23.29370	20.39023	18.02596	16.04200	14.43200	13.04896	11.81838
250.00	28.18453	24.01882	20.77014	18.15936	16.06811	14.33577	12.88265	11.65215	10.60352
260.00	20.81380	17.64613	15.19662	13.28556	11.72473	10.43856	9.35095	8.47162	7.70727
270.00	16.17639	13.58624	11.66733	10.14558	8.85594	7.83426	6.99612	6.31416	5.74077
280.00	15.81258	13.50695	11.59589	10.05377	8.84677	7.81540	7.05574	6.40532	5.84333
290.00	16.00027	13.63512	11.86069	10.38230	9.21361	8.26108	7.44910	6.75845	6.17248
300.00	14.49352	12.18674	10.58803	9.26424	8.18404	7.19092	6.50582	5.89168	5.35823
310.00	14.12407	12.00949	10.37879	9.01452	7.93434	7.19584	6.42819	5.83422	5.31337
320.00	13.40299	11.40873	9.77887	8.53854	7.53626	6.71688	6.09187	5.52906	4.99128
330.00	11.18219	9.34710	8.16590	7.14054	6.28544	5.59010	5.01500	4.52665	4.15710
340.00	9.26308	7.83319	6.76747	5.90368	5.19375	4.56107	4.13520	3.72581	3.43961
350.00	8.97781	7.60090	6.49620	5.65119	4.97309	4.40972	3.92485	3.54918	3.20570
360.00	11.94930	10.20275	8.73294	7.57839	6.67191	5.87928	5.27196	4.75070	4.30173

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	4.75935	4.37265
20.00	3.73945	3.40246
30.00	3.80855	3.47716
40.00	4.16486	3.80027
50.00	4.09560	3.72202
60.00	4.44443	4.06007
70.00	4.23990	3.85823
80.00	3.68630	3.33653
90.00	3.91350	3.57472
100.00	3.91576	3.56797
110.00	4.40264	4.03142

120.00	6.56264	6.01643
130.00	8.58133	7.90045
140.00	8.14548	7.48365
150.00	7.40384	6.81193
160.00	7.08641	6.51587
170.00	6.95999	6.38788
180.00	6.63313	6.06833
190.00	6.86947	6.28269
200.00	8.33396	7.64288
210.00	8.52117	7.80565
220.00	9.00672	8.33842
230.00	10.35585	9.56535
240.00	10.80730	9.95812
250.00	9.69470	8.89859
260.00	7.06038	6.43323
270.00	5.23007	4.77858
280.00	5.34180	4.87871
290.00	5.67133	5.23591
300.00	4.88488	4.45232
310.00	4.88290	4.48835
320.00	4.61259	4.23817
330.00	3.83356	3.50432
340.00	3.13453	2.86956
350.00	2.91424	2.67524
360.00	3.93937	3.61481

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC
TANK :	375.70	118.90	98.08679	TANK :	498.87	129.50	74.96877
TANK :	81.43	359.00	789.27771	TANK :	116.79	44.50	664.09894
TANK :	109.20	67.00	787.16064	TANK :	100.70	93.73	681.10095
TANK :	87.91	103.99	724.67723	TANK :	99.82	123.38	711.89955
TANK :	138.00	141.00	492.65700	TANK :	106.00	180.00	681.04749
TANK :	115.60	206.00	816.93966	TANK :	54.00	270.00	1935.12292
TANK :	97.00	326.00	611.59304	TANK :	133.94	242.10	813.34864
TANK :	101.99	301.65	626.52732	TANK :	236.54	274.95	189.90524

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	42389.27391 (19120719)	19228.83827 (19120719)	11759.83595 (19120719)	8143.65671 (19120719)	6091.98080 (19120719)
20.0	40866.41225 (19120718)	18406.33865 (19120718)	11131.05282 (19120718)	7668.33002 (19120718)	5708.11921 (19020307)
30.0	36790.34178 (19120818)	16886.75165 (19120818)	10356.58583 (19120818)	7206.65267 (19120818)	5409.81786 (19120818)
40.0	39655.96923 (19021919)	18355.14482 (19021919)	11239.18420 (19021919)	7828.53793 (19021919)	5877.23741 (19021919)
50.0	41945.49912 (19080406)	18743.86521 (19080406)	11240.79607 (19080406)	7654.28892 (19080406)	5731.99772 (19080406)
60.0	49123.53776 (19011220)	19882.76139 (19011220)	11266.77817 (19011220)	7570.98881 (19112720)	5651.19075 (19112720)
70.0	50442.07482 (19112721)	21047.41209 (19112721)	12148.68083 (19112721)	8136.82554 (19112721)	6154.02571 (19112721)
80.0	36782.03286 (19112721)	16621.43313 (19081720)	9939.56976 (19081720)	6749.80457 (19081720)	4971.24936 (19081720)
90.0	38371.19369 (19042106)	17428.31919 (19042106)	10425.82826 (19042106)	7036.97833 (19042106)	5192.60721 (19042106)
100.0	36541.28015 (19120421)	16410.76821 (19120421)	9718.86163 (19120421)	6526.95960 (19120421)	4698.04955 (19120421)
110.0	38557.98687 (19112619)	15025.46522 (19091521)	9028.81784 (19091521)	6049.47513 (19091521)	4480.83704 (19091521)
120.0	49004.89994 (19112619)	19754.10260 (19112619)	11148.63715 (19112619)	7274.63871 (19112619)	5310.04005 (19112619)
130.0	42699.34435 (19112619)	17474.81579 (19112619)	9913.19647 (19111119)	6714.35805 (19111119)	4981.22015 (19111119)
140.0	43941.80089 (19111821)	17969.96075 (19020406)	10605.70418 (19020406)	7135.11874 (19020406)	5195.01496 (19020406)
150.0	44631.07373 (19111821)	18922.23260 (19111821)	10922.99073 (19111821)	7402.72096 (19111821)	5413.52786 (19111821)
160.0	40341.03337 (19091706)	18558.53125 (19091706)	10999.83679 (19091706)	7561.77447 (19091706)	5652.12273 (19091706)
170.0	46381.19664 (19112808)	20789.40232 (19112808)	12314.14177 (19112808)	8227.78939 (19112808)	6289.09053 (19112808)
180.0	39417.09151 (19120720)	18311.73842 (19120720)	10945.10096 (19120720)	7545.78006 (19120720)	5614.38468 (19120720)
190.0	33651.70699 (19010808)	15008.25390 (19010808)	8870.98338 (19010808)	6075.64683 (19010808)	4548.26816 (19010808)
200.0	34948.30215 (19092406)	15330.29445 (19092406)	9025.89511 (19092406)	6073.93062 (19092406)	4586.12641 (19092406)
210.0	30236.74625 (19020508)	13678.41962 (19020508)	8169.34906 (19020508)	5577.67568 (19020508)	4082.70148 (19020508)
220.0	30946.38618 (19081721)	11756.80451 (19081721)	6504.38134 (19081721)	4157.19555 (19081721)	3007.11370 (19081721)
230.0	35520.04795 (19081721)	14595.80608 (19081721)	8435.27366 (19010806)	5777.99228 (19010806)	4237.32153 (19010806)
240.0	36341.49025 (19011221)	14857.48064 (19011221)	8554.27036 (19011221)	5768.87217 (19020808)	4301.32454 (19020808)
250.0	38340.87261 (19011221)	15991.36232 (19011221)	9275.90959 (19011221)	6225.72737 (19011221)	4711.83879 (19011221)
260.0	35453.95849 (19010220)	15515.80405 (19010220)	9203.20647 (19010220)	6377.84544 (19010220)	4730.15707 (19010220)
270.0	36648.22012 (19071506)	15678.84034 (19071506)	9229.34327 (19071506)	6272.16847 (19071506)	4603.47760 (19071506)
280.0	40256.16750 (19112008)	17574.02767 (19112008)	10538.87385 (19112008)	7111.54053 (19112008)	5308.35432 (19112008)

290.0 | 39980.56238 (19090806) 17122.34670 (19090806) 10112.08470 (19090806) 6832.07511 (19090806) 5095.50374 (19090806)
300.0 | 39840.65232 (19090807) 17316.04281 (19090807) 10301.98426 (19090807) 7007.70435 (19090807) 5181.01085 (19090807)
310.0 | 37700.13498 (19012906) 16524.21822 (19012906) 9781.11925 (19012906) 6679.52349 (19012906) 4900.76865 (19012906)
320.0 | 36582.63420 (19020306) 14867.45390 (19020306) 8926.28600 (19062406) 6140.69637 (19062406) 4525.14121 (19062406)
330.0 | 31926.74373 (19042407) 14356.04841 (19042407) 8639.94609 (19042407) 5953.43896 (19042407) 4419.41157 (19042407)
340.0 | 38920.47890 (19121620) 16743.73895 (19121620) 9833.40468 (19121620) 6648.53840 (19121620) 4797.69130 (19121620)
350.0 | 42676.53887 (19042306) 17567.89996 (19042306) 10212.52911 (19042306) 6874.62683 (19042306) 4981.28088 (19042306)
360.0 | 41780.83153 (19042306) 16072.06233 (19042306) 8987.60576 (19092707) 6227.98261 (19092707) 4626.92946 (19092707)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	4744.63726 (19120719)	3778.07727 (19120719)	3128.51002 (19120719)	2759.13871 (19120719)	2433.82786 (19120719)
20.0	4481.03422 (19020307)	3588.00681 (19020307)	2951.71005 (19020307)	2533.75951 (19020307)	2225.56221 (19020307)
30.0	4236.37631 (19120818)	3428.96009 (19120818)	2853.73680 (19120818)	2392.38860 (19120818)	2081.73146 (19120818)
40.0	4639.82212 (19021919)	3676.74162 (19021919)	3039.15088 (19021919)	2555.90962 (19021919)	2228.76842 (19021919)
50.0	4469.99179 (19080406)	3457.29090 (19080406)	2799.44332 (19080406)	2280.31351 (19121618)	1973.81829 (19121618)
60.0	4284.12618 (19112720)	3403.26886 (19112720)	2696.62645 (19112720)	2287.21648 (19112720)	2124.66243 (19112720)
70.0	5051.99216 (19112721)	3438.34952 (19112721)	2793.41233 (19112721)	2923.67543 (19112721)	2423.99855 (19112721)
80.0	3720.27003 (19081720)	2895.57027 (19081720)	2411.10811 (19081720)	2329.00290 (19081720)	2044.60251 (19081720)
90.0	4022.26690 (19042106)	3051.98353 (19042106)	2756.73288 (19042106)	2390.35401 (19042106)	2119.95009 (19042106)
100.0	3684.12075 (19120421)	2816.14138 (19120421)	2507.03101 (19120421)	2126.99900 (19120421)	1871.63381 (19120421)
110.0	3499.00307 (19091521)	2679.21337 (19091521)	2442.74335 (19091521)	2147.22163 (19091521)	1849.88904 (19091521)
120.0	4049.84492 (19112619)	3103.84958 (19112619)	2738.54895 (19112619)	2573.43830 (19112619)	2158.93292 (19112619)
130.0	3867.99113 (19111119)	2967.88533 (19111119)	2539.63078 (19111119)	2366.31913 (19070106)	2064.76330 (19070106)
140.0	4056.55374 (19020406)	3000.68813 (19020406)	2406.36003 (19020406)	2030.74706 (19020406)	1949.64818 (19020406)

150.0 | 4110.26937 (19111821) 3252.98311 (19111821) 2649.85795 (19111821) 2090.52056 (19112807) 1810.55549 (19112807)
160.0 | 4401.04025 (19091706) 3564.63551 (19091706) 2872.34458 (19091706) 2273.13954 (19091706) 2017.83403 (19091706)
170.0 | 4921.28839 (19112808) 3978.90151 (19112808) 3297.57788 (19112808) 3070.14449 (19112808) 2295.87976 (19112808)
180.0 | 4411.05706 (19120720) 3574.01748 (19120720) 2951.17730 (19120720) 2509.51801 (19120720) 2114.73877 (19120720)
190.0 | 3584.79284 (19010808) 2899.69053 (19010808) 2391.84238 (19010808) 2043.99137 (19010808) 1749.05145 (19010808)
200.0 | 3603.16566 (19092406) 2953.17393 (19092406) 2427.44370 (19092406) 2035.52870 (19092406) 1733.72492 (19092406)
210.0 | 3191.70475 (19020508) 2702.95320 (19020508) 2140.92454 (19020508) 1820.91928 (19020508) 1518.54788 (19020508)
220.0 | 2272.67419 (19072621) 2026.87919 (19072621) 1702.06967 (19072621) 1312.52274 (19072621) 1122.10956 (19072621)
230.0 | 3385.95946 (19010806) 2649.90925 (19010806) 2173.99506 (19010806) 1832.72354 (19010806) 1586.46136 (19010806)
240.0 | 3436.86828 (19020808) 2715.43110 (19020808) 2249.17680 (19020808) 1901.81007 (19020808) 1634.60179 (19020808)
250.0 | 3632.26930 (19011221) 2948.26223 (19112007) 2451.05601 (19112007) 2100.43470 (19112007) 1753.43876 (19112007)
260.0 | 3712.38529 (19010220) 3006.97344 (19010220) 2496.39100 (19010220) 2131.40948 (19010220) 1828.71892 (19010220)
270.0 | 3671.78044 (19071506) 2939.63261 (19071506) 2446.53251 (19071506) 2042.61113 (19071506) 1712.50655 (19071506)
280.0 | 4140.34588 (19112008) 3363.71136 (19112008) 2769.76535 (19112008) 2314.39798 (19112008) 2005.54712 (19112008)
290.0 | 3922.91178 (19090806) 3167.43178 (19090806) 2621.17815 (19090806) 2220.58904 (19090806) 1922.92724 (19090806)
300.0 | 4036.32702 (19090807) 3237.57358 (19090807) 2686.99573 (19090807) 2312.19024 (19090807) 2031.77393 (19090807)
310.0 | 3799.79933 (19012906) 3105.64195 (19020306) 2604.23421 (19020306) 2249.18939 (19020306) 1915.19868 (19020306)
320.0 | 3552.09308 (19062406) 2909.39635 (19062406) 2461.16873 (19062406) 2118.24576 (19062406) 1801.69090 (19062406)
330.0 | 3456.01518 (19042407) 2809.62357 (19042407) 2400.81295 (19042407) 2072.28008 (19042407) 1800.16031 (19042407)
340.0 | 3758.88610 (19121620) 3019.93056 (19121620) 2565.66766 (19121620) 2191.06036 (19121620) 1900.61021 (19121620)
350.0 | 3836.15214 (19042306) 3103.06207 (19042306) 2639.58248 (19042306) 2309.98330 (19042306) 2008.76962 (19042306)
360.0 | 3581.07722 (19092707) 2872.61492 (19092707) 2431.43226 (19092707) 2083.46974 (19092707) 1780.14946 (19092707)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00

10.0 | 2147.47748 (19120719) 1921.75212 (19120719) 1714.32375 (19120719) 1561.05248 (19120719) 1426.66981 (19120719)
20.0 | 1989.06439 (19120718) 1765.41222 (19120718) 1569.71132 (19020307) 1415.37689 (19020307) 1282.34649 (19020307)
30.0 | 1822.02105 (19120818) 1608.91978 (19120818) 1463.43587 (19120818) 1328.43248 (19120818) 1189.64821 (19120818)
40.0 | 1788.68140 (19021919) 1587.74748 (19021919) 1422.90290 (19021919) 1285.58439 (19021919) 1169.68880 (19021919)
50.0 | 1901.27174 (19121618) 1709.54702 (19121618) 1536.48102 (19121618) 1419.11950 (19121618) 1306.83553 (19121618)
60.0 | 1897.22044 (19112720) 1640.92551 (19112720) 1503.11567 (19112720) 1347.20119 (19112720) 1223.00429 (19112720)
70.0 | 2133.34015 (19112721) 1876.75498 (19112721) 1670.25336 (19112721) 1505.68005 (19112721) 1366.78720 (19112721)
80.0 | 1823.88390 (19081720) 1618.27344 (19081720) 1439.24317 (19081720) 1276.98004 (19081720) 1153.95193 (19081720)
90.0 | 1900.34091 (19042106) 1686.04575 (19042106) 1527.71971 (19042106) 1392.06649 (19042106) 1256.04750 (19042106)
100.0 | 1633.31199 (19120421) 1439.97632 (19120421) 1308.45267 (19120421) 1187.88295 (19120421) 1092.34915 (19120421)
110.0 | 1537.79667 (19091521) 1374.87431 (19091521) 1258.84735 (19091521) 1138.32682 (19091521) 1055.25546 (19091521)
120.0 | 1872.48440 (19112619) 1557.53844 (19112619) 1409.65958 (19112619) 1287.48123 (19112619) 1123.14004 (19112619)
130.0 | 1801.95381 (19070106) 1547.70845 (19070106) 1348.89334 (19070106) 1201.92266 (19070106) 1091.06420 (19070106)
140.0 | 1712.24145 (19020406) 1522.92180 (19020406) 1349.98819 (19020406) 1207.98535 (19020406) 1106.67390 (19102221)
150.0 | 1807.72480 (19111821) 1573.92097 (19111821) 1400.82353 (19111821) 1265.86986 (19111821) 1228.64575 (19111821)
160.0 | 1636.96836 (19091706) 1451.77552 (19091706) 1476.05567 (19091706) 1384.10814 (19091706) 1217.68790 (19091706)
170.0 | 2088.99365 (19112808) 1649.60040 (19112808) 1477.39124 (19112808) 1411.43629 (19112808) 1352.16553 (19112808)
180.0 | 1895.13129 (19120720) 1610.04439 (19120720) 1334.46814 (19120720) 1206.13151 (19120720) 1177.05026 (19120720)
190.0 | 1548.55761 (19010808) 1382.90999 (19010808) 1180.67896 (19010808) 1097.59383 (19010808) 853.10366 (19010808)
200.0 | 1522.70350 (19092406) 1334.62499 (19092406) 1223.63435 (19092406) 1146.83493 (19092406) 1203.90238 (19092406)
210.0 | 1329.27271 (19020508) 1164.07309 (19020508) 1051.29242 (19020508) 939.89088 (19020508) 911.01879 (19020508)
220.0 | 954.87751 (19100906) 823.18622 (19100906) 728.58819 (19100906) 675.94472 (19100906) 616.75637 (19100906)
230.0 | 1396.58114 (19010806) 1227.11513 (19010806) 1042.27796 (19010806) 949.46332 (19010806) 815.90893 (19010806)
240.0 | 1431.81461 (19020808) 1250.03182 (19020808) 1137.28874 (19020808) 1019.15150 (19020808) 883.75147 (19020808)
250.0 | 1527.14730 (19112007) 1332.77258 (19112007) 1191.46792 (19112007) 1070.43902 (19112007) 959.24293 (19112007)
260.0 | 1597.91240 (19010220) 1413.03711 (19010220) 1257.78822 (19010220) 1122.24964 (19010220) 1010.55095 (19010220)
270.0 | 1499.00831 (19071506) 1313.68368 (19071506) 1184.83165 (19071506) 1077.24276 (19071506) 980.59272 (19071506)
280.0 | 1719.92582 (19112008) 1581.19838 (19112008) 1463.61548 (19112008) 1348.54638 (19112008) 1265.58961 (19112008)
290.0 | 1740.79672 (19090806) 1548.69134 (19090806) 1415.53223 (19090806) 1281.25700 (19090806) 1167.86538 (19090806)
300.0 | 1832.52655 (19090807) 1596.94835 (19090807) 1424.40625 (19090807) 1289.36732 (19090807) 1213.03554 (19090807)
310.0 | 1694.52848 (19020306) 1528.38777 (19020306) 1398.74007 (19020306) 1269.73518 (19020306) 1102.37809 (19020306)

320.0 | 1577.01860 (19062406) 1454.65087 (19062406) 1318.72925 (19062406) 1202.95980 (19062406) 1103.09667 (19062406)
330.0 | 1611.21709 (19042407) 1412.99262 (19042407) 1259.64387 (19042407) 1150.37127 (19042407) 1047.76174 (19042407)
340.0 | 1685.27763 (19121620) 1482.47215 (19121620) 1322.63110 (19121620) 1183.60897 (19121620) 1057.95495 (19121620)
350.0 | 1756.77843 (19042306) 1572.71199 (19042306) 1401.44298 (19042306) 1261.32881 (19042306) 1147.90397 (19042306)
360.0 | 1542.27601 (19092707) 1344.37220 (19092707) 1204.09903 (19092707) 1091.31707 (19092707) 1007.03197 (19092707)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	1309.58465 (19120719)	1200.55336 (19120719)	1107.32688 (19120719)	1008.37212 (19120719)	916.02723 (19120719)
20.0	1158.78600 (19020307)	1032.24518 (19020307)	954.84899 (19020307)	897.24483 (19020307)	844.25491 (19020307)
30.0	1080.07859 (19120818)	994.31032 (19120818)	915.59768 (19120818)	842.73779 (19120818)	785.68863 (19120818)
40.0	1070.75862 (19021919)	985.46865 (19021919)	911.29208 (19021919)	846.27731 (19021919)	788.89501 (19021919)
50.0	1177.24078 (19121618)	1096.83162 (19121618)	1003.12454 (19121618)	924.48021 (19121618)	872.70244 (19121618)
60.0	1121.76553 (19112720)	1047.12807 (19112720)	939.74026 (19112720)	867.69665 (19112720)	817.71475 (19112720)
70.0	1313.10378 (19112721)	1157.57774 (19112721)	1075.88998 (19112721)	991.83756 (19112721)	949.87484 (19112721)
80.0	1052.85057 (19081720)	961.47800 (19081720)	860.23193 (19081720)	833.48962 (19081720)	787.03475 (19081720)
90.0	1136.55326 (19042106)	1048.86489 (19042106)	921.06714 (19042106)	885.95307 (19042106)	831.70131 (19042106)
100.0	1006.33455 (19120421)	921.96899 (19120421)	856.37004 (19120421)	776.66710 (19120421)	726.95249 (19120421)
110.0	986.41505 (19091521)	897.71156 (19091521)	823.24506 (19091521)	753.79161 (19091521)	697.35989 (19091521)
120.0	1041.63882 (19112619)	968.58628 (19112619)	914.49757 (19112619)	837.83631 (19112619)	762.67327 (19112619)
130.0	1011.66677 (19070106)	951.17721 (19070106)	891.88470 (19070106)	850.64823 (19070106)	780.65650 (19070106)
140.0	1013.53779 (19102221)	952.29089 (19102221)	882.96059 (19102221)	831.07885 (19102221)	768.35808 (19102221)
150.0	1155.83177 (19111821)	998.86563 (19111821)	932.27058 (19112807)	871.88279 (19112807)	825.48206 (19112807)
160.0	1035.30464 (19091706)	1008.31408 (19091706)	933.96160 (19091706)	875.80562 (19091706)	808.79576 (19091706)
170.0	1202.39985 (19112808)	1125.77611 (19112808)	1057.85442 (19112808)	991.31857 (19112808)	936.50043 (19112808)

180.0	1094.12730 (19120720)	991.04946 (19120720)	925.98370 (19120720)	862.99518 (19120720)	819.50188 (19120720)
190.0	781.08953 (19010808)	718.98835 (19010808)	664.96722 (19010808)	708.47075 (19010808)	667.09761 (19010808)
200.0	1004.13424 (19092406)	718.80600 (19092406)	664.80795 (19092406)	697.14283 (19092406)	655.12169 (19092406)
210.0	705.31714 (19020508)	649.24671 (19020508)	600.47025 (19020508)	613.08555 (19020508)	566.33756 (19020508)
220.0	633.87294 (19100906)	449.69842 (19100906)	415.78925 (19100906)	386.05601 (19100906)	391.49085 (19100906)
230.0	761.47602 (19010806)	717.13032 (19010806)	653.65003 (19010806)	575.87640 (19010806)	554.48427 (19010806)
240.0	809.23416 (19020808)	733.08129 (19020808)	630.57511 (19020808)	562.35153 (19020808)	564.10049 (19020808)
250.0	875.61552 (19112007)	790.56986 (19112007)	740.84892 (19112007)	651.13280 (19112007)	576.62795 (19111807)
260.0	922.96504 (19010220)	825.63944 (19010220)	747.74375 (19010220)	675.11578 (19010220)	639.59427 (19010220)
270.0	900.62154 (19071506)	817.18108 (19071506)	742.37736 (19071506)	693.79430 (19071506)	650.81720 (19071506)
280.0	1136.06115 (19112008)	1020.77438 (19112008)	940.19655 (19112008)	879.31304 (19112008)	832.19375 (19112008)
290.0	1078.24042 (19090806)	997.03078 (19090806)	926.30686 (19090806)	874.72376 (19090806)	812.54495 (19090806)
300.0	1081.14636 (19090807)	990.92928 (19090807)	912.43797 (19090807)	849.66152 (19090807)	817.05323 (19090807)
310.0	1026.74302 (19020306)	934.77288 (19020306)	866.98780 (19012906)	781.25248 (19020306)	726.48019 (19012906)
320.0	982.48756 (19062406)	889.61450 (19062406)	858.26857 (19062406)	758.52480 (19062406)	704.35220 (19062406)
330.0	957.74393 (19042407)	887.13332 (19042407)	796.79055 (19042407)	717.09505 (19042407)	681.44076 (19042407)
340.0	948.74766 (19121620)	870.68246 (19121620)	794.81973 (19121620)	723.19917 (19121620)	665.19396 (19121620)
350.0	1076.67666 (19042306)	984.53834 (19042306)	910.16620 (19042306)	841.15075 (19042306)	784.32107 (19042306)
360.0	919.22690 (19092707)	828.65569 (19092707)	749.86204 (19092707)	686.42110 (19092707)	634.92441 (19092707)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	7740.85348	(19112619)	TANK	498.87	129.50	4937.05897	(19070106)
TANK	81.43	359.00	55307.38165	(19042306)	TANK	116.79	44.50	33050.06610	(19011219)
TANK	109.20	67.00	45653.01131	(19112721)	TANK	100.70	93.73	34687.77043	(19042106)
TANK	87.91	103.99	40356.12928	(19120421)	TANK	99.82	123.38	48876.17453	(19112619)
TANK	138.00	141.00	29650.94829	(19111821)	TANK	106.00	180.00	37323.05553	(19120720)
TANK	115.60	206.00	28443.34835	(19060406)	TANK	54.00	270.00	71370.46504	(19112006)

TANK : 97.00 326.00 33755.95602 (19062406) TANK : 133.94 242.10 26284.62824 (19011221)
TANK : 101.99 301.65 39056.28360 (19090807) TANK : 236.54 274.95 13435.15723 (19112006)
♀*** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	39954.79931 (19021921)	18261.05021 (19021921)	11234.50162 (19021921)	7806.80112 (19021921)	5847.63207 (19021921)
20.0	39952.28843 (19020308)	18174.40727 (19020307)	11062.31717 (19020307)	7650.64903 (19020307)	5690.64694 (19120718)
30.0	35644.52061 (19020307)	15303.50956 (19010319)	9522.46310 (19010319)	6683.18603 (19010319)	5037.77376 (19010319)
40.0	34718.36052 (19021820)	15609.81473 (19021820)	9326.90093 (19021820)	6534.60315 (19021920)	4941.04581 (19021920)
50.0	38741.58319 (19011219)	17693.88154 (19121618)	10834.50406 (19121618)	7489.42115 (19121618)	5645.41805 (19121618)
60.0	44087.36574 (19112721)	18522.76594 (19112720)	11140.19866 (19112720)	7426.32474 (19011220)	5412.27781 (19011220)
70.0	47201.82428 (19011220)	19260.00769 (19011220)	10953.04096 (19011220)	7237.10202 (19011220)	5373.07523 (19011220)
80.0	36598.35844 (19081720)	13738.43336 (19042106)	7684.95967 (19042106)	5098.22788 (19091520)	3807.18878 (19091520)
90.0	34196.04972 (19111118)	15547.89836 (19111118)	9308.36954 (19111118)	6295.41390 (19111118)	4649.31063 (19021121)
100.0	30563.56445 (19082807)	14345.16415 (19082807)	8707.42552 (19082807)	5950.20921 (19082807)	4320.54606 (19082807)
110.0	32621.14850 (19091521)	14188.64263 (19032221)	8528.48440 (19032221)	5718.28611 (19032221)	4231.58603 (19032221)
120.0	31920.74673 (19081006)	15090.44273 (19031106)	9153.30807 (19031106)	6219.69082 (19031106)	4625.21704 (19031106)
130.0	38723.81929 (19040821)	16708.39105 (19040821)	9893.73364 (19112619)	6679.69235 (19120420)	4953.44473 (19120420)
140.0	39742.56266 (19020406)	17372.62560 (19062606)	10266.43527 (19062606)	6906.30235 (19062606)	5031.12243 (19062606)
150.0	42686.81860 (19111921)	18669.31123 (19111921)	10772.84766 (19111921)	7209.52066 (19111921)	5246.31245 (19112807)
160.0	37465.91719 (19112808)	16952.36300 (19111921)	10036.85470 (19022807)	6833.29203 (19022807)	5026.10959 (19022807)
170.0	40907.22326 (19092407)	18676.68179 (19092407)	11135.64485 (19112806)	7505.80337 (19112806)	5745.40472 (19112806)
180.0	37962.07406 (19070420)	17731.81150 (19070420)	10623.90007 (19070420)	7326.21340 (19070420)	5454.29401 (19070420)
190.0	31827.01254 (19120320)	13845.64008 (19120320)	7999.32462 (19120320)	5389.17223 (19120320)	3907.11277 (19120320)
200.0	34723.77695 (19060406)	15231.16127 (19060406)	8961.43245 (19060406)	6032.13970 (19060406)	4552.14832 (19060406)
210.0	29991.28506 (19041706)	13585.08227 (19041706)	8078.42367 (19041706)	5501.19709 (19041706)	4009.62224 (19041706)

220.0 | 30426.96720 (19010806) 11638.22470 (19010806) 6459.14313 (19010806) 4156.44083 (19021508)
2956.20975 (19072621)
230.0 | 35204.79893 (19010806) 14576.80397 (19010806) 8427.51907 (19081721) 5770.56561 (19081721)
4229.13472 (19081721)
240.0 | 32726.55828 (19081721) 14260.52355 (19020808) 8452.36434 (19020808) 5680.95420 (19011221)
4146.24783 (19011221)
250.0 | 36099.31865 (19112007) 15510.24064 (19112007) 9126.09432 (19112007) 6193.08617 (19112007)
4697.16968 (19112007)
260.0 | 34247.83494 (19112007) 15022.36877 (19010106) 8926.40946 (19010106) 6175.35354 (19010106)
4568.39614 (19010106)
270.0 | 36077.96258 (19112006) 15007.01566 (19112006) 8695.02547 (19112006) 5876.50173 (19112006)
4317.72431 (19010219)
280.0 | 39425.43912 (19112006) 16561.57058 (19112006) 9716.76705 (19112006) 6460.48536 (19112006)
4758.87436 (19112006)
290.0 | 39652.07124 (19111906) 16964.28681 (19111906) 10006.67938 (19111906) 6749.98300 (19111906)
5029.57207 (19111906)
300.0 | 35786.66393 (19090806) 14994.11380 (19042406) 8922.83119 (19042406) 6057.30762 (19042406)
4467.22925 (19042406)
310.0 | 36703.12796 (19020306) 16318.54359 (19020306) 9733.54589 (19020306) 6666.23018 (19020306)
4897.26381 (19020306)
320.0 | 32885.89620 (19062406) 14789.66694 (19062406) 8354.94472 (19020306) 5499.72998 (19020306)
3899.53873 (19112706)
330.0 | 30086.74967 (19062406) 12095.68253 (19062406) 6986.76333 (19041206) 4897.60037 (19041206)
3676.28563 (19041206)
340.0 | 32274.55195 (19042306) 12139.34345 (19042306) 6950.23446 (19050221) 4843.08818 (19050221)
3600.66017 (19050221)
350.0 | 40941.65303 (19121620) 16872.64347 (19121620) 9674.38149 (19121620) 6409.75312 (19121620)
4613.01136 (19121620)
360.0 | 31692.58650 (19092707) 14622.36314 (19092707) 8922.70090 (19042306) 5761.48992 (19042306)
4144.24558 (19042306)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	4563.40160 (19021921)	3641.57298 (19021921)	3016.13968 (19021921)	2650.80920 (19021921)	2333.64360 (19021921)
20.0	4445.38552 (19120718)	3542.84149 (19120718)	2909.26727 (19120718)	2510.42627 (19120718)	2223.96491 (19120718)
30.0	3975.78763 (19010319)	3232.22839 (19010319)	2694.23382 (19010319)	2268.95096 (19010319)	1966.39366 (19010319)
40.0	3916.97860 (19021920)	3149.86173 (19021920)	2615.08563 (19021920)	2207.65810 (19021920)	1924.07535 (19021920)
50.0	4435.50611 (19121618)	3442.95285 (19121618)	2795.98465 (19121618)	2275.90302 (19080406)	1968.73799 (19080406)
60.0	4005.20133 (19011220)	3134.48627 (19011220)	2462.40300 (19011220)	2074.61787 (19011220)	1918.64756 (19011220)
70.0	4184.98391 (19011220)	3003.88547 (19011220)	2439.64764 (19011220)	2336.76229 (19011220)	1981.20345 (19011220)

80.0 | 2919.05692 (19091520) 2300.65313 (19091520) 1915.58386 (19091520) 1771.47635 (19091520) 1551.83274 (19091520)
90.0 | 3608.20713 (19021121) 2755.60124 (19021121) 2467.50445 (19021121) 2133.48999 (19021121) 1885.03425 (19021121)
100.0 | 3408.79567 (19082807) 2623.61870 (19082807) 2352.57707 (19082807) 1998.06139 (19082807) 1753.40908 (19082807)
110.0 | 3298.93018 (19032221) 2537.35897 (19032221) 2277.37693 (19032221) 2011.16980 (19032221) 1734.15473 (19032221)
120.0 | 3567.15969 (19031106) 2774.31563 (19031106) 2435.98811 (19031106) 2224.48430 (19031106) 1901.45156 (19031106)
130.0 | 3845.23446 (19120420) 2947.26800 (19120420) 2526.24572 (19070106) 2349.36901 (19111119) 2050.38827 (19111119)
140.0 | 3936.15995 (19062606) 2907.24808 (19062606) 2331.52561 (19062606) 1972.99441 (19062606) 1887.52451 (19102221)
150.0 | 4038.87117 (19112807) 3223.35179 (19112807) 2642.28373 (19112807) 2065.36336 (19111821) 1787.00169 (19111821)
160.0 | 3881.37777 (19022807) 3159.12227 (19022807) 2559.69659 (19022807) 2035.24053 (19022807) 1794.78985 (19022807)
170.0 | 4508.51980 (19112806) 3652.35103 (19112806) 3031.30926 (19112806) 2807.62971 (19112806) 2112.27214 (19112806)
180.0 | 4286.78404 (19070420) 3474.71974 (19070420) 2870.59023 (19070420) 2441.63420 (19070420) 2058.77964 (19070420)
190.0 | 3015.60503 (19120320) 2437.86540 (19120320) 1998.62420 (19120320) 1652.15320 (19120320) 1389.62244 (19120320)
200.0 | 3567.69984 (19060406) 2910.51066 (19060406) 2386.66427 (19060406) 1996.33482 (19060406) 1696.12724 (19060406)
210.0 | 3104.82367 (19041706) 2625.35986 (19041706) 2079.07213 (19041706) 1768.34908 (19041706) 1474.43711 (19041706)
220.0 | 2268.75028 (19100906) 1991.16755 (19100906) 1685.14465 (19100906) 1309.38445 (19100906) 1120.65543 (19100906)
230.0 | 3381.32423 (19081721) 2643.24322 (19081721) 2167.53209 (19081721) 1826.86786 (19081721) 1581.52083 (19081721)
240.0 | 3282.35682 (19011221) 2574.41295 (19011221) 2076.31991 (19011221) 1754.42007 (19070406) 1507.37304 (19070406)
250.0 | 3618.75880 (19112007) 2941.64591 (19111807) 2449.36430 (19111807) 2097.42950 (19111807) 1753.25508 (19111807)
260.0 | 3581.74113 (19010106) 2909.80724 (19010106) 2426.29100 (19010106) 2083.45184 (19010106) 1795.25359 (19010106)
270.0 | 3435.68299 (19010219) 2770.69147 (19010219) 2325.70749 (19010219) 1958.84022 (19010219) 1653.58669 (19010219)
280.0 | 3704.97127 (19112006) 3002.72032 (19112006) 2445.74103 (19112006) 2026.00571 (19112006) 1730.12464 (19102806)
290.0 | 3874.30598 (19111906) 3128.69384 (19111906) 2586.93067 (19111906) 2185.47750 (19111906) 1884.23657 (19111906)
300.0 | 3485.77664 (19042406) 2801.34439 (19042406) 2324.45344 (19042406) 1973.74940 (19042406) 1690.98158 (19042406)
310.0 | 3798.37818 (19020306) 3103.13054 (19012906) 2593.16357 (19012906) 2223.11054 (19012906) 1885.32529 (19012906)
320.0 | 3056.21365 (19112706) 2451.06178 (19112706) 2019.30922 (19112706) 1736.92152 (19112706) 1480.80120 (19112706)
330.0 | 2892.02987 (19041206) 2358.56846 (19041206) 2005.47985 (19041206) 1728.86259 (19041206) 1506.11655 (19041206)
340.0 | 2834.41433 (19050221) 2294.46027 (19050221) 1966.55124 (19050221) 1701.84392 (19050221) 1480.52863 (19050221)
350.0 | 3535.11932 (19121620) 2767.03186 (19121620) 2321.07995 (19121620) 1944.02678 (19121620) 1651.13626 (19121620)
360.0 | 3083.60327 (19022719) 2511.51740 (19012920) 2113.10363 (19012920) 1809.18778 (19012920) 1572.09191 (19012920)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	2059.23303 (19021921)	1842.55824 (19021921)	1644.82535 (19021921)	1497.49338 (19021921)	1368.58924 (19021921)
20.0	1978.84108 (19020307)	1762.14652 (19020307)	1567.52150 (19120718)	1407.18758 (19120718)	1269.74070 (19120718)
30.0	1717.26831 (19010319)	1513.50906 (19010319)	1364.80507 (19010319)	1235.54810 (19010319)	1108.80679 (19010319)
40.0	1563.76259 (19021920)	1388.21021 (19021920)	1244.14877 (19021920)	1124.11872 (19021920)	1022.79927 (19021920)
50.0	1831.36987 (19080406)	1648.18850 (19080406)	1481.34128 (19080406)	1365.29966 (19080406)	1232.93775 (19080406)
60.0	1717.56035 (19011220)	1475.97930 (19011220)	1325.04316 (19011220)	1178.97681 (19112718)	1088.43997 (19011220)
70.0	1696.00898 (19011220)	1467.60783 (19121619)	1290.61828 (19121619)	1159.92202 (19121619)	1053.65014 (19121619)
80.0	1377.15541 (19091520)	1228.13646 (19091520)	1100.85009 (19091520)	987.33487 (19091520)	895.62378 (19091520)
90.0	1683.87409 (19021121)	1493.71443 (19021121)	1352.31551 (19021121)	1231.50819 (19021121)	1112.67546 (19021121)
100.0	1532.17559 (19082807)	1361.11265 (19082807)	1270.83546 (19082807)	1153.35123 (19082807)	1058.88645 (19082807)
110.0	1448.00540 (19032221)	1294.25443 (19032221)	1166.72960 (19032221)	1041.51923 (19032221)	949.29842 (19032221)
120.0	1696.23595 (19031106)	1403.12595 (19031106)	1307.62313 (19031106)	1196.59694 (19031106)	1057.11738 (19031106)
130.0	1789.37842 (19111119)	1537.50891 (19111119)	1340.86257 (19111119)	1195.15574 (19111119)	1085.02883 (19111119)
140.0	1656.00733 (19062606)	1475.33111 (19062606)	1313.37995 (19062606)	1195.36029 (19102221)	1101.84376 (19020406)
150.0	1788.66951 (19112807)	1564.46622 (19112807)	1394.90673 (19112807)	1260.99933 (19112807)	1220.06135 (19112807)
160.0	1476.25465 (19022807)	1310.35338 (19022807)	1262.31170 (19022807)	1152.37325 (19022807)	1031.23362 (19022807)
170.0	1926.69805 (19112806)	1516.36062 (19112806)	1359.44357 (19112806)	1301.92140 (19112806)	1248.66671 (19112806)
180.0	1844.79996 (19070420)	1568.35951 (19070420)	1295.56097 (19070420)	1170.95681 (19070420)	1147.24659 (19070420)
190.0	1215.52806 (19120320)	1085.64155 (19120320)	934.26866 (19040119)	863.87860 (19040119)	713.31544 (19120320)
200.0	1484.31665 (19060406)	1300.33679 (19060406)	1191.91134 (19060406)	1116.60705 (19060406)	1155.36700 (19060406)
210.0	1290.66361 (19041706)	1130.21543 (19041706)	1020.44520 (19041706)	910.90929 (19041706)	896.31197 (19101406)
220.0	953.24797 (19072621)	819.87659 (19072621)	725.17065 (19072621)	674.97683 (19072621)	616.31816 (19072621)
230.0	1392.43975 (19081721)	1223.22062 (19081721)	1037.62446 (19081721)	945.53082 (19081721)	811.29081 (19081721)
240.0	1319.66351 (19070406)	1152.14426 (19070406)	1047.34442 (19070406)	938.50363 (19070406)	814.34333 (19070406)

250.0 | 1526.51471 (19111807) 1332.35012 (19111807) 1190.27287 (19111807) 1068.76768 (19111807) 957.71834 (19111807)
260.0 | 1570.56274 (19010106) 1388.86636 (19010106) 1236.29973 (19010106) 1103.12415 (19010106) 993.36120 (19010106)
270.0 | 1460.10149 (19010219) 1288.09728 (19010219) 1161.07618 (19010219) 1055.01057 (19010219) 960.57710 (19010219)
280.0 | 1486.33508 (19102806) 1364.19167 (19102806) 1260.60058 (19102806) 1160.27817 (19102806) 1086.47728 (19102806)
290.0 | 1690.84507 (19111906) 1500.03955 (19111906) 1372.33264 (19111906) 1243.49408 (19111906) 1134.57087 (19111906)
300.0 | 1513.52202 (19042406) 1321.80728 (19042406) 1180.72326 (19042406) 1070.02950 (19042406) 990.92916 (19042406)
310.0 | 1659.36978 (19012906) 1498.06326 (19012906) 1386.82943 (19012906) 1268.24125 (19012906) 1083.57934 (19012906)
320.0 | 1292.72048 (19112706) 1120.06205 (19112706) 1014.73070 (19112706) 925.25652 (19112706) 835.11852 (19112706)
330.0 | 1343.05740 (19041206) 1187.16295 (19041206) 1062.49479 (19041206) 969.87991 (19041206) 884.68024 (19041206)
340.0 | 1310.29528 (19050221) 1160.47117 (19050221) 1039.19565 (19050221) 946.17189 (19050221) 875.41268 (19050221)
350.0 | 1445.54016 (19121620) 1285.74217 (19121620) 1111.87093 (19121620) 965.40649 (19121620) 874.17092 (19121620)
360.0 | 1376.46490 (19012920) 1223.76045 (19012920) 1099.46319 (19012920) 992.59518 (19012920) 911.24294 (19012920)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	1256.37466 (19021921)	1152.26333 (19021921)	1063.10785 (19021921)	969.13219 (19021921)	881.41801 (19021921)
20.0	1145.17856 (19120718)	1023.69264 (19120718)	941.88850 (19120718)	881.14732 (19120718)	829.17412 (19120718)
30.0	1007.84517 (19010319)	928.03074 (19010319)	855.12820 (19010319)	787.92430 (19010319)	734.68906 (19010319)
40.0	936.30188 (19021920)	861.72432 (19021920)	796.86034 (19021920)	740.00535 (19021920)	689.82329 (19021920)
50.0	1110.55076 (19080406)	1012.97234 (19080406)	923.91109 (19080406)	849.41649 (19080406)	802.47948 (19080406)
60.0	998.80410 (19011220)	895.37613 (19010420)	828.62736 (19011220)	753.46470 (19011220)	703.85241 (19010420)
70.0	1002.18070 (19121619)	892.51183 (19121619)	829.21592 (19121619)	762.79978 (19121619)	688.13054 (19050606)
80.0	818.82638 (19091520)	750.26150 (19091520)	678.69519 (19091520)	648.94670 (19091520)	610.42063 (19091520)
90.0	1008.28471 (19021121)	930.43335 (19021121)	820.93154 (19021121)	787.32715 (19021121)	738.73704 (19021121)
100.0	974.63302 (19082807)	893.92361 (19082807)	829.83880 (19082807)	755.68915 (19082807)	712.34582 (19082807)

110.0	889.53037 (19032221)	811.49961 (19032221)	746.92504 (19032221)	684.86922 (19032221)	636.21049 (19032221)
120.0	975.37587 (19031106)	899.19988 (19031106)	836.57742 (19031106)	770.82587 (19031106)	717.37938 (19031106)
130.0	1005.88767 (19111119)	942.01852 (19111119)	875.01675 (19111119)	825.47955 (19111119)	756.90796 (19111119)
140.0	1008.72711 (19020406)	949.71599 (19020406)	880.71674 (19020406)	830.03241 (19020406)	766.63090 (19020406)
150.0	1153.44068 (19112807)	996.48494 (19112807)	928.42693 (19111821)	863.72032 (19111821)	817.85567 (19111821)
160.0	888.77339 (19022807)	832.22678 (19022807)	770.98430 (19120318)	728.14426 (19120318)	675.04102 (19120318)
170.0	1109.69272 (19112806)	1039.39347 (19112806)	977.04929 (19112806)	915.80177 (19112806)	864.65660 (19112806)
180.0	1062.40343 (19070420)	962.37411 (19070420)	899.15813 (19070420)	837.98266 (19070420)	795.67499 (19070420)
190.0	653.09614 (19120320)	595.27079 (19120320)	533.82394 (19040119)	559.62132 (19040119)	526.01656 (19040119)
200.0	977.09479 (19060406)	701.10994 (19060406)	648.44348 (19060406)	679.43012 (19060406)	638.43369 (19060406)
210.0	684.76195 (19041706)	630.32779 (19041706)	582.97445 (19041706)	593.33743 (19101406)	560.70089 (19101406)
220.0	626.33057 (19072621)	444.87888 (19072621)	411.37771 (19072621)	382.01720 (19072621)	389.60660 (19072621)
230.0	757.74731 (19081721)	713.85859 (19081721)	650.47539 (19081721)	572.79130 (19081721)	551.63292 (19081721)
240.0	745.49687 (19070406)	675.32072 (19070406)	580.91389 (19070406)	517.69557 (19070406)	519.58850 (19070406)
250.0	873.82380 (19111807)	789.20366 (19111807)	739.20587 (19111807)	650.46961 (19111807)	576.44965 (19112007)
260.0	907.26598 (19010106)	811.67609 (19010106)	735.14894 (19010106)	663.80893 (19010106)	628.84000 (19010106)
270.0	882.04386 (19010219)	802.11052 (19010219)	730.59703 (19010219)	682.27351 (19010219)	639.53695 (19010219)
280.0	977.42748 (19102806)	879.93968 (19102806)	810.83710 (19102806)	758.18359 (19102806)	717.07816 (19102806)
290.0	1048.00728 (19111906)	969.07656 (19111906)	900.28495 (19111906)	849.92610 (19111906)	789.57542 (19111906)
300.0	895.52826 (19042406)	814.16883 (19042406)	739.59650 (19042406)	670.76267 (19042406)	636.85216 (19042406)
310.0	1024.09816 (19012906)	933.05870 (19012906)	865.35712 (19020306)	779.10981 (19012906)	726.13102 (19020306)
320.0	755.49690 (19112706)	685.20518 (19112706)	646.24673 (19021707)	579.77432 (19021707)	539.04257 (19021707)
330.0	809.94384 (19041206)	749.93261 (19041206)	677.40000 (19041206)	612.00530 (19041206)	580.58755 (19041206)
340.0	787.96965 (19050221)	728.87068 (19050221)	645.77159 (19050221)	599.95675 (19050221)	565.74408 (19050221)
350.0	819.64007 (19121620)	749.17528 (19121620)	657.79860 (19121620)	590.60697 (19121620)	553.98785 (19121620)
360.0	837.99329 (19012920)	774.11595 (19012920)	717.87842 (19012920)	664.73523 (19012920)	618.33928 (19012920)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK :	375.70	118.90	6616.42985	(19031106)	TANK :	498.87	129.50	4915.91675	(19111119)
TANK :	81.43	359.00	41328.06384	(19121620)	TANK :	116.79	44.50	32503.19432	(19021919)
TANK :	109.20	67.00	45008.93532	(19011220)	TANK :	100.70	93.73	32241.00959	(19111118)
TANK :	87.91	103.99	34485.45048	(19091521)	TANK :	99.82	123.38	34283.88961	(19070106)
TANK :	138.00	141.00	28170.52931	(19020406)	TANK :	106.00	180.00	35966.24654	(19070420)
TANK :	115.60	206.00	27043.73958	(19041706)	TANK :	54.00	270.00	71358.32533	(19071506)
TANK :	97.00	326.00	31472.41134	(19020306)	TANK :	133.94	242.10	23292.42586	(19020808)
TANK :	101.99	301.65	34011.98280	(19042406)	TANK :	236.54	274.95	12523.65519	(19011306)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	34588.02928 (19020308)	15787.04459 (19010321)	9860.90214 (19010321)	6919.33389 (19010321)	5206.12361 (19010321)
20.0	39821.97804 (19020307)	17796.42005 (19020308)	10637.52233 (19020308)	7249.82182 (19020308)	5345.94898 (19020308)
30.0	33201.58053 (19021820)	15099.59345 (19021820)	9123.84955 (19021820)	6244.08379 (19021820)	4577.01137 (19021820)
40.0	33847.02390 (19011219)	14912.47261 (19021920)	9283.93370 (19021920)	6364.27952 (19021820)	4651.06814 (19021820)
50.0	38322.14186 (19121618)	17652.03394 (19011219)	10700.49756 (19011219)	7343.16559 (19011219)	5493.76940 (19011219)
60.0	40845.75035 (19112720)	16744.53893 (19112721)	9598.59143 (19121619)	6441.05811 (19112718)	4818.67899 (19112718)
70.0	38979.83680 (19121619)	17362.39746 (19121619)	10257.70426 (19121619)	6904.19355 (19121619)	5145.01677 (19121619)
80.0	33839.93511 (19042106)	13677.47647 (19112721)	7416.82000 (19050606)	4936.72213 (19050606)	3613.64571 (19123019)
90.0	32959.76578 (19021121)	15275.70794 (19021121)	9236.64867 (19021121)	6284.50252 (19021121)	4648.01608 (19111118)
100.0	26682.02625 (19020321)	12778.69661 (19020321)	7750.52674 (19020321)	5281.86275 (19020321)	3849.88815 (19120618)
110.0	30663.34623 (19032221)	13387.07184 (19010119)	7966.25792 (19010119)	5317.39574 (19010119)	3911.60152 (19010119)
120.0	31729.28448 (19031106)	14765.82603 (19081006)	8813.54262 (19081006)	5922.25510 (19081006)	4382.57096 (19081006)
130.0	37181.57816 (19102220)	16468.43379 (19102220)	9879.37596 (19120420)	6603.05138 (19070106)	4907.23501 (19070106)
140.0	38359.11475 (19062606)	17250.88959 (19111821)	9759.68496 (19102221)	6675.07684 (19102221)	4900.29573 (19102221)

150.0 | 34816.62897 (19112807) 16790.08799 (19112807) 10223.76411 (19112807) 7069.34660 (19112807) 5187.50011 (19111921)
160.0 | 37350.19015 (19111921) 16923.26679 (19022807) 9946.00173 (19111921) 6713.68636 (19111921) 4897.70032 (19111921)
170.0 | 39778.77025 (19112806) 18552.68973 (19112806) 11110.80091 (19092407) 7431.42689 (19092407) 5658.46966 (19092407)
180.0 | 35376.84312 (19120320) 15265.11910 (19120320) 9275.69386 (19011821) 6441.04175 (19011821) 4812.91276 (19011821)
190.0 | 31627.50041 (19092406) 12969.78283 (19092406) 7212.35203 (19092406) 4866.02121 (19112906) 3607.19486 (19061406)
200.0 | 31665.38103 (19010719) 14396.45802 (19010719) 8554.94495 (19010719) 5789.48023 (19010719) 4366.73486 (19010719)
210.0 | 29949.64406 (19060406) 13064.29744 (19042307) 7774.91245 (19042307) 5305.99487 (19042307) 3879.30422 (19042307)
220.0 | 28463.25505 (19021508) 11245.41030 (19021508) 6278.83394 (19021508) 4120.76524 (19010806) 2940.82908 (19100906)
230.0 | 33188.84608 (19120321) 13828.31418 (19120321) 7976.46850 (19120321) 5464.23265 (19021508) 4015.09721 (19021508)
240.0 | 32591.92400 (19020808) 13127.30598 (19070406) 7800.03936 (19070406) 5328.36742 (19070406) 3971.95819 (19070406)
250.0 | 34853.99206 (19111807) 15165.56994 (19111807) 8968.56828 (19111807) 6107.96947 (19111807) 4652.52207 (19111807)
260.0 | 34181.60527 (19010106) 14184.60120 (19020606) 8428.73427 (19010206) 5852.60406 (19010206) 4348.78122 (19010206)
270.0 | 32648.71849 (19010221) 14326.35006 (19010221) 8493.94658 (19010221) 5804.31579 (19010219) 4272.30870 (19010221)
280.0 | 34788.53264 (19011306) 15229.36554 (19011306) 9046.70088 (19011306) 6097.82784 (19011306) 4533.62591 (19011306)
290.0 | 37800.94918 (19112008) 15560.49915 (19053106) 9327.00731 (19053106) 6353.12600 (19053106) 4748.06044 (19053106)
300.0 | 34270.66267 (19111906) 14073.07849 (19021606) 8445.54077 (19021606) 5762.96967 (19021606) 4266.47267 (19021606)
310.0 | 35470.92916 (19042406) 15190.10389 (19042406) 8827.47418 (19042406) 5899.48495 (19042406) 4367.29297 (19021706)
320.0 | 32472.23026 (19012906) 13305.17454 (19112706) 7926.33454 (19112706) 5361.02524 (19112706) 3869.77370 (19020306)
330.0 | 24719.34386 (19121620) 11339.28913 (19041206) 6881.60838 (19030407) 4760.16560 (19030407) 3545.34728 (19030407)
340.0 | 27922.84474 (19042407) 11280.79101 (19092506) 6884.34122 (19092506) 4751.44987 (19092506) 3513.94305 (19092506)
350.0 | 26081.38965 (19022719) 11759.97598 (19022719) 7030.10210 (19022719) 4787.12571 (19022719) 3492.30216 (19022719)
360.0 | 29972.67064 (19022719) 13177.83130 (19022719) 7912.46387 (19022719) 5406.97832 (19022719) 3995.73174 (19022719)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00

10.0 | 4086.89791 (19010321) 3280.96700 (19010321) 2723.72585 (19010321) 2384.01167 (19010321) 2094.50180 (19010321)
20.0 | 4158.04578 (19020308) 3303.27868 (19020308) 2691.23540 (19020308) 2301.55026 (19120820) 2030.38954 (19120820)
30.0 | 3575.54905 (19021820) 2881.09816 (19021820) 2354.60072 (19021820) 1961.64311 (19021820) 1658.88259 (19021820)
40.0 | 3596.12909 (19021820) 2857.49592 (19021820) 2363.91795 (19021820) 1987.76680 (19021820) 1691.79472 (19021820)
50.0 | 4280.88343 (19011219) 3343.90076 (19011219) 2714.66655 (19011219) 2220.44533 (19011219) 1912.25278 (19011219)
60.0 | 3705.72829 (19112718) 2962.18728 (19112718) 2362.38509 (19112718) 2007.51945 (19112718) 1830.95727 (19112718)
70.0 | 4037.84771 (19121619) 2985.30295 (19121619) 2432.52565 (19121619) 2296.19488 (19121619) 1958.27043 (19121619)
80.0 | 2790.56393 (19123019) 2207.32204 (19123019) 1832.52767 (19123019) 1656.75223 (19123019) 1449.99747 (19123019)
90.0 | 3601.00449 (19111118) 2740.84511 (19111118) 2461.05528 (19111118) 2128.88867 (19111118) 1882.52493 (19111118)
100.0 | 3037.57656 (19120618) 2356.13504 (19120618) 2093.18015 (19120618) 1780.18678 (19120618) 1559.71824 (19120618)
110.0 | 3011.53730 (19010119) 2333.02527 (19010119) 2065.94497 (19081206) 1803.71256 (19081206) 1562.68865 (19081206)
120.0 | 3353.02763 (19081006) 2602.30700 (19081006) 2246.75277 (19081006) 1986.33760 (19081006) 1692.51909 (19081006)
130.0 | 3818.63354 (19070106) 2923.98172 (19070106) 2523.66782 (19120420) 2337.93073 (19120420) 2040.37461 (19120420)
140.0 | 3858.28720 (19102221) 2862.91479 (19102221) 2302.81192 (19102221) 1959.92442 (19102221) 1885.66102 (19062606)
150.0 | 3915.94584 (19111921) 3109.59808 (19111921) 2539.64988 (19111921) 2002.59311 (19082020) 1733.17755 (19082020)
160.0 | 3806.79862 (19111921) 3066.87065 (19111921) 2493.33943 (19111921) 1970.72893 (19111921) 1758.71337 (19111921)
170.0 | 4412.93360 (19092407) 3554.39413 (19092407) 2933.79347 (19092407) 2736.55287 (19092407) 2039.24076 (19092407)
180.0 | 3793.57951 (19011821) 3085.18808 (19011821) 2557.41355 (19011821) 2182.45435 (19011821) 1843.88004 (19011821)
190.0 | 2842.36762 (19061406) 2281.59963 (19061406) 1873.37865 (19040119) 1600.47584 (19040119) 1374.15531 (19040119)
200.0 | 3432.46520 (19010719) 2812.32758 (19010719) 2316.89514 (19010719) 1946.68366 (19010719) 1661.12245 (19010719)
210.0 | 3010.03473 (19101406) 2543.69160 (19101406) 2033.77198 (19101406) 1729.85185 (19101406) 1448.35755 (19101406)
220.0 | 2228.33734 (19081721) 1924.63722 (19052606) 1627.67152 (19052606) 1262.06546 (19052606) 1079.52266 (19052606)
230.0 | 3206.09636 (19021508) 2516.92899 (19021508) 2068.03421 (19021508) 1745.36779 (19021508) 1511.94589 (19021508)
240.0 | 3169.10485 (19070406) 2506.52319 (19070406) 2075.60568 (19070406) 1735.08737 (19110806) 1491.66109 (19110806)
250.0 | 3596.62457 (19111807) 2938.04772 (19011221) 2408.03552 (19011221) 2031.40941 (19011221) 1694.10875 (19011221)
260.0 | 3423.21412 (19010206) 2784.94158 (19010206) 2323.29750 (19010206) 1994.81314 (19010206) 1720.07135 (19010206)
270.0 | 3378.44929 (19010221) 2714.52049 (19020807) 2278.37889 (19020807) 1918.10762 (19020807) 1618.23627 (19020807)
280.0 | 3543.84395 (19102806) 2884.87301 (19102806) 2382.28844 (19102806) 1995.53568 (19102806) 1725.41561 (19112006)
290.0 | 3673.11612 (19053106) 2968.84890 (19053106) 2454.53556 (19053106) 2073.41157 (19053106) 1787.96530 (19053106)
300.0 | 3336.89261 (19021606) 2682.72683 (19021606) 2218.44985 (19021606) 1887.40761 (19021606) 1646.14783 (19021606)
310.0 | 3403.24210 (19021706) 2783.46347 (19021706) 2334.53268 (19021706) 2012.65642 (19021706) 1719.14483 (19021706)

320.0 | 2978.23200 (19020306) 2289.76542 (19020306) 1913.15728 (19102206) 1625.45457 (19102206) 1390.37539 (19021707)
330.0 | 2784.96833 (19030407) 2267.65535 (19030407) 1912.54085 (19062820) 1650.07798 (19062820) 1435.75563 (19062820)
340.0 | 2765.53848 (19092506) 2238.65544 (19092506) 1898.66775 (19092506) 1622.43813 (19092506) 1407.68321 (19092506)
350.0 | 2666.72599 (19022719) 2169.69574 (19022719) 1820.82884 (19102207) 1571.23322 (19102207) 1368.44851 (19102207)
360.0 | 3073.78354 (19012920) 2478.52599 (19022719) 2061.57058 (19022719) 1772.83959 (19022719) 1538.68090 (19022719)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	1848.50252 (19010321)	1653.44417 (19010321)	1478.28503 (19010321)	1345.24914 (19010321)	1229.41604 (19010321)
20.0	1814.23728 (19120820)	1618.96992 (19120820)	1445.45259 (19120820)	1304.81656 (19120820)	1183.70804 (19120820)
30.0	1449.67923 (19021820)	1281.01098 (19021820)	1154.15981 (19021820)	1014.38770 (19101521)	911.93918 (19101521)
40.0	1396.10560 (19021820)	1239.26938 (19021820)	1108.32023 (19021820)	981.08328 (19021820)	887.18159 (19102718)
50.0	1779.00863 (19011219)	1600.17504 (19011219)	1438.24291 (19011219)	1311.00898 (19011219)	1178.66686 (19011219)
60.0	1630.81949 (19112718)	1418.44824 (19112718)	1301.73410 (19112718)	1171.60555 (19011220)	1061.51646 (19112718)
70.0	1686.72693 (19121619)	1466.16114 (19011220)	1283.66164 (19011220)	1154.71016 (19011220)	1048.18717 (19011220)
80.0	1283.76357 (19123019)	1146.13110 (19123019)	1029.79212 (19123019)	926.61153 (19123019)	841.54940 (19123019)
90.0	1682.85697 (19111118)	1491.84519 (19111118)	1350.16016 (19111118)	1229.68635 (19111118)	1110.22223 (19111118)
100.0	1364.71833 (19120618)	1212.72019 (19120618)	1125.37866 (19120618)	1021.21410 (19120618)	936.64200 (19120618)
110.0	1323.83712 (19081206)	1181.89490 (19081206)	1076.44729 (19081206)	973.67426 (19081206)	898.54679 (19081206)
120.0	1506.68084 (19081006)	1266.89576 (19041006)	1169.49900 (19041006)	1067.92589 (19041006)	949.21090 (19041006)
130.0	1780.02479 (19120420)	1528.21944 (19120420)	1332.03155 (19120420)	1186.98160 (19120420)	1077.54565 (19120420)
140.0	1655.85083 (19102221)	1473.09706 (19102221)	1312.21976 (19102221)	1185.03399 (19062606)	1071.33080 (19062606)
150.0	1704.78446 (19082020)	1490.32502 (19082020)	1327.85269 (19082020)	1199.67945 (19082020)	1159.07862 (19082020)
160.0	1425.15880 (19111921)	1265.44760 (19111921)	1204.91967 (19111921)	1120.85948 (19120318)	992.67291 (19120318)
170.0	1861.28539 (19092407)	1461.47747 (19092407)	1310.22863 (19092407)	1256.22796 (19092407)	1205.91042 (19092407)

180.0 | 1661.02264 (19011821) 1411.14832 (19011821) 1164.34565 (19011821) 1052.32160 (19011821) 1044.64002 (19011821)
190.0 | 1214.47682 (19040119) 1083.32288 (19040119) 927.49604 (19112906) 860.91332 (19120320) 685.20337 (19040119)
200.0 | 1459.15972 (19010719) 1280.41600 (19010719) 1171.87515 (19010719) 1094.95874 (19010719) 1132.35338 (19010719)
210.0 | 1267.70890 (19101406) 1111.08882 (19101406) 1002.76850 (19101406) 897.13907 (19101406) 877.19084 (19041706)
220.0 | 918.13905 (19052606) 790.27092 (19052606) 699.14699 (19052606) 650.24472 (19052606) 593.89105 (19052606)
230.0 | 1331.92172 (19021508) 1171.70007 (19021508) 997.17647 (19021508) 909.02511 (19021508) 782.02206 (19021508)
240.0 | 1306.30843 (19110806) 1141.54888 (19110806) 1037.24300 (19110806) 929.95785 (19110806) 808.59564 (19110806)
250.0 | 1474.02890 (19011221) 1285.82186 (19011221) 1149.37575 (19011221) 1032.46252 (19011221) 924.90755 (19011221)
260.0 | 1505.49022 (19010206) 1331.86358 (19010206) 1186.13937 (19010206) 1059.10926 (19010206) 954.24639 (19010206)
270.0 | 1428.93716 (19020807) 1260.40590 (19020807) 1136.17106 (19020807) 1032.43288 (19020807) 940.00010 (19020807)
280.0 | 1470.27989 (19112006) 1349.09455 (19112006) 1251.72146 (19112006) 1136.74026 (19112006) 1059.63915 (19071706)
290.0 | 1603.48944 (19053106) 1426.78748 (19053106) 1304.33822 (19053106) 1182.11545 (19053106) 1078.73731 (19053106)
300.0 | 1481.82792 (19021606) 1296.69450 (19021606) 1158.98020 (19021606) 1050.36213 (19021606) 973.14439 (19021606)
310.0 | 1519.02454 (19021706) 1368.62921 (19021706) 1258.75964 (19021706) 1148.57211 (19021706) 991.38646 (19021706)
320.0 | 1215.90349 (19102206) 1109.44928 (19102206) 1003.33379 (19102206) 913.56624 (19102206) 833.52634 (19102206)
330.0 | 1283.69205 (19062820) 1130.23012 (19062820) 1009.64511 (19062820) 922.46085 (19062820) 840.88677 (19062820)
340.0 | 1245.89715 (19092506) 1103.41561 (19092506) 988.10055 (19092506) 899.69428 (19092506) 827.94957 (19092506)
350.0 | 1203.98143 (19102207) 1075.47004 (19102207) 963.95180 (19102207) 871.06856 (19102207) 793.87625 (19102207)
360.0 | 1340.29281 (19041320) 1196.40440 (19041320) 1079.88644 (19041320) 979.31680 (19041320) 897.49783 (19041320)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	1128.78684 (19010321)	1036.22650 (19010321)	956.68503 (19010321)	874.19763 (19010321)	797.11574 (19010321)
20.0	1072.13318 (19120820)	959.29694 (19120820)	887.49248 (19120820)	832.92462 (19120820)	782.99817 (19120820)
30.0	829.58044 (19101521)	763.87017 (19101521)	704.10132 (19101521)	649.21095 (19101521)	605.32769 (19101521)

40.0	811.72607 (19102718)	745.87165 (19102718)	687.76686 (19102718)	635.96216 (19102718)	589.56962 (19102718)
50.0	1061.77234 (19011219)	978.94539 (19011219)	895.00205 (19011219)	824.65400 (19011219)	778.70921 (19011219)
60.0	963.73861 (19112718)	895.24436 (19112718)	809.23926 (19010420)	748.19911 (19010420)	703.08710 (19112718)
70.0	970.16829 (19011220)	887.73417 (19011220)	808.44539 (19011220)	732.88706 (19011220)	685.74758 (19121619)
80.0	769.77286 (19123019)	705.18402 (19123019)	640.76217 (19123019)	603.31190 (19123019)	565.72987 (19021521)
90.0	1005.30736 (19111118)	927.62032 (19111118)	816.72651 (19111118)	784.21122 (19111118)	735.92311 (19111118)
100.0	861.74909 (19120618)	791.27755 (19120618)	734.38732 (19120618)	670.84593 (19120618)	631.58800 (19120618)
110.0	837.63610 (19081206)	766.23804 (19081206)	706.23049 (19081206)	649.40319 (19081206)	603.77211 (19081206)
120.0	876.52463 (19041006)	812.39395 (19041006)	762.06330 (19041006)	705.19688 (19041006)	657.87372 (19041006)
130.0	999.11599 (19120420)	936.60774 (19120420)	870.65228 (19120420)	821.00647 (19120420)	752.58693 (19120420)
140.0	975.59677 (19062606)	918.37479 (19062606)	851.63958 (19062606)	802.58835 (19062606)	741.33232 (19062606)
150.0	1094.93889 (19082020)	947.38927 (19082020)	886.12857 (19082020)	828.61537 (19082020)	784.26716 (19082020)
160.0	854.82554 (19120318)	827.38575 (19120318)	758.97328 (19022807)	719.13201 (19022807)	665.89659 (19022807)
170.0	1071.14210 (19092407)	1001.81349 (19092407)	933.35559 (19092407)	868.25679 (19092407)	814.46225 (19092407)
180.0	970.82405 (19011821)	880.84930 (19011821)	822.18597 (19011821)	766.00280 (19011821)	725.99027 (19011821)
190.0	627.24750 (19040119)	577.28022 (19040119)	532.72711 (19120320)	544.88846 (19112921)	511.95400 (19112921)
200.0	954.81093 (19010719)	696.29776 (19010719)	643.98567 (19010719)	670.05894 (19010719)	629.32929 (19010719)
210.0	676.46675 (19101406)	622.59408 (19101406)	575.78254 (19101406)	575.33174 (19041706)	544.25693 (19041706)
220.0	600.28654 (19052606)	429.32117 (19052606)	396.97340 (19052606)	368.62568 (19052606)	376.19788 (19052606)
230.0	730.39560 (19021508)	688.23631 (19021508)	627.81983 (19021508)	553.39334 (19021508)	533.22813 (19021508)
240.0	740.36071 (19110806)	671.13411 (19110806)	578.88105 (19110806)	516.85822 (19110806)	517.20773 (19110806)
250.0	844.21110 (19011221)	761.93115 (19011221)	714.18059 (19011221)	627.13481 (19011221)	554.91423 (19011221)
260.0	871.67978 (19010206)	780.82192 (19010206)	707.84114 (19010206)	639.91492 (19010206)	605.79923 (19010206)
270.0	863.16476 (19020807)	784.79016 (19020807)	714.65979 (19020807)	667.43316 (19020807)	625.66578 (19020807)
280.0	952.09593 (19071706)	856.02093 (19071706)	788.58443 (19071706)	737.55691 (19071706)	698.00086 (19071706)
290.0	996.16978 (19053106)	921.13174 (19053106)	855.72087 (19053106)	806.70067 (19053106)	748.20204 (19053106)
300.0	874.25934 (19021606)	793.91647 (19021606)	723.77746 (19021606)	665.76839 (19021606)	636.76713 (19021606)
310.0	932.62915 (19021706)	851.10835 (19021706)	790.57775 (19021706)	713.34668 (19021706)	665.23547 (19021706)
320.0	751.42441 (19102206)	683.54626 (19102206)	629.25514 (19102206)	576.29721 (19102206)	529.50757 (19102206)
330.0	769.13436 (19062820)	712.32303 (19062820)	640.74916 (19062820)	577.26680 (19120106)	548.08377 (19062820)
340.0	747.87197 (19092506)	682.89822 (19092506)	613.95808 (19092506)	569.19954 (19092506)	526.19452 (19092506)

350.0 | 736.45137 (19102207) 676.98450 (19102207) 628.14161 (19102207) 583.45888 (19102207) 546.19422 (19102207)
360.0 | 825.10022 (19041320) 762.13220 (19041320) 706.83661 (19041320) 655.53134 (19041320) 610.40818 (19041320)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	6195.16143	(19081006)	TANK	498.87	129.50	4889.41932	(19120420)
TANK	81.43	359.00	37646.87163	(19022719)	TANK	116.79	44.50	29347.59475	(19121618)
TANK	109.20	67.00	37514.97242	(19121619)	TANK	100.70	93.73	31808.59319	(19120421)
TANK	87.91	103.99	33707.90433	(19112619)	TANK	99.82	123.38	32949.30997	(19070306)
TANK	138.00	141.00	27207.12713	(19062606)	TANK	106.00	180.00	33205.55621	(19120320)
TANK	115.60	206.00	26788.93862	(19020508)	TANK	54.00	270.00	63896.68847	(19010106)
TANK	97.00	326.00	31180.53648	(19042407)	TANK	133.94	242.10	22291.82118	(19111807)
TANK	101.99	301.65	33123.28804	(19090806)	TANK	236.54	274.95	12416.20404	(19112008)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	11587.39767c(19121024)	5054.95368c(19121024)	3097.19360 (19102124)	2168.40110 (19102124)	1615.37311 (19102124)
20.0	10524.83502 (19022124)	4496.35341 (19020308)	2712.47994 (19020308)	1862.55886 (19020308)	1381.75852 (19020308)
30.0	10491.62508 (19010324)	4271.56341 (19010324)	2445.63288 (19010324)	1620.21793 (19010324)	1166.49509 (19010324)
40.0	13178.76623 (19021924)	5277.30078 (19021924)	3038.66634 (19021924)	2046.91179 (19021924)	1505.42512 (19021924)
50.0	17612.06441 (19112724)	6878.43819 (19112724)	3828.83614 (19112724)	2495.29990 (19112724)	1735.85059 (19112724)
60.0	18052.88134 (19112724)	7438.19135 (19112724)	4248.37063 (19112724)	2801.82723 (19112724)	2002.57340 (19112724)
70.0	12184.84510 (19112724)	4820.86811 (19112724)	2894.92782 (19103124)	1995.17276 (19103124)	1458.11289 (19103124)

80.0 | 8789.43682 (19041016) 3629.81973 (19103124) 2273.80852 (19103124) 1556.60337 (19103124) 1145.68352 (19103124)
90.0 | 10064.15679 (19020324) 4297.92449 (19020324) 2514.05819 (19020324) 1681.92524 (19020324) 1220.72623 (19020324)
100.0 | 8657.18150 (19020324) 4158.36176 (19020324) 2550.98294 (19020324) 1757.63240 (19020324) 1288.57007 (19020324)
110.0 | 8357.59317 (19032224) 3612.31068 (19032224) 2105.65215 (19032224) 1402.77342 (19032224) 1014.29125 (19032224)
120.0 | 10889.50980 (19120424) 4133.41005 (19120424) 2368.38355 (19032624) 1622.08634 (19032624) 1193.53727 (19032624)
130.0 | 12196.51781 (19111924) 5406.23645 (19120424) 3227.00016 (19120424) 2171.89112 (19120424) 1595.91893 (19120424)
140.0 | 12479.60809 (19112424) 5706.84530 (19112424) 3408.45393 (19112424) 2296.47458 (19112424) 1660.97476 (19112424)
150.0 | 11285.75954c(19121424) 5609.75120c(19121424) 3490.40596c(19121424) 2415.63269c(19121424) 1792.69853c(19121424)
160.0 | 11933.87489 (19112808) 4891.92423 (19112808) 2689.04519 (19112808) 1764.60451 (19011624) 1310.76063c(19031208)
170.0 | 11688.47774 (19112808) 5252.51859 (19112808) 3080.56230 (19112808) 2053.43772 (19112808) 1543.99963 (19112808)
180.0 | 9294.26108 (19120524) 3932.61902 (19120524) 2179.80461 (19120524) 1449.61145 (19112524) 1070.44381 (19112524)
190.0 | 10996.16135 (19120524) 4861.66005 (19120524) 2801.08900 (19120524) 1857.44017 (19120524) 1335.89133 (19120524)
200.0 | 9591.74387 (19012524) 4322.07268 (19012524) 2517.94408 (19012524) 1685.55418 (19012524) 1235.45081 (19120524)
210.0 | 8302.74646 (19012524) 3804.72294 (19012524) 2204.84926 (19012524) 1473.52029 (19012524) 1064.38656 (19012524)
220.0 | 7822.63106 (19012124) 3308.30033 (19111024) 1846.90774 (19111024) 1215.02214 (19012124) 864.60710 (19012124)
230.0 | 9852.37858 (19111024) 4368.92313 (19111024) 2573.17249 (19111024) 1737.31293 (19111024) 1271.84548 (19111024)
240.0 | 9425.97678 (19111024) 4098.10148 (19111024) 2377.13028 (19111024) 1573.06754 (19111024) 1153.87281 (19111024)
250.0 | 10153.68760c(19010208) 4407.51674c(19010208) 2560.60505c(19010208) 1706.83290c(19010208) 1238.24517c(19010208)
260.0 | 11140.78269 (19010224) 4783.33365 (19010224) 2792.69414 (19010224) 1910.29408 (19020608) 1410.42857 (19020608)
270.0 | 12111.33807 (19010224) 5110.27015 (19010224) 2941.09897 (19010224) 1963.38516 (19010224) 1415.59351 (19010224)
280.0 | 11292.50072 (19112008) 4760.42916 (19111908) 2796.64763 (19111908) 1878.17135 (19111908) 1374.81728 (19111908)
290.0 | 12564.98288 (19111908) 5458.93253 (19111908) 3241.23808 (19111908) 2195.71187 (19111908) 1627.97084 (19111908)
300.0 | 10123.74241 (19111908) 4153.43027 (19012908) 2410.46600 (19012908) 1615.98226 (19012908) 1161.95247 (19012908)
310.0 | 8585.98595 (19012908) 3601.86903 (19021608) 2169.80450 (19021608) 1466.54270 (19021608) 1072.20355 (19021608)
320.0 | 8852.66813 (19021708) 3929.42069 (19021708) 2339.40292 (19021708) 1593.74938 (19021708) 1162.49020 (19021708)
330.0 | 7694.59066 (19122908) 3511.68509 (19122908) 2102.02053 (19122908) 1442.87550 (19122908) 1070.40305 (19122908)
340.0 | 8284.69038 (19081524) 3363.62779 (19120108) 2040.63159 (19120108) 1403.55984 (19120108) 1039.13220 (19120108)
350.0 | 6205.64455 (19081524) 2349.27285 (19010408) 1399.43088 (19010408) 955.30272 (19010408) 699.12085 (19010408)
360.0 | 10051.19197c(19121024) 4676.15465c(19121024) 2884.85779c(19121024) 1985.04294c(19121024) 1478.75018c(19121024)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	1277.42059 (19102124)	1036.89847 (19102124)	855.30419 (19102124)	723.37131 (19102124)	624.65253 (19102124)
20.0	1079.88500 (19020308)	861.41069 (19020308)	705.36818 (19020308)	601.31747 (19020308)	530.22140 (19020308)
30.0	901.76388 (19010324)	717.44285 (19010324)	586.11916 (19010324)	493.29284 (19010324)	421.95890 (19010324)
40.0	1172.98858 (19021924)	927.52722 (19021924)	761.30265 (19021924)	637.58105 (19021924)	552.24533 (19021924)
50.0	1305.05575 (19112724)	1039.03214 (19112724)	838.93249 (19112724)	691.56305 (19112724)	583.18438 (19112724)
60.0	1512.41842 (19112724)	1191.23371 (19112724)	945.04927 (19112724)	796.86816 (19112724)	687.14952 (19112724)
70.0	1101.75302 (19103124)	899.35582 (19103124)	734.88001 (19103124)	627.43617 (19103124)	546.17259 (19103124)
80.0	889.80362 (19103124)	706.13105 (19103124)	572.46882 (19103124)	475.83328 (19103124)	398.94962 (19103124)
90.0	920.84021 (19020324)	721.59135 (19020324)	597.21821 (19020324)	500.63711 (19020324)	425.82703 (19020324)
100.0	1015.38003 (19020324)	788.37618 (19020324)	682.56238 (19020324)	575.89244 (19020324)	502.53055 (19020324)
110.0	776.00169 (19032224)	604.07272 (19032224)	508.89864 (19032224)	428.51169 (19032224)	369.45099 (19032224)
120.0	917.59541 (19032624)	720.74909 (19032624)	615.07963 (19032624)	519.09875 (19032624)	451.40545 (19032624)
130.0	1223.47955 (19120424)	947.65527 (19120424)	800.55999 (19120424)	710.32456 (19120424)	612.80187 (19120424)
140.0	1270.25812 (19112424)	984.55319 (19112424)	792.91114 (19112424)	660.40208 (19112424)	580.90353 (19112424)
150.0	1386.45213c(19121424)	1107.48786c(19121424)	907.70539c(19121424)	726.85074c(19121424)	628.03577c(19121424)
160.0	1033.89275c(19031208)	842.69780c(19031208)	698.37326c(19031208)	571.69326c(19031208)	502.60163c(19031208)
170.0	1201.31797 (19112808)	968.67752 (19112808)	801.67841 (19112808)	737.34629 (19112808)	558.63883 (19112808)
180.0	828.04856 (19112524)	668.99022 (19112524)	550.82324 (19112524)	459.25261 (19112524)	388.48878 (19112524)
190.0	1029.11689 (19120524)	808.08863 (19120524)	655.22048 (19120524)	547.27298 (19120524)	465.81141 (19120524)
200.0	946.44703 (19120524)	757.10802 (19120524)	623.01624 (19120524)	523.55962 (19120524)	447.77952 (19120524)
210.0	820.08721 (19012524)	649.53423 (19012524)	531.35372 (19012524)	444.00620 (19012524)	373.18443 (19012524)
220.0	654.48472 (19012124)	507.22162 (19012124)	435.51846 (19012124)	356.17140 (19012124)	303.49023 (19012124)
230.0	994.13957 (19111024)	787.07119 (19111024)	643.78255 (19111024)	543.36129 (19111024)	469.48064 (19111024)
240.0	866.90254 (19111024)	690.53163 (19111024)	571.25852 (19111024)	478.68799 (19111024)	399.72603 (19111024)

250.0 | 935.48393c(19010208) 750.79349c(19010208) 606.56718 (19020608) 515.22215 (19020608) 436.02272 (19020608)
260.0 | 1109.10040 (19020608) 890.70982 (19020608) 731.93530 (19020608) 626.02449 (19020608) 540.22042 (19020608)
270.0 | 1091.69928 (19010224) 870.39509 (19010224) 707.88441 (19010224) 590.84967 (19010224) 497.89732 (19010224)
280.0 | 1047.16956 (19111908) 845.72855 (19111908) 697.60029 (19111908) 583.67222 (19111908) 491.59077 (19111908)
290.0 | 1259.19510 (19111908) 1009.19439 (19111908) 829.73325 (19111908) 702.57877 (19111908) 606.97788 (19111908)
300.0 | 895.37373 (19012908) 711.58543 (19012908) 577.36591 (19012908) 474.87581 (19012908) 412.95093 (19012908)
310.0 | 832.29709 (19021608) 661.26350 (19021608) 543.52305 (19021708) 461.96522 (19021608) 391.46040 (19021608)
320.0 | 903.47639 (19021708) 724.23856 (19021708) 593.49422 (19021708) 505.96744 (19021708) 430.58237 (19021708)
330.0 | 828.67650 (19120108) 672.24568 (19120108) 566.02327 (19120108) 478.77705 (19120108) 416.88776 (19120108)
340.0 | 807.06098 (19120108) 653.70331 (19120108) 531.18628 (19120108) 449.81794 (19120108) 382.94122 (19120108)
350.0 | 533.63763 (19010408) 432.39566 (19010408) 354.82472 (19010408) 292.50214 (19010408) 252.51536 (19010408)
360.0 | 1160.97730c(19121024) 933.41744c(19121024) 760.62306c(19121024) 638.33245c(19121024) 549.70167c(19121024)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07
PAGE 37
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	544.26678 (19102124)	480.81755 (19102124)	426.33361 (19102124)	384.33882 (19102124)	347.46611 (19102124)
20.0	466.78200 (19020308)	410.76173 (19020308)	364.79042 (19020308)	328.92893 (19020308)	298.01925 (19020308)
30.0	364.12569 (19010324)	315.34351 (19010324)	278.96462 (19010324)	252.08246 (19010324)	226.16313 (19010324)
40.0	461.29008 (19102724)	404.34235 (19102724)	352.60276 (19102724)	317.31342 (19021924)	288.15133 (19021924)
50.0	484.92676 (19112724)	424.33648 (19112724)	375.61141 (19112724)	322.74451 (19112724)	287.98398 (19112724)
60.0	598.39559 (19112724)	521.45099 (19112724)	466.27662 (19112724)	408.82143 (19112724)	369.12690 (19112724)
70.0	477.10114 (19103124)	422.65285 (19103124)	377.90280 (19103124)	340.58970 (19103124)	305.42144 (19103124)
80.0	343.90395 (19103124)	296.60221 (19103124)	263.21007 (19103124)	237.19222 (19103124)	215.28234 (19103124)
90.0	368.60909 (19020324)	314.87603 (19020324)	280.81854 (19020324)	254.10636 (19020324)	226.34716 (19020324)
100.0	439.73217 (19020324)	390.53027 (19020324)	351.97689 (19020324)	316.56577 (19020324)	288.77722 (19020324)

110.0 | 312.20124 (19032224) 277.29963 (19032224) 243.17563 (19032224) 215.67000 (19032224) 196.12498 (19032224)
120.0 | 396.47136 (19090624) 343.80958 (19032624) 311.34244 (19090624) 283.40219 (19090624) 252.85345 (19090624)
130.0 | 531.83057 (19123124) 462.03834 (19123124) 406.00494 (19123124) 363.20433 (19123124) 329.70495 (19123124)
140.0 | 491.31434 (19112424) 434.00412 (19112424) 386.05594 (19112424) 336.46148 (19112424) 303.11686 (19112424)
150.0 | 599.14854c(19121424) 524.80725c(19121424) 467.73899c(19121424) 422.30577c(19121424) 398.63245c(19121424)
160.0 | 417.92590c(19031208) 370.51251c(19031208) 356.15411c(19031208) 327.64604c(19031208) 293.11835c(19031208)
170.0 | 506.21939 (19112808) 402.28484 (19112808) 359.79625 (19112808) 342.06133 (19112808) 326.28811 (19112808)
180.0 | 344.94747 (19112524) 296.12219 (19112524) 252.64922 (19112524) 222.64443 (19112524) 212.70333 (19112524)
190.0 | 403.95343 (19120524) 350.84029 (19120524) 307.36763 (19120524) 278.59633 (19120524) 232.65778 (19120524)
200.0 | 390.70285 (19120524) 340.73344 (19120524) 301.65335 (19120524) 278.11901 (19011608) 265.54470 (19011608)
210.0 | 325.60500 (19012524) 284.35876 (19012524) 251.85986 (19012524) 225.02641 (19012524) 210.65768 (19012524)
220.0 | 258.21679 (19012124) 222.29004 (19012124) 196.25669 (19012124) 175.07791 (19012124) 158.51031 (19012124)
230.0 | 408.76180 (19111024) 356.14054 (19111024) 310.40408 (19111024) 278.38439 (19111024) 245.02670 (19111024)
240.0 | 348.05882 (19120708) 304.48297 (19120708) 274.64306 (19120708) 243.07964 (19120708) 216.49388 (19120708)
250.0 | 374.22605 (19020608) 326.92220 (19120708) 292.49618 (19120708) 261.60747 (19120708) 234.18337 (19120708)
260.0 | 472.83663 (19020608) 415.41500 (19020608) 367.52955 (19020608) 327.04669 (19020608) 294.36801 (19020608)
270.0 | 437.53807 (19010224) 379.50241 (19010224) 340.24663 (19010224) 306.31543 (19010224) 273.35375 (19010224)
280.0 | 421.70328 (19111908) 372.22244 (19111908) 339.91436 (19112008) 311.11950 (19112008) 287.59377 (19112008)
290.0 | 534.05204 (19111908) 473.50358 (19111908) 431.93872 (19111908) 388.13828 (19111908) 349.26242 (19111908)
300.0 | 354.58084 (19012908) 310.23570 (19012908) 272.66986 (19012908) 242.46354 (19012908) 222.30311c(19121008)
310.0 | 344.43747 (19090708) 309.58780 (19090708) 283.09807 (19090708) 254.57948 (19090708) 223.89841 (19090708)
320.0 | 369.82830 (19021708) 326.55498 (19021708) 293.50661 (19021708) 262.52342 (19010308) 238.30138 (19010308)
330.0 | 364.35294 (19120108) 322.78413 (19120108) 286.38257 (19120108) 258.78852 (19120108) 235.43512 (19120108)
340.0 | 333.23100 (19120108) 295.86964 (19120108) 261.61850 (19120108) 234.25839 (19120108) 209.63371 (19120108)
350.0 | 220.64669 (19021808) 196.58900 (19042308) 175.18037 (19042308) 157.81041 (19021808) 143.48800 (19042308)
360.0 | 479.97363c(19121024) 417.27813c(19121024) 370.34477c(19121024) 335.00557c(19121024) 299.47532c(19121024)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	317.50685 (19102124)	292.16297 (19102124)	269.42596 (19102124)	248.76473 (19102124)	229.03954 (19102124)
20.0	269.31400 (19020308)	239.92399 (19020308)	221.93594 (19020308)	208.54255 (19020308)	195.56786 (19020308)
30.0	204.93059 (19010324)	188.49336 (19010324)	171.46751 (19010324)	156.26688 (19010324)	144.67986 (19101624)
40.0	263.17841 (19021924)	241.13114 (19021924)	222.58296 (19021924)	206.48446 (19021924)	192.30258 (19021924)
50.0	260.16194 (19112724)	231.60326 (19112724)	210.87129 (19112724)	192.22325 (19112724)	179.08448 (19112724)
60.0	331.16539 (19112724)	304.76225 (19112724)	273.94132 (19112724)	252.84247 (19112724)	237.38776 (19112724)
70.0	278.74196 (19103124)	252.34825 (19103124)	233.66537 (19103124)	215.93896 (19103124)	198.48167 (19103124)
80.0	195.25836 (19103124)	178.24019 (19103124)	163.13509 (19103124)	148.94706 (19103124)	138.60400 (19103124)
90.0	202.84219 (19020324)	182.27439 (19020324)	170.50301 (19020324)	154.21997 (19020324)	144.05136 (19020324)
100.0	265.24035 (19020324)	242.14280 (19020324)	222.20432 (19020324)	203.86285 (19020324)	190.70715 (19020324)
110.0	178.74538 (19032224)	161.60600 (19032224)	147.42797 (19032224)	135.10753 (19032224)	125.35446 (19032224)
120.0	232.77609 (19090624)	215.28004 (19090624)	201.06392 (19090624)	185.89607 (19090624)	173.10262 (19090624)
130.0	303.18953 (19123124)	281.88288 (19123124)	263.16386 (19123124)	248.82756 (19123124)	229.08315 (19123124)
140.0	276.25810 (19112424)	244.01917 (19112424)	225.21210 (19112424)	204.41893 (19112424)	186.65309 (19112424)
150.0	373.08139c(19121424)	327.87647c(19121424)	305.62165c(19121424)	285.12121c(19121424)	266.76863c(19121424)
160.0	255.95810c(19031208)	244.83654c(19031208)	227.56541c(19031208)	213.65277c(19031208)	198.38291c(19031208)
170.0	290.06619 (19112808)	271.63278 (19112808)	254.98050 (19112808)	238.96847 (19112808)	225.41764 (19112808)
180.0	196.52894 (19112524)	177.75050 (19112524)	164.65500 (19112024)	153.30824 (19112024)	144.12051 (19112024)
190.0	211.62978 (19120524)	193.24543 (19120524)	178.50292 (19120524)	169.45431 (19120524)	157.02741 (19120524)
200.0	234.00713 (19011608)	188.82569 (19120524)	174.44070 (19120524)	173.06253 (19011608)	160.42385 (19011608)
210.0	171.96344 (19012524)	158.09281 (19012524)	144.57377 (19012524)	141.40105 (19112924)	132.20539 (19012524)
220.0	155.11227 (19100908)	120.95253 (19120808)	111.23800 (19012124)	103.12544 (19012124)	100.36186 (19012124)
230.0	224.86427 (19111024)	210.24403 (19111024)	192.04270 (19111024)	170.88400 (19111024)	163.44745 (19111024)
240.0	195.71010 (19120708)	177.01266 (19120708)	155.74858 (19120708)	140.39688 (19111024)	135.47909 (19120708)
250.0	211.13406 (19120708)	191.33374 (19120708)	178.57894 (19120708)	159.21615 (19120708)	145.17059 (19120708)
260.0	267.53049 (19020608)	240.91964 (19020608)	218.96782 (19020608)	198.40319 (19020608)	186.11684 (19020608)
270.0	249.02702 (19010224)	225.85094 (19010224)	205.47214 (19010224)	188.23208 (19010224)	174.63204 (19010224)

280.0 | 257.94670 (19112008) 231.56017 (19112008) 213.24248 (19112008) 199.47238 (19112008) 188.87138 (19112008)
290.0 | 321.92901 (19111908) 297.56477 (19111908) 276.32898 (19111908) 254.88080 (19111908) 236.04434 (19111908)
300.0 | 200.70999c(19121008) 184.32918c(19121008) 169.99881c(19121008) 157.40937c(19121008) 144.17029c(19121008)
310.0 | 206.93393 (19090708) 188.55433 (19090708) 175.21055 (19090708) 158.38618 (19090708) 147.37861 (19090708)
320.0 | 216.51319 (19010308) 197.48335 (19010308) 184.56868 (19010308) 167.47262 (19010308) 155.70282 (19010308)
330.0 | 215.40644 (19120108) 195.62699 (19120108) 180.53065 (19120108) 164.68742 (19120108) 152.20378 (19120108)
340.0 | 190.55394 (19120108) 174.12778 (19120108) 158.98861 (19120108) 146.26995 (19120108) 135.01977 (19120108)
350.0 | 134.58458 (19042308) 123.06729 (19042308) 113.77077 (19042308) 105.14384 (19042308) 98.04013 (19042308)
360.0 | 269.60979c(19121024) 248.16108c(19121024) 229.77333c(19121024) 212.87516c(19121024) 196.30607c(19121024)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	1736.92077	(19032624)	TANK	498.87	129.50	1568.56653	(19120424)
TANK	81.43	359.00	11403.93084c	(19121024)	TANK	116.79	44.50	11277.61489	(19112724)
TANK	109.20	67.00	12773.96433	(19112724)	TANK	100.70	93.73	9987.58900	(19020324)
TANK	87.91	103.99	9525.09404c	(19091524)	TANK	99.82	123.38	11700.02799	(19120424)
TANK	138.00	141.00	8760.79566	(19112424)	TANK	106.00	180.00	8723.10724	(19120524)
TANK	115.60	206.00	7941.18585	(19012524)	TANK	54.00	270.00	23232.77928	(19010224)
TANK	97.00	326.00	8315.85942	(19021708)	TANK	133.94	242.10	6341.07005	(19111024)
TANK	101.99	301.65	9392.49150	(19012908)	TANK	236.54	274.95	3629.82206	(19010224)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00

10.0 | 10829.83504 (19102124) 5007.79243 (19102124) 3023.87912c(19121024) 2067.55649c(19121024) 1516.62502c(19121024)
20.0 | 10239.88834 (19010324) 4255.75520 (19102124) 2535.73217 (19102124) 1714.41273 (19102124) 1249.04338 (19102124)
30.0 | 9375.40179 (19021924) 3336.55999 (19120824) 1963.96278 (19120824) 1320.69024 (19120824) 960.47224 (19120824)
40.0 | 11360.09725 (19102724) 4927.66470 (19102724) 2903.71428 (19102724) 1974.69965 (19102724) 1446.02091 (19102724)
50.0 | 11433.76899 (19021924) 4156.56839 (19011224) 2283.54560 (19011224) 1474.47758 (19011224) 1013.46834 (19011224)
60.0 | 12338.55741 (19011224) 5069.24740 (19011224) 2885.38680 (19011224) 1897.58979 (19011224) 1344.99034 (19011224)
70.0 | 10307.23500 (19103124) 4733.29316 (19103124) 2655.41885 (19112724) 1706.24784 (19112724) 1190.30006 (19011224)
80.0 | 8143.95545 (19021124) 3235.69739 (19021124) 1826.33684 (19021124) 1183.49600 (19021124) 832.52743 (19021524)
90.0 | 8428.81231c(19091524) 3610.54218c(19091524) 2097.40708c(19091524) 1395.36163c(19091524) 1009.96590c(19091524)
100.0 | 8441.70299c(19091524) 3526.20438c(19091524) 1963.29169c(19091524) 1267.47450c(19091524) 896.89752c(19091524)
110.0 | 7902.19688c(19091524) 3234.95269c(19091524) 1814.13336c(19091524) 1211.61964 (19022824) 874.73343 (19022824)
120.0 | 9536.37305 (19111924) 3897.17230 (19032624) 2280.93719 (19032224) 1542.88009 (19032224) 1134.59248 (19090624)
130.0 | 12053.13503 (19112424) 5300.33983 (19111924) 3139.40457 (19111924) 2110.21738 (19111924) 1544.82193 (19111924)
140.0 | 11416.04775c(19121424) 5074.22138c(19121424) 3005.23953c(19121424) 1999.52870c(19121424) 1439.13242c(19121424)
150.0 | 10685.87569 (19111616) 4149.87259 (19051424) 2512.19861 (19051424) 1698.11710 (19051424) 1247.49399 (19051424)
160.0 | 9174.14950 (19022808) 4288.22315 (19022808) 2599.29917 (19011624) 1743.00789c(19031208) 1288.53432 (19011624)
170.0 | 9246.01023 (19111724) 4524.03708 (19111724) 2779.95375 (19111724) 1922.21396 (19111724) 1399.28121 (19111724)
180.0 | 8862.87305 (19021316) 3499.72534 (19112524) 2121.23170 (19112524) 1399.51991 (19102024) 1026.13375 (19010624)
190.0 | 8532.49745 (19021324) 3750.87742 (19021324) 2171.01187 (19021324) 1447.33564 (19021324) 1061.03232 (19010624)
200.0 | 9460.99135 (19120524) 4290.08738 (19120524) 2509.10337 (19120524) 1681.95468 (19120524) 1218.33967 (19012524)
210.0 | 8135.40886 (19112924) 3692.06381 (19112924) 2125.30369 (19112924) 1419.56741 (19112924) 1027.36937 (19112924)
220.0 | 7689.22043 (19111024) 3255.20666 (19012124) 1831.34441 (19012124) 1195.74195 (19111024) 860.70829 (19111024)
230.0 | 8037.94442 (19101124) 3447.40464 (19101124) 2005.34814 (19121524) 1359.25772 (19121524) 1001.89078 (19121524)
240.0 | 8186.63454c(19010208) 3714.09542 (19120708) 2202.86346 (19120708) 1489.93472 (19120708) 1105.71304 (19120708)
250.0 | 9553.34832 (19020608) 4187.35786 (19020608) 2450.92914 (19020608) 1644.52295 (19020608) 1206.14522 (19020608)
260.0 | 10541.24495 (19020608) 4675.94226 (19020608) 2782.41530 (19020608) 1881.68575 (19010224) 1372.23689 (19010224)
270.0 | 11252.31645 (19112008) 4310.48692 (19112008) 2346.87899 (19112008) 1502.35130 (19112008) 1044.92322 (19112008)
280.0 | 11041.12079 (19111908) 4524.91848 (19112008) 2610.77237 (19112008) 1732.42405 (19112008) 1274.53745 (19112008)
290.0 | 9329.40902 (19111208) 3859.11915 (19111208) 2245.71344 (19111208) 1497.38281 (19111208) 1093.54768 (19111208)
300.0 | 9596.40539 (19012908) 3879.17522 (19090808) 2205.81061 (19090808) 1455.39146 (19090808) 1056.36673 (19090808)
310.0 | 8124.76084 (19021608) 3501.77108 (19021708) 2135.54440 (19021708) 1453.51757 (19021708) 1070.67189 (19021708)

320.0 | 7410.12247 (19042408) 3230.08888 (19122908) 1966.36660 (19122908) 1368.05676 (19010308) 1027.79897 (19010308)
330.0 | 6998.32315 (19040716) 3280.64331 (19120108) 2018.19314 (19120108) 1415.07150 (19120108) 1061.52187 (19120108)
340.0 | 7340.90694 (19120108) 3080.06583 (19081524) 1670.62811 (19081524) 1074.58028 (19081524) 778.36088 (19010408)
350.0 | 5804.95152 (19081516) 2284.58859 (19102624) 1366.10464 (19102624) 927.22652 (19102624) 680.33474 (19012924)
360.0 | 8187.98334 (19121324) 3918.81424 (19121324) 2482.49943 (19121324) 1744.01418 (19121324) 1321.56311 (19121324)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	1173.38004c(19121024)	948.28326c(19121024)	782.66991c(19121024)	648.19681c(19121024)	549.65078c(19121024)
20.0	957.93789 (19102124)	767.65499 (19102124)	631.50512 (19102124)	517.58239 (19102124)	442.39151 (19102124)
30.0	744.52701 (19101624)	611.86728 (19101624)	513.78186 (19101624)	437.38800 (19101624)	380.21962 (19101624)
40.0	1128.35535 (19102724)	917.94698 (19102724)	758.65406 (19102724)	635.59306 (19102724)	535.39714 (19102724)
50.0	767.15231c(19031524)	635.35146c(19031524)	520.21070c(19031524)	433.99942c(19031524)	365.54556c(19031524)
60.0	1014.58696 (19011224)	791.76816 (19011224)	636.84334 (19011224)	526.65161 (19011224)	455.42261 (19011224)
70.0	916.42972 (19011224)	691.56896 (19112724)	559.97656 (19011224)	520.22529 (19011224)	441.73001 (19011224)
80.0	632.42705 (19021524)	496.55904 (19021524)	401.84976c(19091524)	330.76895c(19091524)	280.13359c(19091524)
90.0	766.55655c(19091524)	601.11455c(19091524)	495.23262c(19091524)	410.80524c(19091524)	358.31033c(19091524)
100.0	660.29117c(19091524)	516.10938c(19091524)	444.34644 (19041124)	376.42639 (19041124)	326.29292 (19041124)
110.0	671.34945 (19022824)	524.13453 (19022824)	427.37768 (19022824)	351.78262 (19022824)	304.28277 (19022824)
120.0	878.25099 (19090624)	688.67272 (19090624)	596.09307 (19090624)	517.26168 (19090624)	449.68431 (19090624)
130.0	1183.10936 (19111924)	920.09893 (19111924)	776.12594 (19111924)	696.05595 (19123124)	606.63462 (19123124)
140.0	1080.55928c(19121424)	848.65198c(19121424)	682.48963c(19121424)	560.21629c(19121424)	488.78168 (19040224)
150.0	955.19418 (19051424)	753.14606 (19051424)	613.58432 (19051424)	500.60745 (19051424)	425.30299 (19101724)
160.0	1001.69119 (19011624)	797.78413 (19011624)	654.13607 (19011624)	544.20082 (19011624)	466.82966 (19011624)
170.0	1078.17377 (19111724)	869.00001 (19111724)	719.26207 (19111724)	589.70005 (19111724)	514.08336 (19111724)

180.0 | 795.00577 (19010624) 644.39977 (19010624) 524.60886 (19010624) 436.67402 (19010624) 369.91316 (19112024)
190.0 | 820.62409 (19010624) 661.75792 (19010624) 549.49974 (19010624) 466.82681 (19010624) 398.25106 (19010624)
200.0 | 938.16890 (19012524) 737.62363 (19012524) 604.41934 (19011608) 510.37236 (19011608) 437.41204 (19011608)
210.0 | 790.46486 (19112924) 632.41598 (19112924) 514.06987 (19112924) 430.57226 (19112924) 363.71258 (19112924)
220.0 | 646.21594 (19111024) 491.54678 (19100908) 417.07584 (19100908) 343.54739 (19120808) 290.57399 (19120808)
230.0 | 783.30582 (19121524) 620.20959 (19121524) 507.02205 (19121524) 426.18480 (19121524) 368.23363 (19121524)
240.0 | 859.26520 (19120708) 684.86343 (19120708) 565.79311 (19120708) 470.89567 (19120708) 398.94548 (19120708)
250.0 | 926.56105 (19020608) 732.34470 (19020608) 605.61112c(19010208) 508.47371 (19120708) 429.71418 (19120708)
260.0 | 1054.12470 (19010224) 843.64848 (19010224) 694.63189 (19010224) 582.32607 (19010224) 488.54032 (19010224)
270.0 | 761.45430 (19112008) 594.63291 (19112008) 484.54837 (19112008) 402.91834 (19081924) 339.46114 (19081924)
280.0 | 989.98822 (19112008) 799.40102 (19112008) 654.75306 (19112008) 544.90145 (19112008) 467.72901 (19112008)
290.0 | 847.80904 (19022208) 688.06386 (19022208) 573.77797 (19022208) 488.50295 (19022208) 423.58464 (19022208)
300.0 | 796.22633 (19090808) 637.91093 (19090808) 528.66392c(19121008) 447.18900c(19121008) 386.76049c(19121008)
310.0 | 818.49073 (19021708) 659.94892 (19021708) 542.75809 (19021608) 458.54403 (19090708) 390.86105 (19090708)
320.0 | 809.25936 (19010308) 661.53830 (19010308) 553.96911 (19010308) 471.07032 (19010308) 405.80688 (19010308)
330.0 | 826.66283 (19122908) 671.33851 (19122908) 551.44633 (19122908) 463.19539 (19122908) 403.32158 (19122908)
340.0 | 605.92399 (19010408) 488.15504 (19010408) 410.37652 (19010408) 351.03107 (19010408) 304.71764 (19010408)
350.0 | 523.03983 (19012924) 411.99315 (19102624) 340.75872 (19021808) 291.22805 (19021808) 252.01454 (19021808)
360.0 | 1048.94343 (19121324) 847.33834 (19121324) 699.73153 (19121324) 590.82506 (19121324) 509.27083 (19121324)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION | DISTANCE (METERS)
(DEGREES) | 1100.00 1200.00 1300.00 1400.00 1500.00

10.0 | 475.90513c(19121024) 419.26566c(19121024) 370.35221c(19121024) 331.31821c(19121024) 300.31793c(19121024)
20.0 | 365.36818 (19102124) 323.87798 (19102124) 284.56524 (19102124) 248.80291 (19102124) 222.24113 (19102124)
30.0 | 333.74462 (19101624) 295.65535 (19101624) 266.44049 (19101624) 240.98364 (19101624) 217.45805 (19101624)

40.0	446.33232 (19021924)	393.93326 (19021924)	351.99581 (19021924)	314.14455 (19102724)	285.07850 (19102724)
50.0	319.22910 (19113024)	277.65262 (19113024)	249.46406 (19113024)	225.03107 (19113024)	202.04062 (19113024)
60.0	391.76135 (19011224)	340.20292 (19011224)	299.81829 (19011224)	265.48488 (19011224)	235.31006 (19011224)
70.0	383.72697 (19011224)	334.49698 (19011224)	294.84348 (19011224)	264.13167 (19011224)	237.46644 (19011224)
80.0	240.09087c(19091524)	212.95943c(19091524)	187.93218c(19091524)	168.70164c(19091524)	151.09735c(19091524)
90.0	305.10361c(19091524)	269.12818c(19091524)	239.00930c(19091524)	208.38481c(19091524)	188.47409c(19091524)
100.0	284.41905 (19041124)	251.69447 (19041124)	231.50686 (19041124)	209.92359 (19041124)	192.16803 (19041124)
110.0	262.33778 (19022824)	231.86688 (19022824)	203.37257 (19022824)	183.27795 (19022824)	164.37695 (19022824)
120.0	394.15634 (19032624)	339.58972 (19090624)	309.86758 (19032624)	281.12090 (19032624)	251.56206 (19032624)
130.0	530.46797 (19120424)	461.62312 (19120424)	405.88531 (19120424)	359.91791 (19120424)	323.08620 (19120424)
140.0	425.47030 (19040224)	375.38411 (19040224)	333.59655 (19040224)	302.08689 (19040224)	275.80716 (19040224)
150.0	390.09843 (19111824)	341.58770 (19101724)	304.81964 (19101724)	275.42473 (19101724)	256.54661 (19111824)
160.0	396.52091 (19011624)	344.42199 (19011624)	324.57004 (19011624)	294.44474 (19011624)	262.12569 (19011624)
170.0	452.14069 (19111724)	380.12833 (19111724)	336.69248 (19111724)	309.24260 (19111724)	281.02132 (19111724)
180.0	329.21620 (19010624)	283.22521 (19112024)	243.28929 (19110524)	216.07781 (19110524)	209.59073 (19112024)
190.0	347.40498 (19010624)	309.65103 (19010624)	268.58890 (19010624)	247.53420 (19010624)	203.47119 (19010624)
200.0	383.31864 (19011608)	335.39694 (19011608)	300.74778 (19011608)	276.54694 (19120524)	256.69695 (19120524)
210.0	313.56804 (19112924)	274.25603 (19112924)	244.52595 (19112924)	218.54624 (19112924)	207.42833 (19112924)
220.0	249.42491 (19120808)	216.41229 (19120808)	190.17004 (19120808)	172.18794 (19120808)	157.15122 (19120808)
230.0	324.22441 (19121524)	285.51334 (19121524)	245.86343 (19121524)	223.35690 (19121524)	194.08237 (19121524)
240.0	342.48047 (19111024)	299.24245 (19111024)	270.29481 (19111024)	241.27744 (19111024)	212.35671 (19111024)
250.0	373.01338 (19120708)	325.41881c(19010208)	286.32915c(19010208)	254.92622 (19020608)	228.56175 (19020608)
260.0	426.29401 (19010224)	377.07496 (19010224)	332.96032 (19010224)	295.04249 (19010224)	263.80274 (19010224)
270.0	297.94218 (19081924)	262.24431 (19081924)	235.67006 (19081924)	212.61421 (19081924)	190.38492 (19081924)
280.0	399.93959 (19112008)	366.82281 (19112008)	328.28224 (19111908)	298.15108 (19111908)	267.79638 (19111908)
290.0	375.48186 (19022208)	331.02257 (19022208)	298.57435 (19110508)	270.48215 (19110508)	246.69769 (19110508)
300.0	345.32956c(19121008)	304.26016c(19121008)	269.77482c(19121008)	239.77348c(19121008)	212.78998 (19012908)
310.0	342.55537 (19021608)	299.81935 (19021608)	267.66675 (19021608)	242.00597 (19021608)	214.51385 (19021608)
320.0	355.76750 (19010308)	321.06900 (19010308)	289.40368 (19010308)	258.32408 (19021708)	235.83543 (19021708)
330.0	351.80364 (19122908)	311.18367 (19122908)	276.92739 (19122908)	245.29268 (19122908)	223.07090 (19122908)
340.0	267.15160 (19010408)	236.40255 (19010408)	210.83176 (19010408)	190.06109 (19010408)	173.87986 (19010408)

350.0 | 219.88308 (19010408) 196.07818 (19021808) 175.16067 (19021808) 157.66610 (19042308) 143.39719 (19021808)
360.0 | 447.21924 (19121324) 394.30115 (19121324) 351.80657 (19121324) 318.32612 (19121324) 289.36924 (19121324)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	268.91600c(19121024)	246.03110c(19121024)	225.59669c(19121024)	208.14583c(19121024)	192.36926c(19121024)
20.0	201.61416 (19102124)	183.25948 (19102124)	166.82358 (19102124)	153.06971 (19102124)	141.76393 (19102124)
30.0	198.00671 (19101624)	182.11223 (19101624)	167.96294 (19101624)	155.15859 (19101624)	143.66510 (19010324)
40.0	260.30118 (19102724)	239.28160 (19102724)	219.66292 (19102724)	198.95356 (19102724)	181.25442 (19102724)
50.0	182.99690 (19113024)	170.02866 (19113024)	156.04547 (19113024)	144.03003 (19113024)	130.59764 (19113024)
60.0	214.17263 (19011224)	192.75296 (19011224)	177.42277 (19011224)	162.46239 (19011224)	146.40357 (19011224)
70.0	219.70485 (19011224)	199.21111 (19011224)	182.97922 (19011224)	167.35420 (19011224)	156.02856 (19011224)
80.0	138.11443c(19091524)	126.50837c(19091524)	114.31589c(19091524)	106.10164c(19091524)	98.37934 (19081724)
90.0	170.84304c(19091524)	157.47787c(19091524)	139.91792c(19091524)	133.17418c(19091524)	121.03776c(19091524)
100.0	176.34082 (19041124)	161.31601 (19041124)	148.35767 (19041124)	136.44112 (19041124)	126.52564 (19041124)
110.0	148.65309 (19022824)	135.49755 (19022824)	124.87696 (19011324)	114.98125 (19011324)	106.94470 (19011324)
120.0	228.88396 (19032624)	209.59121 (19032624)	195.55609 (19032624)	180.90801 (19032624)	168.20114 (19032624)
130.0	298.35108 (19120424)	279.04095 (19120424)	254.95314 (19120424)	239.77233 (19120424)	220.16043 (19120424)
140.0	251.06707 (19040224)	233.18202 (19040224)	215.58061 (19040224)	201.38910 (19040224)	186.35809 (19040224)
150.0	239.97083 (19111824)	209.26703 (19111824)	194.20617 (19101724)	180.66128 (19111824)	170.29824 (19111824)
160.0	232.72787 (19011624)	218.50336 (19011624)	199.40778 (19011624)	186.86701 (19011624)	173.15783 (19011624)
170.0	253.10787 (19111724)	234.34438 (19111724)	217.38936 (19111724)	202.63959 (19111724)	185.21441 (19111724)
180.0	194.16949 (19112024)	176.73441 (19112024)	162.52118 (19112524)	151.35830 (19112524)	141.50758 (19112524)
190.0	186.21432 (19010624)	170.68126 (19010624)	155.23761 (19010624)	153.71738 (19010624)	144.33407 (19010624)
200.0	230.22700 (19120524)	186.84694 (19011608)	172.66573 (19011608)	171.12834 (19120524)	159.63106 (19120524)

210.0	166.85696 (19112924)	152.99170 (19112924)	140.66266 (19112924)	140.84401 (19012524)	130.35172 (19112924)
220.0	148.22826 (19120808)	120.51919 (19012124)	110.97120 (19120808)	101.38709 (19120808)	100.02694 (19120808)
230.0	180.36746 (19121524)	166.22987 (19121524)	151.13385 (19121524)	137.28089 (19121524)	127.95848 (19120808)
240.0	194.12862 (19111024)	176.12706 (19111024)	152.93811 (19111024)	139.59553 (19120708)	134.55372 (19111024)
250.0	208.69302 (19020608)	188.82144 (19020608)	171.91025 (19020608)	156.11450 (19020608)	142.00759 (19020608)
260.0	240.96193 (19010224)	215.73173 (19010224)	195.49393 (19010224)	178.23921 (19010224)	167.27495 (19010224)
270.0	172.80658 (19081924)	157.13143 (19081924)	143.14038 (19081924)	133.47852 (19081924)	124.93744 (19081924)
280.0	242.47474 (19111908)	222.32188 (19111908)	199.97722 (19111908)	180.42375 (19111908)	168.42647 (19111908)
290.0	227.57878 (19110508)	210.36885 (19110508)	195.34626 (19110508)	183.89751 (19110508)	171.04706 (19110508)
300.0	190.71590 (19012908)	174.30993 (19012908)	160.60502 (19012908)	149.53640 (19012908)	135.88710 (19020708)
310.0	196.92232 (19021608)	179.02558 (19021608)	166.12665 (19021608)	151.03520 (19021608)	140.85532 (19021608)
320.0	212.39483 (19021708)	193.32078 (19021708)	179.29891 (19021708)	164.60465 (19021708)	150.20030 (19021708)
330.0	202.58496 (19122908)	186.00461 (19122908)	168.30430 (19122908)	154.60508 (19122908)	144.24000 (19122908)
340.0	158.04882 (19010408)	145.38827 (19010408)	131.18508 (19010408)	121.73222 (19010408)	113.87275 (19010408)
350.0	132.16974 (19021808)	120.96467 (19021808)	111.18231 (19021808)	102.53484 (19021808)	94.94667 (19021808)
360.0	265.38612 (19121324)	241.54292 (19121324)	220.57419 (19121324)	203.63344 (19121324)	188.69963 (19121324)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)
TANK	375.70	118.90	1722.33901	(19032224)	TANK	498.87	129.50	1532.62990	(19111924)
TANK	81.43	359.00	11073.46310	(19081516)	TANK	116.79	44.50	10761.34851	(19021924)
TANK	109.20	67.00	10006.19070	(19011224)	TANK	100.70	93.73	8493.35939c	(19091524)
TANK	87.91	103.99	8579.47836	(19082808)	TANK	99.82	123.38	10942.31564	(19111924)
TANK	138.00	141.00	8295.36918c	(19121424)	TANK	106.00	180.00	8183.95714	(19021316)
TANK	115.60	206.00	7439.94828	(19112924)	TANK	54.00	270.00	23193.48862	(19112008)
TANK	97.00	326.00	7950.68210	(19122908)	TANK	133.94	242.10	6178.58888c	(19010208)
TANK	101.99	301.65	9162.55100	(19111908)	TANK	236.54	274.95	3619.34736	(19112008)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	9626.02183 (19021824)	4102.33501 (19120724)	2450.66325 (19120724)	1667.78841 (19120724)	1231.33264 (19121324)
20.0	10030.52095 (19021824)	4149.70196 (19022124)	2340.07655 (19120724)	1546.37497 (19120724)	1114.66208 (19120724)
30.0	7933.13421 (19022124)	3281.97067 (19102724)	1943.57580 (19102724)	1311.09642 (19102724)	952.24961 (19102724)
40.0	10130.81222 (19112724)	3775.72703 (19010324)	2160.29740 (19010324)	1419.23585 (19010324)	1015.17773 (19010324)
50.0	10759.29454 (19011224)	4096.94988 (19021924)	2259.82746 (19102724)	1455.95294 (19102724)	998.15557c(19031524)
60.0	9375.87082 (19121624)	3775.03654 (19121624)	2118.24609 (19121624)	1384.94704 (19101524)	1006.11195 (19101524)
70.0	10063.14844 (19011224)	4203.82831 (19011224)	2425.90903 (19011224)	1613.64912 (19011224)	1184.59931 (19112724)
80.0	8126.68265 (19050324)	3144.33211 (19021524)	1811.05831 (19021524)	1179.21981 (19021524)	828.98327 (19021124)
90.0	8312.29397 (19080424)	3344.82269 (19080424)	1894.50409 (19080424)	1247.21669 (19080424)	896.82023 (19060224)
100.0	7615.94066 (19042108)	3166.87815 (19042108)	1797.99622 (19042108)	1183.62457 (19042108)	852.90327 (19081124)
110.0	7586.57788 (19120424)	3076.59980 (19090624)	1776.81106 (19022824)	1183.45450c(19091524)	842.26858c(19091524)
120.0	8771.62913 (19010924)	3849.12414 (19010924)	2273.92704 (19010924)	1530.29538 (19090624)	1133.20109 (19032224)
130.0	11964.00134 (19120424)	5037.67675 (19112424)	2912.93429 (19112424)	2001.13379 (19123124)	1490.33265 (19123124)
140.0	10797.13457 (19111924)	4634.62964 (19111824)	2691.93931 (19111824)	1808.59114 (19040224)	1325.73763 (19040224)
150.0	9204.02785 (19111824)	4135.61559 (19111824)	2442.60118 (19111824)	1650.47622 (19111824)	1207.35718 (19111824)
160.0	8889.07107 (19011624)	4227.35356 (19011624)	2560.66081 (19022808)	1731.16722 (19112824)	1258.99075 (19022808)
170.0	8774.33104 (19021316)	4067.04522 (19102024)	2461.17058 (19102024)	1686.64159 (19102024)	1204.19789 (19102024)
180.0	8234.60189 (19012516)	3424.30970 (19010624)	2060.07873 (19102024)	1396.10880 (19010624)	1019.13548 (19102024)
190.0	8218.65335 (19013016)	3415.97795 (19010624)	2085.11517 (19010624)	1427.58725 (19010624)	1049.41496 (19021324)
200.0	8854.64375 (19112924)	3860.56141 (19112924)	2252.16780 (19011608)	1539.65295 (19011608)	1153.94441 (19011608)
210.0	7424.94764 (19010808)	2894.46293 (19010808)	1691.84030 (19032908)	1157.98509 (19032908)	851.31084 (19032908)
220.0	7348.19988 (19110616)	3009.40155 (19101124)	1678.10303 (19101124)	1113.51985 (19120808)	811.13071 (19120808)
230.0	7746.54397 (19012124)	3403.40584 (19121524)	1991.71307 (19101124)	1338.27637 (19101124)	973.78312 (19101124)
240.0	8160.52547 (19120708)	3555.81077 (19121524)	2054.64023 (19121524)	1362.20742 (19121524)	994.02096 (19121524)

250.0 | 8529.99688 (19120708) 3849.25289 (19120708) 2297.04966 (19120708) 1572.12877 (19120708) 1156.68484 (19120708)
260.0 | 9703.81793c(19010208) 4115.82525c(19010208) 2371.55640c(19010208) 1580.49777c(19010208) 1139.38173c(19010208)
270.0 | 8563.59419 (19010108) 3603.17334 (19010108) 2053.58735 (19010108) 1352.98015 (19010108) 960.86153 (19010108)
280.0 | 10514.50317 (19010224) 3876.85418 (19010224) 2116.70675 (19010108) 1423.53287 (19010108) 1022.66675 (19010108)
290.0 | 9077.56265 (19112008) 3771.10655 (19090808) 2190.15235 (19090808) 1466.90103 (19090808) 1080.86332 (19022208)
300.0 | 9555.41506 (19090808) 3784.31011 (19111908) 2054.55433 (19020708) 1397.64636 (19020708) 1025.37653 (19020708)
310.0 | 7943.05907 (19090708) 3452.89341 (19090708) 2058.78116 (19090708) 1399.92463 (19090708) 1027.52597 (19090708)
320.0 | 6972.82019 (19090708) 3131.00652 (19010308) 1945.65896 (19010308) 1358.04446 (19122908) 1001.52951 (19122908)
330.0 | 6965.12887 (19021708) 2741.20181 (19021708) 1514.03963 (19103108) 1041.58268 (19103108) 772.96110 (19103108)
340.0 | 5733.83066 (19122908) 2492.70450c(19022308) 1507.06715 (19010408) 1041.60768 (19010408) 760.90501 (19081524)
350.0 | 5541.05331 (19022724) 2226.78899 (19012924) 1346.69611 (19012924) 921.34930 (19012924) 679.66641 (19102624)
360.0 | 8183.42127 (19081516) 3808.17962 (19041324) 2377.34098 (19041324) 1659.42769 (19041324) 1251.89580 (19041324)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	967.27855 (19121324)	790.08915 (19121324)	649.82531 (19121324)	536.33740 (19121324)	456.84928 (19120724)
20.0	841.29001 (19120724)	669.19185 (19120724)	541.71322 (19120724)	453.80669 (19120724)	386.34835 (19120724)
30.0	736.85433 (19120824)	589.59291 (19120824)	480.93133 (19102724)	406.12727 (19102724)	342.39310 (19120824)
40.0	759.36876 (19010324)	611.17958 (19010324)	497.17589 (19010324)	411.34407 (19010324)	339.59483 (19010324)
50.0	758.54091 (19113024)	608.73897 (19011224)	496.97382 (19113024)	409.08896 (19113024)	354.21225 (19113024)
60.0	778.09058 (19101524)	620.10068 (19101524)	496.08610 (19101524)	415.83899 (19101524)	376.10607 (19101524)
70.0	876.54491 (19112724)	687.59523 (19011224)	559.06229 (19112724)	461.29609 (19112724)	389.93834 (19112724)
80.0	623.29766 (19021124)	486.76632c(19091524)	397.23477 (19021524)	316.10343 (19021524)	262.38329 (19021524)
90.0	683.06670 (19060224)	530.04707 (19060224)	442.98926 (19060224)	374.98619 (19060224)	320.48623 (19060224)
100.0	659.63930 (19081124)	512.65094 (19081124)	440.65789 (19081124)	371.74784 (19081124)	322.22749 (19081124)

110.0 | 630.36537c(19091524) 489.75324c(19091524) 406.39017c(19091524) 343.53370c(19091524) 294.27606 (19011324)
120.0 | 870.25129 (19032224) 682.79030 (19032224) 570.56982 (19032224) 469.18834 (19032224) 408.26275 (19032224)
130.0 | 1164.16156 (19123124) 906.45174 (19123124) 772.13154 (19123124) 682.45338 (19111924) 590.21752 (19111924)
140.0 | 1028.49269 (19040224) 784.10533 (19040224) 630.03046 (19040224) 531.68038 (19040224) 480.74044c(19121424)
150.0 | 936.58869 (19101724) 748.50636 (19101724) 610.88399 (19101724) 498.77065 (19101724) 424.77629 (19051424)
160.0 | 978.24326 (19112824) 782.13740 (19022808) 637.24557 (19022808) 535.49510 (19112824) 452.96504 (19111524)
170.0 | 913.62264 (19102024) 728.85836 (19112408) 608.75715 (19112408) 521.23212 (19112408) 437.72393 (19112408)
180.0 | 788.98368 (19102024) 627.04304 (19102024) 516.26828 (19102024) 433.46533 (19112024) 369.08829 (19010624)
190.0 | 808.11612 (19021324) 648.02050 (19021324) 530.86930 (19021324) 443.58208 (19021324) 375.11445 (19021324)
200.0 | 900.11713 (19011608) 729.33673 (19011608) 601.81981 (19012524) 505.53328 (19012524) 431.83738 (19012524)
210.0 | 662.26851 (19032908) 545.45909 (19032908) 440.29749 (19032908) 372.73581 (19032908) 313.02276 (19032908)
220.0 | 619.19848 (19120808) 468.90478 (19112108) 416.29785 (19120808) 340.25845 (19111024) 284.78204 (19111024)
230.0 | 765.95998 (19021508) 601.93928 (19021508) 495.06857 (19041624) 418.77216 (19041624) 362.46871 (19041624)
240.0 | 778.83506 (19121508) 623.99879 (19121508) 514.67774 (19121508) 433.87304 (19121508) 372.02901 (19121508)
250.0 | 899.08784 (19120708) 731.10850 (19120708) 601.36834 (19120708) 505.97573c(19010208) 425.92946c(19010208)
260.0 | 889.04244 (19011124) 721.32161 (19011124) 597.66912 (19011124) 504.66054 (19011124) 433.41781 (19011124)
270.0 | 733.01385 (19081924) 588.48664 (19081924) 483.48447 (19081924) 399.24283 (19011124) 338.59927 (19011124)
280.0 | 789.12692 (19111208) 639.45556 (19111208) 525.60499 (19111208) 439.29496 (19111208) 380.55924 (19102808)
290.0 | 842.49756 (19111208) 669.72563 (19111208) 555.48491 (19110508) 471.59955 (19110508) 408.73176 (19110508)
300.0 | 790.05636 (19020708) 633.92074 (19020708) 519.91189 (19020708) 438.37915 (19090808) 374.34443 (19020708)
310.0 | 797.17197 (19090708) 649.50066 (19090708) 539.94325 (19090708) 454.83579 (19021708) 388.72845 (19021708)
320.0 | 772.43734 (19122908) 626.87903 (19122908) 514.95570 (19122908) 430.15910 (19122908) 366.73321 (19122908)
330.0 | 604.91396 (19103108) 490.63768 (19103108) 407.94513 (19103108) 343.63707 (19103108) 296.43386 (19103108)
340.0 | 577.45446c(19022308) 464.89423c(19022308) 386.95153c(19022308) 324.89038c(19022308) 280.41555c(19022308)
350.0 | 518.44914 (19102624) 410.82136 (19012924) 333.59854 (19012924) 288.74791 (19042308) 251.09620 (19042308)
360.0 | 986.46841 (19041324) 798.87777 (19041324) 663.16354 (19041324) 565.06094 (19041324) 490.34910 (19041324)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	395.13498 (19121324)	347.28537 (19120724)	309.81753 (19120724)	276.12682 (19120724)	247.82632 (19120724)
20.0	332.47145 (19120724)	294.85095 (19120724)	258.68145 (19120724)	226.60603 (19120724)	204.47123 (19120724)
30.0	295.08439 (19120824)	260.61144 (19120824)	228.90811 (19120824)	207.78632 (19120824)	186.09308 (19120824)
40.0	299.84178 (19010324)	259.03218 (19010324)	224.45936 (19010324)	197.43680c(19031524)	178.03224c(19031524)
50.0	312.75669c(19031524)	274.41632c(19031524)	244.15205c(19031524)	217.29876c(19031524)	188.68034c(19031524)
60.0	331.34998 (19101524)	289.75735 (19101524)	261.51215 (19101524)	237.21210 (19101524)	215.81800 (19101524)
70.0	334.54264 (19112724)	289.81379 (19112724)	254.83212 (19112724)	227.42312 (19112724)	203.84041 (19112724)
80.0	227.98549 (19081724)	202.28418 (19081724)	179.90540 (19081724)	159.62251 (19081724)	144.24399 (19081724)
90.0	279.24297 (19042108)	247.83493 (19042108)	219.64573 (19060224)	199.10057 (19042108)	177.69728 (19042108)
100.0	280.29972 (19081124)	247.55439 (19081124)	225.67170 (19081124)	203.54912 (19081124)	184.84310 (19081124)
110.0	257.37515 (19011324)	224.70656 (19011324)	202.90522 (19011324)	182.38691 (19011324)	163.61823 (19011324)
120.0	343.11626 (19032224)	307.89025 (19032224)	267.39083 (19032224)	242.18731 (19032224)	215.22030 (19032224)
130.0	510.11692 (19111924)	444.57865 (19111924)	390.46865 (19111924)	346.29082 (19111924)	311.09504 (19111924)
140.0	412.66997c(19121424)	356.44130c(19121424)	314.36553c(19121424)	274.99567c(19121424)	247.95647 (19102224)
150.0	389.57626 (19101724)	340.69622 (19051424)	302.78949 (19111824)	272.78890 (19111824)	252.41493 (19101724)
160.0	386.93845 (19112824)	334.34997 (19112824)	317.34792 (19111524)	288.62758 (19111524)	259.57281 (19111524)
170.0	392.48081 (19112408)	322.49653 (19112408)	287.91858 (19112408)	271.39980 (19112408)	253.82011 (19112408)
180.0	329.11836 (19112024)	281.34422 (19010624)	240.90257 (19010624)	216.02039 (19112024)	202.22469 (19010624)
190.0	329.37081 (19011508)	292.87917 (19011508)	254.73994 (19011508)	234.11672 (19011508)	190.75782 (19011508)
200.0	377.78711 (19012524)	329.51405 (19012524)	284.34424 (19012524)	260.77787 (19012524)	227.42844 (19012524)
210.0	273.68574 (19032908)	239.92478 (19032908)	216.07970 (19032908)	193.05402 (19032908)	187.81833 (19032908)
220.0	245.30110 (19111024)	214.05781 (19111024)	186.21634 (19111024)	170.68132 (19111108)	155.18898 (19112108)
230.0	318.72550 (19041624)	280.90069 (19041624)	242.11653 (19041624)	220.08505 (19041624)	191.31281 (19041624)
240.0	323.87167 (19121508)	283.41976 (19121508)	255.92260 (19121508)	229.84547 (19121508)	201.73236 (19121508)
250.0	371.66970c(19010208)	324.25698 (19020608)	286.18057 (19020608)	248.34327c(19010208)	221.43265c(19010208)
260.0	378.40950 (19011124)	335.20099 (19011124)	299.15474 (19011124)	268.12332 (19011124)	242.25737 (19011124)
270.0	294.46219 (19011124)	257.02279 (19011124)	224.83461 (19011124)	203.31581 (19011124)	182.30898 (19122808)

280.0 | 327.29522 (19102808) 298.84314 (19102808) 271.28935 (19102808) 248.66145 (19102808) 232.19307 (19102808)
290.0 | 368.10490 (19110508) 327.65545 (19110508) 297.40429 (19022208) 269.20959 (19022208) 245.54975 (19022208)
300.0 | 329.15243 (19020708) 287.50880 (19020708) 254.75038 (19020708) 230.71645 (19020708) 208.24320 (19020708)
310.0 | 336.08089 (19021708) 299.58542 (19021708) 263.99509 (19021708) 237.35594 (19021708) 209.15692 (19021708)
320.0 | 315.90700 (19122908) 282.16400 (19122908) 248.64361 (19122908) 222.23882 (19122908) 198.56165 (19122908)
330.0 | 260.82019 (19103108) 231.98470 (19103108) 208.06462 (19103108) 188.54395 (19103108) 170.39732 (19103108)
340.0 | 244.66047c(19022308) 217.16964c(19022308) 194.41193c(19022308) 174.49009c(19022308) 157.15680c(19022308)
350.0 | 219.59730 (19042308) 191.18544 (19010408) 169.43621 (19010408) 151.16907 (19010408) 137.16545 (19010408)
360.0 | 429.22491 (19041324) 380.61259 (19041324) 340.01488 (19041324) 305.85749 (19041324) 278.29756 (19041324)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	227.48598 (19120724)	208.55277 (19120724)	190.54914 (19120724)	175.17633 (19120724)	159.16316 (19120724)
20.0	184.40778 (19120724)	164.71922 (19120724)	151.69950 (19120724)	140.30531 (19120724)	129.25452 (19120724)
30.0	167.47497 (19120824)	151.81992 (19120124)	139.03522 (19120824)	127.98125 (19120824)	119.26985 (19120824)
40.0	162.64113c(19031524)	149.56125c(19031524)	138.25168c(19031524)	128.29998c(19031524)	119.33144c(19031524)
50.0	170.77785c(19031524)	156.30939c(19031524)	143.73678c(19031524)	132.93929c(19031524)	124.40209c(19031524)
60.0	196.79433 (19101524)	181.19524 (19101524)	165.49077 (19101524)	152.46518 (19101524)	142.41648 (19101524)
70.0	186.53645 (19112724)	167.55790 (19112724)	153.07001 (19021524)	141.07022 (19112724)	131.61774 (19112724)
80.0	131.60632 (19081724)	120.18475 (19081724)	107.52899 (19081724)	104.18620 (19081724)	97.76421c(19091524)
90.0	159.31821 (19042108)	146.98891 (19042108)	131.97570 (19060224)	123.73134 (19042108)	114.09329 (19042108)
100.0	168.93020 (19081124)	154.77921 (19081124)	142.88110 (19081124)	131.11075 (19081124)	122.30708 (19081124)
110.0	148.06295c(19091524)	135.39638 (19011324)	122.68214c(19091524)	112.26760 (19022824)	104.09279 (19022824)
120.0	198.33159 (19032224)	182.47347 (19032224)	163.73046 (19041008)	151.88733 (19041008)	142.03168 (19041008)
130.0	287.09951 (19111924)	267.24210 (19111924)	242.51826 (19111924)	228.25120 (19111924)	209.86108 (19111924)

140.0 | 225.59175 (19102224) 211.61118 (19102224) 192.73399 (19102224) 177.18085 (19102224) 163.24282 (19102224)
150.0 | 231.99045 (19101724) 208.91969 (19101724) 193.97364 (19111824) 176.82655 (19101724) 165.72307 (19101724)
160.0 | 227.15879 (19111524) 213.55268 (19111524) 194.72606 (19111524) 182.09028 (19111524) 168.98148 (19111524)
170.0 | 228.64831 (19112408) 210.92729 (19112408) 196.54357 (19112408) 183.48600 (19112408) 172.28916 (19112408)
180.0 | 184.64089 (19010624) 167.19874 (19010624) 153.18840 (19010624) 141.25059 (19010624) 133.74362 (19010624)
190.0 | 173.01168 (19011508) 158.91482 (19011508) 146.65822 (19011508) 145.79700 (19011508) 136.82286 (19011508)
200.0 | 211.18163 (19012524) 181.39859 (19012524) 167.47322 (19012524) 158.45491 (19012524) 145.02862 (19012524)
210.0 | 146.30961 (19032908) 134.56082 (19032908) 124.35056 (19032908) 126.34674 (19032908) 117.58457 (19032908)
220.0 | 147.57196 (19012124) 117.87341 (19111024) 108.88533 (19111024) 100.55831 (19111024) 98.76853 (19112108)
230.0 | 177.86587 (19041624) 165.47558 (19041624) 150.98266 (19041624) 135.43184 (19041624) 127.74545 (19021508)
240.0 | 184.64552 (19121508) 167.71286 (19121508) 145.92988 (19121508) 131.71035 (19121508) 129.79565 (19121508)
250.0 | 201.75434c(19010208) 182.70210c(19010208) 170.86531c(19010208) 151.28921c(19010208) 139.75488c(19010208)
260.0 | 221.34343 (19011124) 199.86860 (19011124) 182.19731 (19011124) 165.97165 (19011124) 156.00995 (19011124)
270.0 | 166.89130 (19122808) 152.07127 (19122808) 138.88998 (19122808) 127.50789 (19122808) 119.12068 (19122808)
280.0 | 209.30008 (19102808) 188.77104 (19102808) 173.98771 (19102808) 162.54702 (19102808) 153.58835 (19102808)
290.0 | 225.98757 (19022208) 208.66835 (19022208) 192.92077 (19022208) 177.89470 (19022208) 165.32516 (19022208)
300.0 | 187.84261 (19020708) 170.52646 (19020708) 155.03993 (19020708) 144.29566 (19020708) 135.24100 (19012908)
310.0 | 192.73488 (19021708) 175.64293 (19021708) 159.20712 (19021708) 146.94561 (19021708) 134.19961 (19021708)
320.0 | 180.12623 (19122908) 163.93818 (19122908) 154.48337 (19122908) 139.74146 (19122908) 129.95762 (19122908)
330.0 | 154.90628 (19103108) 142.46098 (19103108) 130.01820 (19103108) 118.96505 (19103108) 111.48925 (19103108)
340.0 | 143.65198c(19022308) 129.73272c(19022308) 120.17479c(19022308) 110.02746c(19022308) 100.51274c(19022308)
350.0 | 122.46123 (19010408) 110.13786 (19010408) 101.89054 (19010408) 94.05602 (19010408) 86.22552 (19010408)
360.0 | 255.14959 (19041324) 235.11036 (19041324) 217.68537 (19041324) 201.57628 (19041324) 187.57292 (19041324)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC

(YYMMDDHH)

TANK	:	375.70	118.90	1673.45675 (19090624)	TANK	:	498.87	129.50	1479.35316 (19123124)
TANK	:	81.43	359.00	9478.62202 (19121324)	TANK	:	116.79	44.50	9511.99245 (19102724)
TANK	:	109.20	67.00	9020.78158 (19103124)	TANK	:	100.70	93.73	8105.57084 (19042108)
TANK	:	87.91	103.99	7953.84539 (19070124)	TANK	:	99.82	123.38	9323.17658 (19010924)
TANK	:	138.00	141.00	7454.63012 (19111824)	TANK	:	106.00	180.00	7559.10553 (19012516)
TANK	:	115.60	206.00	6607.74985 (19010808)	TANK	:	54.00	270.00	16999.52987 (19020608)
TANK	:	97.00	326.00	7468.37237 (19040716)	TANK	:	133.94	242.10	6167.69809 (19120708)
TANK	:	101.99	301.65	9145.50464 (19090808)	TANK	:	236.54	274.95	3031.49235 (19010108)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

** CONC OF HCL IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE	RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE
1.	71370.46504	(19112006) AT (	-54.00, -0.00) DP	26.	48876.17453	(19112619) AT (	83.35, -54.92) DP
2.	71358.32533	(19071506) AT (	-54.00, -0.00) DP	27.	48085.79264	(19081921) AT (	-54.00, -0.00) DP
3.	63896.68847	(19010106) AT (	-54.00, -0.00) DP	28.	47201.82428	(19011220) AT (	93.97, 34.20) GP
4.	61543.63529	(19010221) AT (	-54.00, -0.00) DP	29.	46381.19664	(19112808) AT (	17.36, -98.48) GP
5.	60650.00198	(19071906) AT (	-54.00, -0.00) DP	30.	45996.55755	(19011221) AT (	-54.00, -0.00) DP
6.	60575.00443	(19010220) AT (	-54.00, -0.00) DP	31.	45956.25764	(19102806) AT (	-54.00, -0.00) DP
7.	60405.63674	(19112008) AT (	-54.00, -0.00) DP	32.	45833.68315	(19111506) AT (	-54.00, -0.00) DP
8.	58828.21865	(19011306) AT (	-54.00, -0.00) DP	33.	45687.82058	(19111906) AT (	-54.00, -0.00) DP
9.	56616.22205	(19010206) AT (	-54.00, -0.00) DP	34.	45653.01131	(19112721) AT (	100.52, 42.67) DP
10.	56284.36154	(19111808) AT (	-54.00, -0.00) DP	35.	45318.83160	(19113007) AT (	-54.00, -0.00) DP
11.	55307.38165	(19042306) AT (	-1.42, 81.42) DP	36.	45201.63004	(19112707) AT (	-54.00, -0.00) DP
12.	55165.28235	(19010219) AT (	-54.00, -0.00) DP	37.	45008.93532	(19011220) AT (	100.52, 42.67) DP
13.	55153.38177	(19020807) AT (	-54.00, -0.00) DP	38.	44719.06425	(19021108) AT (	-54.00, -0.00) DP
14.	54154.38031	(19120607) AT (	-54.00, -0.00) DP	39.	44631.07373	(19111821) AT (	50.00, -86.60) GP
15.	53771.80716	(19112007) AT (	-54.00, -0.00) DP	40.	44508.15229	(19090806) AT (	-54.00, -0.00) DP
16.	52788.89843	(19020606) AT (	-54.00, -0.00) DP	41.	44399.86169	(19111907) AT (	-54.00, -0.00) DP
17.	52284.27244	(19071706) AT (	-54.00, -0.00) DP	42.	44352.11337	(19082107) AT (	-54.00, -0.00) DP
18.	51838.18265	(19070706) AT (	-54.00, -0.00) DP	43.	44087.36574	(19112721) AT (	86.60, 50.00) GP
19.	50849.06985	(19042206) AT (	-54.00, -0.00) DP	44.	43941.80089	(19111821) AT (	64.28, -76.60) GP
20.	50545.98325	(19021506) AT (	-54.00, -0.00) DP	45.	43837.61371	(19071806) AT (	-54.00, -0.00) DP
21.	50442.07482	(19112721) AT (	93.97, 34.20) GP	46.	43737.40434	(19081920) AT (	-54.00, -0.00) DP
22.	49629.63130	(19120819) AT (	-54.00, -0.00) DP	47.	43367.32179	(19111807) AT (	-54.00, -0.00) DP
23.	49123.53776	(19011220) AT (	86.60, 50.00) GP	48.	43242.01466	(19020507) AT (	-54.00, -0.00) DP
24.	49004.89994	(19112619) AT (	86.60, -50.00) GP	49.	42738.50269	(19020608) AT (	-54.00, -0.00) DP
25.	49002.56920	(19051321) AT (	-54.00, -0.00) DP	50.	42699.34435	(19112619) AT (	76.60, -64.28) GP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE MAXIMUM 50 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL

***

INCLUDING SOURCE(S): TANK ,

** CONC OF HCL IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE
1.	23232.77928	(19010224) AT	(-54.00, -0.00) DP
2.	23193.48862	(19112008) AT	(-54.00, -0.00) DP
3.	18052.88134	(19112724) AT	(86.60, 50.00) GP
4.	17612.06441	(19112724) AT	(76.60, 64.28) GP
5.	16999.52987	(19020608) AT	(-54.00, -0.00) DP
6.	16984.87708	(19122116) AT	(-54.00, -0.00) DP
7.	16892.55873	(19102416) AT	(-54.00, -0.00) DP
8.	16605.28727	(19111808) AT	(-54.00, -0.00) DP
9.	16393.20384	(19072124) AT	(-54.00, -0.00) DP
10.	16102.84663	(19010108) AT	(-54.00, -0.00) DP
11.	15874.39475	(19081924) AT	(-54.00, -0.00) DP
12.	14634.72227c	(19010208) AT	(-54.00, -0.00) DP
13.	14453.55141	(19122816) AT	(-54.00, -0.00) DP
14.	14359.09726	(19051616) AT	(-54.00, -0.00) DP
15.	14143.38000	(19111908) AT	(-54.00, -0.00) DP
16.	13656.80568	(19011124) AT	(-54.00, -0.00) DP
17.	13459.57600	(19042916) AT	(-54.00, -0.00) DP
18.	13442.91562	(19040416) AT	(-54.00, -0.00) DP
19.	13291.67116	(19050816) AT	(-54.00, -0.00) DP
20.	13281.29820	(19021108) AT	(-54.00, -0.00) DP
21.	13178.76623	(19021924) AT	(64.28, 76.60) GP
22.	13057.28419	(19102908) AT	(-54.00, -0.00) DP
23.	12896.05046	(19042208) AT	(-54.00, -0.00) DP
24.	12773.96433	(19112724) AT	(100.52, 42.67) DP
25.	12564.98288	(19111908) AT	(-93.97, 34.20) GP
26.	12479.60809	(19112424) AT	(64.28, -76.60) GP
27.	12456.45501	(19043016) AT	(-54.00, -0.00) DP
28.	12444.41605	(19120608) AT	(-54.00, -0.00) DP
29.	12390.56373	(19020116) AT	(-54.00, -0.00) DP
30.	12338.55741	(19011224) AT	(86.60, 50.00) GP
31.	12321.22923	(19113008) AT	(-54.00, -0.00) DP
32.	12243.07488	(19082108) AT	(-54.00, -0.00) DP
33.	12231.30225	(19102424) AT	(-54.00, -0.00) DP
34.	12196.51781	(19111924) AT	(76.60, -64.28) GP
35.	12184.84510	(19112724) AT	(93.97, 34.20) GP
36.	12111.33807	(19010224) AT	(-100.00, -0.00) GP
37.	12053.13503	(19112424) AT	(76.60, -64.28) GP
38.	11964.00134	(19120424) AT	(76.60, -64.28) GP
39.	11933.87489	(19112808) AT	(34.20, -93.97) GP
40.	11902.16576	(19121516) AT	(-54.00, -0.00) DP
41.	11813.43988	(19121524) AT	(-54.00, -0.00) DP
42.	11774.41877	(19071508) AT	(-54.00, -0.00) DP
43.	11700.02799	(19120424) AT	(83.35, -54.92) DP
44.	11688.47774	(19112808) AT	(17.36, -98.48) GP
45.	11587.39767c	(19121024) AT	(17.36, 98.48) GP
46.	11443.88209	(19021016) AT	(-54.00, -0.00) DP
47.	11433.76899	(19021924) AT	(76.60, 64.28) GP
48.	11416.04775c	(19121424) AT	(64.28, -76.60) GP
49.	11403.93084c	(19121024) AT	(-1.42, 81.42) DP
50.	11360.09725	(19102724) AT	(64.28, 76.60) GP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	1935.12292 AT (-54.00, -0.00, 7.66, 7.66, 0.00) DP	
	2ND HIGHEST VALUE IS	1251.99536 AT (-86.60, -50.00, 7.10, 7.10, 0.00) GP	POL1
	3RD HIGHEST VALUE IS	1227.67476 AT (-76.60, -64.28, 6.80, 6.80, 0.00) GP	POL1
	4TH HIGHEST VALUE IS	1161.28357 AT (-93.97, -34.20, 7.30, 7.30, 0.00) GP	POL1
	5TH HIGHEST VALUE IS	1139.74035 AT (-64.28, -76.60, 6.40, 6.40, 0.00) GP	POL1
	6TH HIGHEST VALUE IS	1031.24947 AT (-50.00, -86.60, 6.40, 6.40, 0.00) GP	POL1
	7TH HIGHEST VALUE IS	989.94142 AT (-98.48, -17.36, 7.50, 7.50, 0.00) GP	POL1
	8TH HIGHEST VALUE IS	919.22115 AT (-34.20, -93.97, 6.40, 6.40, 0.00) GP	POL1
	9TH HIGHEST VALUE IS	918.87579 AT (86.60, 50.00, 7.20, 7.20, 0.00) GP	POL1

10TH HIGHEST VALUE IS 898.57052 AT (76.60, 64.28, 7.20, 7.20, 0.00) GP POL1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07
PAGE 53
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	71370.46504	ON 19112006: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 2ND HIGH VALUE IS	71358.32533	ON 19071506: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 3RD HIGH VALUE IS	63896.68847	ON 19010106: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07
PAGE 54
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	23232.77928	ON 19010224: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 2ND HIGH VALUE IS	23193.48862	ON 19112008: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 3RD HIGH VALUE IS	16999.52987	ON 19020608: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2019 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:12:07

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 3 Warning Message(s)
A Total of 229 Informational Message(s)

A Total of 8760 Hours Were Processed

A Total of 144 Calm Hours Identified

A Total of 85 Missing Hours Identified (0.97 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 356 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 356 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
ME W531 356 MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for SITEDATA

****
*** AERMOD Finishes Successfully ***
****

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**USEgeneric12020withAERMAPProcessedElevs

CO STARTING
CO TITLEONE USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020
CO MODELOPT DFAULT CONC ELEV
**CO MODELOPT CONC ELEVATED
CO AVERTIME 1 8 PERIOD
CO POLLUTID HCL
CO RUNORNOT RUN
**CO URBANOPT UrbPop (UrbName) (UrbRoughness)
CO URBANOPT 397809
CO FINISHED

SO STARTING
SO LOCATION TANK  AREA  0.0 0.0 0.0
SO URBANSRC ALL
**SO EMISFACT SrcID or SrcRange Qflag Qfact(i), i=1,n  HOUR-OF-Day Specific factor
** HOURLY SPECIFIC EMISSIONS ADJUSTMENT: 1-5 0  6-21 1.0  22 -24 0
SO EMISFACT TANK HROFDY 5*0.0 16*1.0 3*0.0
SO SRCPARAM TANK 1.0 6.096 6.096
SO SRCGROUP ALL
SO FINISHED

RE STARTING

** AERMAP - VERSION 18081                                    12/09/22
**                                                  14:52:07
**  Using USGS_ned_1_N28W083_GRIDFLOAT.TIF
**  With NAD27 Anchor Point
** A total of       1  NED files were used
** A total of     736  receptors were processed
** DOMAINXY  361366.0 3090645.0 17 369209.0 3097023.0 17
** ANCHORXY  0.0      0.0     364725.57  3093695.53  17  0
** Terrain heights were extracted by default

RE ELEVUNIT METERS
  GRIDPOLR POL1 STA
        POL1 ORIG   0.0   0.0
        POL1 DIST   100.   200. 300. 400. 500. 600. 700. 800. 900. 1000. 1100. 1200. 1300. 1400. 1500. 1600. 1700. 1800.
1900. 2000.
        POL1 GDIR   36     10.    10.
  GRIDPOLR POL1     ELEV    1      8.3      9.2      9.0      8.7      8.8      8.1
  GRIDPOLR POL1     ELEV    1      6.9      6.5      8.2      9.2      9.4      9.8
  GRIDPOLR POL1     ELEV    1      9.4      9.8     10.0     10.1      9.8      9.6
  GRIDPOLR POL1     ELEV    1      8.5      7.3
  GRIDPOLR POL1     ELEV    2      8.2      8.7      8.6      8.6      8.4      8.4
  GRIDPOLR POL1     ELEV    2      7.3      6.5      7.1      8.2      9.4      9.6
  GRIDPOLR POL1     ELEV    2      9.1      8.9      8.6      7.9      6.4      6.4
  GRIDPOLR POL1     ELEV    2      6.9      7.3
  GRIDPOLR POL1     ELEV    3      7.8      8.4      8.5      8.5      8.8      8.1
  GRIDPOLR POL1     ELEV    3      7.6      7.3      6.3      6.5      6.3      6.0
  GRIDPOLR POL1     ELEV    3      6.7      6.9      6.1      5.7      5.7      5.5
  GRIDPOLR POL1     ELEV    3      5.1      5.1
  GRIDPOLR POL1     ELEV    4      7.4      7.8      8.1      8.3      8.4      8.6
  GRIDPOLR POL1     ELEV    4      6.4      5.8      5.1      5.4      2.0      2.0
  GRIDPOLR POL1     ELEV    4      2.0      2.0      2.0      2.0      2.0      2.0
  GRIDPOLR POL1     ELEV    4      2.0      2.0
  GRIDPOLR POL1     ELEV    5      7.2      7.6      7.4      6.8      7.8      7.6
  GRIDPOLR POL1     ELEV    5      4.6      3.4      2.0      2.0      5.6      6.2
  GRIDPOLR POL1     ELEV    5      6.3      7.4      8.0      7.1      7.7      7.1
  GRIDPOLR POL1     ELEV    5      6.7      7.3
  GRIDPOLR POL1     ELEV    6      7.2      7.4      6.8      6.0      6.8      4.7
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GRIDPOLR	POL1	ELEV	6	3.8	2.0	2.0	6.2	7.0	5.7
GRIDPOLR	POL1	ELEV	6	7.0	7.6	8.5	8.6	9.4	7.7
GRIDPOLR	POL1	ELEV	6	7.4	7.9				
GRIDPOLR	POL1	ELEV	7	7.1	7.0	6.4	5.9	7.1	10.0
GRIDPOLR	POL1	ELEV	7	2.6	2.0	10.0	7.7	7.8	7.4
GRIDPOLR	POL1	ELEV	7	7.1	7.0	6.9	9.0	7.1	7.3
GRIDPOLR	POL1	ELEV	7	7.0	8.1				
GRIDPOLR	POL1	ELEV	8	6.8	6.9	5.8	5.4	5.1	3.2
GRIDPOLR	POL1	ELEV	8	2.0	2.0	7.3	8.4	10.1	10.1
GRIDPOLR	POL1	ELEV	8	9.4	8.2	7.8	7.6	7.2	5.7
GRIDPOLR	POL1	ELEV	8	7.6	8.2				
GRIDPOLR	POL1	ELEV	9	6.6	6.4	5.8	4.8	4.6	4.2
GRIDPOLR	POL1	ELEV	9	2.0	4.8	5.6	6.7	7.7	7.6
GRIDPOLR	POL1	ELEV	9	8.1	8.5	8.0	7.4	7.5	5.2
GRIDPOLR	POL1	ELEV	9	6.7	7.0				
GRIDPOLR	POL1	ELEV	10	6.6	6.1	5.8	4.9	3.5	4.0
GRIDPOLR	POL1	ELEV	10	2.0	5.1	4.9	5.6	5.3	5.3
GRIDPOLR	POL1	ELEV	10	7.6	7.8	8.3	8.6	8.3	8.5
GRIDPOLR	POL1	ELEV	10	7.3	7.9				
GRIDPOLR	POL1	ELEV	11	6.5	6.2	5.7	4.0	4.0	4.0
GRIDPOLR	POL1	ELEV	11	2.0	6.3	8.7	8.1	5.1	5.4
GRIDPOLR	POL1	ELEV	11	6.4	6.4	7.3	8.6	8.0	7.7
GRIDPOLR	POL1	ELEV	11	7.0	6.8				
GRIDPOLR	POL1	ELEV	12	6.7	6.0	5.2	4.1	4.2	3.5
GRIDPOLR	POL1	ELEV	12	2.0	4.5	10.1	8.2	9.3	4.8
GRIDPOLR	POL1	ELEV	12	6.8	7.5	5.8	6.3	6.7	7.6
GRIDPOLR	POL1	ELEV	12	7.3	7.3				
GRIDPOLR	POL1	ELEV	13	6.6	6.4	5.3	4.3	4.3	4.0
GRIDPOLR	POL1	ELEV	13	2.0	3.1	7.7	8.0	7.5	5.7
GRIDPOLR	POL1	ELEV	13	4.4	3.8	3.7	4.2	5.1	5.7
GRIDPOLR	POL1	ELEV	13	7.0	6.2				
GRIDPOLR	POL1	ELEV	14	6.5	6.3	5.4	4.7	3.9	4.2
GRIDPOLR	POL1	ELEV	14	1.2	0.0	0.0	3.3	3.3	3.4
GRIDPOLR	POL1	ELEV	14	3.2	3.5	4.2	4.2	5.1	5.2
GRIDPOLR	POL1	ELEV	14	5.8	5.4				
GRIDPOLR	POL1	ELEV	15	6.3	5.8	5.0	5.0	4.6	3.6
GRIDPOLR	POL1	ELEV	15	2.9	2.3	0.0	0.0	3.8	3.2
GRIDPOLR	POL1	ELEV	15	3.0	3.0	5.6	7.2	4.1	4.6
GRIDPOLR	POL1	ELEV	15	4.9	5.6				
GRIDPOLR	POL1	ELEV	16	6.2	5.6	4.5	4.8	5.3	5.2
GRIDPOLR	POL1	ELEV	16	5.3	3.8	1.5	2.3	0.0	0.0
GRIDPOLR	POL1	ELEV	16	3.7	5.3	3.8	1.6	3.3	3.6
GRIDPOLR	POL1	ELEV	16	4.4	4.1				
GRIDPOLR	POL1	ELEV	17	6.1	5.0	4.7	3.5	5.0	5.0
GRIDPOLR	POL1	ELEV	17	4.8	4.5	9.4	2.4	3.6	0.0
GRIDPOLR	POL1	ELEV	17	0.0	1.7	3.2	2.3	2.8	3.3
GRIDPOLR	POL1	ELEV	17	3.6	4.1				
GRIDPOLR	POL1	ELEV	18	6.1	5.1	4.7	4.9	4.9	5.1
GRIDPOLR	POL1	ELEV	18	5.0	4.5	4.5	3.3	4.4	2.6
GRIDPOLR	POL1	ELEV	18	0.0	0.0	2.7	3.2	2.7	3.0
GRIDPOLR	POL1	ELEV	18	3.1	3.7				
GRIDPOLR	POL1	ELEV	19	6.3	5.0	4.7	4.8	5.2	5.5
GRIDPOLR	POL1	ELEV	19	5.3	4.8	4.9	4.4	4.7	4.9
GRIDPOLR	POL1	ELEV	19	3.2	4.1	0.2	0.0	0.0	0.0
GRIDPOLR	POL1	ELEV	19	3.4	3.7				
GRIDPOLR	POL1	ELEV	20	6.4	5.0	4.8	4.2	5.0	5.2
GRIDPOLR	POL1	ELEV	20	5.6	5.0	4.4	3.8	3.8	3.4
GRIDPOLR	POL1	ELEV	20	4.1	5.4	12.4	7.3	0.0	0.0
GRIDPOLR	POL1	ELEV	20	2.8	3.0				
GRIDPOLR	POL1	ELEV	21	6.4	4.8	5.3	5.2	4.6	4.9
GRIDPOLR	POL1	ELEV	21	7.3	4.7	4.6	3.2	3.1	2.7
GRIDPOLR	POL1	ELEV	21	2.9	2.6	6.3	0.0	0.0	0.1

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GRIDPOLR POL1    ELEV  21     2.7     3.1
GRIDPOLR POL1    ELEV  22     6.4     5.1     5.6     5.9     5.6     4.9
GRIDPOLR POL1    ELEV  22    16.0    11.8     5.0     4.5     3.4     2.6
GRIDPOLR POL1    ELEV  22     2.3     3.0     3.1     7.9     0.0     0.0
GRIDPOLR POL1    ELEV  22     0.0     1.7
GRIDPOLR POL1    ELEV  23     6.8     6.2     5.8     6.1     5.8     6.6
GRIDPOLR POL1    ELEV  23     5.4     4.9     4.6     4.6     4.7     4.4
GRIDPOLR POL1    ELEV  23     3.0     3.2     2.0     2.4     2.9     2.6
GRIDPOLR POL1    ELEV  23     1.6     2.2
GRIDPOLR POL1    ELEV  24     7.1     6.4     6.4     6.3     6.5     7.4
GRIDPOLR POL1    ELEV  24     6.2     5.9     5.6     5.3     5.2     4.6
GRIDPOLR POL1    ELEV  24     5.1     4.8     3.3     3.3     2.9     1.4
GRIDPOLR POL1    ELEV  24     0.8     2.0
GRIDPOLR POL1    ELEV  25     7.3     7.3     7.1     6.9     8.1     7.5
GRIDPOLR POL1    ELEV  25     7.8     7.7     7.9     6.5     6.2     5.6
GRIDPOLR POL1    ELEV  25     5.5     5.3     4.8     4.7     4.1     4.5
GRIDPOLR POL1    ELEV  25     3.0     1.9
GRIDPOLR POL1    ELEV  26     7.5     7.9     7.7     8.4     8.2     8.4
GRIDPOLR POL1    ELEV  26     8.4     8.3     8.6     8.3     8.1     7.9
GRIDPOLR POL1    ELEV  26     7.6     7.1     6.7     6.6     5.6     4.9
GRIDPOLR POL1    ELEV  26     4.0     4.5
GRIDPOLR POL1    ELEV  27     7.8     8.3     8.4     8.5     8.2     9.1
GRIDPOLR POL1    ELEV  27     8.4     8.6     7.9     6.7     6.9     6.6
GRIDPOLR POL1    ELEV  27     6.8     7.0     7.0     7.1     6.6     6.0
GRIDPOLR POL1    ELEV  27     6.2     6.4
GRIDPOLR POL1    ELEV  28     8.2     8.8     9.3     8.2     8.5     8.3
GRIDPOLR POL1    ELEV  28     8.3     7.7     6.9     6.9     6.0     7.3
GRIDPOLR POL1    ELEV  28     8.6     9.5    11.1    10.0     8.8     8.6
GRIDPOLR POL1    ELEV  28     8.9     9.6
GRIDPOLR POL1    ELEV  29     8.3     9.1     9.0     8.4     8.7     8.0
GRIDPOLR POL1    ELEV  29     7.8     7.5     7.3     7.3     8.5     8.6
GRIDPOLR POL1    ELEV  29     9.5     9.6     9.7    10.1    10.3    10.5
GRIDPOLR POL1    ELEV  29    11.3    11.1
GRIDPOLR POL1    ELEV  30     8.6     8.6     8.9     8.5     8.3     8.1
GRIDPOLR POL1    ELEV  30     7.6     7.4     7.8     8.4     9.7     8.8
GRIDPOLR POL1    ELEV  30     8.6     8.7    10.3     9.0     8.8     8.6
GRIDPOLR POL1    ELEV  30     8.7    10.1
GRIDPOLR POL1    ELEV  31     8.9     9.4     8.7     8.7     8.1     7.7
GRIDPOLR POL1    ELEV  31     8.0     8.2     8.8     8.0     8.3     9.1
GRIDPOLR POL1    ELEV  31    10.7    11.3     8.2     9.6     9.1     9.3
GRIDPOLR POL1    ELEV  31     7.9     7.9
GRIDPOLR POL1    ELEV  32     8.5     8.9     9.0     8.7     8.0     8.1
GRIDPOLR POL1    ELEV  32     8.5     9.2     9.7     8.6     8.4    10.4
GRIDPOLR POL1    ELEV  32    11.0    11.5    11.9    10.2     9.3    11.6
GRIDPOLR POL1    ELEV  32     8.9     8.7
GRIDPOLR POL1    ELEV  33     8.5     8.6     9.0     8.8     8.4     8.2
GRIDPOLR POL1    ELEV  33     8.2     9.9    10.9    11.0    12.7    11.4
GRIDPOLR POL1    ELEV  33    10.9    11.7    11.7    11.5    11.9     9.8
GRIDPOLR POL1    ELEV  33     8.0     9.0
GRIDPOLR POL1    ELEV  34     8.5     8.8     8.7     8.8     7.6     7.8
GRIDPOLR POL1    ELEV  34     7.4     9.4    10.8    10.8    11.3    10.7
GRIDPOLR POL1    ELEV  34    10.4    10.9    12.3    10.6    10.9     8.0
GRIDPOLR POL1    ELEV  34     8.0     8.6
GRIDPOLR POL1    ELEV  35     8.6     9.0     9.0     8.7     7.9     7.5
GRIDPOLR POL1    ELEV  35     7.6     8.5     9.8    10.0     9.8    10.2
GRIDPOLR POL1    ELEV  35     9.9     9.7     9.7    10.9    10.6    10.8
GRIDPOLR POL1    ELEV  35    10.7    11.0
GRIDPOLR POL1    ELEV  36     8.3     9.1     8.7     8.7     8.2     7.2
GRIDPOLR POL1    ELEV  36     7.1     8.4     9.4     9.4     8.2     8.5
GRIDPOLR POL1    ELEV  36     9.2     9.3    10.2    10.5    10.7    10.8
GRIDPOLR POL1    ELEV  36    10.2     9.8
GRIDPOLR POL1    HILL   1     8.3     9.2     9.0     8.7     8.8     8.1
```

GRIDPOLR	POL1	HILL	1	6.9	6.5	8.2	9.2	9.4	9.8
GRIDPOLR	POL1	HILL	1	9.4	9.8	10.0	10.1	9.8	9.6
GRIDPOLR	POL1	HILL	1	8.5	7.3				
GRIDPOLR	POL1	HILL	2	8.2	9.5	8.6	8.6	8.4	8.4
GRIDPOLR	POL1	HILL	2	7.3	6.5	7.1	8.2	9.4	9.6
GRIDPOLR	POL1	HILL	2	9.1	8.9	8.6	7.9	6.4	6.4
GRIDPOLR	POL1	HILL	2	6.9	7.3				
GRIDPOLR	POL1	HILL	3	7.8	8.4	8.5	8.5	8.8	8.1
GRIDPOLR	POL1	HILL	3	7.6	7.3	6.3	6.5	6.3	6.0
GRIDPOLR	POL1	HILL	3	6.7	6.9	6.1	5.7	5.7	5.5
GRIDPOLR	POL1	HILL	3	5.1	5.1				
GRIDPOLR	POL1	HILL	4	7.4	7.8	8.1	8.3	8.4	8.6
GRIDPOLR	POL1	HILL	4	6.4	5.8	5.1	6.2	2.0	2.0
GRIDPOLR	POL1	HILL	4	2.0	2.0	2.0	2.0	2.0	2.0
GRIDPOLR	POL1	HILL	4	2.0	5.1				
GRIDPOLR	POL1	HILL	5	7.2	7.6	7.4	6.8	7.8	7.6
GRIDPOLR	POL1	HILL	5	4.6	3.4	2.0	2.0	5.6	6.2
GRIDPOLR	POL1	HILL	5	6.3	7.4	8.0	7.1	7.7	7.1
GRIDPOLR	POL1	HILL	5	7.9	7.3				
GRIDPOLR	POL1	HILL	6	7.2	7.4	6.8	6.0	6.8	12.5
GRIDPOLR	POL1	HILL	6	7.1	2.0	6.5	6.2	7.0	5.7
GRIDPOLR	POL1	HILL	6	7.0	7.6	8.5	8.6	9.4	7.7
GRIDPOLR	POL1	HILL	6	7.4	7.9				
GRIDPOLR	POL1	HILL	7	7.1	7.0	6.4	5.9	11.6	11.2
GRIDPOLR	POL1	HILL	7	5.0	2.0	10.0	7.7	7.8	7.4
GRIDPOLR	POL1	HILL	7	7.1	7.0	15.1	16.4	7.1	7.3
GRIDPOLR	POL1	HILL	7	7.0	8.1				
GRIDPOLR	POL1	HILL	8	6.8	6.9	5.8	5.4	5.1	4.1
GRIDPOLR	POL1	HILL	8	2.0	9.3	7.3	8.4	10.1	10.1
GRIDPOLR	POL1	HILL	8	9.4	8.2	7.8	7.6	7.2	5.7
GRIDPOLR	POL1	HILL	8	7.6	8.2				
GRIDPOLR	POL1	HILL	9	6.6	6.4	5.8	4.8	5.2	4.2
GRIDPOLR	POL1	HILL	9	2.0	5.9	5.6	6.7	7.7	7.6
GRIDPOLR	POL1	HILL	9	8.1	8.5	8.0	7.4	7.5	5.2
GRIDPOLR	POL1	HILL	9	6.7	7.0				
GRIDPOLR	POL1	HILL	10	6.6	6.1	5.8	4.9	3.5	4.0
GRIDPOLR	POL1	HILL	10	2.0	7.8	7.1	5.6	5.3	5.3
GRIDPOLR	POL1	HILL	10	7.6	7.8	8.3	8.6	8.3	8.5
GRIDPOLR	POL1	HILL	10	7.3	7.9				
GRIDPOLR	POL1	HILL	11	6.5	6.2	5.7	4.0	4.0	4.0
GRIDPOLR	POL1	HILL	11	2.0	9.5	8.7	8.1	5.1	5.4
GRIDPOLR	POL1	HILL	11	6.4	6.4	7.3	8.6	8.0	7.7
GRIDPOLR	POL1	HILL	11	7.0	6.8				
GRIDPOLR	POL1	HILL	12	6.7	6.0	5.2	4.1	4.2	3.5
GRIDPOLR	POL1	HILL	12	2.0	8.8	10.1	14.4	15.9	15.9
GRIDPOLR	POL1	HILL	12	6.8	7.5	5.8	6.3	6.7	7.6
GRIDPOLR	POL1	HILL	12	7.3	7.3				
GRIDPOLR	POL1	HILL	13	6.6	6.4	5.3	4.3	4.3	4.0
GRIDPOLR	POL1	HILL	13	4.0	3.8	7.7	8.0	8.3	13.2
GRIDPOLR	POL1	HILL	13	6.7	3.8	3.7	4.2	5.1	5.7
GRIDPOLR	POL1	HILL	13	7.0	6.2				
GRIDPOLR	POL1	HILL	14	6.5	6.3	5.4	4.7	3.9	4.2
GRIDPOLR	POL1	HILL	14	3.1	0.0	0.0	3.3	3.3	3.4
GRIDPOLR	POL1	HILL	14	3.2	3.5	4.2	4.2	5.1	5.2
GRIDPOLR	POL1	HILL	14	5.8	5.4				
GRIDPOLR	POL1	HILL	15	6.3	5.8	5.0	5.0	4.6	3.6
GRIDPOLR	POL1	HILL	15	2.9	2.3	0.0	0.0	3.8	3.2
GRIDPOLR	POL1	HILL	15	3.0	3.0	9.8	7.2	4.1	4.6
GRIDPOLR	POL1	HILL	15	4.9	5.6				
GRIDPOLR	POL1	HILL	16	6.2	5.6	4.5	4.8	5.3	5.2
GRIDPOLR	POL1	HILL	16	12.0	13.1	13.1	2.9	0.0	0.0
GRIDPOLR	POL1	HILL	16	3.7	5.3	3.8	3.1	3.3	3.6

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GRIDPOLR POL1    HILL  16    4.4    4.1
GRIDPOLR POL1    HILL  17    6.1    5.0    4.7    3.5    5.0    5.0
GRIDPOLR POL1    HILL  17    4.8   13.1    9.4    2.4    3.6    4.1
GRIDPOLR POL1    HILL  17    0.0    1.7    3.2    2.3    2.8    3.3
GRIDPOLR POL1    HILL  17    3.6    4.1
GRIDPOLR POL1    HILL  18    6.1    5.1    4.7    4.9    4.9    5.1
GRIDPOLR POL1    HILL  18    5.0    4.5    4.5    3.3    4.4    2.6
GRIDPOLR POL1    HILL  18    0.0    0.0    2.7    3.2    2.7    3.0
GRIDPOLR POL1    HILL  18    3.1    3.7
GRIDPOLR POL1    HILL  19    6.3    5.0    4.7    4.8    5.2    5.5
GRIDPOLR POL1    HILL  19    5.3    4.8    4.9    4.4    4.7    4.9
GRIDPOLR POL1    HILL  19   12.5   13.3   13.6   13.6    0.0    0.0
GRIDPOLR POL1    HILL  19    3.4    3.7
GRIDPOLR POL1    HILL  20    6.4    5.0    4.8    4.2    5.0    5.2
GRIDPOLR POL1    HILL  20    5.6    5.0    4.4    3.8    3.8    3.4
GRIDPOLR POL1    HILL  20    4.1   14.1   12.4   12.9   12.9    0.0
GRIDPOLR POL1    HILL  20    2.8    3.0
GRIDPOLR POL1    HILL  21    6.4    4.8    5.3    5.2    4.6   16.4
GRIDPOLR POL1    HILL  21   16.9   16.5    4.6    3.2    3.1    2.7
GRIDPOLR POL1    HILL  21    2.9    4.3   10.8   11.0    0.0    2.4
GRIDPOLR POL1    HILL  21    2.7    3.1
GRIDPOLR POL1    HILL  22    6.4    5.1    5.6    5.9    5.6   16.8
GRIDPOLR POL1    HILL  22   16.0   16.7   16.1    4.5    3.4    2.6
GRIDPOLR POL1    HILL  22    2.3    3.0    9.4    9.2    9.1    0.0
GRIDPOLR POL1    HILL  22    0.0    1.7
GRIDPOLR POL1    HILL  23    6.8    6.2    5.8    6.1    5.8    6.6
GRIDPOLR POL1    HILL  23   16.8   16.8   16.4    4.6    4.7    4.4
GRIDPOLR POL1    HILL  23    3.0    3.2    2.0    2.4    2.9    2.6
GRIDPOLR POL1    HILL  23    1.6    9.6
GRIDPOLR POL1    HILL  24    7.1    6.4    6.4    6.3    6.5    7.4
GRIDPOLR POL1    HILL  24    6.2    5.9    5.6    5.3    5.2    4.6
GRIDPOLR POL1    HILL  24    5.1    4.8    3.3    3.3    2.9    1.4
GRIDPOLR POL1    HILL  24    0.8    2.0
GRIDPOLR POL1    HILL  25    7.3    7.3    7.1    6.9    8.1    7.5
GRIDPOLR POL1    HILL  25    7.8    7.7    7.9    7.6    6.2    5.6
GRIDPOLR POL1    HILL  25    5.9    5.3    4.8    4.7    4.1    4.5
GRIDPOLR POL1    HILL  25    3.0    1.9
GRIDPOLR POL1    HILL  26    7.5    7.9    7.7    8.4    8.2    8.4
GRIDPOLR POL1    HILL  26    8.4    8.3    8.6    8.3    8.1    7.9
GRIDPOLR POL1    HILL  26    7.6    7.1    6.7    6.6    5.6    4.9
GRIDPOLR POL1    HILL  26    4.0    4.5
GRIDPOLR POL1    HILL  27    7.8    8.3    8.4    8.5    8.2    9.1
GRIDPOLR POL1    HILL  27    8.4    8.6    7.9    6.7    6.9    6.6
GRIDPOLR POL1    HILL  27    6.8    7.0    7.0    7.1    6.6   12.2
GRIDPOLR POL1    HILL  27   14.2   14.2
GRIDPOLR POL1    HILL  28    8.2    8.8    9.3    9.3    8.5    8.3
GRIDPOLR POL1    HILL  28    8.3    7.7    6.9    6.9    6.0    7.3
GRIDPOLR POL1    HILL  28    8.6    9.5   11.1   10.0    8.8    8.6
GRIDPOLR POL1    HILL  28    8.9    9.6
GRIDPOLR POL1    HILL  29    8.3    9.1    9.0    8.4    8.7    8.0
GRIDPOLR POL1    HILL  29    7.8    7.5    7.3    7.3    8.5    8.6
GRIDPOLR POL1    HILL  29    9.5    9.6    9.7   10.1   10.3   10.5
GRIDPOLR POL1    HILL  29   11.3   11.1
GRIDPOLR POL1    HILL  30    8.6    8.6    8.9    8.5    8.3    8.1
GRIDPOLR POL1    HILL  30    7.6    7.4    7.8    8.4    9.7    8.8
GRIDPOLR POL1    HILL  30    8.6    8.7   10.3    9.0    8.8    8.6
GRIDPOLR POL1    HILL  30    9.5   10.1
GRIDPOLR POL1    HILL  31    8.9    9.4    8.7    8.7    8.1    7.7
GRIDPOLR POL1    HILL  31    8.0    8.2    8.8    8.0    8.3    9.1
GRIDPOLR POL1    HILL  31   14.9   15.4    8.2    9.6    9.1    9.3
GRIDPOLR POL1    HILL  31    7.9    7.9
GRIDPOLR POL1    HILL  32    8.5    8.9    9.0    8.8    8.0    8.1
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  GRIDPOLR POL1     HILL  32      8.5     9.2     9.7     8.6     8.4    10.4
  GRIDPOLR POL1     HILL  32     11.0    11.5    11.9    10.2     9.3    11.6
  GRIDPOLR POL1     HILL  32      8.9     8.7
  GRIDPOLR POL1     HILL  33      8.5     8.6     9.0     8.8     8.4     8.2
  GRIDPOLR POL1     HILL  33      8.2     9.9    10.9    11.0    12.7    11.4
  GRIDPOLR POL1     HILL  33     10.9    11.7    11.7    11.5    11.9     9.8
  GRIDPOLR POL1     HILL  33      8.0     9.0
  GRIDPOLR POL1     HILL  34      8.5     8.8     8.7     8.8     7.6     7.8
  GRIDPOLR POL1     HILL  34      7.4     9.4    10.8    10.8    11.3    10.7
  GRIDPOLR POL1     HILL  34     10.4    10.9    12.3    16.6    10.9     8.0
  GRIDPOLR POL1     HILL  34      8.0     8.6
  GRIDPOLR POL1     HILL  35      8.6     9.0     9.0     8.7     7.9     7.5
  GRIDPOLR POL1     HILL  35      7.6     8.5     9.8    10.0     9.8    10.2
  GRIDPOLR POL1     HILL  35      9.9     9.7     9.7    10.9    10.6    10.8
  GRIDPOLR POL1     HILL  35     10.7    11.0
  GRIDPOLR POL1     HILL  36      8.3     9.1     8.7     8.7     8.2     7.2
  GRIDPOLR POL1     HILL  36      7.1     8.4     9.4     9.4     8.2     8.5
  GRIDPOLR POL1     HILL  36      9.2     9.3    10.2    10.5    10.7    10.8
  GRIDPOLR POL1     HILL  36     10.2    11.9
  GRIDPOLR POL1 END
  DISCPOLR TANK          375.70   118.90    4.13    4.13
  DISCPOLR TANK          498.87   129.50    4.28    4.28
  DISCPOLR TANK           81.43   359.00    8.22    8.22
  DISCPOLR TANK          116.79    44.50    7.45    7.45
  DISCPOLR TANK          109.20    67.00    7.18    7.18
  DISCPOLR TANK          100.70    93.73    6.54    6.54
  DISCPOLR TANK           87.91   103.99    6.86    6.86
  DISCPOLR TANK           99.82   123.38    6.79    6.79
  DISCPOLR TANK          138.00   141.00    5.94    5.94
  DISCPOLR TANK          106.00   180.00    5.90    5.90
  DISCPOLR TANK          115.60   206.00    5.94    5.94
  DISCPOLR TANK           54.00   270.00    7.66    7.66
  DISCPOLR TANK           97.00   326.00    8.52    8.52
  DISCPOLR TANK          133.94   242.10    7.16    7.16
  DISCPOLR TANK          101.99   301.65    8.70    8.70
  DISCPOLR TANK          236.54   274.95    8.35    8.35

RE FINISHED

ME STARTING
  SURFFILE  TPA2020_V19191.sfc
  PROFFILE  TPA2020_V19191.pfl
  SURFDATA  12842  2020
  UAIRDATA 12842  2020
  SITEDATA  12842  2020
  PROFBASE  0.0  METERS
ME FINISHED

OU STARTING
OU RECTABLE  ALLAVE  FIRST-THIRD
OU MAXTABLE  ALLAVE  50
OU SUMMFILE USECOLO1.SUM
OU FINISHED


 *** Message Summary For AERMOD Model Setup ***

 --------- Summary of Total Messages --------

A Total of         0 Fatal Error Message(s)
A Total of         3 Warning Message(s)
A Total of         0 Informational Message(s)
```

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 356 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 356 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
ME W531 356 MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for SITEDATA

****
*** SETUP Finishes Successfully ***
****

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
PAGE 1
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY ***
- -

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 1 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 397809.0 ; Urban Roughness Length = 1.000 m

**Model Uses Regulatory DEFAULT Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.
6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
ADJ_U* - Use ADJ_U* option for SBL in AERMET
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: HCL

**Model Calculates 2 Short Term Average(s) of: 1-HR 8-HR
and Calculates PERIOD Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 736 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)
and: 1 AREA type source(s)

and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 19191

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 0.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: GenericUSE1GramWithElevs2020f.inp
**Output Print File: GenericUSE1GramWithElevs2020f.out

**File for Summary of Results: USECOLO1.SUM
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
PAGE 2
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
TANK	0	0.10000E+01	0.0	0.0	0.0	6.10	6.10	6.10	0.00	0.00	YES	HROFDY

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
PAGE 3
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	TANK ,

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
397809.	TANK	,

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = TANK ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.10000E+01
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.10000E+01	20	.10000E+01	21	.10000E+01	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 0.00 ; Y-ORIG = 0.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

100.0, 200.0, 300.0, 400.0, 500.0, 600.0, 700.0, 800.0, 900.0, 1000.0,
1100.0, 1200.0, 1300.0, 1400.0, 1500.0, 1600.0, 1700.0, 1800.0, 1900.0, 2000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00	600.00	700.00	800.00	900.00
10.00	8.30	9.20	9.00	8.70	8.80	8.10	6.90	6.50	8.20
20.00	8.20	8.70	8.60	8.60	8.40	8.40	7.30	6.50	7.10
30.00	7.80	8.40	8.50	8.50	8.80	8.10	7.60	7.30	6.30
40.00	7.40	7.80	8.10	8.30	8.40	8.60	6.40	5.80	5.10
50.00	7.20	7.60	7.40	6.80	7.80	7.60	4.60	3.40	2.00
60.00	7.20	7.40	6.80	6.00	6.80	4.70	3.80	2.00	2.00
70.00	7.10	7.00	6.40	5.90	7.10	10.00	2.60	2.00	10.00
80.00	6.80	6.90	5.80	5.40	5.10	3.20	2.00	2.00	7.30
90.00	6.60	6.40	5.80	4.80	4.60	4.20	2.00	4.80	5.60
100.00	6.60	6.10	5.80	4.90	3.50	4.00	2.00	5.10	4.90
110.00	6.50	6.20	5.70	4.00	4.00	4.00	2.00	6.30	8.70
120.00	6.70	6.00	5.20	4.10	4.20	3.50	2.00	4.50	10.10
130.00	6.60	6.40	5.30	4.30	4.30	4.00	2.00	3.10	7.70
140.00	6.50	6.30	5.40	4.70	3.90	4.20	1.20	0.00	0.00
150.00	6.30	5.80	5.00	5.00	4.60	3.60	2.90	2.30	0.00
160.00	6.20	5.60	4.50	4.80	5.30	5.20	5.30	3.80	1.50
170.00	6.10	5.00	4.70	3.50	5.00	5.00	4.80	4.50	9.40
180.00	6.10	5.10	4.70	4.90	4.90	5.10	5.00	4.50	4.50
190.00	6.30	5.00	4.70	4.80	5.20	5.50	5.30	4.80	4.90
200.00	6.40	5.00	4.80	4.20	5.00	5.20	5.60	5.00	4.40
210.00	6.40	4.80	5.30	5.20	4.60	4.90	7.30	4.70	4.60
220.00	6.40	5.10	5.60	5.90	5.60	4.90	16.00	11.80	5.00
230.00	6.80	6.20	5.80	6.10	5.80	6.60	5.40	4.90	4.60
240.00	7.10	6.40	6.40	6.30	6.50	7.40	6.20	5.90	5.60
250.00	7.30	7.30	7.10	6.90	8.10	7.50	7.80	7.70	7.90
260.00	7.50	7.90	7.70	8.40	8.20	8.40	8.40	8.30	8.60
270.00	7.80	8.30	8.40	8.50	8.20	9.10	8.40	8.60	7.90
280.00	8.20	8.80	9.30	8.20	8.50	8.30	8.30	7.70	6.90
290.00	8.30	9.10	9.00	8.40	8.70	8.00	7.80	7.50	7.30
300.00	8.60	8.60	8.90	8.50	8.30	8.10	7.60	7.40	7.80
310.00	8.90	9.40	8.70	8.70	8.10	7.70	8.00	8.20	8.80
320.00	8.50	8.90	9.00	8.70	8.00	8.10	8.50	9.20	9.70
330.00	8.50	8.60	9.00	8.80	8.40	8.20	8.20	9.90	10.90
340.00	8.50	8.80	8.70	8.80	7.60	7.80	7.40	9.40	10.80
350.00	8.60	9.00	9.00	8.70	7.90	7.50	7.60	8.50	9.80
360.00	8.30	9.10	8.70	8.70	8.20	7.20	7.10	8.40	9.40

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00

10.00	9.20	9.40	9.80	9.40	9.80	10.00	10.10	9.80	9.60
20.00	8.20	9.40	9.60	9.10	8.90	8.60	7.90	6.40	6.40
30.00	6.50	6.30	6.00	6.70	6.90	6.10	5.70	5.70	5.50
40.00	5.40	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
50.00	2.00	5.60	6.20	6.30	7.40	8.00	7.10	7.70	7.10
60.00	6.20	7.00	5.70	7.00	7.60	8.50	8.60	9.40	7.70
70.00	7.70	7.80	7.40	7.10	7.00	6.90	9.00	7.10	7.30
80.00	8.40	10.10	10.10	9.40	8.20	7.80	7.60	7.20	5.70
90.00	6.70	7.70	7.60	8.10	8.50	8.00	7.40	7.50	5.20
100.00	5.60	5.30	5.30	7.60	7.80	8.30	8.60	8.30	8.50
110.00	8.10	5.10	5.40	6.40	6.40	7.30	8.60	8.00	7.70
120.00	8.20	9.30	4.80	6.80	7.50	5.80	6.30	6.70	7.60
130.00	8.00	7.50	5.70	4.40	3.80	3.70	4.20	5.10	5.70
140.00	3.30	3.30	3.40	3.20	3.50	4.20	4.20	5.10	5.20
150.00	0.00	3.80	3.20	3.00	3.00	5.60	7.20	4.10	4.60
160.00	2.30	0.00	0.00	3.70	5.30	3.80	1.60	3.30	3.60
170.00	2.40	3.60	0.00	0.00	1.70	3.20	2.30	2.80	3.30
180.00	3.30	4.40	2.60	0.00	0.00	2.70	3.20	2.70	3.00
190.00	4.40	4.70	4.90	3.20	4.10	0.20	0.00	0.00	0.00
200.00	3.80	3.80	3.40	4.10	5.40	12.40	7.30	0.00	0.00
210.00	3.20	3.10	2.70	2.90	2.60	6.30	0.00	0.00	0.10
220.00	4.50	3.40	2.60	2.30	3.00	3.10	7.90	0.00	0.00
230.00	4.60	4.70	4.40	3.00	3.20	2.00	2.40	2.90	2.60
240.00	5.30	5.20	4.60	5.10	4.80	3.30	3.30	2.90	1.40
250.00	6.50	6.20	5.60	5.50	5.30	4.80	4.70	4.10	4.50
260.00	8.30	8.10	7.90	7.60	7.10	6.70	6.60	5.60	4.90
270.00	6.70	6.90	6.60	6.80	7.00	7.00	7.10	6.60	6.00
280.00	6.90	6.00	7.30	8.60	9.50	11.10	10.00	8.80	8.60
290.00	7.30	8.50	8.60	9.50	9.60	9.70	10.10	10.30	10.50
300.00	8.40	9.70	8.80	8.60	8.70	10.30	9.00	8.80	8.60
310.00	8.00	8.30	9.10	10.70	11.30	8.20	9.60	9.10	9.30
320.00	8.60	8.40	10.40	11.00	11.50	11.90	10.20	9.30	11.60
330.00	11.00	12.70	11.40	10.90	11.70	11.70	11.50	11.90	9.80
340.00	10.80	11.30	10.70	10.40	10.90	12.30	10.60	10.90	8.00
350.00	10.00	9.80	10.20	9.90	9.70	9.70	10.90	10.60	10.80
360.00	9.40	8.20	8.50	9.20	9.30	10.20	10.50	10.70	10.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	8.50	7.30
20.00	6.90	7.30
30.00	5.10	5.10
40.00	2.00	2.00
50.00	6.70	7.30
60.00	7.40	7.90
70.00	7.00	8.10
80.00	7.60	8.20
90.00	6.70	7.00
100.00	7.30	7.90
110.00	7.00	6.80
120.00	7.30	7.30

130.00	7.00	6.20
140.00	5.80	5.40
150.00	4.90	5.60
160.00	4.40	4.10
170.00	3.60	4.10
180.00	3.10	3.70
190.00	3.40	3.70
200.00	2.80	3.00
210.00	2.70	3.10
220.00	0.00	1.70
230.00	1.60	2.20
240.00	0.80	2.00
250.00	3.00	1.90
260.00	4.00	4.50
270.00	6.20	6.40
280.00	8.90	9.60
290.00	11.30	11.10
300.00	8.70	10.10
310.00	7.90	7.90
320.00	8.90	8.70
330.00	8.00	9.00
340.00	8.00	8.60
350.00	10.70	11.00
360.00	10.20	9.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00	600.00	700.00	800.00	900.00
10.00	8.30	9.20	9.00	8.70	8.80	8.10	6.90	6.50	8.20
20.00	8.20	9.50	8.60	8.60	8.40	8.40	7.30	6.50	7.10
30.00	7.80	8.40	8.50	8.50	8.80	8.10	7.60	7.30	6.30
40.00	7.40	7.80	8.10	8.30	8.40	8.60	6.40	5.80	5.10
50.00	7.20	7.60	7.40	6.80	7.80	7.60	4.60	3.40	2.00
60.00	7.20	7.40	6.80	6.00	6.80	12.50	7.10	2.00	6.50
70.00	7.10	7.00	6.40	5.90	11.60	11.20	5.00	2.00	10.00
80.00	6.80	6.90	5.80	5.40	5.10	4.10	2.00	9.30	7.30
90.00	6.60	6.40	5.80	4.80	5.20	4.20	2.00	5.90	5.60
100.00	6.60	6.10	5.80	4.90	3.50	4.00	2.00	7.80	7.10
110.00	6.50	6.20	5.70	4.00	4.00	4.00	2.00	9.50	8.70
120.00	6.70	6.00	5.20	4.10	4.20	3.50	2.00	8.80	10.10
130.00	6.60	6.40	5.30	4.30	4.30	4.00	4.00	3.80	7.70
140.00	6.50	6.30	5.40	4.70	3.90	4.20	3.10	0.00	0.00
150.00	6.30	5.80	5.00	5.00	4.60	3.60	2.90	2.30	0.00
160.00	6.20	5.60	4.50	4.80	5.30	5.20	12.00	13.10	13.10
170.00	6.10	5.00	4.70	3.50	5.00	5.00	4.80	13.10	9.40
180.00	6.10	5.10	4.70	4.90	4.90	5.10	5.00	4.50	4.50
190.00	6.30	5.00	4.70	4.80	5.20	5.50	5.30	4.80	4.90
200.00	6.40	5.00	4.80	4.20	5.00	5.20	5.60	5.00	4.40
210.00	6.40	4.80	5.30	5.20	4.60	16.40	16.90	16.50	4.60
220.00	6.40	5.10	5.60	5.90	5.60	16.80	16.00	16.70	16.10
230.00	6.80	6.20	5.80	6.10	5.80	6.60	16.80	16.80	16.40
240.00	7.10	6.40	6.40	6.30	6.50	7.40	6.20	5.90	5.60

250.00	7.30	7.30	7.10	6.90	8.10	7.50	7.80	7.70	7.90
260.00	7.50	7.90	7.70	8.40	8.20	8.40	8.40	8.30	8.60
270.00	7.80	8.30	8.40	8.50	8.20	9.10	8.40	8.60	7.90
280.00	8.20	8.80	9.30	9.30	8.50	8.30	8.30	7.70	6.90
290.00	8.30	9.10	9.00	8.40	8.70	8.00	7.80	7.50	7.30
300.00	8.60	8.60	8.90	8.50	8.30	8.10	7.60	7.40	7.80
310.00	8.90	9.40	8.70	8.70	8.10	7.70	8.00	8.20	8.80
320.00	8.50	8.90	9.00	8.80	8.00	8.10	8.50	9.20	9.70
330.00	8.50	8.60	9.00	8.80	8.40	8.20	8.20	9.90	10.90
340.00	8.50	8.80	8.70	8.80	7.60	7.80	7.40	9.40	10.80
350.00	8.60	9.00	9.00	8.70	7.90	7.50	7.60	8.50	9.80
360.00	8.30	9.10	8.70	8.70	8.20	7.20	7.10	8.40	9.40

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:17:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00
10.00	9.20	9.40	9.80	9.40	9.80	10.00	10.10	9.80	9.60
20.00	8.20	9.40	9.60	9.10	8.90	8.60	7.90	6.40	6.40
30.00	6.50	6.30	6.00	6.70	6.90	6.10	5.70	5.70	5.50
40.00	6.20	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
50.00	2.00	5.60	6.20	6.30	7.40	8.00	7.10	7.70	7.10
60.00	6.20	7.00	5.70	7.00	7.60	8.50	8.60	9.40	7.70
70.00	7.70	7.80	7.40	7.10	7.00	15.10	16.40	7.10	7.30
80.00	8.40	10.10	10.10	9.40	8.20	7.80	7.60	7.20	5.70
90.00	6.70	7.70	7.60	8.10	8.50	8.00	7.40	7.50	5.20
100.00	5.60	5.30	5.30	7.60	7.80	8.30	8.60	8.30	8.50
110.00	8.10	5.10	5.40	6.40	6.40	7.30	8.60	8.00	7.70
120.00	14.40	15.90	15.90	6.80	7.50	5.80	6.30	6.70	7.60
130.00	8.00	8.30	13.20	6.70	3.80	3.70	4.20	5.10	5.70
140.00	3.30	3.30	3.40	3.20	3.50	4.20	4.20	5.10	5.20
150.00	0.00	3.80	3.20	3.00	3.00	9.80	7.20	4.10	4.60
160.00	2.90	0.00	0.00	3.70	5.30	3.80	3.10	3.30	3.60
170.00	2.40	3.60	4.10	0.00	1.70	3.20	2.30	2.80	3.30
180.00	3.30	4.40	2.60	0.00	0.00	2.70	3.20	2.70	3.00
190.00	4.40	4.70	4.90	12.50	13.30	13.60	13.60	0.00	0.00
200.00	3.80	3.80	3.40	4.10	14.10	12.40	12.90	12.90	0.00
210.00	3.20	3.10	2.70	2.90	4.30	10.80	11.00	0.00	2.40
220.00	4.50	3.40	2.60	2.30	3.00	9.40	9.20	9.10	0.00
230.00	4.60	4.70	4.40	3.00	3.20	2.00	2.40	2.90	2.60
240.00	5.30	5.20	4.60	5.10	4.80	3.30	3.30	2.90	1.40
250.00	7.60	6.20	5.60	5.90	5.30	4.80	4.70	4.10	4.50
260.00	8.30	8.10	7.90	7.60	7.10	6.70	6.60	5.60	4.90
270.00	6.70	6.90	6.60	6.80	7.00	7.00	7.10	6.60	12.20
280.00	6.90	6.00	7.30	8.60	9.50	11.10	10.00	8.80	8.60
290.00	7.30	8.50	8.60	9.50	9.60	9.70	10.10	10.30	10.50
300.00	8.40	9.70	8.80	8.60	8.70	10.30	9.00	8.80	8.60
310.00	8.00	8.30	9.10	14.90	15.40	8.20	9.60	9.10	9.30
320.00	8.60	8.40	10.40	11.00	11.50	11.90	10.20	9.30	11.60
330.00	11.00	12.70	11.40	10.90	11.70	11.70	11.50	11.90	9.80
340.00	10.80	11.30	10.70	10.40	10.90	12.30	16.60	10.90	8.00
350.00	10.00	9.80	10.20	9.90	9.70	9.70	10.90	10.60	10.80
360.00	9.40	8.20	8.50	9.20	9.30	10.20	10.50	10.70	10.80

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

* HILL HEIGHT SCALES IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	8.50	7.30
20.00	6.90	7.30
30.00	5.10	5.10
40.00	2.00	5.10
50.00	7.90	7.30
60.00	7.40	7.90
70.00	7.00	8.10
80.00	7.60	8.20
90.00	6.70	7.00
100.00	7.30	7.90
110.00	7.00	6.80
120.00	7.30	7.30
130.00	7.00	6.20
140.00	5.80	5.40
150.00	4.90	5.60
160.00	4.40	4.10
170.00	3.60	4.10
180.00	3.10	3.70
190.00	3.40	3.70
200.00	2.80	3.00
210.00	2.70	3.10
220.00	0.00	1.70
230.00	1.60	9.60
240.00	0.80	2.00
250.00	3.00	1.90
260.00	4.00	4.50
270.00	14.20	14.20
280.00	8.90	9.60
290.00	11.30	11.10
300.00	9.50	10.10
310.00	7.90	7.90
320.00	8.90	8.70
330.00	8.00	9.00
340.00	8.00	8.60
350.00	10.70	11.00
360.00	10.20	11.90

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE POLAR RECEPTORS ***
ORIGIN: (DIST, DIR, ZELEV, ZHILL, ZFLAG)
SRCID: (METERS,DEG,METERS,METERS,METERS)

TANK : (375.7, 118.9, 4.1, 4.1, 0.0); TANK : (498.9, 129.5, 4.3, 4.3, 0.0);
TANK : (81.4, 359.0, 8.2, 8.2, 0.0); TANK : (116.8, 44.5, 7.5, 7.5, 0.0);

```
TANK     : (   109.2,    67.0,     7.2,     7.2,     0.0);  TANK     : (   100.7,    93.7,     6.5,     6.5,     0.0);
TANK     : (    87.9,   104.0,     6.9,     6.9,     0.0);  TANK     : (    99.8,   123.4,     6.8,     6.8,     0.0);
TANK     : (   138.0,   141.0,     5.9,     5.9,     0.0);  TANK     : (   106.0,   180.0,     5.9,     5.9,     0.0);
TANK     : (   115.6,   206.0,     5.9,     5.9,     0.0);  TANK     : (    54.0,   270.0,     7.7,     7.7,     0.0);
TANK     : (    97.0,   326.0,     8.5,     8.5,     0.0);  TANK     : (   133.9,   242.1,     7.2,     7.2,     0.0);
TANK     : (   102.0,   301.6,     8.7,     8.7,     0.0);  TANK     : (   236.5,   274.9,     8.4,     8.4,     0.0);
```

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
PAGE 14
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
PAGE 15
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

```
 Surface file:   TPA2020_V19191.sfc                                  Met Version:  19191
 Profile file:   TPA2020_V19191.pfl
 Surface format: FREE
 Profile format: FREE
 Surface station no.:   12842            Upper air station no.:   12842
          Name: UNKNOWN                            Name: UNKNOWN
          Year:   2020                             Year:   2020
```

First 24 hours of scalar data

```
YR MO DY JDY HR    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA    HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
20 01 01   1 01   -7.5  0.110 -9.000 -9.000 -999.   87.     16.0  0.05   0.49   1.00    1.54  316.    7.9  287.5    2.0
20 01 01   1 02   -3.7  0.076 -9.000 -9.000 -999.   51.     10.8  0.04   0.49   1.00    1.14  332.    7.9  287.5    2.0
20 01 01   1 03   -5.3  0.090 -9.000 -9.000 -999.   65.     12.7  0.04   0.49   1.00    1.36  353.    7.9  287.5    2.0
20 01 01   1 04   -4.6  0.085 -9.000 -9.000 -999.   59.     12.0  0.04   0.49   1.00    1.28  356.    7.9  290.4    2.0
20 01 01   1 05   -5.5  0.092 -9.000 -9.000 -999.   67.     13.1  0.04   0.49   1.00    1.39  351.    7.9  290.9    2.0
20 01 01   1 06  -15.3  0.164 -9.000 -9.000 -999.  159.     29.5  0.10   0.49   1.00    1.90    2.    7.9  289.9    2.0
20 01 01   1 07  -21.6  0.218 -9.000 -9.000 -999.  244.     52.2  0.10   0.49   1.00    2.49    7.    7.9  287.0    2.0
20 01 01   1 08  -22.5  0.229 -9.000 -9.000 -999.  263.     57.6  0.10   0.49   0.70    2.61   10.    7.9  287.5    2.0
20 01 01   1 09   14.2  0.294  0.281  0.017   57.  382.   -162.7  0.10   0.49   0.33    3.09   14.    7.9  288.1    2.0
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20 01 01   1 10   51.7  0.388  0.710  0.010  251.  580.   -102.8  0.10   0.49   0.21    4.01   26.    7.9  289.2    2.0
20 01 01   1 11   84.1  0.390  0.970  0.010  395.  584.    -64.0  0.23   0.49   0.18    3.14   31.    7.9  290.9    2.0
20 01 01   1 12  104.3  0.275  1.077  0.015  436.  354.    -18.1  0.23   0.49   0.17    1.96   51.    7.9  293.8    2.0
20 01 01   1 13  111.1  0.227  1.132  0.014  474.  261.     -9.6  0.04   0.49   0.16    2.49  356.    7.9  293.1    2.0
20 01 01   1 14  102.2 -9.000 -9.000 -9.000  506. -999. -99999.0  0.10   0.49   0.17    0.00    0.    7.9  295.4    2.0
20 01 01   1 15   85.4  0.283  1.085  0.011  543.  361.    -24.1  0.04   0.49   0.18    3.36  232.    7.9  295.4    2.0
20 01 01   1 16   58.6  0.242  0.973  0.010  570.  287.    -22.1  0.04   0.49   0.21    2.86  234.    7.9  294.9    2.0
20 01 01   1 17   19.7 -9.000 -9.000 -9.000  578. -999. -99999.0  0.10   0.49   0.31    0.00    0.    7.9  294.9    2.0
20 01 01   1 18  -27.5  0.311 -9.000 -9.000 -999.  417.    106.6  0.04   0.49   0.63    4.36  337.    7.9  294.9    2.0
20 01 01   1 19  -19.4  0.200 -9.000 -9.000 -999.  221.     44.1  0.04   0.49   1.00    2.86  334.    7.9  294.2    2.0
20 01 01   1 20  -33.4  0.344 -9.000 -9.000 -999.  485.    130.3  0.10   0.49   1.00    3.86    7.    7.9  293.8    2.0
20 01 01   1 21  -31.4  0.322 -9.000 -9.000 -999.  439.    114.2  0.23   0.49   1.00    2.86   50.    7.9  292.0    2.0
20 01 01   1 22  -37.3  0.381 -9.000 -9.000 -999.  564.    159.7  0.23   0.49   1.00    3.36   42.    7.9  290.9    2.0
20 01 01   1 23  -37.3  0.381 -9.000 -9.000 -999.  565.    159.8  0.23   0.49   1.00    3.36   50.    7.9  291.4    2.0
20 01 01   1 24  -53.0  0.542 -9.000 -9.000 -999.  958.    323.4  0.15   0.49   1.00    5.36   90.    7.9  291.4    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 20 01 01 01    7.9 1  316.    1.54   287.6   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  19191 ***   *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020            ***
12/09/22
 *** AERMET - VERSION  19191 ***   ***                                                    ***       15:17:51
                                                                                 PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                        *** THE PERIOD (  8784 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL
***
                          INCLUDING SOURCE(S):     TANK       ,

                          *** NETWORK ID: POL1     ;  NETWORK TYPE: GRIDPOLR ***

                            ** CONC OF HCL      IN MICROGRAMS/M**3                    **

  DIRECTION |                                    DISTANCE (METERS)
  (DEGREES) |      100.00      200.00      300.00      400.00      500.00      600.00      700.00      800.00      900.00
 ---------------------------------------------------------------------------------------------

      10.00 |   689.04966   225.11693   113.61341    69.44407    47.03848    34.42017    26.49369    20.97378    16.85511
      20.00 |   625.81726   194.86962    94.20881    55.60632    36.96998    26.36812    20.09479    15.81047    12.58875
      30.00 |   567.59036   168.11565    78.77219    45.70411    29.78190    21.30944    16.03618    12.46827    10.08109
      40.00 |   603.59964   176.02343    81.05567    46.50685    30.24647    21.25219    16.25282    12.63928    10.12443
      50.00 |   677.84665   197.05709    91.42320    52.93195    33.84787    23.81418    18.24169    14.17868    11.41407
      60.00 |   728.25696   214.90202   100.91579    58.74574    37.84950    27.17744    20.31380    15.84372
12.60603
      70.00 |   739.94800   222.07954   104.49040    60.57752    38.92698    26.58068    21.01678    16.28539
12.35296
      80.00 |   713.84822   216.60360   103.39366    59.92497    39.08978    27.93113    20.86017    16.06083    12.29595
      90.00 |   644.13695   202.40300    97.22291    57.33247    37.66208    26.62849    20.21986    15.28143    12.09391
     100.00 |   578.21605   192.57459    94.88449    57.13665    38.58097    27.37499    20.95544    15.86105
12.78031
     110.00 |   588.08451   207.41783   107.58928    67.74342    45.83480    33.36285    25.86454    19.54843
15.49706
     120.00 |   660.03345   251.16746   136.56167    87.18832    60.34088    44.76746    34.82001    27.34552
21.31484
     130.00 |   731.83082   287.11764   161.83208   105.13221    73.89283    55.01749    43.20999    34.49268
27.53002
     140.00 |   745.26078   295.58222   166.85868   108.66660    77.23211    57.37326    45.33516    36.33023
29.89014
     150.00 |   724.33723   285.22265   158.33136   100.72029    70.64045    52.99053    41.18331    33.04636
```

27.55495
160.00 | 703.40626 274.29050 152.20327 95.49425 65.71946 48.67927 37.63821 30.58780
25.59731
170.00 | 709.54036 277.70347 150.53840 97.33215 66.15746 49.09122 38.17094 30.70010
23.88640
180.00 | 757.40264 284.68568 151.11524 93.86982 64.73148 47.46527 36.72850 29.43977
24.10071
190.00 | 878.12025 326.01547 169.49578 104.07664 70.44198 51.02900 39.19710 31.16228
25.26833
200.00 | 1036.97555 389.67392 205.15779 128.95077 88.21760 65.12327 50.00773 40.09860
32.98460
210.00 | 1136.95035 426.93125 223.39800 140.50131 97.87677 72.42608 55.56195 44.95492
37.02145
220.00 | 1168.57631 427.36097 220.90271 137.27431 94.80718 70.04007 48.54602 41.43196
35.30954
230.00 | 1167.41180 417.28168 217.56003 134.34989 92.48987 67.61545 52.39434 41.75153
34.21535
240.00 | 1149.57012 410.83150 212.98608 132.24873 90.68048 66.17320 51.41932 41.07837
33.64017
250.00 | 1086.09978 377.83470 196.30386 121.91363 82.62723 61.18737 47.10800 37.69551
30.79163
260.00 | 991.78696 333.88759 171.36903 103.65354 70.89597 51.57346 39.55087 31.47168
25.55915
270.00 | 906.69413 302.94579 153.90317 93.81193 63.95355 45.83624 35.31399 27.79017
22.78621
280.00 | 847.59012 289.14123 148.94924 94.61183 64.91838 47.98431 37.08956 29.76616
24.54827
290.00 | 809.95000 276.58100 145.29453 91.81539 63.35594 47.14797 36.53159 29.29110
24.13976
300.00 | 759.60041 259.79739 132.26656 82.01413 56.12616 41.09131 31.63841 25.18576
20.47474
310.00 | 704.91829 233.13099 120.25561 73.34017 50.24628 36.67444 27.86925 22.04720
17.81868
320.00 | 663.53964 216.22093 109.04577 67.00292 46.01760 33.44145 25.47771 20.13151
16.36164
330.00 | 592.63529 192.71206 95.99605 58.81010 40.14861 29.25675 22.39035 17.47412
14.10904
340.00 | 522.25867 168.16305 84.46553 51.22026 35.37827 25.60799 19.56430 15.16789
12.23035
350.00 | 510.40891 167.38333 84.06701 51.33382 35.13684 25.53096 19.38987 15.10937
12.10401
360.00 | 614.00962 204.07790 104.55659 63.93540 43.79113 32.25983 24.63261 19.30405
15.62629

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION	DISTANCE (METERS)								
(DEGREES)	1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00
10.00	13.91099	11.72661	10.05872	8.77771	7.70673	6.83064	6.09380	5.50022	4.99509

20.00	10.27014	8.53064	7.25809	6.30145	5.51767	4.88409	4.36314	3.94323	3.55819
30.00	8.25038	6.90039	5.87030	5.03704	4.38296	3.88462	3.46384	3.11002	2.80638
40.00	8.25664	7.04299	5.95893	5.12121	4.45794	3.92085	3.46743	3.09317	2.78191
50.00	9.27204	7.50216	6.32124	5.43965	4.68688	4.10150	3.65751	3.25534	2.94393
60.00	10.05729	8.36418	7.14886	6.10891	5.30220	4.63693	4.12327	3.67395	3.33787
70.00	10.28885	8.58950	7.30725	6.28735	5.47439	4.81269	4.23617	3.81271	3.43005
80.00	9.95241	8.18474	6.92548	5.98342	5.23957	4.60901	4.08122	3.64659	3.29908
90.00	9.82478	8.12127	6.89085	5.91061	5.11834	4.51420	4.01191	3.57567	3.25332
100.00	10.45154	8.80891	7.49633	6.37759	5.57733	4.90458	4.35080	3.90697	3.53158
110.00	12.98216	11.27355	9.64411	8.33606	7.30240	6.42897	5.68735	5.13777	4.66096
120.00	18.32322	15.47273	13.83621	11.95583	10.54426	9.48397	8.46246	7.65298	6.92552
130.00	23.19635	19.96984	17.49798	15.40464	13.65814	12.18682	10.91228	9.80800	8.93212
140.00	25.13650	21.51634	18.65417	16.35412	14.48633	12.98300	11.66860	10.54764	9.61850
150.00	22.97021	19.01427	16.46565	14.39428	12.70090	11.09341	9.82741	9.05515	8.20872
160.00	21.21109	18.36433	15.82004	13.39062	11.71192	10.52830	9.52163	8.50778	7.73751
170.00	21.48402	18.10806	16.00784	13.97749	12.19188	10.81618	9.74754	8.79103	7.93656
180.00	20.33372	17.15333	15.00523	13.32915	11.70944	10.25225	9.15402	8.28427	7.53539
190.00	21.10588	17.81951	15.25088	13.46700	11.71003	10.89204	9.71594	8.72958	7.88710
200.00	27.67271	23.55614	20.37789	17.76306	15.57169	13.24328	12.29082	11.46191	10.41059
210.00	31.06968	26.55792	22.99872	20.19994	17.87329	16.07621	14.09746	12.77540	11.64572
220.00	29.57294	25.18653	21.73883	18.98035	16.81625	15.00348	13.39475	12.00048	10.89779
230.00	28.59171	24.37998	21.00703	18.41042	16.22940	14.45646	12.98357	11.74565	10.67443
240.00	28.17164	24.00287	20.76583	18.10497	16.00840	14.30262	12.83798	11.61160	10.57190
250.00	25.98031	22.13943	19.17828	16.79994	14.85438	13.24800	11.89396	10.76727	9.79909
260.00	21.38103	18.19673	15.69963	13.68829	12.08670	10.77214	9.67318	8.75878	7.97096
270.00	19.16763	16.10249	13.89521	12.04579	10.53054	9.33335	8.31821	7.51257	6.83463
280.00	20.55332	17.57073	15.17890	13.26482	11.72655	10.42899	9.42051	8.55555	7.80092
290.00	20.24294	17.27038	14.98607	13.06347	11.59597	10.36964	9.32767	8.42327	7.67950
300.00	16.97563	14.26320	12.37812	10.81286	9.51987	8.39603	7.58581	6.85629	6.22767
310.00	14.94728	12.66735	10.80205	9.31112	8.19823	7.41007	6.60068	5.96800	5.40789
320.00	13.78666	11.75811	10.01632	8.73179	7.69008	6.85026	6.21227	5.64291	5.09597
330.00	11.80321	9.85575	8.60534	7.56680	6.64614	5.92145	5.31561	4.79277	4.40523
340.00	10.17102	8.60662	7.46022	6.52326	5.71435	5.03947	4.56389	4.12366	3.78246
350.00	10.04531	8.51738	7.29903	6.34528	5.59301	4.95458	4.39519	3.97204	3.60581
360.00	13.00291	11.11818	9.54751	8.30822	7.31285	6.48249	5.78955	5.22699	4.75326

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:17:51

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1900.00	2000.00
10.00	4.57060	4.19983
20.00	3.23081	2.94635
30.00	2.55402	2.33202
40.00	2.52548	2.29958
50.00	2.67535	2.42772
60.00	3.02823	2.75805
70.00	3.10705	2.81769
80.00	2.94941	2.66899
90.00	2.91670	2.64361

100.00	3.22152	2.94043
110.00	4.25976	3.89388
120.00	6.34233	5.83609
130.00	8.11965	7.47988
140.00	8.80347	8.09412
150.00	7.44976	6.81808
160.00	7.01659	6.43468
170.00	7.25730	6.63792
180.00	6.89456	6.28911
190.00	6.91531	6.31436
200.00	9.39920	8.62903
210.00	10.89008	10.02497
220.00	9.95892	9.25895
230.00	9.73846	8.93760
240.00	9.67049	8.88480
250.00	8.97047	8.25033
260.00	7.29564	6.68532
270.00	6.20565	5.66529
280.00	7.16278	6.57587
290.00	7.03600	6.48355
300.00	5.67099	5.19505
310.00	4.96830	4.56186
320.00	4.71064	4.33339
330.00	4.05951	3.70546
340.00	3.45819	3.17023
350.00	3.28886	2.99397
360.00	4.35157	4.00100

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC
TANK :	375.70	118.90	94.10570	TANK :	498.87	129.50	73.29691
TANK :	81.43	359.00	801.40837	TANK :	116.79	44.50	489.68187
TANK :	109.20	67.00	641.98675	TANK :	100.70	93.73	609.44565
TANK :	87.91	103.99	675.03630	TANK :	99.82	123.38	687.57579
TANK :	138.00	141.00	498.23118	TANK :	106.00	180.00	704.52967
TANK :	115.60	206.00	918.12577	TANK :	54.00	270.00	2077.74943
TANK :	97.00	326.00	651.49446	TANK :	133.94	242.10	743.77716
TANK :	101.99	301.65	727.92529	TANK :	236.54	274.95	225.53224

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
PAGE 20
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	37057.05914 (20040806)	16324.30333 (20040806)	9747.61488 (20040806)	6649.35546 (20040806)	4895.12089 (20040806)
20.0	47187.46029 (20121320)	20880.96552 (20121320)	12530.20114 (20121320)	8613.42807 (20121320)	6393.68375 (20121320)
30.0	39172.53729 (20011219)	18049.39084 (20011219)	11060.54410 (20011219)	7688.96821 (20011219)	5769.96235 (20011219)
40.0	41986.66106 (20121918)	18074.62162 (20121918)	10783.97531 (20120418)	7518.60402 (20120418)	5648.04226 (20120418)
50.0	42197.73548 (20121918)	18107.36289 (20121918)	10589.79283 (20121918)	7081.02893 (20121918)	5244.59346 (20121218)
60.0	40344.35964 (20120506)	18119.69756 (20120506)	10862.96441 (20120506)	7375.24986 (20120506)	5542.45271 (20120506)
70.0	37443.88878 (20112620)	16812.42543 (20112620)	9975.11775 (20112620)	6727.43562 (20112620)	5014.73724 (20112620)
80.0	29939.85540 (20021820)	13746.13415 (20021820)	8406.87531 (20112619)	5769.18218 (20112619)	4279.26395 (20112619)
90.0	30453.39400 (20092420)	13534.61658 (20092420)	7928.56219 (20092420)	5280.04947 (20092420)	3856.12738 (20092420)
100.0	38927.26219 (20080407)	16023.54471 (20081020)	9435.71740 (20081020)	6316.52758 (20081020)	4541.66067 (20081020)
110.0	52588.65975 (20080407)	21520.73346 (20080407)	12289.18004 (20080407)	8025.20947 (20080407)	5888.99653 (20080407)
120.0	44755.97310 (20080407)	18568.77988 (20080407)	10543.99129 (20080407)	6915.36435 (20080407)	5055.21185 (20080407)
130.0	35681.48159 (20082320)	16664.97265 (20082320)	10018.67812 (20082320)	6781.66957 (20082320)	5034.51729 (20082320)
140.0	44206.70134 (20042107)	18163.33104 (20042107)	10563.64418 (20101207)	7084.93610 (20101207)	5137.26149 (20101207)
150.0	43090.73646 (20042107)	19179.16865 (20042107)	11283.44919 (20042107)	7683.78649 (20042107)	5639.77123 (20042107)
160.0	44419.68088 (20080406)	20086.07706 (20011606)	11846.59060 (20011606)	8161.47729 (20011606)	6126.08079 (20011606)
170.0	41258.86670 (20072521)	18833.27550 (20072521)	11202.93971 (20072521)	7491.72206 (20072521)	5705.33291 (20072521)
180.0	39659.57810 (20092606)	16553.79531 (20092606)	9922.56395 (20053021)	6847.56429 (20053021)	5100.02073 (20053021)
190.0	39373.06617 (20062106)	16283.23221 (20050406)	9479.55613 (20050406)	6450.64727 (20050406)	4807.64120 (20050406)
200.0	37632.34895 (20062106)	15695.35321 (20062106)	9020.23062 (20062106)	5993.22332 (20062106)	4472.69448 (20062106)
210.0	34818.69046 (20030106)	13829.29956 (20030106)	8104.38239 (20030106)	5518.29455 (20092707)	4026.20424 (20092707)
220.0	35427.14287 (20081607)	14450.76187 (20081607)	8488.87333 (20081607)	5796.01892 (20081607)	4261.03360 (20081607)
230.0	31148.13033 (20031106)	13272.51962 (20031106)	7735.42792 (20031106)	5305.80030 (20031106)	3900.55039 (20031106)
240.0	33047.13980 (20081807)	14194.42926 (20081807)	8364.01471 (20081807)	5692.41425 (20081807)	4227.82185 (20081807)
250.0	35513.74712 (20020306)	14623.06718 (20020306)	8629.30266 (20032306)	5871.83052 (20032306)	4430.73871 (20032306)
260.0	37850.44523 (20092607)	16255.39998 (20092607)	9575.61922 (20092607)	6634.90432 (20092607)	4906.46932 (20092607)
270.0	34210.26696 (20092607)	14538.76379 (20021707)	8787.60796 (20021707)	6069.96277 (20021707)	4508.03683 (20021707)

280.0 | 36271.61822 (20031306) 15937.24807 (20031306) 9529.57318 (20031306) 6455.00059 (20081406) 4827.50590 (20081406)
290.0 | 36602.07700 (20031306) 15955.62156 (20121308) 9613.10088 (20121308) 6563.81971 (20121308) 4907.05481 (20121308)
300.0 | 34497.34456 (20071506) 15390.84883 (20071506) 9189.14530 (20071506) 6261.20119 (20071506) 4627.58232 (20071506)
310.0 | 38283.68068 (20120921) 16855.72105 (20120921) 10009.27550 (20120921) 6852.77070 (20120921) 5027.62158 (20120921)
320.0 | 36801.19435 (20120921) 15392.35612 (20081621) 8884.82686 (20081621) 5949.04824 (20081621) 4250.48737 (20081621)
330.0 | 33515.12834 (20011221) 15046.97344 (20011221) 9049.19732 (20011221) 6220.97886 (20011221) 4611.46283 (20011221)
340.0 | 27937.37641 (20011221) 11995.41979 (20120420) 7344.35775 (20120420) 5085.62071 (20120420) 3762.94856 (20120420)
350.0 | 30732.40082 (20041907) 13899.10021 (20041907) 8401.46369 (20041907) 5783.08199 (20041907) 4272.60242 (20041907)
360.0 | 34029.08935 (20011220) 15640.83979 (20011220) 9611.71325 (20011220) 6643.05068 (20011220) 4921.85748 (20011220)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	3755.78182 (20040806)	2980.55183 (20012421)	2461.31911 (20012421)	2120.64674 (20012421)	1864.91447 (20012421)
20.0	5010.61903 (20121320)	3988.35001 (20121320)	3270.43921 (20121320)	2823.84029 (20121320)	2505.60200 (20121320)
30.0	4519.74304 (20011219)	3656.46387 (20011219)	3037.65926 (20011219)	2546.40876 (20011219)	2205.09244 (20011219)
40.0	4460.22923 (20120418)	3540.15443 (20120418)	2927.45441 (20120418)	2462.90925 (20120418)	2147.46156 (20120418)
50.0	4125.10131 (20121218)	3221.54927 (20121218)	2621.28722 (20121218)	2141.97842 (20121218)	1854.33437 (20121218)
60.0	4168.80425 (20120506)	3309.08646 (20120506)	2599.32437 (20120506)	2211.29810 (20120506)	2149.81103 (20120506)
70.0	3925.89208 (20112620)	2919.22699 (20112620)	2379.85463 (20112620)	2242.23824 (20112620)	1914.72362 (20112620)
80.0	3242.14761 (20112619)	2540.51147 (20112619)	2116.37688 (20112619)	1939.57198 (20112619)	1694.82883 (20112619)
90.0	2983.91092 (20121419)	2314.65951 (20121419)	2041.31389 (20121419)	1759.47317 (20121419)	1547.20821 (20121419)
100.0	3540.91495 (20081020)	2715.24513 (20081020)	2381.50351 (20081020)	2020.35900 (20081020)	1760.60135 (20081020)
110.0	4518.63677 (20080407)	3468.94013 (20080407)	3098.72222 (20080407)	2663.67995 (20080407)	2255.00014 (20080407)
120.0	3831.03743 (20080407)	3002.82881 (20080407)	2519.21809 (20080407)	2161.73740 (20080407)	1829.89368 (20080407)
130.0	3914.27551 (20082320)	2992.78337 (20082320)	2587.33104 (20082320)	2432.30449 (20082320)	2122.71006 (20082320)

140.0 | 3953.94847 (20101207) 2957.12717 (20101207) 2366.10997 (20101207) 1973.32160 (20101207) 1893.10761 (20101207)
150.0 | 4315.63093 (20042107) 3430.44474 (20042107) 2803.58580 (20042107) 2232.13316 (20042107) 1931.82744 (20042107)
160.0 | 4790.10571 (20011606) 3901.67104 (20011606) 3145.16194 (20011606) 2476.78619 (20011606) 2213.52286 (20011606)
170.0 | 4449.43604 (20072521) 3583.68972 (20072521) 2957.85634 (20072521) 2760.34087 (20072521) 2055.34586 (20072521)
180.0 | 4014.32819 (20053021) 3259.31406 (20053021) 2695.62687 (20053021) 2298.96616 (20053021) 1935.73363 (20053021)
190.0 | 3771.40097 (20050406) 3038.22274 (20050406) 2499.40655 (20050406) 2135.66677 (20050406) 1823.61282 (20050406)
200.0 | 3438.69321 (20062106) 2783.93142 (20062106) 2284.42576 (20062106) 1912.71647 (20062106) 1626.79312 (20062106)
210.0 | 3119.50457 (20092707) 2690.12777 (20030106) 2070.82141 (20030106) 1760.16216 (20092707) 1465.27320 (20092707)
220.0 | 3278.67709 (20081607) 3114.99420 (20120920) 2477.27965 (20120920) 1889.50794 (20081607) 1617.95263 (20081607)
230.0 | 3111.44166 (20031106) 2444.38069 (20031106) 2007.76547 (20031106) 1692.86340 (20031106) 1462.74016 (20031106)
240.0 | 3348.31493 (20081807) 2653.78950 (20081807) 2193.39573 (20081807) 1850.57164 (20081807) 1587.50034 (20081807)
250.0 | 3416.52674 (20032306) 2781.47177 (20032306) 2318.22434 (20032306) 1986.99814 (20032306) 1663.28852 (20032306)
260.0 | 3858.38619 (20092607) 3135.04545 (20092607) 2611.60866 (20092607) 2242.66194 (20092607) 1930.54227 (20092607)
270.0 | 3589.47090 (20021707) 2890.71607 (20021707) 2426.22663 (20021707) 2041.53851 (20021707) 1721.15337 (20021707)
280.0 | 3770.14671 (20081406) 3065.33887 (20081406) 2525.02294 (20081406) 2109.62511 (20081406) 1828.43802 (20081406)
290.0 | 3795.54632 (20121308) 3070.63887 (20121308) 2545.67888 (20121308) 2159.56548 (20121308) 1871.85026 (20121308)
300.0 | 3608.21364 (20071506) 2898.18711 (20071506) 2407.28609 (20071506) 2072.27842 (20071506) 1812.70383 (20071506)
310.0 | 3895.73618 (20120921) 3184.70896 (20120921) 2670.09800 (20120921) 2306.48264 (20120921) 1962.55166 (20120921)
320.0 | 3313.16600 (20081621) 2628.07418 (20081621) 2157.87627 (20081621) 1855.07735 (20081621) 1569.89813 (20081621)
330.0 | 3603.56873 (20011221) 2924.12045 (20011221) 2490.87991 (20011221) 2140.38350 (20011221) 1855.58322 (20011221)
340.0 | 2958.11993 (20120420) 2392.37010 (20120420) 2055.86604 (20120420) 1759.99563 (20120420) 1517.86593 (20120420)
350.0 | 3328.03027 (20041907) 2707.64154 (20041907) 2290.12027 (20041907) 1982.95789 (20041907) 1724.71971 (20041907)
360.0 | 3798.46187 (20011220) 3062.91152 (20011220) 2599.23049 (20011220) 2182.96743 (20011220) 1859.93186 (20011220)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00

- -

10.0 | 1646.16414 (20012421) 1468.22314 (20012421) 1305.74054 (20012421) 1170.56904 (20012421) 1059.17447 (20041906)
20.0 | 2250.61068 (20121320) 2007.40935 (20121320) 1785.45723 (20121320) 1608.62498 (20121320) 1456.15384 (20121320)
30.0 | 1922.96228 (20011219) 1692.30686 (20011219) 1530.77014 (20011219) 1388.38785 (20011219) 1243.30323 (20011219)
40.0 | 1726.03838 (20120418) 1532.12843 (20120418) 1373.04607 (20120418) 1240.52792 (20120418) 1128.68430 (20120418)
50.0 | 1766.36704 (20121218) 1574.50471 (20121218) 1407.54433 (20121218) 1291.95485 (20121218) 1188.94742 (20121218)
60.0 | 1920.84243 (20120506) 1658.54203 (20120506) 1530.75012 (20120506) 1401.70939 (20120506) 1299.44289 (20120506)
70.0 | 1652.44690 (20021019) 1460.19691 (20021019) 1303.68954 (20021019) 1177.01379 (20021019) 1069.85872 (20021019)
80.0 | 1517.03565 (20112619) 1352.02609 (20112619) 1207.23010 (20112619) 1076.74735 (20112619) 974.88983 (20112619)
90.0 | 1376.67737 (20121419) 1223.89848 (20121419) 1105.53594 (20121419) 1005.09526 (20121419) 911.06776 (20121419)
100.0 | 1525.29916 (20010720) 1355.15705 (20010720) 1267.79748 (20010720) 1150.92401 (20010720) 1057.15343 (20010720)
110.0 | 1901.79458 (20080407) 1670.57530 (20080407) 1525.27303 (20080407) 1378.52472 (20080407) 1262.64842 (20080407)
120.0 | 1591.92432 (20081421) 1344.29779 (20080407) 1230.03225 (20081421) 1125.99559 (20081421) 995.14347 (20081421)
130.0 | 1850.95689 (20082320) 1587.21514 (20082320) 1382.29239 (20082320) 1231.26323 (20082320) 1117.62741 (20082320)
140.0 | 1631.50018 (20101207) 1432.12831 (20012521) 1276.75389 (20012521) 1163.98086 (20012521) 1078.06567 (20012521)
150.0 | 1839.19224 (20042107) 1606.53649 (20042107) 1431.58918 (20042107) 1293.87392 (20042107) 1240.47032 (20042107)
160.0 | 1790.70040 (20011606) 1590.07884 (20011606) 1621.26080 (20011606) 1526.39448 (20011606) 1337.95473 (20011606)
170.0 | 1876.30764 (20072521) 1472.56561 (20072521) 1320.16696 (20072521) 1265.99714 (20072521) 1215.56725 (20072521)
180.0 | 1747.83139 (20053021) 1478.16900 (20053021) 1212.56013 (20053021) 1095.82633 (20053021) 1094.12047 (20053021)
190.0 | 1615.86282 (20050406) 1443.69266 (20050406) 1225.17273 (20050406) 1142.45827 (20050406) 875.04896 (20050406)
200.0 | 1428.64144 (20062106) 1250.02875 (20062106) 1090.81242 (20062106) 1013.26834 (20121021) 1035.70808 (20021706)
210.0 | 1282.39634 (20092707) 1122.34074 (20092707) 1013.86829 (20092707) 906.02062 (20092707) 901.80037 (20030106)
220.0 | 1381.44990 (20081607) 1192.91920 (20081607) 1056.58552 (20081607) 978.77663 (20081607) 893.13614 (20081607)
230.0 | 1282.73930 (20031106) 1124.86665 (20031106) 963.25996 (20031106) 872.20543 (20031106) 756.66869 (20031106)
240.0 | 1387.29385 (20081807) 1213.72105 (20081807) 1100.88736 (20081807) 987.97971 (20081807) 863.59628 (20081807)
250.0 | 1449.61087 (20032306) 1266.48166 (20032306) 1132.48215 (20032306) 1017.82980 (20032306) 912.85231 (20032306)
260.0 | 1687.78857 (20092607) 1491.65844 (20092607) 1326.89092 (20092607) 1182.82792 (20092607) 1064.34255 (20092607)
270.0 | 1519.94768 (20021707) 1340.46030 (20021707) 1208.44716 (20021707) 1098.21007 (20021707) 999.88343 (20021707)
280.0 | 1567.01842 (20081406) 1442.38766 (20081406) 1336.43615 (20081406) 1232.06556 (20081406) 1157.04046 (20081406)
290.0 | 1693.03791 (20121308) 1507.96145 (20121308) 1378.30115 (20121308) 1249.09228 (20121308) 1139.81062 (20121308)
300.0 | 1597.79114 (20071506) 1394.78716 (20071506) 1236.08439 (20071506) 1113.07913 (20071506) 1046.72423 (20071506)

310.0 | 1736.75122 (20120921) 1571.01297 (20120921) 1454.92568 (20120921) 1330.63183 (20120921) 1135.85954 (20120921)
320.0 | 1335.51815 (20081621) 1192.82309 (20081621) 1075.22303 (20081621) 944.56990 (20121006) 865.01057 (20121006)
330.0 | 1669.72016 (20011221) 1461.17763 (20011221) 1302.32458 (20011221) 1193.16836 (20011221) 1087.38198 (20011221)
340.0 | 1325.94641 (20120420) 1167.83024 (20120420) 1041.78162 (20120420) 949.01244 (20120420) 879.72172 (20120420)
350.0 | 1513.66467 (20041907) 1351.78433 (20041907) 1207.99761 (20041907) 1087.77685 (20041907) 987.47290 (20041907)
360.0 | 1606.00192 (20011220) 1426.71534 (20011220) 1294.82845 (20011220) 1173.59114 (20011220) 1051.03661 (20011220)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	972.61320 (20041906)	894.07100 (20041906)	826.21997 (20041906)	757.68223 (20041906)	693.46303 (20041906)
20.0	1313.87283 (20121320)	1167.13265 (20121320)	1079.49153 (20121320)	1015.09916 (20121320)	955.66729 (20121320)
30.0	1128.83314 (20011219)	1039.30186 (20011219)	957.07837 (20011219)	880.91980 (20011219)	821.34851 (20011219)
40.0	1033.21351 (20120418)	950.90653 (20120418)	879.32479 (20120418)	816.58481 (20120418)	761.21068 (20120418)
50.0	1072.17118 (20121218)	998.45770 (20121218)	913.77493 (20121218)	842.51900 (20121218)	794.94252 (20121218)
60.0	1192.70197 (20120506)	1113.94978 (20120506)	998.06128 (20120506)	921.19305 (20120506)	868.45421 (20120506)
70.0	1015.00409 (20021019)	905.93666 (20021019)	841.36909 (20021019)	777.31030 (20021019)	739.97116 (20021019)
80.0	890.09575 (20112619)	812.69662 (20112619)	732.65258 (20112619)	684.23085 (20112619)	633.50050 (20112619)
90.0	828.52126 (20121419)	764.34310 (20121419)	682.50832 (20121419)	649.63035 (20121419)	608.69362 (20121419)
100.0	973.36643 (20010720)	892.68052 (20010720)	828.89020 (20010720)	754.16935 (20010720)	711.31354 (20010720)
110.0	1124.14527 (20080407)	1021.46536 (20080407)	939.94454 (20080407)	862.27682 (20080407)	801.04586 (20080407)
120.0	920.26302 (20081421)	852.09996 (20081421)	795.71496 (20101120)	735.98308 (20101120)	686.54796 (20101120)
130.0	1036.55874 (20082320)	975.01793 (20082320)	914.51840 (20082320)	874.27664 (20082320)	801.27132 (20082320)
140.0	987.31458 (20012521)	927.64212 (20012521)	860.08628 (20012521)	809.53861 (20012521)	748.42302 (20012521)
150.0	1135.07100 (20101206)	1015.82514 (20042107)	929.73869 (20042107)	856.49035 (20101206)	810.73684 (20101206)
160.0	1134.63175 (20011606)	1111.28932 (20011606)	1037.55878 (20011606)	984.94958 (20011606)	911.32195 (20011606)

170.0	1079.57330 (20072521)	1009.83597 (20072521)	940.88822 (20072521)	875.29142 (20072521)	821.08409 (20072521)
180.0	1017.90624 (20053021)	922.43077 (20053021)	861.54244 (20053021)	802.80598 (20053021)	761.82293 (20053021)
190.0	801.18078 (20050406)	737.48329 (20050406)	682.07570 (20050406)	735.48192 (20050406)	693.21906 (20050406)
200.0	882.23356 (20121021)	669.62027 (20062106)	619.32173 (20062106)	622.39170 (20021706)	584.36250 (20021706)
210.0	677.36596 (20120607)	623.50035 (20120607)	576.64379 (20120607)	595.00431 (20120607)	550.65269 (20120607)
220.0	912.79012 (20081607)	653.98296 (20081607)	604.70956 (20081607)	561.53888 (20081607)	569.04655 (20081607)
230.0	700.07507 (20031106)	654.40564 (20031106)	596.61693 (20031106)	528.90594 (20031106)	506.36121 (20031106)
240.0	790.75844 (20081807)	717.80283 (20081807)	621.76939 (20081807)	555.26122 (20081807)	554.94716 (20081807)
250.0	833.42775 (20032306)	753.20941 (20032306)	705.40782 (20032306)	621.49004 (20032306)	551.27546 (20032306)
260.0	971.86836 (20092607)	868.02484 (20092607)	785.24669 (20092607)	707.92994 (20092607)	671.21342 (20092607)
270.0	918.19300 (20021707)	834.62775 (20021707)	759.83375 (20021707)	709.69057 (20021707)	665.34163 (20021707)
280.0	1038.45175 (20081406)	932.59634 (20081406)	858.92951 (20081406)	803.52257 (20081406)	760.84173 (20081406)
290.0	1052.48272 (20121308)	973.15423 (20121308)	904.00592 (20121308)	852.68234 (20121308)	792.49340 (20121308)
300.0	934.02334 (20071506)	856.33475 (20071506)	788.66256 (20071506)	734.39453 (20071506)	705.62334 (20071506)
310.0	1073.85351 (20120921)	978.22920 (20120921)	908.97253 (20120921)	816.53692 (20120921)	761.36321 (20120921)
320.0	777.53630 (20121006)	707.39065 (20121006)	675.19967 (20121006)	604.56049 (20121006)	561.99214 (20121006)
330.0	993.70030 (20011221)	921.04271 (20011221)	823.01279 (20011221)	736.69825 (20011221)	702.25364 (20011221)
340.0	789.89652 (20120420)	730.92118 (20120420)	645.09143 (20120420)	599.33350 (20120420)	565.58156 (20120420)
350.0	910.51838 (20041907)	833.53209 (20041907)	769.45733 (20041907)	711.84317 (20041907)	666.12726 (20041907)
360.0	940.46179 (20011220)	862.77667 (20020421)	800.12162 (20020421)	740.40169 (20020421)	688.42731 (20020421)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:17:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	8046.46827	(20080407)	TANK	498.87	129.50	5048.24768	(20082320)
TANK	81.43	359.00	39971.95932	(20011220)	TANK	116.79	44.50	37787.92601	(20121918)
TANK	109.20	67.00	36084.98168	(20112620)	TANK	100.70	93.73	31569.52773	(20092420)
TANK	87.91	103.99	54811.25106	(20080407)	TANK	99.82	123.38	38261.43732	(20080407)

TANK : 138.00 141.00 30726.12019 (20042107) TANK : 106.00 180.00 37065.95735 (20092606)
TANK : 115.60 206.00 27788.11139 (20030106) TANK : 54.00 270.00 70152.25347 (20092607)
TANK : 97.00 326.00 33177.40416 (20011221) TANK : 133.94 242.10 23675.26074 (20081807)
TANK : 101.99 301.65 34676.71438 (20071506) TANK : 236.54 274.95 12486.09099 (20122006)
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	35516.55677 (20011220)	15412.63628 (20011220)	9130.04947 (20011220)	6331.56988 (20012421)	4741.11284 (20012421)
20.0	37163.87984 (20081106)	17035.80811 (20081106)	10401.06093 (20081106)	7201.85817 (20081106)	5378.21832 (20081106)
30.0	38245.69513 (20121320)	14505.89955 (20121320)	8987.69528 (20052721)	6290.31935 (20052721)	4722.29575 (20052721)
40.0	37879.87843 (20120418)	17582.96250 (20120418)	10581.95492 (20121918)	7147.76293 (20121918)	5239.04909 (20121918)
50.0	35243.12631 (20121218)	16408.72789 (20121218)	10083.72718 (20121218)	6981.72679 (20121218)	5233.63928 (20121918)
60.0	37199.85971 (20112620)	16028.80983 (20112620)	9332.13761 (20112620)	6185.11553 (20112620)	4513.98853 (20112620)
70.0	31403.18189 (20021019)	14704.03061 (20021019)	9002.47197 (20021019)	6203.06312 (20021019)	4676.55330 (20021019)
80.0	28839.43182 (20112619)	13656.48060 (20112619)	8372.57149 (20021820)	5708.10757 (20021820)	4185.52039 (20021820)
90.0	26339.87749 (20092419)	12115.51225 (20092419)	7374.14131 (20121419)	5125.67744 (20121419)	3820.37381 (20121419)
100.0	36040.26631 (20081020)	14926.74913 (20091807)	8616.04210 (20010720)	5902.32244 (20010720)	4287.32156 (20010720)
110.0	35700.52740 (20121220)	15350.79562 (20121220)	8842.75561 (20121220)	5860.75829 (20091807)	4317.06677 (20091807)
120.0	34014.14966 (20081521)	15136.88725 (20121220)	8932.74795 (20121220)	5960.88967 (20121220)	4393.54205 (20121220)
130.0	31299.24459 (20081521)	14720.45708 (20081521)	8877.03980 (20081521)	6011.25394 (20081521)	4446.16795 (20081521)
140.0	40400.74081 (20101207)	18001.02460 (20101207)	10172.05765 (20042107)	6617.28302 (20042107)	4742.37871 (20012521)
150.0	39506.30738 (20072620)	16834.05042 (20101206)	10148.58372 (20101206)	6993.43962 (20101206)	5176.15923 (20101206)
160.0	44000.38506 (20011606)	19508.22233 (20080406)	11307.34224 (20080406)	7668.32720 (20080406)	5693.03437 (20091519)
170.0	37347.12914 (20080406)	16702.90276 (20080406)	9962.10418 (20020820)	6761.67434 (20020820)	5156.41308 (20020820)
180.0	36904.00012 (20050406)	16499.82132 (20053021)	9776.48201 (20092421)	6680.03420 (20092421)	4927.40101 (20092421)
190.0	38503.87197 (20050406)	16200.98547 (20062106)	9294.15893 (20062106)	6208.75070 (20062106)	4556.42279 (20062106)
200.0	30516.65770 (20072520)	13560.72593 (20121021)	8068.45649 (20121021)	5468.21906 (20121021)	4119.34472 (20121021)

210.0 | 32679.06067 (20081607) 13663.37145 (20092707) 8102.75880 (20092707) 5440.42068 (20030106) 3941.93743 (20092406)
220.0 | 34477.21813 (20120920) 13964.17698 (20120920) 8234.81444 (20120920) 5639.48877 (20120920) 4134.80175 (20120920)
230.0 | 30749.66829 (20081607) 12145.50999 (20081720) 7117.04439 (20081720) 4885.12662 (20081720) 3594.48123 (20081720)
240.0 | 32649.77115 (20030107) 13792.23955 (20030107) 8101.61340 (20030107) 5504.44978 (20030107) 4097.99850 (20030107)
250.0 | 33220.17941 (20032306) 14564.12286 (20032306) 8406.49083 (20020306) 5582.67527 (20020306) 4191.22121 (20020306)
260.0 | 37828.99767 (20020306) 15807.13298 (20020306) 9295.13090 (20080807) 6427.25639 (20080807) 4760.10685 (20080807)
270.0 | 32824.67439 (20080807) 13629.90509 (20062206) 8096.45288 (20062206) 5526.08501 (20062206) 4067.08226 (20062206)
280.0 | 35586.62160 (20122006) 15760.45065 (20081406) 9507.79603 (20081406) 6431.88183 (20031306) 4778.00191 (20031306)
290.0 | 36399.92989 (20020307) 15918.42222 (20020307) 9450.35731 (20020307) 6384.43211 (20020307) 4752.13545 (20020307)
300.0 | 33688.58135 (20121308) 14825.65397 (20081721) 8850.41119 (20081721) 6013.10892 (20081721) 4438.44461 (20081721)
310.0 | 35072.12498 (20071506) 15085.80236 (20081621) 8956.29170 (20081621) 6077.63095 (20081621) 4441.38716 (20081621)
320.0 | 36524.11480 (20081621) 14554.39326 (20120921) 8071.66795 (20120921) 5257.35544 (20120921) 3766.39743 (20031307)
330.0 | 29871.69923 (20041807) 13314.64701 (20041807) 7941.84201 (20041807) 5424.37342 (20041807) 3999.42476 (20041807)
340.0 | 25675.78564 (20120420) 11246.80942 (20083020) 6945.30693 (20083020) 4836.50798 (20083020) 3595.01763 (20083020)
350.0 | 26127.61580 (20041806) 12065.09315 (20041806) 7410.47772 (20041806) 5155.29212 (20041806) 3840.81923 (20041806)
360.0 | 33312.46079 (20040806) 15157.39194 (20040806) 9218.74968 (20040806) 6307.79736 (20040806) 4625.95632 (20040806)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	3711.91042 (20012421)	2965.72988 (20040806)	2402.24245 (20040806)	2092.82713 (20040806)	1803.83163 (20041906)
20.0	4227.75919 (20081106)	3388.62978 (20081106)	2789.81875 (20081106)	2400.09247 (20081106)	2108.27183 (20081106)
30.0	3709.77036 (20052721)	2997.10864 (20052721)	2479.07209 (20052721)	2079.89276 (20052721)	1795.13903 (20052721)
40.0	3990.33714 (20121918)	3133.91219 (20121918)	2550.23384 (20121918)	2132.67757 (20121918)	1859.98179 (20121918)
50.0	3984.20363 (20121918)	3122.61622 (20121918)	2521.81628 (20121918)	2067.42949 (20121918)	1755.14919 (20121918)
60.0	3410.88912 (20112620)	2685.84569 (20112620)	2137.50339 (20112620)	1783.42560 (20112620)	1576.42967 (20070420)

70.0 | 3739.24742 (20021019) 2754.26453 (20021019) 2251.04687 (20021019) 2210.25530 (20021019) 1875.49982 (20021019)
80.0 | 3161.41447 (20021820) 2468.73238 (20021820) 2022.32269 (20021820) 1864.85542 (20021820) 1609.44350 (20021820)
90.0 | 2916.76041 (20092420) 2261.07308 (20092420) 1944.84580 (20092420) 1638.43254 (20121418) 1436.61039 (20121418)
100.0 | 3385.59342 (20010720) 2602.12821 (20010720) 2340.28746 (20010720) 1987.74069 (20010720) 1745.74076 (20010720)
110.0 | 3371.74689 (20091807) 2575.72468 (20091807) 2288.11928 (20091807) 2021.49757 (20091807) 1739.56826 (20091807)
120.0 | 3372.45888 (20121220) 2622.31316 (20081421) 2303.01366 (20121220) 2089.54204 (20121220) 1786.09451 (20081421)
130.0 | 3440.32003 (20081521) 2661.97230 (20081521) 2245.56732 (20081521) 2044.17030 (20081521) 1749.43987 (20081521)
140.0 | 3734.06331 (20012521) 2769.33147 (20012521) 2227.27643 (20012521) 1895.99528 (20012521) 1830.57760 (20012521)
150.0 | 3972.25310 (20101206) 3162.06399 (20101206) 2586.74310 (20101206) 2034.23099 (20101206) 1761.48882 (20101206)
160.0 | 4460.82921 (20091519) 3636.48749 (20091519) 2940.88832 (20091519) 2323.37266 (20091519) 2074.54736 (20091519)
170.0 | 4048.19561 (20020820) 3282.34542 (20020820) 2726.69105 (20020820) 2496.60025 (20020820) 1911.29842 (20020820)
180.0 | 3831.60608 (20040506) 3118.05012 (20040506) 2586.52267 (20040506) 2207.91307 (20040506) 1867.10457 (20040506)
190.0 | 3575.99916 (20062106) 2842.40535 (20031006) 2341.62239 (20031006) 1999.87031 (20031006) 1704.27168 (20031006)
200.0 | 3229.56287 (20121021) 2633.42998 (20121021) 2164.97831 (20121021) 1814.83715 (20121021) 1546.34963 (20021706)
210.0 | 3084.19497 (20030106) 2622.07746 (20092707) 2070.00587 (20092707) 1757.71602 (20030106) 1457.97933 (20120607)
220.0 | 3159.26750 (20120920) 3048.23358 (20081607) 2470.76161 (20081607) 1817.66089 (20120920) 1547.04318 (20120920)
230.0 | 2865.83233 (20081720) 2255.01479 (20081720) 1853.95801 (20081720) 1564.86397 (20081720) 1354.80288 (20081720)
240.0 | 3279.39167 (20030107) 2577.24779 (20030107) 2130.64663 (20030107) 1798.41888 (20030107) 1543.12329 (20030107)
250.0 | 3211.70687 (20020306) 2625.62666 (20121107) 2188.41136 (20121107) 1873.97395 (20121107) 1572.43476 (20121107)
260.0 | 3741.43194 (20080807) 3040.79427 (20080807) 2534.64637 (20080807) 2174.05313 (20080807) 1874.07812 (20080807)
270.0 | 3238.98929 (20062206) 2582.32870 (20062206) 2162.17432 (20121920) 1821.65914 (20121920) 1538.41804 (20121920)
280.0 | 3726.11924 (20031306) 3028.23937 (20031306) 2492.97300 (20031306) 2081.78945 (20031306) 1804.10579 (20031306)
290.0 | 3672.20378 (20020307) 2958.00621 (20020307) 2435.44872 (20020307) 2050.19774 (20020307) 1764.32963 (20020307)
300.0 | 3466.52503 (20081721) 2784.70615 (20081721) 2303.78386 (20081721) 1960.97222 (20081721) 1708.13535 (20081721)
310.0 | 3433.50598 (20081621) 2807.11328 (20081621) 2351.98715 (20081621) 2004.74306 (20081621) 1704.52026 (20081621)
320.0 | 2960.18317 (20031307) 2404.41054 (20031307) 1980.09013 (20031307) 1686.60900 (20031307) 1441.84310 (20031307)
330.0 | 3129.75567 (20041807) 2529.36300 (20041807) 2094.34490 (20041807) 1796.90686 (20041807) 1563.02570 (20041807)
340.0 | 2829.58091 (20083020) 2290.38426 (20083020) 1963.38605 (20083020) 1699.29187 (20083020) 1478.29422 (20083020)
350.0 | 3002.91763 (20041806) 2442.30961 (20041806) 2055.70296 (20041806) 1769.10767 (20041806) 1531.97871 (20041806)
360.0 | 3571.47505 (20040806) 2901.43279 (20040806) 2365.83368 (20040806) 2004.88323 (20040806) 1741.95377 (20040806)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	1591.64567 (20041906)	1422.74830 (20041906)	1274.81048 (20041906)	1159.14138 (20041906)	1055.04575 (20012421)
20.0	1872.87240 (20081106)	1663.01006 (20081106)	1479.74869 (20081106)	1333.77950 (20081106)	1208.62300 (20081106)
30.0	1571.64299 (20052721)	1389.74148 (20052721)	1262.34884 (20052721)	1145.80379 (20052721)	1028.49210 (20052721)
40.0	1492.83994 (20121918)	1310.67853 (20121918)	1174.35177 (20121918)	1060.83472 (20121918)	965.05921 (20121918)
50.0	1626.00732 (20121918)	1394.38783 (20121918)	1241.04458 (20121918)	1149.65371 (20121918)	1028.48948 (20121918)
60.0	1374.89285 (20070420)	1201.52574 (20070420)	1084.40910 (20070420)	989.26878 (20070420)	911.86490 (20070420)
70.0	1650.77862 (20112620)	1437.22270 (20112620)	1262.60450 (20112620)	1131.65047 (20112620)	1028.07441 (20112620)
80.0	1440.94284 (20021820)	1276.22436 (20021820)	1128.35019 (20021820)	1006.92024 (20021820)	904.61129 (20082920)
90.0	1268.56610 (20121418)	1125.92460 (20121418)	1011.24441 (20121418)	914.37348 (20121418)	828.50643 (20121418)
100.0	1516.21080 (20081020)	1321.74752 (20081020)	1236.65656 (20081020)	1122.96931 (20081020)	1008.77940 (20081020)
110.0	1442.70229 (20091807)	1289.92356 (20091807)	1174.51565 (20091807)	1042.92802 (20091807)	940.44910 (20042606)
120.0	1572.81959 (20101120)	1321.81104 (20081421)	1220.53697 (20101120)	1115.47729 (20101120)	988.91797 (20101120)
130.0	1511.36930 (20092521)	1326.92123 (20081521)	1167.34844 (20081521)	1039.96757 (20081521)	935.28546 (20081521)
140.0	1607.80718 (20012521)	1424.23913 (20101207)	1264.73893 (20101207)	1153.91370 (20101207)	1070.63821 (20101207)
150.0	1755.69068 (20101206)	1533.37765 (20101206)	1366.38388 (20101206)	1235.07163 (20101206)	1200.49667 (20101206)
160.0	1681.37258 (20091519)	1493.02495 (20091519)	1517.16387 (20091519)	1424.96198 (20091519)	1252.02801 (20091519)
170.0	1734.88091 (20020820)	1379.25161 (20020820)	1235.36492 (20020820)	1177.07870 (20020820)	1124.38341 (20020820)
180.0	1681.15048 (20040506)	1429.86069 (20040506)	1181.23984 (20040506)	1067.65184 (20040506)	1058.68318 (20040506)
190.0	1480.02629 (20031006)	1302.55656 (20062106)	1129.67148 (20031006)	1021.95074 (20031006)	829.11473 (20031006)
200.0	1357.21115 (20021706)	1191.06346 (20021706)	1087.29952 (20021706)	1013.14121 (20062106)	1032.07889 (20121021)
210.0	1276.22372 (20120607)	1117.66520 (20120607)	1009.29955 (20120607)	902.37147 (20120607)	881.36458 (20120607)
220.0	1307.45058 (20120920)	1120.92486 (20120920)	989.59409 (20120920)	916.81161 (20120920)	833.23611 (20120920)
230.0	1192.38843 (20081720)	1048.79456 (20081720)	894.70117 (20081720)	814.57618 (20081720)	702.32373 (20081720)

240.0 | 1350.09931 (20030107) 1175.89415 (20030107) 1070.11113 (20030107) 957.39170 (20030107) 826.55373 (20030107)
250.0 | 1370.31022 (20121107) 1197.82607 (20121107) 1070.42609 (20121107) 961.64772 (20121107) 862.69557 (20121107)
260.0 | 1639.97786 (20080807) 1450.77112 (20080807) 1292.32385 (20080807) 1154.73111 (20080807) 1041.08790 (20080807)
270.0 | 1358.34669 (20121920) 1198.44652 (20121920) 1080.21194 (20121920) 977.43205 (20051021) 884.58893 (20051021)
280.0 | 1545.61133 (20031306) 1414.21304 (20031306) 1289.29452 (20080806) 1186.30369 (20080806) 1112.55027 (20080806)
290.0 | 1595.93693 (20020307) 1421.50398 (20020307) 1299.79705 (20020307) 1174.97817 (20020307) 1071.76085 (20032307)
300.0 | 1539.50976 (20081721) 1345.22305 (20081721) 1201.84443 (20081721) 1089.20991 (20081721) 1015.47478 (20081721)
310.0 | 1474.19623 (20081621) 1319.76760 (20081621) 1221.44322 (20081621) 1115.96536 (20081621) 954.77432 (20081621)
320.0 | 1263.70457 (20031307) 1152.43319 (20031307) 1037.40611 (20121006) 921.49565 (20081621) 836.78120 (20081621)
330.0 | 1387.32092 (20041807) 1216.01129 (20112807) 1087.76483 (20112807) 993.41297 (20112807) 906.05417 (20112807)
340.0 | 1308.36079 (20083020) 1158.69604 (20083020) 1037.57774 (20083020) 944.73220 (20083020) 874.16866 (20083020)
350.0 | 1343.73561 (20041806) 1201.51775 (20041806) 1075.20088 (20041806) 970.54780 (20041806) 884.29736 (20041806)
360.0 | 1508.70389 (20020421) 1347.38086 (20020421) 1218.55881 (20020421) 1104.87823 (20020421) 1015.24360 (20020421)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	958.04922 (20012421)	879.28741 (20012421)	811.84675 (20012421)	742.05512 (20012421)	676.82524 (20012421)
20.0	1092.49508 (20081106)	973.73268 (20081106)	900.72870 (20081106)	846.25161 (20081106)	796.17323 (20081106)
30.0	934.90520 (20052721)	859.18468 (20052721)	788.21245 (20052721)	723.85013 (20052721)	666.30947 (20052721)
40.0	882.44332 (20121918)	797.99714 (20121918)	725.53913 (20112618)	673.77339 (20112618)	628.08327 (20112618)
50.0	930.39091 (20121918)	821.11279 (20121918)	748.93563 (20121918)	689.30479 (20121918)	651.63385 (20121918)
60.0	836.89741 (20070420)	777.97963 (20070420)	705.05697 (20070420)	652.17075 (20070420)	611.34484 (20070420)
70.0	980.08438 (20112620)	870.81939 (20112620)	809.13797 (20112620)	746.30235 (20112620)	676.41654 (20081606)
80.0	826.83568 (20082920)	757.34442 (20082920)	684.48557 (20082920)	655.09306 (20082920)	616.34584 (20082920)
90.0	753.61935 (20121418)	693.95253 (20102818)	625.49332 (20121418)	591.43163 (20102818)	553.66879 (20102818)

100.0	901.12115 (20081020)	818.21926 (20081020)	760.00276 (20081020)	689.19774 (20081020)	650.98036 (20081020)
110.0	877.47614 (20042606)	802.34040 (20042606)	739.36644 (20042606)	679.58789 (20042606)	631.77046 (20042606)
120.0	913.75697 (20101120)	847.30194 (20101120)	793.84818 (20081421)	730.97958 (20081421)	677.95759 (20081421)
130.0	861.54156 (20092521)	807.07958 (20092521)	755.02272 (20092521)	717.78070 (20092521)	660.19734 (20092521)
140.0	976.81214 (20101207)	901.39801 (20112819)	835.69641 (20112819)	785.92352 (20112819)	726.99454 (20112819)
150.0	1134.87211 (20042107)	977.85391 (20101206)	915.55233 (20101206)	855.88936 (20042107)	808.41699 (20042107)
160.0	1064.48244 (20091519)	1040.59053 (20091519)	971.24250 (20091519)	920.37536 (20091519)	851.97316 (20091519)
170.0	1001.68574 (20020820)	937.01686 (20020820)	879.71816 (20020820)	823.98719 (20020820)	777.77082 (20020820)
180.0	983.67851 (20040506)	892.78515 (20040506)	833.23740 (20040506)	776.29153 (20040506)	735.55471 (20040506)
190.0	759.13073 (20031006)	698.78042 (20031006)	646.28218 (20031006)	658.86290 (20031006)	620.66614 (20031006)
200.0	880.64229 (20021706)	650.29795 (20021706)	600.91407 (20021706)	621.41494 (20121021)	583.53785 (20121021)
210.0	676.84597 (20092707)	623.03676 (20092707)	576.22792 (20092707)	571.90735 (20030106)	543.37641 (20030106)
220.0	890.27361 (20120920)	605.11826 (20120920)	559.89644 (20120920)	520.37235 (20120920)	521.74244 (20120920)
230.0	654.76941 (20081720)	615.63279 (20081720)	561.57287 (20081720)	496.01517 (20081720)	476.75328 (20081720)
240.0	756.20777 (20030107)	683.77050 (20030107)	584.80907 (20030107)	519.12459 (20030107)	523.61253 (20030107)
250.0	787.22093 (20121107)	711.93780 (20121107)	666.07848 (20121107)	588.24119 (20121107)	522.91167 (20121107)
260.0	951.12172 (20080807)	853.86931 (20080807)	775.42591 (20080807)	702.79290 (20080807)	664.35775 (20080807)
270.0	803.36101 (20051021)	729.63233 (20051021)	665.40968 (20051021)	612.63414 (20051021)	569.74255 (20121920)
280.0	999.18113 (20080806)	897.93588 (20080806)	827.12108 (20080806)	773.66925 (20080806)	732.34076 (20080806)
290.0	989.32292 (20032307)	914.67999 (20032307)	849.60991 (20032307)	800.74166 (20032307)	744.49163 (20032307)
300.0	910.53955 (20081721)	828.28349 (20081721)	755.19924 (20081721)	692.72365 (20081721)	661.03937 (20081721)
310.0	902.23631 (20081621)	822.06220 (20081621)	755.93548 (20081621)	686.51253 (20081621)	638.67130 (20081621)
320.0	747.33389 (20031307)	678.64454 (20031307)	650.64152 (20031307)	579.50498 (20031307)	538.48719 (20031307)
330.0	829.32868 (20112807)	768.02964 (20112807)	692.76283 (20112807)	625.15539 (20112807)	593.42278 (20112807)
340.0	786.74955 (20083020)	727.75707 (20083020)	644.64658 (20083020)	598.91197 (20083020)	564.78387 (20083020)
350.0	823.54976 (20041806)	756.06944 (20041806)	701.83306 (20041806)	651.56688 (20041806)	610.33384 (20041806)
360.0	933.85067 (20020421)	861.73258 (20011220)	799.01787 (20011220)	736.44125 (20011220)	682.92087 (20011220)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	6761.05864	(20121220)	TANK	498.87	129.50	4517.65221	(20081521)
TANK	81.43	359.00	39222.04477	(20040806)	TANK	116.79	44.50	31076.03438	(20120418)
TANK	109.20	67.00	30980.01554	(20120506)	TANK	100.70	93.73	30533.38386	(20081020)
TANK	87.91	103.99	40677.39336	(20081020)	TANK	99.82	123.38	35084.43385	(20081521)
TANK	138.00	141.00	28660.74037	(20101207)	TANK	106.00	180.00	34376.86839	(20031006)
TANK	115.60	206.00	27436.58377	(20092707)	TANK	54.00	270.00	66961.34885	(20020306)
TANK	97.00	326.00	33114.50958	(20081621)	TANK	133.94	242.10	22868.11504	(20030107)
TANK	101.99	301.65	32271.75882	(20081721)	TANK	236.54	274.95	11578.18465	(20021707)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	33172.04651 (20121320)	14487.99909 (20012421)	9033.10822 (20012421)	6161.68194 (20011220)	4483.69415 (20011220)
20.0	33369.14338 (20121319)	15607.49065 (20121319)	9651.54952 (20121319)	6731.27291 (20121319)	5052.47245 (20121319)
30.0	33448.30415 (20081106)	14491.38658 (20052721)	7938.33440 (20081106)	5386.44704 (20042521)	4096.46518 (20042521)
40.0	33706.66716 (20011219)	14494.20022 (20112618)	8936.87917 (20112618)	6240.38202 (20112618)	4693.62622 (20112618)
50.0	31558.74300 (20120506)	12515.57478 (20120506)	7839.75333 (20082821)	5532.67370 (20082821)	4151.06610 (20082821)
60.0	26411.94715 (20012917)	12495.84397 (20070420)	7783.79106 (20070420)	5410.00422 (20070420)	4038.65686 (20070420)
70.0	29416.96398 (20081606)	13846.47138 (20081606)	8482.44017 (20081606)	5837.71858 (20081606)	4384.12230 (20081606)
80.0	24988.32823 (20011218)	11844.06188 (20021821)	7437.17657 (20021821)	5151.66646 (20021821)	3838.83866 (20021821)
90.0	25685.69827 (20021820)	12072.95333 (20021820)	7298.17661 (20092419)	4936.73410 (20092419)	3648.14473 (20092419)
100.0	34263.91801 (20091807)	14159.48327 (20010720)	8614.75113 (20091807)	5698.08339 (20091807)	4083.81718 (20091807)
110.0	32150.75506 (20091807)	14771.66166 (20091807)	8793.45992 (20091807)	5780.88021 (20121220)	4185.11772 (20121220)
120.0	33075.65031 (20121220)	15096.91978 (20081521)	8761.92274 (20081521)	5858.42780 (20081421)	4359.86351 (20081421)
130.0	30923.18142 (20062406)	13596.29645 (20062406)	8090.93297 (20042121)	5566.29346 (20092521)	4152.79993 (20092521)

140.0 | 33045.33731 (20091521) 15515.72209 (20012521) 9435.83423 (20012521) 6458.53420 (20012521) 4674.07681 (20091521)
150.0 | 37928.80845 (20011606) 15863.99529 (20120820) 9649.97361 (20120820) 6654.41893 (20120820) 4929.00912 (20120820)
160.0 | 42216.48755 (20072620) 18607.21777 (20072620) 10964.06825 (20091519) 7577.06467 (20091519) 5632.18789 (20080406)
170.0 | 36858.54989 (20092421) 16439.41576 (20092706) 9927.53228 (20092706) 6712.41525 (20092706) 5097.31146 (20120919)
180.0 | 36721.62332 (20031006) 16432.75147 (20092421) 9509.44625 (20092606) 6493.48290 (20040506) 4858.11493 (20040506)
190.0 | 36015.69639 (20092606) 15475.12512 (20031006) 9031.23072 (20031006) 6114.80442 (20031006) 4507.45993 (20031006)
200.0 | 30478.18585 (20092707) 13297.19643 (20092707) 7934.74024 (20032106) 5382.88932 (20032106) 4054.14619 (20021706)
210.0 | 32468.78114 (20120920) 13359.09850 (20092406) 7914.28175 (20092406) 5391.78476 (20092406) 3926.48936 (20120607)
220.0 | 32923.10416 (20030106) 12938.01618 (20030106) 7463.38784 (20030106) 4948.65959 (20030106) 3618.89491 (20030106)
230.0 | 29102.62734 (20030107) 11889.74475 (20081607) 6657.59571 (20092407) 4569.95794 (20092407) 3365.30356 (20092407)
240.0 | 28228.23142 (20112707) 12681.86278 (20112707) 7569.73876 (20112707) 5179.12063 (20112707) 3854.90470 (20112707)
250.0 | 32166.62499 (20020406) 13677.67985 (20020406) 7954.35458 (20121107) 5443.36610 (20121107) 4137.21347 (20121107)
260.0 | 36403.92265 (20080807) 15725.17618 (20080807) 9167.61721 (20020306) 6266.50965 (20020306) 4586.31538 (20020306)
270.0 | 32158.43830 (20021707) 13334.89180 (20092607) 7920.78367 (20051021) 5454.93622 (20051021) 4038.25256 (20051021)
280.0 | 35486.41643 (20081406) 15649.45975 (20122006) 9346.61330 (20122006) 6300.97375 (20122006) 4698.53433 (20122006)
290.0 | 36187.20011 (20122007) 15519.58577 (20122007) 9127.00510 (20122007) 6133.34486 (20032307) 4593.63044 (20032307)
300.0 | 33279.99441 (20081721) 13911.52637 (20061806) 8340.88642 (20061806) 5691.03816 (20050506) 4227.11080 (20050506)
310.0 | 34081.65098 (20081621) 14727.93587 (20071506) 8467.76158 (20071506) 5643.39360 (20071506) 4130.50225 (20073006)
320.0 | 27254.88948 (20031307) 12322.75695 (20031307) 7445.27987 (20031307) 5109.19766 (20031307) 3643.05434 (20120921)
330.0 | 26978.70031 (20081621) 11755.53611 (20072806) 7174.32913 (20112807) 5020.31506 (20112807) 3763.35251 (20112807)
340.0 | 24017.93729 (20083020) 10749.64625 (20090106) 6625.34909 (20090106) 4612.21122 (20090106) 3438.96568 (20090106)
350.0 | 25939.40439 (20120420) 11393.28094 (20020520) 7004.26685 (20020520) 4870.72427 (20020520) 3620.79710 (20020520)
360.0 | 29866.42959 (20041907) 12892.57886 (20120421) 8079.37443 (20120421) 5648.94669 (20120421) 4229.47562 (20120421)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00

- -

10.0 | 3511.61005 (20041906) 2842.63847 (20041906) 2367.30472 (20041906) 2059.50798 (20041906) 1755.85560 (20040806)
20.0 | 3981.13879 (20121319) 3207.30201 (20121319) 2648.82598 (20121319) 2274.67430 (20121319) 1994.00214 (20121319)
30.0 | 3278.87228 (20042521) 2692.26965 (20042521) 2260.67621 (20042521) 1922.46257 (20042521) 1673.52610 (20042521)
40.0 | 3697.32024 (20112618) 2978.22089 (20112618) 2459.59771 (20112618) 2063.80879 (20112618) 1770.20301 (20112618)
50.0 | 3286.57481 (20082821) 2628.35753 (20082821) 2156.75307 (20082821) 1776.62054 (20082821) 1538.27406 (20082821)
60.0 | 3119.33324 (20070420) 2500.22561 (20070420) 1995.78375 (20070420) 1697.96155 (20070420) 1552.06641 (20112620)
70.0 | 3496.89391 (20081606) 2587.78263 (20081606) 2114.11655 (20081606) 2058.19964 (20081606) 1755.35231 (20081606)
80.0 | 2938.03595 (20021821) 2314.60362 (20021821) 1928.67425 (20021821) 1786.00571 (20082920) 1567.22603 (20082920)
90.0 | 2798.38670 (20092419) 2175.34177 (20021820) 1903.85639 (20121418) 1604.98438 (20102818) 1405.94773 (20102818)
100.0 | 3149.81777 (20092420) 2420.36304 (20091807) 2127.87235 (20092420) 1786.22470 (20092420) 1548.49856 (20092420)
110.0 | 3232.71817 (20101121) 2495.67080 (20101121) 2226.82050 (20101121) 1959.82064 (20101121) 1692.20670 (20101121)
120.0 | 3367.61802 (20081421) 2600.69038 (20121220) 2302.06198 (20081421) 2084.86588 (20081421) 1774.65910 (20121220)
130.0 | 3243.46661 (20092521) 2511.98869 (20092521) 2159.52963 (20092521) 1979.30475 (20092521) 1726.66569 (20092521)
140.0 | 3672.97690 (20091521) 2724.83657 (20091521) 2189.41960 (20091521) 1860.22512 (20091521) 1781.66474 (20112819)
150.0 | 3787.98570 (20120820) 3013.43367 (20120820) 2461.41425 (20120820) 1955.31335 (20120820) 1683.55178 (20120820)
160.0 | 4347.19588 (20072620) 3536.91430 (20072620) 2842.06881 (20072620) 2233.77311 (20080406) 1993.53356 (20072620)
170.0 | 4003.88503 (20120919) 3248.29293 (20120919) 2700.10145 (20120919) 2481.01457 (20120919) 1893.34157 (20120919)
180.0 | 3823.69459 (20092421) 3064.65288 (20092421) 2534.51036 (20092421) 2161.97698 (20092421) 1819.59610 (20092421)
190.0 | 3517.27546 (20031006) 2833.61190 (20062106) 2295.15274 (20062106) 1940.93800 (20062106) 1657.15943 (20062106)
200.0 | 3187.87110 (20021706) 2610.42608 (20021706) 2153.27712 (20021706) 1810.90307 (20021706) 1544.95636 (20121021)
210.0 | 3070.38359 (20120607) 2591.67078 (20120607) 2055.06563 (20120607) 1747.73036 (20120607) 1443.75035 (20030106)
220.0 | 2754.36753 (20030106) 2451.91675 (20112706) 2008.02956 (20112706) 1531.59778 (20112706) 1306.44080 (20112706)
230.0 | 2680.56219 (20092407) 2113.14069 (20092407) 1738.47358 (20092407) 1467.76599 (20092407) 1269.77374 (20092407)
240.0 | 3058.72312 (20112707) 2424.05747 (20112707) 2003.36365 (20112707) 1690.32015 (20112707) 1450.70833 (20112707)
250.0 | 3209.91418 (20121107) 2534.39090 (20020306) 2064.21718 (20020306) 1768.73947 (20020306) 1474.14036 (20020306)
260.0 | 3604.59194 (20020306) 2912.62536 (20020306) 2390.34632 (20020306) 2025.42205 (20121919) 1745.12688 (20121919)
270.0 | 3193.18498 (20051021) 2575.81667 (20121920) 2158.92494 (20051021) 1816.97957 (20051021) 1532.20687 (20051021)
280.0 | 3664.51804 (20122006) 2970.86411 (20080806) 2447.92652 (20080806) 2045.91187 (20080806) 1771.97522 (20080806)
290.0 | 3564.53275 (20032307) 2887.59313 (20032307) 2396.70799 (20032307) 2034.71513 (20032307) 1764.15982 (20032307)
300.0 | 3305.26383 (20050506) 2660.81588 (20050506) 2209.91083 (20050506) 1892.93815 (20050506) 1650.35449 (20050506)

310.0 | 3218.82321 (20073006) 2632.50693 (20073006) 2207.98927 (20073006) 1903.56798 (20073006) 1626.33384 (20073006)
320.0 | 2816.55303 (20121006) 2305.95203 (20121006) 1945.14846 (20121006) 1671.47765 (20121006) 1433.15400 (20121006)
330.0 | 2958.32743 (20112807) 2411.80462 (20112807) 2053.35958 (20112807) 1771.21934 (20112807) 1542.77723 (20112807)
340.0 | 2708.36998 (20090106) 2194.93428 (20090106) 1869.03359 (20090106) 1602.86983 (20090106) 1387.72771 (20090106)
350.0 | 2824.12743 (20020520) 2301.42543 (20020520) 1948.67888 (20020520) 1687.58406 (20020520) 1458.69154 (20020520)
360.0 | 3329.21476 (20020421) 2718.73805 (20020421) 2301.82395 (20020421) 1981.99897 (20020421) 1726.58312 (20020421)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	1533.31605 (20040806)	1371.91426 (20040806)	1214.98071 (20040806)	1056.18618 (20040806)	943.25129 (20012420)
20.0	1767.94163 (20121319)	1571.04832 (20121319)	1400.62278 (20121319)	1263.91562 (20121319)	1146.32504 (20121319)
30.0	1470.31373 (20042521)	1303.73903 (20042521)	1179.89177 (20042521)	1070.33820 (20042521)	965.77564 (20042521)
40.0	1479.04244 (20112618)	1300.37233 (20112618)	1149.51594 (20112618)	1027.87385 (20112618)	931.28687 (20112618)
50.0	1447.39711 (20082821)	1293.57442 (20082821)	1158.49290 (20082821)	1052.32836 (20082821)	960.13873 (20082821)
60.0	1361.25426 (20112620)	1176.14640 (20112620)	1047.33602 (20112620)	911.34862 (20032819)	841.22534 (20112620)
70.0	1541.86300 (20081606)	1360.32198 (20081606)	1211.83992 (20081606)	1090.33607 (20081606)	987.44584 (20081606)
80.0	1393.99346 (20082920)	1243.11568 (20082920)	1113.43727 (20082920)	997.64580 (20082920)	900.09829 (20021820)
90.0	1246.76504 (20102818)	1109.38682 (20102818)	1000.65245 (20102818)	908.75198 (20102818)	825.45876 (20102818)
100.0	1352.37022 (20092420)	1201.39102 (20092420)	1101.83803 (20092420)	976.83418 (20092420)	881.97918 (20092420)
110.0	1419.89533 (20101121)	1268.74836 (20101121)	1141.26692 (20101121)	1018.94573 (20101121)	930.56942 (20091807)
120.0	1566.80132 (20080407)	1318.49153 (20101120)	1204.81958 (20121220)	1081.01674 (20121421)	963.98825 (20121220)
130.0	1509.76445 (20081521)	1308.89318 (20092521)	1147.51577 (20092521)	1025.21451 (20092521)	931.07755 (20092521)
140.0	1564.98298 (20112819)	1393.91210 (20112819)	1243.02828 (20112819)	1132.89566 (20112819)	1048.50132 (20112819)
150.0	1649.21489 (20120820)	1443.07783 (20120820)	1286.85441 (20120820)	1163.33180 (20120820)	1118.51602 (20120820)
160.0	1613.48878 (20080406)	1432.72992 (20080406)	1461.88335 (20072620)	1378.67687 (20072620)	1206.09504 (20072620)

170.0 | 1721.81700 (20120919) 1366.08325 (20120919) 1224.71561 (20120919) 1169.37830 (20120919) 1117.35221 (20120919)
180.0 | 1627.94691 (20092421) 1389.39429 (20092421) 1138.72003 (20092421) 1029.19146 (20092421) 993.50571 (20092421)
190.0 | 1468.50949 (20062106) 1296.01575 (20031006) 1113.08240 (20062106) 1010.48070 (20072520) 794.50987 (20062106)
200.0 | 1352.73678 (20121021) 1186.95550 (20121021) 1085.66187 (20121021) 1012.87419 (20021706) 1008.21332 (20032106)
210.0 | 1261.87492 (20030106) 1104.37454 (20031406) 997.25641 (20031406) 890.94212 (20031406) 873.99109 (20092707)
220.0 | 1108.68120 (20112706) 952.51367 (20112706) 842.09560 (20112706) 776.74916 (20112706) 703.02140 (20112706)
230.0 | 1115.29205 (20092407) 979.92743 (20092407) 840.20804 (20092407) 762.57826 (20092407) 660.81322 (20092407)
240.0 | 1269.37061 (20112707) 1109.35748 (20112707) 1008.41255 (20112707) 904.13735 (20112707) 786.05029 (20112707)
250.0 | 1283.32948 (20020306) 1119.30073 (20020306) 1000.45405 (20020306) 898.62401 (20020306) 804.91395 (20020306)
260.0 | 1526.18522 (20121919) 1349.06080 (20121919) 1200.50842 (20121919) 1071.21345 (20121919) 964.52066 (20121919)
270.0 | 1352.96680 (20051021) 1193.21529 (20051021) 1075.62080 (20051021) 972.47936 (20121920) 877.18251 (20121920)
280.0 | 1519.20284 (20080806) 1394.93129 (20080806) 1287.42084 (20122008) 1179.62294 (20122008) 1094.14959 (20031306)
290.0 | 1593.13829 (20032307) 1419.14736 (20032307) 1295.80759 (20032307) 1174.44085 (20032307) 1059.14470 (20020307)
300.0 | 1473.82528 (20050506) 1287.82369 (20050506) 1150.63653 (20050506) 1042.76923 (20050506) 978.38995 (20050506)
310.0 | 1437.21607 (20073006) 1294.94780 (20073006) 1190.33471 (20073006) 1085.72372 (20073006) 937.85041 (20073006)
320.0 | 1256.86278 (20121006) 1147.13681 (20121006) 1015.29937 (20031307) 910.68350 (20031307) 834.42064 (20031307)
330.0 | 1377.36546 (20112807) 1214.24730 (20041807) 1069.03008 (20041807) 956.44492 (20041807) 871.57254 (20041807)
340.0 | 1221.01355 (20090106) 1081.36466 (20090106) 968.90962 (20090106) 881.77805 (20090106) 814.59729 (20090106)
350.0 | 1273.32511 (20020520) 1124.51150 (20020520) 999.28401 (20020520) 897.21315 (20081107) 817.40903 (20081107)
360.0 | 1505.51754 (20040806) 1315.79145 (20040806) 1133.09391 (20040806) 1022.46679 (20040806) 944.10616 (20040806)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	864.26904 (20040806)	792.82185 (20040806)	731.59098 (20040806)	667.26921 (20040806)	607.21946 (20040806)
20.0	1037.83942 (20121319)	927.89253 (20121319)	858.41228 (20121319)	805.79760 (20121319)	757.61481 (20121319)

30.0	880.20401 (20042521)	810.67982 (20042521)	747.96063 (20042521)	690.78309 (20042521)	644.16766 (20042521)
40.0	852.49910 (20112618)	784.59702 (20112618)	713.15493 (20121918)	652.45657 (20121918)	608.14574 (20121918)
50.0	869.62367 (20082821)	805.98729 (20082821)	739.93563 (20082821)	683.63615 (20082821)	643.36072 (20082821)
60.0	766.84463 (20032819)	709.37779 (20032819)	651.38606 (20032819)	604.11046 (20032819)	566.24112 (20032819)
70.0	927.46163 (20081606)	828.93403 (20081606)	769.21030 (20081606)	710.70975 (20081606)	672.47493 (20112620)
80.0	807.64054 (20021820)	730.05849 (20021821)	667.99086 (20021820)	628.76253 (20021820)	592.69210 (20021820)
90.0	752.35840 (20102818)	692.10124 (20121418)	624.33138 (20102818)	588.96898 (20121418)	551.56765 (20121418)
100.0	812.19733 (20092420)	744.61987 (20092420)	691.46870 (20092420)	628.48294 (20092420)	593.02956 (20092420)
110.0	873.34201 (20091807)	795.77476 (20091807)	731.98159 (20091807)	670.41832 (20101121)	622.97034 (20101121)
120.0	887.01953 (20121421)	822.17832 (20121421)	771.37509 (20121421)	713.75900 (20121421)	665.85301 (20121421)
130.0	840.29205 (20050121)	786.99527 (20050121)	736.15151 (20050121)	699.69541 (20050121)	643.62713 (20050121)
140.0	960.27312 (20112819)	893.47052 (20091521)	826.82052 (20091521)	772.16915 (20091521)	711.65021 (20091521)
150.0	1041.24723 (20120820)	912.93239 (20120820)	846.10367 (20120820)	785.34368 (20120820)	740.75591 (20120820)
160.0	1019.46962 (20072620)	1000.84174 (20072620)	934.68112 (20072620)	887.99736 (20072620)	821.26240 (20072620)
170.0	995.21715 (20120919)	931.03480 (20120919)	874.16513 (20120919)	818.81426 (20120919)	772.94265 (20120919)
180.0	898.79582 (20092421)	814.35147 (20092421)	760.75596 (20092421)	708.96498 (20092421)	672.99877 (20092421)
190.0	727.44405 (20062106)	669.62027 (20062106)	619.32173 (20062106)	651.23558 (20072520)	613.49923 (20072520)
200.0	873.42752 (20032106)	647.93982 (20042207)	599.23274 (20042207)	619.51262 (20032106)	581.68419 (20032106)
210.0	669.96765 (20031406)	616.70166 (20031406)	570.36525 (20031406)	571.23725 (20092707)	540.64424 (20092707)
220.0	737.92836 (20112706)	516.59639 (20112706)	477.75004 (20112706)	443.69911 (20112706)	441.69843 (20112706)
230.0	613.69054 (20092407)	571.54543 (20092407)	521.13933 (20092407)	465.04893 (20092407)	441.54256 (20092407)
240.0	719.74798 (20112707)	652.43494 (20112707)	562.60178 (20112707)	502.13490 (20112707)	502.77328 (20112707)
250.0	722.35126 (20020306)	656.63605 (20020306)	606.74937 (20030108)	545.64419 (20020306)	482.82664 (20020306)
260.0	880.75562 (20121919)	788.83914 (20121919)	715.03839 (20121919)	646.33547 (20121919)	611.92843 (20121919)
270.0	796.09932 (20121920)	722.66769 (20121920)	658.70276 (20121920)	607.84670 (20121920)	566.93719 (20051021)
280.0	984.12870 (20122008)	887.51212 (20122008)	815.45534 (20122008)	759.13148 (20031306)	718.91062 (20031306)
290.0	960.38444 (20020307)	878.94260 (20020307)	816.49621 (20020307)	770.37216 (20020307)	715.92440 (20020307)
300.0	875.25617 (20050506)	802.83747 (20050506)	739.72292 (20050506)	688.76226 (20050506)	660.30257 (20050506)
310.0	881.68064 (20073006)	804.52830 (20073006)	747.20418 (20073006)	674.31924 (20073006)	628.82893 (20073006)
320.0	743.19462 (20081621)	671.96432 (20081621)	649.57454 (20081621)	572.52611 (20081621)	531.45625 (20081621)
330.0	797.07073 (20041807)	738.17303 (20041807)	664.21303 (20012921)	598.44717 (20041807)	568.46907 (20012921)

340.0 | 734.78660 (20090106) 679.51230 (20090106) 604.15288 (20102821) 561.34290 (20102821) 528.82320 (20090106)
350.0 | 757.92599 (20020520) 695.87241 (20020520) 645.91757 (20020520) 599.66761 (20020520) 561.76839 (20020520)
360.0 | 855.13249 (20040806) 765.83748 (20120421) 693.46942 (20120421) 635.38353 (20120421) 588.06588 (20120421)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	6259.74731	(20121118)	TANK	498.87	129.50	4178.48448	(20092521)
TANK	81.43	359.00	38602.99022	(20041907)	TANK	116.79	44.50	29070.92831	(20121218)
TANK	109.20	67.00	28365.75674	(20021019)	TANK	100.70	93.73	28669.77988	(20010720)
TANK	87.91	103.99	40257.15784	(20091807)	TANK	99.82	123.38	34733.43641	(20082320)
TANK	138.00	141.00	23735.81793	(20091521)	TANK	106.00	180.00	34367.70854	(20050406)
TANK	115.60	206.00	26865.91357	(20092406)	TANK	54.00	270.00	66717.54930	(20080807)
TANK	97.00	326.00	31369.29912	(20120921)	TANK	133.94	242.10	20654.50529	(20112707)
TANK	101.99	301.65	31316.17816	(20121308)	TANK	236.54	274.95	11548.31000	(20081406)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	14630.11594 (20121324)	5984.80851 (20012424)	3696.27417 (20012424)	2584.57217 (20012424)	1930.65295 (20012424)
20.0	16302.02805 (20121324)	6681.93820 (20121324)	3829.04066 (20121324)	2538.05066 (20121324)	1836.32814 (20121324)
30.0	10969.03537 (20121324)	4038.01666 (20121324)	2198.97600 (20042524)	1530.03771 (20042524)	1135.63922 (20042524)
40.0	10141.37433 (20042524)	4386.23689 (20042524)	2565.00579 (20042524)	1731.28520 (20042524)	1271.52836 (20042524)
50.0	7895.23252 (20092716)	3364.70023 (20082824)	2013.41411 (20082824)	1383.56658 (20082824)	1015.42948 (20082824)
60.0	7906.66020m(20112624)	3190.78654 (20032824)	1900.36836 (20032824)	1296.95128 (20032824)	940.64184 (20032824)

70.0 | 10970.11732 (20021824) 4375.13310 (20021824) 2462.48841m(20112624) 1656.07429m(20112624) 1217.83214m(20112624)
80.0 | 10996.97431 (20021824) 4976.81217 (20021824) 3022.05422 (20021824) 2056.73715 (20021824) 1511.33873 (20021824)
90.0 | 8160.03249 (20091816) 3374.14593 (20092424) 1975.69486 (20092424) 1315.18584 (20092424) 960.69242 (20092424)
100.0 | 8684.94240c(20091808) 3850.90859c(20091808) 2267.41289c(20091808) 1523.64976c(20091808) 1101.74577c(20091808)
110.0 | 7941.21562 (20081424) 3466.76582 (20101124) 2049.85692 (20101124) 1375.50187 (20101124) 991.97952 (20101124)
120.0 | 10700.02320c(20112824) 3995.56681c(20112824) 2409.30196 (20011924) 1688.18136 (20011924) 1263.72246 (20011924)
130.0 | 16031.23587c(20112824) 6918.67629c(20112824) 4017.45158c(20112824) 2646.75866c(20112824) 1895.33869c(20112824)
140.0 | 13321.48453c(20112824) 6209.35488c(20112824) 3721.13972c(20112824) 2513.95951c(20112824) 1819.95480c(20112824)
150.0 | 11728.53399 (20120824) 5336.84010 (20120824) 3149.81480 (20120824) 2096.82390 (20120824) 1514.32233 (20120824)
160.0 | 12416.34447 (20011608) 5655.54916 (20011608) 3327.59305 (20011608) 2246.10482 (20011608) 1649.19617 (20011608)
170.0 | 9783.72405 (20011608) 4456.20194 (20011608) 2562.48203 (20011608) 1725.72680 (20112324) 1267.38272 (20112324)
180.0 | 9424.14876 (20072524) 3733.31349 (20112324) 2271.46111 (20112324) 1539.08031 (20112324) 1123.26018 (20112324)
190.0 | 9253.09850 (20111724) 4314.06139 (20111724) 2582.90732 (20111724) 1757.05825 (20111724) 1288.00000 (20111724)
200.0 | 9408.55852 (20100416) 4045.98726 (20093024) 2357.03646 (20093024) 1576.52805 (20093024) 1147.77372 (20093024)
210.0 | 9485.20961m(20013024) 4163.12749m(20013024) 2457.76651 (20122308) 1681.25189 (20122308) 1233.20699 (20122308)
220.0 | 10011.91236m(20013024) 4394.98922m(20013024) 2527.72805m(20013024) 1685.74797m(20013024) 1215.77677m(20013024)
230.0 | 9367.48457 (20122724) 4200.43110 (20122724) 2467.24840 (20122724) 1663.38854 (20122724) 1209.78792 (20122724)
240.0 | 9942.79091 (20122724) 4394.08807 (20122724) 2564.39262 (20122724) 1727.63410 (20122724) 1247.35171 (20122724)
250.0 | 9070.38104 (20121108) 3862.78037 (20121108) 2226.30080 (20121108) 1476.84370 (20121108) 1072.42930 (20102324)
260.0 | 8302.27953 (20102324) 3540.89565 (20102324) 2071.72556 (20102324) 1387.04448 (20102324) 1007.70906 (20102324)
270.0 | 9708.56190 (20122008) 3900.24895 (20122008) 2151.86200 (20122008) 1432.17944 (20103124) 1055.32696 (20103124)
280.0 | 12875.17001 (20122008) 5677.53494 (20122008) 3394.07764 (20122008) 2293.90351 (20122008) 1701.49998 (20122008)
290.0 | 12258.63315 (20122008) 4987.19201 (20122008) 2813.48983 (20122008) 1839.84584 (20122008) 1308.95635 (20122008)
300.0 | 8219.20166 (20081724) 3667.52223m(20123124) 2184.98708m(20123124) 1499.30241m(20123124) 1104.27279m(20123124)
310.0 | 8710.05179 (20112524) 4111.56208 (20112524) 2562.30545 (20112524) 1771.98108 (20112524) 1322.31387 (20112524)
320.0 | 9987.22106 (20112524) 4369.18814 (20112524) 2591.62670 (20112524) 1766.40873 (20112524) 1300.71533 (20112524)
330.0 | 8547.51227 (20120416) 3223.05260 (20030408) 1928.70211 (20030408) 1334.05254 (20030408) 979.34828 (20030408)
340.0 | 7173.88210 (20091416) 3253.98033c(20013124) 1997.88791c(20013124) 1385.80039c(20013124) 1036.29111c(20013124)
350.0 | 7286.59558 (20010224) 3276.29373 (20010224) 1940.18643 (20010224) 1322.90552 (20010224) 971.15268 (20010224)
360.0 | 11083.32357 (20120424) 4622.97211 (20120424) 2693.36382 (20120424) 1783.12200 (20120424) 1292.86816 (20021324)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	1515.91023 (20012424)	1223.91156 (20012424)	1013.70163 (20012424)	867.35613 (20012424)	753.78653 (20012424)
20.0	1404.11011 (20121324)	1115.25852 (20121324)	902.68948 (20121324)	763.17571 (20121324)	659.76030 (20121324)
30.0	893.52553 (20042524)	729.35508 (20042524)	606.84217 (20042524)	511.57256 (20042524)	440.32439 (20042524)
40.0	972.25560 (20042524)	795.32316 (20042524)	655.99927 (20042524)	553.20055 (20042524)	468.51911 (20042524)
50.0	795.61617 (20082824)	636.93112 (20082824)	521.03503 (20082824)	429.05355 (20082824)	369.17057 (20082824)
60.0	731.92589 (20032824)	585.81481 (20032824)	470.38576 (20032824)	396.76829 (20032824)	350.39462 (20032824)
70.0	930.90494m(20112624)	715.36364m(20112624)	584.04413m(20112624)	520.84773m(20112624)	444.24253m(20112624)
80.0	1148.06509 (20021824)	898.60323 (20021824)	741.35863 (20021824)	670.50057 (20021824)	577.77292 (20021824)
90.0	735.75310 (20121424)	574.51041 (20121424)	498.55812 (20121424)	428.30087 (20121424)	374.57439 (20121424)
100.0	853.46118c(20091808)	660.60736c(20091808)	575.65544c(20091808)	480.97545c(20091808)	415.26504c(20091808)
110.0	754.66807 (20101124)	592.10555 (20101124)	486.42531 (20121224)	410.83685 (20121224)	354.30449 (20121224)
120.0	984.55252 (20011924)	777.90604 (20011924)	666.54063 (20011924)	574.54316 (20011924)	501.85830 (20011924)
130.0	1437.62820c(20112824)	1111.42029c(20112824)	915.27801c(20112824)	759.15123c(20112824)	642.51499c(20112824)
140.0	1408.03335c(20112824)	1069.39760c(20112824)	861.90588c(20112824)	722.57798c(20112824)	656.59142c(20112824)
150.0	1156.91131 (20120824)	906.15278 (20120824)	737.71878 (20120824)	609.55804 (20120824)	509.21775 (20120824)
160.0	1275.89772 (20011608)	1028.98003 (20011608)	833.12233 (20011608)	664.17907 (20011608)	581.80531 (20011608)
170.0	993.09815 (20112324)	802.20653 (20112324)	663.92896 (20112324)	553.99377 (20112324)	476.00115 (20112324)
180.0	848.50374 (20112324)	683.68865 (20112324)	557.73404 (20112324)	466.53527 (20112324)	398.80062 (20112324)
190.0	1001.08055 (20111724)	804.88331 (20111724)	659.87543 (20111724)	557.23771 (20111724)	478.47792 (20111724)
200.0	888.80324 (20093024)	717.31620 (20093024)	588.00226 (20093024)	490.54140 (20093024)	414.89695 (20093024)
210.0	959.81012 (20122308)	806.51478 (20122308)	643.04830 (20122308)	546.84522 (20122308)	457.52634c(20112408)
220.0	928.18511m(20013024)	702.85726m(20013024)	610.25790m(20013024)	509.57286m(20013024)	429.39110m(20013024)
230.0	944.99809 (20122724)	747.73999 (20122724)	612.09418 (20122724)	514.49343 (20122724)	439.93514 (20122724)

240.0 | 972.71523 (20122724) 771.70618 (20122724) 633.41661 (20122724) 531.37298 (20122724) 451.55334 (20122724)
250.0 | 827.74845 (20102324) 669.76345 (20102324) 550.59429 (20102324) 458.43429 (20102324) 389.52840 (20102324)
260.0 | 776.53813 (20102324) 628.61399 (20091424) 524.49702 (20091424) 447.40558 (20091424) 385.14034 (20091424)
270.0 | 824.80508 (20103124) 665.66878 (20103124) 549.72544 (20103124) 465.02834 (20103124) 396.04492 (20103124)
280.0 | 1327.29984 (20122008) 1076.51862 (20122008) 884.57224 (20122008) 737.94711 (20122008) 633.48950 (20122008)
290.0 | 992.89131 (20122008) 770.93502 (20122008) 620.90172 (20122008) 519.41335 (20122008) 436.39055 (20122008)
300.0 | 853.36906m(20123124) 684.81353m(20123124) 566.97097m(20123124) 476.21280 (20022408) 415.88820 (20022408)
310.0 | 1030.77136 (20112524) 831.39193 (20112524) 692.37714 (20112524) 591.92341 (20112524) 509.24454 (20112524)
320.0 | 993.98436 (20112524) 804.88595 (20112524) 655.16588 (20112524) 548.23683 (20112524) 471.57854 (20112524)
330.0 | 761.45009 (20021308) 620.47971 (20021308) 515.33432 (20021308) 437.00709 (20021308) 381.06295 (20021308)
340.0 | 812.16831c(20013124) 657.91379c(20013124) 554.58252c(20013124) 472.01847c(20013124) 408.58328c(20013124)
350.0 | 741.77449 (20010224) 587.72761 (20010224) 483.54702 (20010224) 404.30882 (20010224) 341.69625 (20010224)
360.0 | 1022.60664 (20021324) 825.62312 (20021324) 685.89205 (20021324) 579.73484 (20021324) 498.90736 (20021324)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	661.69281 (20012424)	587.52405 (20012424)	524.88458 (20012424)	473.40437 (20012424)	428.40336 (20012424)
20.0	576.15108 (20121324)	506.56982 (20121324)	448.41304 (20121324)	402.65226 (20121324)	362.16712 (20121324)
30.0	383.64200 (20042524)	334.31088 (20042524)	296.56253 (20042524)	268.38228 (20042524)	242.27291 (20042524)
40.0	400.97803 (20042524)	353.30676 (20042524)	309.66547 (20042524)	277.26033 (20042524)	251.25668 (20042524)
50.0	336.15809 (20082824)	299.88378 (20082824)	267.88376 (20082824)	242.64927 (20082824)	218.14204 (20082824)
60.0	305.59344 (20032824)	267.88182 (20032824)	235.98802 (20032824)	213.87597 (20032824)	195.01669 (20032824)
70.0	386.16512m(20112624)	334.79982m(20112624)	291.06757m(20112624)	258.84717m(20112624)	235.22469m(20112624)
80.0	512.54229 (20021824)	455.49905 (20021824)	406.04199 (20021824)	362.98152 (20021824)	327.31386 (20021824)
90.0	331.60185 (20121424)	294.56997 (20121424)	264.97777 (20121424)	239.93359 (20121424)	217.47002 (20121424)

100.0 | 362.84047c(20091808) 322.11113c(20091808) 287.65756c(20091808) 260.53572c(20091808) 234.12444c(20091808)
110.0 | 299.94326 (20121224) 266.55560 (20121224) 235.03413 (20121224) 209.55413 (20121224) 193.72979 (20121224)
120.0 | 440.84782 (20011924) 382.83590 (20011924) 348.38661 (20011924) 316.04094 (20011924) 283.28376 (20011924)
130.0 | 559.53614c(20112824) 483.66486c(20112824) 423.01632c(20112824) 377.13142c(20112824) 341.61597c(20112824)
140.0 | 568.74518c(20112824) 501.07384c(20112824) 446.23997c(20112824) 400.66158c(20112824) 367.87911c(20112824)
150.0 | 456.53609 (20120824) 395.93112 (20120824) 348.26583 (20120824) 312.60078 (20120824) 280.29624 (20120824)
160.0 | 481.33123 (20011608) 427.16626 (20011608) 408.28154 (20011608) 376.56306 (20011608) 334.48748 (20011608)
170.0 | 423.41210 (20112324) 350.11670 (20112324) 313.74017 (20112324) 289.04482 (20112324) 267.07628 (20112324)
180.0 | 339.83909 (20112324) 298.78533 (20112324) 264.38403 (20112324) 232.59092 (20112324) 210.47877 (20112324)
190.0 | 420.65968 (20111724) 369.89229 (20111724) 324.14732 (20111724) 292.29707 (20111724) 239.81664 (20111724)
200.0 | 358.66302 (20093024) 314.36508 (20093024) 284.44530 (20093024) 262.00318 (20093024) 245.62192 (20093024)
210.0 | 400.54969c(20112408) 351.85099c(20112408) 316.99096c(20112408) 284.00038c(20112408) 273.76155 (20122308)
220.0 | 366.94222m(20013024) 317.54708m(20013024) 278.31223m(20013024) 254.48749m(20013024) 229.53457m(20013024)
230.0 | 382.91128 (20122724) 337.53144 (20122724) 290.77452 (20122724) 264.35025 (20122724) 229.76101 (20122724)
240.0 | 391.40768 (20121108) 342.32582 (20122724) 309.93201 (20122724) 274.91495 (20122724) 243.28365 (20122724)
250.0 | 337.01316 (20102324) 294.32039 (20102324) 260.84541 (20102324) 233.69250 (20102324) 209.95184 (20102324)
260.0 | 335.27088 (20091424) 295.34433 (20091424) 261.73565 (20091424) 234.18175 (20091424) 211.30086 (20091424)
270.0 | 346.23717 (20103124) 304.68354 (20103124) 270.16130 (20103124) 242.33696 (20103124) 220.21506 (20103124)
280.0 | 543.62112 (20122008) 494.19562 (20122008) 457.64991 (20122008) 416.31342 (20122008) 380.88433 (20122008)
290.0 | 377.30220 (20122008) 335.85157 (20020308) 302.76864 (20020308) 271.79610 (20020308) 246.30034 (20020308)
300.0 | 362.52744 (20022408) 319.13492 (20022408) 284.87690 (20022408) 254.11663 (20022408) 229.81278 (20022408)
310.0 | 443.99685 (20112524) 390.30021 (20112524) 352.97762 (20112524) 316.99092 (20112524) 284.21551 (20112524)
320.0 | 412.20406 (20112524) 360.19185 (20112524) 318.65168 (20112524) 280.87563 (20112524) 255.99369 (20112524)
330.0 | 328.62392 (20021308) 292.88626 (20021308) 263.02821 (20021308) 239.05544 (20021308) 217.56352 (20021308)
340.0 | 359.77035c(20013124) 319.37185c(20013124) 286.11283c(20013124) 259.36577c(20013124) 237.72684c(20013124)
350.0 | 295.20610 (20010224) 257.53118 (20010224) 229.89757 (20010224) 207.15733 (20010224) 185.83009 (20010224)
360.0 | 437.69805 (20021324) 386.40652 (20021324) 346.88161 (20021324) 313.54916 (20021324) 286.20480 (20021324)

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	390.32104 (20012424)	357.90058 (20012424)	329.77466 (20012424)	303.05107 (20012424)	278.39430 (20012424)
20.0	325.62985 (20121324)	292.47911 (20121324)	267.59530 (20121324)	250.39904 (20121324)	233.12777 (20121324)
30.0	218.87951 (20042524)	198.83779 (20042524)	183.38595 (20042524)	169.27603 (20042524)	156.51330 (20042524)
40.0	227.65753 (20042524)	203.39196 (20042524)	184.75035 (20042524)	171.12415 (20042524)	158.92413 (20042524)
50.0	197.32974 (20082824)	181.15245 (20082824)	166.37802 (20082824)	153.74871 (20082824)	144.41886 (20082824)
60.0	175.15444 (20032824)	159.12592 (20032824)	145.35686 (20032824)	134.44056 (20032824)	125.82712 (20032824)
70.0	215.60573m(20112624)	197.33282m(20112624)	178.05272m(20112624)	164.13264m(20112624)	150.78121m(20112624)
80.0	297.24215 (20021824)	270.82467 (20021824)	245.74737 (20021824)	233.05703 (20021824)	216.97044 (20021824)
90.0	197.97788 (20121424)	182.31903 (20121424)	163.50020 (20121424)	154.82492 (20121424)	145.23272 (20121424)
100.0	209.51898c(20091808)	191.93564c(20091808)	178.09611c(20091808)	162.27256c(20091808)	152.94040c(20091808)
110.0	174.87470 (20121224)	158.51743 (20121224)	145.37375 (20121224)	133.50209 (20121224)	124.07119 (20121224)
120.0	259.67907 (20011924)	239.49272 (20011924)	221.60121 (20011924)	204.16659 (20011924)	189.62871 (20011924)
130.0	297.16482c(20112824)	271.28771c(20112824)	248.88322 (20092524)	235.73400 (20092524)	217.21864 (20092524)
140.0	333.24799c(20112824)	310.62549c(20112824)	285.69990c(20112824)	264.65521c(20112824)	243.00194c(20112824)
150.0	257.33268 (20120824)	229.32183 (20120824)	210.88455 (20120824)	194.53089 (20120824)	177.88743 (20120824)
160.0	288.27063 (20011608)	274.41934 (20011608)	256.08117 (20011608)	239.74583 (20011608)	221.94451 (20011608)
170.0	239.93760 (20112324)	223.31183 (20112324)	206.74160 (20112324)	189.51439 (20112324)	176.03173 (20112324)
180.0	188.38224 (20100124)	171.30253 (20100124)	159.37270 (20100124)	147.58442 (20100124)	137.23834 (20100124)
190.0	219.01712 (20111724)	200.94730 (20111724)	185.55757 (20111724)	186.52396 (20111724)	170.73859 (20111724)
200.0	215.54229 (20093024)	172.26084 (20093024)	158.56331 (20093024)	160.92435 (20093024)	147.07733 (20093024)
210.0	216.48031c(20112408)	199.14318c(20112408)	184.07985c(20112408)	183.66437c(20112408)	173.09397c(20112408)
220.0	215.79145m(20013024)	177.34074m(20013024)	160.77167m(20013024)	148.37823m(20013024)	145.82760m(20013024)
230.0	213.69655 (20122724)	195.32349 (20122724)	178.30233 (20122724)	162.66341 (20122724)	150.18746 (20122724)
240.0	221.84732 (20122724)	200.91033 (20122724)	174.72555 (20122724)	158.41229 (20122724)	152.73107 (20122724)
250.0	190.53465 (20102324)	172.62736 (20102324)	157.69566 (20102324)	143.99130 (20102324)	129.45675 (20102324)
260.0	192.91204 (20100808)	174.24384 (20100808)	159.01762 (20100808)	144.94370 (20100808)	137.10584 (20100808)

270.0 | 201.60875 (20103124) 183.87594 (20103124) 168.09478 (20103124) 156.42527 (20103124) 144.14395 (20103124)
280.0 | 342.18816 (20122008) 308.17936 (20122008) 282.66324 (20122008) 263.66598 (20122008) 249.13563 (20122008)
290.0 | 225.19224 (20020308) 207.07796 (20020308) 192.35567 (20020308) 180.13283 (20020308) 166.06238 (20020308)
300.0 | 207.22555 (20022408) 190.30024 (20022408) 175.55117 (20022408) 161.38783 (20022408) 151.40555 (20022408)
310.0 | 259.93532 (20112524) 237.46974 (20112524) 219.23580 (20112524) 200.32246 (20112524) 185.99311 (20112524)
320.0 | 231.65739 (20112524) 211.31489 (20112524) 194.02110 (20030408) 178.61247 (20112524) 164.14303 (20030408)
330.0 | 196.68810 (20021308) 180.32616 (20021308) 164.86312 (20021308) 152.87448 (20021308) 141.68990 (20021308)
340.0 | 215.82120c(20013124) 198.95405c(20013124) 179.11255c(20013124) 166.25513c(20013124) 155.57776c(20013124)
350.0 | 164.38946 (20010224) 148.27969 (20010224) 137.15378 (20010224) 127.03166 (20010224) 117.78679 (20010224)
360.0 | 259.98031 (20021324) 236.95634 (20021324) 218.54987 (20021324) 202.73838 (20021324) 188.47485 (20021324)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
PAGE 39
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK	375.70	118.90	1789.86642	(20011924)	TANK	498.87	129.50	1867.94160c	(20112824)
TANK	81.43	359.00	13337.14813	(20120424)	TANK	116.79	44.50	7613.89465	(20042524)
TANK	109.20	67.00	8861.98636	(20021824)	TANK	100.70	93.73	8174.91413c	(20091808)
TANK	87.91	103.99	9303.45449c	(20091808)	TANK	99.82	123.38	13098.15884c	(20112824)
TANK	138.00	141.00	9212.31160c	(20112824)	TANK	106.00	180.00	8792.61415	(20072524)
TANK	115.60	206.00	7771.31721	(20122308)	TANK	54.00	270.00	18820.88810	(20122008)
TANK	97.00	326.00	9703.27548	(20120416)	TANK	133.94	242.10	6959.83743	(20122724)
TANK	101.99	301.65	7815.60322m	(20123124)	TANK	236.54	274.95	4014.21584	(20122008)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
PAGE 40
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00

10.0 | 13080.22254 (20012424) 5879.55640 (20121324) 3309.91035 (20121324) 2159.73869 (20121324) 1514.09088 (20121324)
20.0 | 11122.16055 (20012424) 4752.96687 (20012424) 2770.34414 (20012424) 1848.17366 (20012424) 1337.93568 (20012424)
30.0 | 8196.64954 (20012716) 3580.66307 (20042524) 2146.07195 (20121324) 1341.52696 (20121324) 929.36195 (20102924)
40.0 | 7419.81413 (20082824) 2932.59023 (20102924) 1668.07595 (20102924) 1098.75821 (20102924) 781.73796 (20102924)
50.0 | 7752.24745 (20082824) 2853.50987 (20050824) 1668.63229 (20050824) 1151.98185 (20070424) 845.55436 (20070424)
60.0 | 7475.48372 (20082724) 3129.32167m(20112624) 1830.93561 (20070424) 1241.28863 (20070424) 896.41638 (20070424)
70.0 | 9328.50816m(20112624) 4153.63186m(20112624) 2447.53408 (20021824) 1582.27841 (20021824) 1089.70860 (20021824)
80.0 | 9742.57996 (20071124) 3916.66998 (20071124) 2244.86973 (20071124) 1479.50000 (20071124) 1064.46087 (20071124)
90.0 | 7664.43617 (20092424) 3026.60032 (20121424) 1856.02776 (20121424) 1281.52573 (20121424) 947.44942 (20121424)
100.0 | 6868.75324 (20101124) 3142.69976 (20092424) 1893.89748 (20092424) 1286.25983 (20092424) 931.16902 (20092424)
110.0 | 7674.23262 (20080408) 3277.17839 (20020224) 1892.67549 (20020224) 1265.49180 (20020224) 925.33376 (20121224)
120.0 | 9139.27929 (20022824) 3868.40490 (20022824) 2293.84978 (20111224) 1541.86319 (20111224) 1108.69365 (20111224)
130.0 | 10712.86159 (20012524) 4614.67378 (20012524) 2719.62053 (20092524) 1886.72992 (20092524) 1408.69053 (20092524)
140.0 | 11326.01632 (20012524) 5340.06985 (20012524) 3260.18306 (20012524) 2234.97550 (20012524) 1643.14663 (20012524)
150.0 | 10071.45563 (20042108) 4451.07498 (20041524) 2685.55411 (20041524) 1822.65325 (20041524) 1332.43478 (20041524)
160.0 | 9379.27348 (20120824) 4362.31161 (20120824) 2574.55313 (20122124) 1767.46164 (20122124) 1300.13095 (20122124)
170.0 | 8099.32827 (20072524) 3951.06112 (20112324) 2469.30631 (20112324) 1699.02617 (20011608) 1194.22596 (20011608)
180.0 | 7750.00964 (20111316) 3668.96071 (20072524) 2136.62461 (20010108) 1445.70916 (20010108) 1056.41580 (20010108)
190.0 | 8543.11931 (20122216) 3635.16455 (20010108) 2206.07090 (20010108) 1509.16556 (20010108) 1121.42812 (20010108)
200.0 | 9212.80973 (20093024) 3615.35115 (20122308) 2108.43987c(20112408) 1441.50315c(20112408) 1045.76893c(20112408)
210.0 | 9074.99023 (20121824) 4119.18433 (20122308) 2363.24576m(20013024) 1625.99688c(20112408) 1212.91679c(20112408)
220.0 | 9028.19642 (20121824) 3969.01876 (20121824) 2311.89329 (20121824) 1558.90166 (20121824) 1130.00697 (20121824)
230.0 | 9101.74509 (20030108) 3613.34158 (20120324) 2078.70838 (20120324) 1379.47594 (20021908) 1002.06414 (20021908)
240.0 | 9551.24874 (20121108) 4189.42739 (20121108) 2456.58149 (20121108) 1663.47117 (20121108) 1213.28365 (20121108)
250.0 | 8496.63793 (20102324) 3718.44530 (20102324) 2182.67200 (20102324) 1470.68614 (20102324) 1071.33831 (20121108)
260.0 | 7261.35390 (20091424) 3241.70336 (20091424) 1950.90350 (20091424) 1332.95459 (20091424) 988.72889 (20091424)
270.0 | 8416.30545 (20020308) 3497.54653 (20103124) 2094.73861 (20103124) 1380.52083 (20122008) 1004.81981 (20011324)
280.0 | 9699.45288 (20020308) 4220.88756c(20081408) 2551.13846c(20081408) 1740.14238c(20081408) 1301.43336c(20081408)
290.0 | 9424.00366 (20020308) 3876.02967 (20020308) 2269.61996 (20020308) 1526.32897 (20020308) 1133.28183 (20020308)
300.0 | 8064.34536 (20122008) 3523.77141 (20022408) 2133.06198 (20022408) 1473.49448 (20022408) 1092.69334 (20022408)

310.0 | 7851.74156 (20011824) 3395.00984 (20011824) 2027.46884 (20011824) 1359.11544 (20011824) 989.91677c(20021208)
320.0 | 9231.11724 (20120416) 3551.64942c(20121008) 2149.90130c(20121008) 1487.52283c(20121008) 1093.73461c(20121008)
330.0 | 7867.19407 (20091416) 2952.86180 (20021308) 1828.84599 (20021308) 1292.34844 (20021308) 973.46123 (20021308)
340.0 | 6979.35668c(20013124) 3064.22741 (20011908) 1894.49835 (20011908) 1317.96528 (20011908) 988.79750 (20011908)
350.0 | 6937.58532 (20051824) 2791.38599 (20120424) 1606.58478 (20090524) 1086.26528 (20090524) 796.68886 (20090524)
360.0 | 8382.46630 (20121324) 3916.42976 (20021324) 2447.28462 (20021324) 1712.01368 (20021324) 1286.23938 (20120424)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	700.00	800.00	900.00	1000.00
10.0	1146.13327 (20121324)	899.37742 (20121324)	720.35284 (20121324)	577.08497 (20121324)	481.78246 (20121324)
20.0	1004.71078 (20012424)	803.31949 (20012424)	660.13916 (20012424)	534.20494 (20012424)	451.83936 (20012424)
30.0	727.33612 (20102924)	587.08574 (20102924)	487.82265 (20102924)	411.83918 (20102924)	352.46243 (20102924)
40.0	596.07187 (20102924)	483.06632 (20102924)	392.42055 (20041424)	330.23864 (20041424)	280.13911 (20041424)
50.0	655.65426 (20070424)	535.83020 (20070424)	438.87046 (20070424)	364.37406 (20070424)	307.87221 (20070424)
60.0	691.13171 (20070424)	547.94683 (20070424)	439.68599 (20070424)	369.67581 (20070424)	326.38747 (20070424)
70.0	763.82003 (20021824)	648.43081 (20021824)	525.60353 (20021824)	433.26991 (20082724)	372.98915 (20082724)
80.0	801.30692 (20071124)	623.46349 (20071124)	511.75040 (20071124)	445.11971 (20071124)	384.22929 (20071124)
90.0	728.53538 (20092424)	564.91181 (20092424)	481.67738 (20092424)	404.84300 (20092424)	346.02655 (20092424)
100.0	733.06181 (20092424)	563.70569 (20092424)	491.03561 (20092424)	410.84857 (20092424)	356.78242 (20092424)
110.0	718.75988 (20121224)	558.12511 (20121224)	471.73975 (20101124)	390.80122 (20101124)	336.32477 (20101124)
120.0	841.55706 (20111224)	661.06499 (20111224)	538.75762 (20111224)	440.73425 (20081424)	376.26690 (20081424)
130.0	1101.79102 (20092524)	859.37323 (20092524)	732.76886 (20092524)	656.34606 (20092524)	572.01101 (20092524)
140.0	1276.39086 (20012524)	971.23631 (20012524)	781.09037 (20012524)	662.25854 (20012524)	615.80016 (20012524)
150.0	1021.32087 (20041524)	813.09359 (20041524)	665.97265 (20041524)	536.62481 (20041524)	458.81188 (20041524)
160.0	1009.88636 (20122124)	812.98172 (20122124)	670.08156 (20122124)	554.69793 (20122124)	476.67856 (20122124)

170.0 | 905.64862 (20011608) 704.52254 (20011608) 569.55234 (20011608) 490.49797 (20020824) 400.38242 (20011608)
180.0 | 817.28373 (20010108) 658.80704 (20010108) 534.50473 (20010108) 446.89155 (20010108) 377.63696 (20010108)
190.0 | 868.37919 (20010108) 703.16328 (20010108) 583.32723 (20010108) 492.41258 (20010108) 419.60351 (20010108)
200.0 | 817.36255c(20112408) 654.65070 (20120908) 536.95610 (20120908) 453.00720 (20120908) 388.62384 (20120908)
210.0 | 949.36415c(20112408) 775.73805c(20112408) 636.04139c(20112408) 540.89910c(20112408) 457.17779 (20122308)
220.0 | 862.57923 (20121824) 687.12571 (20121824) 598.76064 (20121824) 482.42620 (20121824) 409.65985 (20121824)
230.0 | 793.83385 (20021908) 629.29843 (20021908) 513.30190 (20021908) 425.46848 (20021908) 366.30765 (20021908)
240.0 | 958.48207 (20121108) 757.82402 (20121108) 618.49070 (20121108) 521.52200 (20121108) 448.26214 (20121108)
250.0 | 814.30942 (20121108) 649.28225 (20121108) 532.20309 (20121108) 439.69791 (20121108) 371.10281 (20121108)
260.0 | 774.58697 (20091424) 618.70458 (20102324) 513.67480 (20102324) 431.54764 (20102324) 371.57063 (20100808)
270.0 | 782.01611 (20011324) 628.93896 (20011324) 518.92173 (20011324) 437.13814 (20011324) 371.91800 (20011324)
280.0 | 1017.44449c(20081408) 827.51315c(20081408) 682.82934c(20081408) 571.74460c(20081408) 495.57792c(20081408)
290.0 | 875.80810 (20020308) 702.20472 (20020308) 577.24872 (20020308) 483.97225 (20020308) 417.51366 (20020308)
300.0 | 845.71235 (20022408) 683.64769 (20022408) 562.20309 (20022408) 475.29054m(20123124) 406.75963m(20123124)
310.0 | 760.82396c(20021208) 613.05595c(20021208) 505.68926c(20021208) 424.46540c(20021208) 365.28882c(20021208)
320.0 | 852.84539c(20121008) 693.99014c(20121008) 583.17747 (20030408) 500.24206 (20030408) 431.96418 (20030408)
330.0 | 754.88677 (20030408) 614.82273 (20030408) 497.28841 (20030408) 419.67248 (20030408) 356.20253 (20030408)
340.0 | 776.19314 (20011908) 629.27667 (20011908) 526.73496 (20011908) 447.61165 (20011908) 388.86433 (20011908)
350.0 | 615.74390 (20090524) 494.88444 (20090524) 410.71080 (20090524) 347.34267 (20090524) 298.61751 (20090524)
360.0 | 980.27180 (20120424) 776.31905 (20120424) 632.56297 (20120424) 520.23257 (20120424) 442.58990 (20120424)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	393.96646 (20121324)	342.20842 (20121324)	295.88231 (20121324)	260.38141 (20121324)	228.33078 (20121324)
20.0	374.24883 (20012424)	322.24640 (20012424)	285.81413 (20012424)	253.09114 (20012424)	225.49384 (20012424)

30.0 | 306.89597 (20102924) 270.41712 (20102924) 239.69752 (20102924) 215.71920 (20102924) 194.12523 (20102924)
40.0 | 242.53506 (20041424) 211.38963 (20041424) 185.59561 (20041424) 167.33204 (20041424) 151.37042 (20041424)
50.0 | 274.75414 (20070424) 243.00612 (20070424) 217.87346 (20070424) 192.67038 (20070424) 174.08836 (20070424)
60.0 | 282.10446 (20070424) 246.87405 (20070424) 216.80250 (20070424) 196.79268 (20070424) 175.83223 (20070424)
70.0 | 326.88999 (20082724) 288.56225 (20082724) 257.57718 (20082724) 232.32799 (20082724) 210.95583 (20082724)
80.0 | 337.92029 (20071124) 297.58583 (20071124) 264.21119 (20071124) 236.40745 (20071124) 211.98375 (20071124)
90.0 | 300.60210 (20092424) 261.37632 (20092424) 235.81656 (20092424) 210.61546 (20092424) 187.92787 (20092424)
100.0 | 311.72938 (20092424) 276.93757 (20092424) 248.68908 (20092424) 222.16203 (20092424) 202.05059 (20092424)
110.0 | 287.71371 (20101124) 254.21920 (20101124) 219.74451 (20101124) 194.48687 (20101124) 172.29428 (20101124)
120.0 | 328.94021 (20081424) 286.03846 (20111224) 253.84183 (20020224) 230.71901 (20020224) 206.53698 (20020224)
130.0 | 501.70231 (20092524) 436.77811 (20092524) 384.26466 (20092524) 343.79689 (20092524) 312.29239 (20092524)
140.0 | 538.03298 (20012524) 472.80850 (20012524) 417.87862 (20012524) 377.61446 (20012524) 347.23164 (20012524)
150.0 | 420.02698 (20041524) 367.00123 (20041524) 325.92707 (20041524) 292.40977 (20041524) 267.97898 (20041524)
160.0 | 404.08277 (20122124) 354.15034 (20122124) 327.09275 (20122124) 296.57239 (20122124) 265.36390 (20122124)
170.0 | 349.02138 (20020824) 302.09700 (20011608) 262.24754 (20011608) 237.72308 (20020824) 223.86796 (20020824)
180.0 | 334.24993 (20010108) 287.76979 (20010108) 243.57609 (20100124) 218.77881 (20100124) 206.38791 (20100124)
190.0 | 368.65724 (20010108) 328.68673 (20010108) 284.53395 (20010108) 261.47885 (20010108) 215.05951 (20010108)
200.0 | 341.32320 (20120908) 299.54937 (20120908) 266.98834 (20120908) 246.84726 (20120908) 230.03832 (20032108)
210.0 | 400.09015 (20122308) 350.43524 (20122308) 315.69255 (20122308) 281.43036 (20122308) 271.33827c(20112408)
220.0 | 350.40075 (20121824) 303.12790 (20121824) 266.16836 (20121824) 244.80969 (20121824) 223.13860 (20121824)
230.0 | 322.40352 (20021908) 284.17658 (20021908) 244.15857 (20021908) 222.22231 (20021908) 192.67920 (20021908)
240.0 | 391.29272 (20122724) 340.96548 (20121108) 299.39685 (20121108) 267.95135 (20121108) 235.48809 (20121108)
250.0 | 322.18978 (20121108) 281.85471 (20121108) 251.92012 (20121108) 220.06112 (20121108) 194.47536 (20121108)
260.0 | 326.38415 (20100808) 289.80452 (20100808) 259.18329 (20100808) 232.65179 (20100808) 210.58977 (20100808)
270.0 | 326.70069 (20011324) 288.76923 (20011324) 258.08109 (20011324) 230.59209 (20011324) 210.16369 (20011324)
280.0 | 425.76272c(20081408) 390.58981c(20081408) 360.79388c(20081408) 331.95954c(20081408) 310.70584c(20081408)
290.0 | 377.21218 (20020308) 321.17387 (20122008) 278.60697 (20122008) 252.30782 (20122008) 224.36725 (20122008)
300.0 | 354.44739m(20123124) 312.22882m(20123124) 273.83761m(20123124) 244.18372m(20123124) 223.21421m(20123124)
310.0 | 320.48899c(20021208) 276.35384c(20021208) 249.21826c(20021208) 225.68224c(20021208) 200.62284c(20021208)
320.0 | 379.42079 (20030408) 340.69016 (20030408) 303.92112 (20030408) 274.36776 (20030408) 249.53127 (20030408)
330.0 | 306.64256 (20030408) 272.08658 (20030408) 243.62470 (20030408) 215.30906 (20030408) 194.93134 (20030408)

340.0 | 342.53188 (20011908) 304.15189 (20011908) 272.59173 (20011908) 245.60158 (20011908) 221.53844 (20011908)
350.0 | 260.18335 (20090524) 230.60498 (20090524) 205.89580 (20090524) 185.22215 (20090524) 168.12104 (20090524)
360.0 | 383.32315 (20120424) 333.73105 (20120424) 294.07325 (20021224) 263.16094 (20021224) 235.82533 (20120424)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:17:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	207.07049 (20121624)	189.55549 (20121624)	175.37692 (20121624)	161.92443 (20121624)	149.20926 (20121624)
20.0	202.73553 (20012424)	186.59226 (20012424)	166.50605 (20012424)	146.97376 (20012424)	137.90089 (20012424)
30.0	176.31353 (20102924)	161.36454 (20102924)	147.98492 (20102924)	136.50210 (20102924)	127.02613 (20102924)
40.0	136.38483 (20041424)	123.22005 (20041424)	110.89333 (20041424)	102.07310 (20120424)	95.15133 (20120424)
50.0	157.85460 (20070424)	145.66361 (20070424)	133.74067 (20070424)	123.33769 (20070424)	110.84215 (20070424)
60.0	159.50434 (20070424)	147.46746 (20070424)	133.87384 (20070424)	123.64672 (20070424)	115.20324 (20070424)
70.0	192.15830 (20082724)	174.81304 (20082724)	159.87476 (20082724)	147.41096 (20082724)	139.30815 (20082724)
80.0	190.44595 (20071124)	172.20523 (20071124)	158.17213 (20071124)	144.78419 (20071124)	135.61004 (20071124)
90.0	168.29069 (20092424)	151.25589 (20092424)	139.85328 (20092424)	126.91176 (20092424)	119.00977 (20092424)
100.0	185.98677 (20092424)	170.59590 (20092424)	157.24373 (20092424)	144.20500 (20092424)	132.83910 (20092424)
110.0	153.22992 (20101124)	139.97922 (20101124)	129.15874 (20080408)	119.00691 (20080408)	110.94650 (20080408)
120.0	188.98796 (20020224)	173.66797 (20020224)	158.49469 (20020224)	145.49040 (20020224)	135.53347 (20020224)
130.0	288.26086 (20092524)	267.59262 (20092524)	244.74368c(20112824)	224.08933c(20112824)	205.87903c(20112824)
140.0	317.43870 (20012524)	292.22341 (20012524)	268.96484 (20012524)	252.12538 (20012524)	233.38590 (20012524)
150.0	244.90508 (20041524)	220.44709 (20041524)	201.04458 (20041524)	187.47647 (20041524)	173.06995 (20041524)
160.0	233.88849 (20122124)	220.02713 (20122124)	202.88806 (20122124)	185.62488 (20122124)	170.25465 (20122124)
170.0	201.58160 (20020824)	182.88487 (20020824)	171.39513 (20020824)	160.46574 (20020824)	151.04685 (20020824)
180.0	187.49977 (20112324)	169.75438 (20010108)	154.77663 (20010108)	144.17135 (20010108)	135.23194 (20010108)
190.0	196.84129 (20010108)	178.96985 (20010108)	163.22987 (20010108)	165.69324 (20010108)	154.77972 (20010108)

200.0 | 203.05158 (20120908) 166.55247 (20120908) 153.99070 (20120908) 151.50508 (20120908) 140.73727 (20120908)
210.0 | 211.62499 (20122308) 194.76162 (20122308) 180.10526 (20122308) 181.08477 (20122308) 170.85854 (20122308)
220.0 | 214.49272 (20121824) 165.15736 (20121824) 152.58001 (20121824) 141.44320 (20121824) 141.23612 (20121824)
230.0 | 179.42688 (20021908) 163.33136 (20021908) 148.42261 (20021908) 136.56758 (20021908) 125.22428 (20021908)
240.0 | 213.39981 (20121108) 193.33598 (20121108) 173.67105 (20121108) 154.77550 (20121108) 148.83472 (20121108)
250.0 | 175.78073 (20121108) 159.06838 (20121108) 148.78962 (20121108) 131.55308 (20121108) 123.41302 (20121108)
260.0 | 192.86526 (20091424) 174.14639 (20091424) 158.63833 (20091424) 144.39825 (20091424) 135.94875 (20091424)
270.0 | 189.67216 (20011324) 172.12577 (20011324) 157.01474 (20011324) 144.18416 (20011324) 134.25012 (20011324)
280.0 | 279.51785c(20081408) 251.69512c(20081408) 231.92367c(20081408) 216.82179c(20081408) 204.99565c(20081408)
290.0 | 200.99925c(20011508) 185.65352c(20011508) 172.29781c(20011508) 161.62625c(20011508) 150.47607c(20011508)
300.0 | 202.21468m(20123124) 185.77237m(20123124) 170.94309m(20123124) 154.74034m(20123124) 145.44807m(20123124)
310.0 | 183.41374c(20021208) 165.60600 (20122324) 152.72024 (20122324) 139.29033 (20122324) 129.07779 (20122324)
320.0 | 226.86644 (20030408) 207.32579 (20030408) 191.53591 (20112524) 176.67072 (20030408) 163.80312 (20112524)
330.0 | 176.01151 (20030408) 158.23212 (20030408) 146.05880 (20030408) 134.90165 (20030408) 123.80945 (20030408)
340.0 | 201.38200 (20011908) 185.37979 (20011908) 167.61417 (20011908) 154.69650 (20011908) 145.35142 (20011908)
350.0 | 154.66947 (20090524) 141.62298 (20090524) 130.82337 (20090524) 121.13894 (20090524) 113.01131 (20090524)
360.0 | 214.97432 (20021224) 198.23837 (20021224) 183.71597 (20021224) 170.51715 (20021224) 158.73379 (20021224)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 2ND HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)
TANK	375.70	118.90	1590.25694	(20111224)	TANK	498.87	129.50	1402.15477	(20092524)
TANK	81.43	359.00	10412.57348	(20010224)	TANK	116.79	44.50	6577.81138	(20082824)
TANK	109.20	67.00	8345.26090m	(20112624)	TANK	100.70	93.73	7615.62074	(20092424)
TANK	87.91	103.99	8309.14605	(20101124)	TANK	99.82	123.38	9527.18074	(20022824)
TANK	138.00	141.00	7965.01348	(20012524)	TANK	106.00	180.00	7330.48178	(20112324)
TANK	115.60	206.00	7612.14553	(20093024)	TANK	54.00	270.00	17661.93765	(20020308)
TANK	97.00	326.00	8878.68909	(20112524)	TANK	133.94	242.10	6939.40420	(20121108)
TANK	101.99	301.65	7794.10556	(20081724)	TANK	236.54	274.95	3113.49040c	(20081408)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	200.00	300.00	400.00	500.00
10.0	11557.57046 (20120424)	4518.31354 (20120424)	2554.75219 (20120424)	1685.38524 (20120424)	1209.21027 (20120424)
20.0	7322.01359 (20020416)	3224.81481 (20112924)	1941.03834 (20112924)	1328.34244 (20112924)	982.01722 (20112924)
30.0	7641.20548 (20042524)	3058.54769 (20102924)	1837.65204 (20102924)	1261.06079 (20102924)	913.98465 (20121324)
40.0	7391.09085 (20101116)	2830.74574 (20082824)	1511.91316 (20082824)	1000.46229 (20041424)	739.50147 (20041424)
50.0	7531.86033 (20020424)	2844.14876 (20020424)	1666.50859 (20070424)	1125.23145 (20050824)	808.79559 (20050824)
60.0	7382.06481 (20032824)	3096.58168 (20070424)	1799.50173 (20050824)	1211.50483 (20050824)	870.83777 (20050824)
70.0	9325.58190 (20071124)	3649.12071 (20071124)	2059.11548 (20071124)	1351.48472 (20071124)	980.05409 (20082724)
80.0	8937.17088 (20091816)	3083.61979m(20112624)	1800.92217m(20112624)	1184.17367m(20112624)	849.76847m(20112624)
90.0	7366.44759c(20091808)	3012.08889 (20021824)	1769.48258 (20021824)	1174.41842 (20021824)	836.83741 (20021824)
100.0	6757.80033 (20071116)	2832.70640 (20121424)	1593.06359 (20121424)	1033.92697 (20121424)	746.25385 (20121424)
110.0	7651.08022 (20101124)	3144.64243 (20010724)	1869.24543 (20121224)	1260.82630 (20121224)	888.57530 (20020224)
120.0	8828.77352 (20081424)	3862.75497 (20111224)	2220.06685 (20022824)	1456.04964 (20022824)	1051.59173 (20081424)
130.0	9540.32032 (20020124)	4330.26248 (20092524)	2715.91985 (20012524)	1804.92167 (20012524)	1332.16982 (20111224)
140.0	10748.05728 (20120824)	4531.23813 (20092624)	2713.48187 (20092624)	1837.44232 (20101324)	1345.84847 (20092624)
150.0	9784.64795 (20011608)	4168.40136 (20101208)	2448.06609 (20101208)	1654.50939 (20101208)	1204.50607 (20101208)
160.0	9020.26723 (20042108)	4101.01293 (20122124)	2572.12853 (20120824)	1698.31472 (20120824)	1221.02498 (20120824)
170.0	8024.52314 (20112324)	3431.60627 (20020824)	2087.25213 (20020824)	1425.88158 (20020824)	1067.19004 (20020824)
180.0	7738.22271 (20112324)	3583.22948 (20010108)	1984.92146 (20072524)	1355.67399 (20100124)	1003.81435 (20100124)
190.0	8230.45126 (20072524)	3369.54944 (20111624)	1936.24440 (20111624)	1279.81988 (20111624)	927.13250 (20111624)
200.0	8135.50082 (20122308)	3491.52772 (20111724)	2073.44478 (20122308)	1414.46101 (20120908)	1042.37061 (20120908)
210.0	8938.28807 (20122308)	3939.71963 (20121824)	2334.23213c(20112408)	1557.60040m(20013024)	1131.61418 (20123008)
220.0	8337.04259 (20120224)	3588.11922 (20120224)	2022.98657 (20120224)	1338.08908 (20010824)	973.48799 (20010824)
230.0	8605.30991 (20112708)	3590.11753 (20112708)	2043.65676 (20021908)	1367.30567 (20120324)	996.52698 (20120324)

240.0 | 9222.41825 (20030108) 4076.42142 (20120324) 2380.14117 (20120324) 1585.63650 (20120324)
1150.45525 (20120324)
250.0 | 8414.29371 (20120324) 3526.44214 (20120324) 2013.04355 (20120324) 1327.65659 (20120324)
940.91481 (20120324)
260.0 | 7138.94772 (20100808) 3102.33095 (20100808) 1848.45974 (20100808) 1269.20981 (20100808)
941.23226 (20100808)
270.0 | 7877.26454 (20103124) 3308.74302 (20011324) 1990.56496 (20011324) 1357.66760 (20011324) 960.79048
(20122008)
280.0 | 9447.29821c(20081408) 3816.20863 (20020308) 2122.84809 (20020308) 1398.90626 (20020308)
988.04381 (20020308)
290.0 | 8619.03910c(20081408) 3429.93313c(20081408) 2002.66527 (20112608) 1382.67683 (20112608)
1021.06440 (20112608)
300.0 | 7910.30598m(20123124) 3452.72086 (20011824) 2053.41209 (20011824) 1398.35512 (20011824)
1028.13315 (20011824)
310.0 | 7530.11230m(20123124) 3192.79976c(20021208) 1955.33993c(20021208) 1334.22931c(20021208)
984.49131 (20011824)
320.0 | 7799.48960c(20121008) 3281.89340 (20030408) 2049.39493 (20030408) 1443.84699 (20030408)
1086.66996 (20030408)
330.0 | 7043.48214 (20082216) 2716.09556 (20030308) 1642.49711 (20030308) 1141.88502 (20030308) 848.36116
(20030308)
340.0 | 6543.64350 (20012924) 2913.16474 (20012924) 1714.72249 (20012924) 1172.02879 (20021308)
880.34641 (20021308)
350.0 | 6714.69377 (20120424) 2768.09693 (20090524) 1579.43906 (20012924) 1067.76635 (20012924)
777.76488 (20012924)
360.0 | 8248.47395 (20021324) 3407.45382 (20010224) 2005.52502 (20021224) 1412.14545 (20021224)
1071.69126 (20021224)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION	DISTANCE (METERS)				
(DEGREES)	600.00	700.00	800.00	900.00	1000.00
10.0	919.33115 (20120424)	722.38777 (20120424)	583.01435 (20120424)	489.42553 (20120424)	412.40001 (20120424)
20.0	758.60965 (20112924)	613.26534 (20112924)	507.26387 (20112924)	428.47947 (20112924)	362.94816 (20112924)
30.0	700.38017 (20041424)	569.55613 (20041424)	473.40729 (20041424)	400.89783 (20041424)	342.93015 (20041424)
40.0	573.93251 (20041424)	474.21784 (20041424)	389.51157 (20102924)	318.28637 (20102924)	269.27102 (20102924)
50.0	619.13917 (20050824)	501.62043 (20050824)	407.36735 (20050824)	336.30672 (20050824)	283.76340 (20050824)
60.0	672.91732 (20050824)	530.68682 (20050824)	429.36291 (20050824)	354.97502 (20050824)	310.85858 (20050824)
70.0	750.62869 (20082724)	591.91866 (20082724)	482.65844 (20082724)	410.06054 (20062424)	354.55424 (20062424)
80.0	644.85298m(20112624)	504.30881m(20112624)	406.06136m(20112624)	348.65342 (20052024)	304.43841 (20052024)
90.0	630.29107 (20021824)	497.57029 (20021824)	389.76416 (20021824)	314.64172 (20021824)	250.87807 (20021824)

100.0	541.68149 (20010724)	430.96682 (20121424)	345.74857 (20010724)	289.41559 (20010724)	248.25998 (20010724)
110.0	669.61940c(20091808)	524.01059 (20020224)	431.02143c(20091808)	366.61129c(20091808)	315.46227c(20091808)
120.0	793.50014 (20081424)	614.32458 (20081424)	519.19988 (20081424)	434.13699 (20010424)	375.70533 (20111224)
130.0	1032.39580 (20111224)	816.17587 (20111224)	682.17003 (20111224)	591.22910 (20022824)	514.00137 (20022824)
140.0	1036.44060 (20020124)	804.54426 (20101324)	646.95589 (20020124)	547.96532 (20020124)	499.04763 (20091824)
150.0	915.92795 (20101208)	724.24682 (20101208)	590.80991 (20101208)	473.52214 (20101208)	403.53839 (20101208)
160.0	919.65543 (20120824)	737.14949 (20111308)	602.95425 (20111308)	497.13012 (20111308)	430.84875 (20111308)
170.0	834.67046 (20020824)	676.81955 (20020824)	558.29901 (20020824)	450.26396 (20011608)	394.05969 (20020824)
180.0	781.92016 (20100124)	630.07866 (20100124)	521.78749 (20100124)	440.81475 (20100124)	375.81330 (20100124)
190.0	707.98473 (20111624)	565.89062 (20111624)	459.51302 (20111624)	384.19482 (20111624)	327.93151 (20111624)
200.0	813.12916 (20120908)	653.63455c(20112408)	530.48544c(20112408)	441.59124c(20112408)	378.22285c(20112408)
210.0	890.45758 (20123008)	737.97540 (20123008)	597.90430 (20123008)	506.03834 (20123008)	425.72460 (20123008)
220.0	749.73242 (20010824)	601.76142 (20011808)	522.21730 (20011808)	416.24060 (20011808)	356.46500 (20011808)
230.0	754.48790 (20120324)	596.97000 (20120324)	476.41075 (20011808)	402.80453 (20011808)	344.08454 (20011808)
240.0	892.37484 (20120324)	708.12548 (20120324)	577.25204 (20120324)	483.07698 (20120324)	404.06935 (20120324)
250.0	723.55115 (20120324)	572.72932 (20120324)	471.28506 (20120324)	388.13620 (20120324)	329.38351 (20120324)
260.0	738.33856 (20100808)	599.74075 (20100808)	500.27719 (20100808)	429.25448 (20100808)	368.05698 (20102324)
270.0	707.90558 (20122008)	551.86212 (20122008)	443.91927 (20090408)	372.01189m(20010924)	316.31112m(20010924)
280.0	756.06813 (20020308)	611.72133 (20111508)	504.35290 (20111508)	423.73368 (20111508)	365.77904 (20111508)
290.0	788.10027 (20112608)	639.11761 (20112608)	523.80015 (20112608)	442.10065 (20112608)	383.60808 (20112608)
300.0	792.29739 (20011824)	631.98308 (20011824)	515.11327 (20011824)	431.83263 (20011824)	363.91475 (20011824)
310.0	760.69460 (20011824)	600.11033 (20011824)	492.77755 (20011824)	407.12063 (20011824)	350.20002 (20011824)
320.0	852.44255 (20030408)	693.98017 (20030408)	572.10642c(20121008)	491.37464c(20121008)	421.34828c(20121008)
330.0	661.34240 (20030308)	538.05735 (20030308)	446.86364 (20030308)	374.53415 (20030308)	323.98539 (20030308)
340.0	672.57008 (20021308)	543.01811 (20021308)	441.93732 (20102824)	377.81005 (20102824)	328.04760 (20102824)
350.0	599.80902 (20012924)	483.53798 (20122408)	397.45353 (20122408)	342.43713 (20122408)	291.89715 (20122408)
360.0	849.96493 (20021224)	688.58070 (20021224)	567.31894 (20021224)	483.66639 (20021224)	420.39335 (20021224)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22

*** AERMET - VERSION 19191 *** *** *** 15:17:51

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1100.00	1200.00	1300.00	1400.00	1500.00
10.0	355.05892 (20120424)	311.73250 (20121624)	280.08146 (20121624)	252.21358 (20121624)	228.04013 (20121624)
20.0	314.09790 (20112924)	277.62068 (20112924)	246.29533 (20112924)	219.51771 (20112924)	198.32624 (20112924)
30.0	295.98812 (20041424)	259.39002 (20041424)	232.36215 (20041424)	209.91310 (20041424)	189.57571 (20041424)
40.0	237.28274 (20102924)	199.61124 (20102924)	175.53548 (20102924)	156.50430 (20102924)	141.08554 (20120424)
50.0	250.14808 (20050824)	220.79586 (20050824)	194.29996 (20050824)	171.72842 (20050824)	156.30252 (20050824)
60.0	265.42024 (20050824)	231.70080 (20050824)	208.81643 (20050824)	187.54085 (20050824)	164.81003 (20050824)
70.0	309.82262 (20062424)	272.94766 (20062424)	243.09049 (20062424)	218.70502 (20062424)	198.29086 (20062424)
80.0	268.74315 (20052024)	239.75805 (20052024)	215.46278 (20052024)	194.01429 (20052024)	176.17077 (20052024)
90.0	213.41795 (20021824)	185.54387 (20021824)	155.63414 (20021824)	135.94147 (20021824)	122.22909 (20021824)
100.0	213.46556 (20010724)	187.71595 (20010724)	171.20405 (20010724)	154.72354 (20010724)	139.95109 (20010724)
110.0	263.48662c(20091808)	235.39011c(20091808)	207.32983c(20091808)	186.35271 (20080408)	171.16134 (20080408)
120.0	325.42993 (20010424)	282.58952 (20010424)	253.43831 (20010424)	228.36502 (20010424)	204.01329 (20010424)
130.0	449.94730 (20022824)	392.35862 (20022824)	346.08587 (20111224)	309.85647 (20111224)	280.51448 (20111224)
140.0	437.65620 (20091824)	389.34496 (20091824)	347.48536 (20091824)	316.05183 (20091824)	290.96232 (20091824)
150.0	386.37306 (20101208)	337.05103 (20101208)	300.37601 (20101208)	271.24205 (20101208)	254.22769 (20101208)
160.0	360.58783 (20111308)	315.82231 (20111308)	297.02703 (20111308)	268.24455 (20111308)	239.56302 (20111308)
170.0	340.08111 (20011608)	287.60411 (20020824)	257.67039 (20020824)	234.38792 (20012508)	218.16885 (20012508)
180.0	329.15421 (20100124)	284.77774 (20100124)	243.48938 (20010108)	213.58597 (20010108)	204.17991 (20010108)
190.0	285.95572 (20111624)	248.84376 (20111624)	217.47842 (20111624)	197.15838 (20111624)	162.38817 (20111624)
200.0	332.17027c(20112408)	292.52694c(20112408)	258.00460c(20112408)	234.99998 (20032108)	222.35682 (20120908)
210.0	371.97236 (20123008)	326.17672 (20123008)	294.15265 (20123008)	263.24140 (20123008)	256.37863 (20123008)
220.0	304.08256 (20011808)	262.29834 (20011808)	232.21594 (20011808)	215.45887 (20011808)	196.67677 (20011808)
230.0	300.58414 (20011808)	264.99708 (20011808)	228.04799 (20011808)	207.47381 (20011808)	180.10052 (20011808)
240.0	348.54268 (20120324)	305.30612 (20120324)	271.82874 (20120324)	243.03350 (20120324)	216.38386 (20120324)
250.0	283.65390 (20120324)	248.86598 (20090208)	222.25929 (20090208)	200.10165 (20090208)	180.21708 (20090208)
260.0	319.06862 (20102324)	278.42094 (20102324)	244.42910 (20102324)	218.00560 (20102324)	196.75758 (20102324)

270.0 | 276.39733m(20010924) 242.22523m(20010924) 217.58611 (20090408) 197.75280 (20090408) 177.44209 (20090408)
280.0 | 315.53383 (20111508) 286.07821 (20111508) 263.55597 (20092508) 242.15465 (20092508) 226.03279 (20092508)
290.0 | 334.51084 (20112608) 297.67278 (20112608) 264.30651c(20011508) 239.40436c(20011508) 218.32032c(20011508)
300.0 | 313.57364 (20011824) 274.34470 (20011824) 241.90289 (20011824) 211.67192 (20011824) 192.76082 (20011824)
310.0 | 304.53789c(20121008) 269.82982 (20122324) 245.48724 (20122324) 221.81305 (20122324) 195.58180 (20122324)
320.0 | 366.92180c(20121008) 326.10679c(20121008) 294.91720c(20121008) 262.77593c(20121008) 237.13133c(20121008)
330.0 | 285.25456 (20030308) 253.49401 (20030308) 225.60641 (20030308) 201.97766 (20030308) 184.11880 (20030308)
340.0 | 288.77193 (20102824) 256.57271 (20102824) 230.05185 (20102824) 208.91084 (20102824) 192.11118 (20102824)
350.0 | 252.89341 (20122408) 225.55585 (20122408) 202.44904 (20122408) 182.50611 (20122408) 162.40517 (20122408)
360.0 | 369.78499 (20021224) 329.37960 (20021224) 293.69343 (20120424) 261.88681 (20120424) 235.82468 (20021224)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF HCL IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 1600.00	1700.00	1800.00	1900.00	2000.00
10.0	206.06936 (20121324)	185.79475 (20121324)	167.41127 (20121324)	153.96279 (20121324)	143.34479 (20121324)
20.0	179.96100 (20112924)	163.46649 (20112924)	150.26061 (20112924)	140.07091 (20112924)	129.76538 (20112924)
30.0	172.63230 (20041424)	158.69518 (20041424)	145.48133 (20041424)	133.43570 (20041424)	122.31028 (20041424)
40.0	129.15169 (20120424)	118.86332 (20120424)	109.91560 (20120424)	101.30623 (20041424)	94.38433 (20041424)
50.0	141.66822 (20050824)	127.32097 (20050824)	116.60503 (20050824)	107.48401 (20050824)	100.54972 (20050824)
60.0	150.28797 (20050824)	139.24372 (20120508)	126.08097 (20050824)	116.43352 (20050824)	108.73626 (20050824)
70.0	181.31971 (20062424)	165.35671 (20062424)	151.23588 (20062424)	138.88862 (20062424)	129.87456 (20062424)
80.0	161.11764 (20052024)	147.75820 (20052024)	134.19564 (20052024)	127.51336 (20052024)	119.25388 (20052024)
90.0	110.30803 (20041824)	101.02514 (20041824)	91.48741 (20021824)	84.48050 (20041824)	78.44632 (20041824)
100.0	128.05105 (20010724)	117.26486 (20010724)	108.41062 (20010724)	98.69192 (20010724)	92.44097 (20010724)
110.0	153.21880 (20080408)	139.83975 (20080408)	128.91584 (20101124)	118.40610 (20101124)	109.82792 (20101124)
120.0	185.14971 (20010424)	169.14090 (20081424)	157.38896 (20010424)	145.42443 (20010424)	135.23486 (20010424)

130.0	257.51735 (20022824)	237.45377 (20022824)	220.77703 (20022824)	208.44018 (20022824)	192.25708 (20022824)
140.0	265.67530 (20091824)	246.00089 (20091824)	227.38351 (20091824)	213.07636 (20091824)	197.43454 (20091824)
150.0	232.76132 (20101208)	206.81557 (20101208)	193.53607 (20101208)	177.69633 (20101208)	164.87603 (20101208)
160.0	210.41753 (20111308)	195.18011 (20111308)	181.03968 (20111308)	169.60609 (20111308)	155.89842 (20111308)
170.0	196.03190 (20012508)	179.94718 (20012508)	166.15790 (20012508)	153.06185 (20012508)	142.29397 (20012508)
180.0	187.48015 (20010108)	169.37009 (20112324)	153.15174 (20112324)	139.87190 (20112324)	128.25202 (20120808)
190.0	147.93860 (20111624)	135.53622 (20111624)	124.87940 (20111624)	126.56835 (20122224)	117.35612 (20122224)
200.0	201.20413 (20032108)	162.66455c(20112408)	150.37567c(20112408)	144.81171 (20032108)	135.87558 (20032108)
210.0	199.46221 (20123008)	182.46878 (20123008)	168.61668 (20123008)	172.38030 (20123008)	161.63662 (20123008)
220.0	193.91843 (20011808)	144.94292 (20010824)	132.49933 (20011808)	123.02457 (20011808)	124.86281 (20011808)
230.0	167.61452 (20011808)	156.28661 (20011808)	142.53473 (20011808)	127.61965 (20011808)	119.04856 (20011808)
240.0	195.42775 (20120324)	177.33519 (20120324)	156.68414 (20120324)	142.80687 (20120324)	136.38621 (20120324)
250.0	164.78515 (20090208)	148.90592 (20090208)	137.81853 (20090208)	123.92847 (20090208)	110.76222 (20090208)
260.0	179.24641 (20102324)	161.63685 (20102324)	147.32127 (20102324)	134.24304 (20102324)	126.15818 (20102324)
270.0	159.89682m(20010924)	145.68831 (20090408)	133.00583m(20010924)	123.65449 (20090408)	115.95072 (20090408)
280.0	203.83597 (20092508)	183.95037 (20092508)	169.57492 (20092508)	158.48032 (20092508)	149.56140 (20092508)
290.0	197.09442 (20122008)	177.79061 (20020408)	165.08721 (20020408)	155.29745 (20020408)	144.48944 (20020408)
300.0	175.05549 (20011824)	158.09230 (20011824)	145.56267 (20082808)	135.45754 (20082808)	128.62359 (20082808)
310.0	181.41356 (20122324)	164.79022c(20021208)	149.73375c(20021208)	137.47965c(20021208)	127.26894c(20021208)
320.0	213.18052c(20121008)	193.93749c(20121008)	185.10802c(20121008)	165.75044c(20121008)	154.08144c(20121008)
330.0	168.62695 (20030308)	155.06422 (20030308)	141.96315 (20030308)	129.46932 (20030308)	121.25333 (20030308)
340.0	174.10248 (20102824)	160.85800 (20102824)	144.13449 (20102824)	133.86795 (20102824)	125.95648 (20102824)
350.0	149.63994 (20041408)	137.62508 (20041408)	127.59692 (20041408)	118.43699 (20041408)	110.68928 (20041408)
360.0	214.03443 (20120424)	194.52934 (20120424)	176.33361 (20120424)	161.45845 (20120424)	148.47824 (20120424)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 3RD HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TANK :	375.70	118.90	1550.55277	(20081424)	TANK :	498.87	129.50	1343.40048	(20111224)
TANK :	81.43	359.00	9770.28596	(20121324)	TANK :	116.79	44.50	6427.92732	(20020424)
TANK :	109.20	67.00	7500.77581	(20062424)	TANK :	100.70	93.73	6953.07561	(20101216)
TANK :	87.91	103.99	8182.71869	(20020224)	TANK :	99.82	123.38	9035.78403	(20111224)
TANK :	138.00	141.00	7580.50266	(20120824)	TANK :	106.00	180.00	7253.78292	(20010108)
TANK :	115.60	206.00	7372.33836m	(20013024)	TANK :	54.00	270.00	16079.32276	(20052416)
TANK :	97.00	326.00	7954.72482	(20091416)	TANK :	133.94	242.10	6530.53033	(20120324)
TANK :	101.99	301.65	7487.76628	(20011824)	TANK :	236.54	274.95	2757.94464	(20103124)

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

** CONC OF HCL IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE	RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE
1.	70152.25347	(20092607) AT (	-54.00, -0.00) DP	26.	47091.04016	(20090406) AT (	-54.00, -0.00) DP
2.	66961.34885	(20020306) AT (	-54.00, -0.00) DP	27.	47038.80046	(20071721) AT (	-54.00, -0.00) DP
3.	66717.54930	(20080807) AT (	-54.00, -0.00) DP	28.	46329.48953	(20081820) AT (	-54.00, -0.00) DP
4.	58964.82693	(20021707) AT (	-54.00, -0.00) DP	29.	46314.27807	(20121307) AT (	-54.00, -0.00) DP
5.	58488.49397	(20122006) AT (	-54.00, -0.00) DP	30.	45876.30717	(20100807) AT (	-54.00, -0.00) DP
6.	58360.97862	(20062206) AT (	-54.00, -0.00) DP	31.	45682.99680	(20081407) AT (	-54.00, -0.00) DP
7.	56891.47792	(20020406) AT (	-54.00, -0.00) DP	32.	45040.82699	(20060906) AT (	-54.00, -0.00) DP
8.	56270.13676	(20080906) AT (	-54.00, -0.00) DP	33.	44755.97310	(20080407) AT (	86.60, -50.00) GP
9.	55921.70314	(20081207) AT (	-54.00, -0.00) DP	34.	44419.68088	(20080406) AT (	34.20, -93.97) GP
10.	55371.29867	(20121919) AT (	-54.00, -0.00) DP	35.	44206.70134	(20042107) AT (	64.28, -76.60) GP
11.	54811.25106	(20080407) AT (	85.30, -21.25) DP	36.	44113.00355	(20122007) AT (	-54.00, -0.00) DP
12.	53857.75765	(20081406) AT (	-54.00, -0.00) DP	37.	44000.38506	(20011606) AT (	34.20, -93.97) GP
13.	53357.57413	(20051021) AT (	-54.00, -0.00) DP	38.	43090.73646	(20042107) AT (	50.00, -86.60) GP
14.	52588.65975	(20080407) AT (	93.97, -34.20) GP	39.	42776.80817	(20011319) AT (	-54.00, -0.00) DP
15.	52577.44919	(20080806) AT (	-54.00, -0.00) DP	40.	42356.04826	(20090920) AT (	-54.00, -0.00) DP
16.	52121.92269	(20050306) AT (	-54.00, -0.00) DP	41.	42257.86595	(20072621) AT (	-54.00, -0.00) DP
17.	51709.18326	(20121920) AT (	-54.00, -0.00) DP	42.	42216.48755	(20072620) AT (	34.20, -93.97) GP
18.	51284.62524	(20122320) AT (	-54.00, -0.00) DP	43.	42197.73548	(20121918) AT (	76.60, 64.28) GP
19.	51119.21635	(20031306) AT (	-54.00, -0.00) DP	44.	41986.66106	(20121918) AT (	64.28, 76.60) GP
20.	50980.99504	(20031007) AT (	-54.00, -0.00) DP	45.	41564.16348	(20072321) AT (	-54.00, -0.00) DP
21.	49807.25483	(20031107) AT (	-54.00, -0.00) DP	46.	41416.66856	(20042106) AT (	34.20, -93.97) GP
22.	49147.26008	(20032306) AT (	-54.00, -0.00) DP	47.	41258.86670	(20072521) AT (	17.36, -98.48) GP
23.	48621.39552	(20012406) AT (	-54.00, -0.00) DP	48.	40873.35551	(20092506) AT (	-54.00, -0.00) DP
24.	47965.60727	(20122008) AT (	-54.00, -0.00) DP	49.	40677.39336	(20081020) AT (	85.30, -21.25) DP
25.	47187.46029	(20121320) AT (	34.20, 93.97) GP	50.	40512.84645	(20061606) AT (	-54.00, -0.00) DP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE MAXIMUM 50 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): TANK ,

** CONC OF HCL IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE	RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE
1.	18820.88810	(20122008) AT	(-54.00, -0.00) DP	26.	12531.93607	(20091216) AT	(-54.00, -0.00) DP
2.	17661.93765	(20020308) AT	(-54.00, -0.00) DP	27.	12487.35106	(20081208) AT	(-54.00, -0.00) DP
3.	16302.02805	(20121324) AT	(34.20, 93.97) GP	28.	12481.90591	(20051416) AT	(-54.00, -0.00) DP
4.	16079.32276	(20052416) AT	(-54.00, -0.00) DP	29.	12453.63051	(20111508) AT	(-54.00, -0.00) DP
5.	16031.23587c	(20112824) AT	(76.60, -64.28) GP	30.	12416.34447	(20011608) AT	(34.20, -93.97) GP
6.	15211.91656	(20080808) AT	(-54.00, -0.00) DP	31.	12356.83304	(20100724) AT	(-54.00, -0.00) DP
7.	14924.01854	(20072224) AT	(-54.00, -0.00) DP	32.	12333.12564	(20120316) AT	(-54.00, -0.00) DP
8.	14630.11594	(20121324) AT	(17.36, 98.48) GP	33.	12292.41698	(20030916) AT	(-54.00, -0.00) DP
9.	14442.62135	(20102616) AT	(-54.00, -0.00) DP	34.	12258.63315	(20122008) AT	(-93.97, 34.20) GP
10.	14282.49757	(20121924) AT	(-54.00, -0.00) DP	35.	12229.50543	(20042816) AT	(-54.00, -0.00) DP
11.	14220.10778c	(20081408) AT	(-54.00, -0.00) DP	36.	12088.34778	(20100716) AT	(-54.00, -0.00) DP
12.	14215.22169	(20103124) AT	(-54.00, -0.00) DP	37.	12037.26848	(20051316) AT	(-54.00, -0.00) DP
13.	13481.86252	(20072016) AT	(-54.00, -0.00) DP	38.	11828.61267m	(20010924) AT	(-54.00, -0.00) DP
14.	13459.22889	(20011324) AT	(-54.00, -0.00) DP	39.	11728.53399	(20120824) AT	(50.00, -86.60) GP
15.	13337.14813	(20120424) AT	(-1.42, 81.42) DP	40.	11583.89954	(20031616) AT	(-54.00, -0.00) DP
16.	13321.48453c	(20112824) AT	(64.28, -76.60) GP	41.	11557.57046	(20120424) AT	(17.36, 98.48) GP
17.	13267.68974	(20090408) AT	(-54.00, -0.00) DP	42.	11490.15414	(20052316) AT	(-54.00, -0.00) DP
18.	13192.54080	(20100616) AT	(-54.00, -0.00) DP	43.	11484.74571	(20103116) AT	(-54.00, -0.00) DP
19.	13109.81753	(20060316) AT	(-54.00, -0.00) DP	44.	11438.55557	(20020924) AT	(-54.00, -0.00) DP
20.	13098.15884c	(20112824) AT	(83.35, -54.92) DP	45.	11433.58227	(20102316) AT	(-54.00, -0.00) DP
21.	13080.22254	(20012424) AT	(17.36, 98.48) GP	46.	11425.33722	(20081308) AT	(-54.00, -0.00) DP
22.	13067.84773	(20091424) AT	(-54.00, -0.00) DP	47.	11326.01632	(20012524) AT	(64.28, -76.60) GP
23.	13057.30737	(20100808) AT	(-54.00, -0.00) DP	48.	11248.00199	(20102624) AT	(-54.00, -0.00) DP
24.	12875.17001	(20122008) AT	(-98.48, 17.36) GP	49.	11122.16055	(20012424) AT	(34.20, 93.97) GP
25.	12582.15307	(20020408) AT	(-54.00, -0.00) DP	50.	11083.32357	(20120424) AT	(-0.00, 100.00) GP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 *** 12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (8784 HRS) RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	2077.74943 AT (-54.00, -0.00, 7.66, 7.66, 0.00) DP	
	2ND HIGHEST VALUE IS	1168.57631 AT (-64.28, -76.60, 6.40, 6.40, 0.00) GP	POL1
	3RD HIGHEST VALUE IS	1167.41180 AT (-76.60, -64.28, 6.80, 6.80, 0.00) GP	POL1
	4TH HIGHEST VALUE IS	1149.57012 AT (-86.60, -50.00, 7.10, 7.10, 0.00) GP	POL1
	5TH HIGHEST VALUE IS	1136.95035 AT (-50.00, -86.60, 6.40, 6.40, 0.00) GP	POL1
	6TH HIGHEST VALUE IS	1086.09978 AT (-93.97, -34.20, 7.30, 7.30, 0.00) GP	POL1
	7TH HIGHEST VALUE IS	1036.97555 AT (-34.20, -93.97, 6.40, 6.40, 0.00) GP	POL1

8TH HIGHEST VALUE IS 991.78696 AT (-98.48, -17.36, 7.50, 7.50, 0.00) GP POL1
9TH HIGHEST VALUE IS 918.12577 AT (-50.68, -103.90, 5.94, 5.94, 0.00) DP
10TH HIGHEST VALUE IS 906.69413 AT (-100.00, -0.00, 7.80, 7.80, 0.00) GP POL1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
PAGE 53
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	70152.25347	ON 20092607: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 2ND HIGH VALUE IS	66961.34885	ON 20020306: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 3RD HIGH VALUE IS	66717.54930	ON 20080807: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 ***
12/09/22
*** AERMET - VERSION 19191 *** *** *** 15:17:51
PAGE 54
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF HCL IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	18820.88810	ON 20122008: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 2ND HIGH VALUE IS	17661.93765	ON 20020308: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	
	HIGH 3RD HIGH VALUE IS	16079.32276	ON 20052416: AT (-54.00, -0.00, 7.66, 7.66, 0.00)	DP	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 19191 *** *** USECOLOGY- TAMPA MODELING generic 1 gram emissions 2020 ***

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 3 Warning Message(s)
A Total of 144 Informational Message(s)

A Total of 8784 Hours Were Processed

A Total of 57 Calm Hours Identified

A Total of 87 Missing Hours Identified (0.99 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 356 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 356 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
ME W531 356 MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for SITEDATA

****
*** AERMOD Finishes Successfully ***
****

APPENDIX O

Facility Closure Plan

HAZARDOUS WASTE & SOLID WASTE CLOSURE PLANS TO BE PROVIDED SEPARATELY

APPENDIX P

Facility Financial Assurance Documentation

DEP Form # 62-730.900(4)(k)
Form Title HW Certificate of Liability Insurance
Effective Date January 5, 1995
DEP Application No.

STATE OF FLORIDA
HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE
(Primary Policy)

1. ASPEN SPECIALTY INSURANCE COMPANY (the "Insurer"),
Name of Insurer

of 499 Washington Boulevard, 8th Floor, Jersey City, NJ 07310
Address of Insurer

hereby certifies that it has issued liability insurance covering bodily injury and property damage to REPUBLIC SERVICES, INC., (the "Insured"), of
Name of Insured

18500 N ALLIED WAY, PHOENIX, AZ 85054
Address of Insured

in connection with the insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147, as adopted by reference in Section 62-730.180, Florida Administrative Code (F.A.C.). The coverage applies at

EPA/DEP I.D. No.	Name	Address
FLD981932494	US Ecology Tampa, Inc.	7202 E. 8th Ave.; Tampa, FL 33169

for:

- [ ] sudden accidental occurrences
- [x] nonsudden accidental occurrences
- [ ] sudden and nonsudden accidental occurrences

If coverage is for multiple facilities and the coverage is different for different facilities, indicate which facility(ies) are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both.

The limits of liability are $4,000,000.00 each occurrence and $8,000,000.00 annual aggregate, exclusive of legal defense costs. The coverage is provided under policy number ER00T3623, issued on 6/30/2023 (Date). The effective date of said policy is 6/30/2023 (Date).

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

   (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

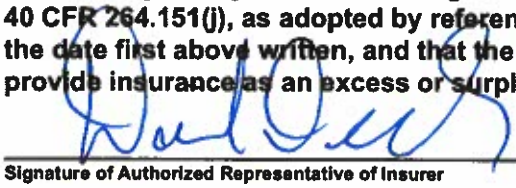
   (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f), as adopted by reference in Section 62-730.180, F.A.C.

   (c) Whenever requested by the Secretary of the Florida Department of Environmental Protection (FDEP), the Insurer agrees to furnish to the Secretary a signed duplicate original of the policy and all endorsements.

(d) **Cancellation of the insurance, whether by the Insurer or the Insured, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Secretary of the FDEP.**

(e) **Any other termination of the insurance (e.g., expiration, non-renewal) will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Secretary of the FDEP.**

I hereby certify that the wording of this instrument is substantially identical to the wording specified in 40 CFR 264.151(j), as adopted by reference in Section 62-730.180, F.A.C., as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States including Florida.



Signature of Authorized Representative of Insurer

Daniel Orseck

Type name

Regional Manager, Senior Vice President

Title

Authorized Representative of

Aspen Specialty Insurance Company

Name of Insurer

50 California St, Suite 1607, San Francisco, CA 94111

Address of Representative

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

HAZARDOUS WASTE FACILITY LIABILITY ENDORSEMENT

This endorsement modifies and is subject to the insurance provided under the following:

PREMISE ENVIRONMENTAL COVERAGE

It is hereby agreed that the policy is amended as follows:

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147 as adopted by reference in Section 62-730.180, Florida Administrative Code (F.A.C.). The coverage applies at US Ecology Tampa, Inc., 7202 E 8th Ave., Tampa, FL, EPA I.D. No. FLD981932494 for sudden and accidental occurrences. The limits of liability are $4,000,000 each occurrence and $8,000,000 annual aggregate, exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

   (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

   (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147 or 265.147 as adopted by reference in Section 62-730.180, Florida Administrative Code (F.A.C.).

   (c) Whenever requested by the Secretary of the Florida Department of Environmental Protection (FDEP), the Insurer agrees to furnish to the Secretary a signed duplicate original of the policy and all endorsements.

   (d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Secretary of the FDEP.

   (e) Any other termination of this endorsement will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Secretary of the FDEP.

Attached to and forming part of policy No. ER00T3623 issued by Aspen Specialty Insurance Company, herein called the Insurer, of 499 Washington Boulevard, 8th Floor, Jersey City, NJ 07310 to REPUBLIC SERVICES, INC. of 18500 N ALLIED WAY, PHOENIX, AZ 85054 this 30th day of June 2023. The effective date of said policy is June 30, 2023.

I hereby certify that the wording of this endorsement is identical to the wording specified in 40 CFR 264.147 or 265.147 as adopted by reference in Section 62-730.180, Florida Administrative Code (F.A.C.)

as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

Signature of Authorized Representative of Insurer

Daniel Orseck
Regional Manager, Senior Vice President
Authorized Representative of Aspen Specialty Insurance Company
50 California St, Suite 1607, San Francisco, CA 94111

All other policy terms and conditions remain unchanged.

THIS BOND REPLACES AND SUPERSEDES PRIOR GREAT AMERICAN INSURANCE GROUP POLICY # CPC E620952 02, dated 12/31/2022

DEP Form # 62-730.900(4)(i)
Form Title HW Fac. Performance Bond
Effective Date January 5, 1995
DEP Application No. _____

STATE OF FLORIDA
HAZARDOUS WASTE FACILITY PERFORMANCE BOND
TO DEMONSTRATE FINANCIAL ASSURANCE
FOR

☑ Closure ☐ Post-Closure ☐ Corrective Action
[Check Appropriate Box(es)]

The term "Required Action," as used in this document means closure, post-closure care, or corrective action, or any combination of these, which is checked above.

Date bond executed: 7/7/2023

Effective date: 7/1/2023

Principal: US Ecology Tampa, Inc.

7202 E. 8th Ave, Tampa, FL 33619

Legal Name and Business Address of Owner or Operator

Type of Organization: ☐ Individual ☐ Joint Venture ☐ Partnership ☑ Corporation
Check One

State of Incorporation: MI

Surety(ies): Western Surety Company

151 N. Franklin St., Chicago, IL 60606

Name(s) and business address(es)

List EPA/DEP Identification Number, name, address, and "Required Action" amounts separately for each facility guaranteed by this bond.

EPA/DEP I.D. No.	Name	Address
EPA ID NO: FLD981932494	US Ecology Tampa, Inc.	7202 E 8th Ave, Tampa, FL 33619

Total penal sum of bond: $ 754,868.69

Surety's bond number: 30167992

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Florida Department of Environmental Protection (hereinafter called FDEP), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Resource Conservation and Recovery Act as amended (RCRA), to have a permit in order to own or operate each hazardous waste management facility identified above, and

Whereas said Principal is required to provide financial assurance for "Required Action," as a condition of the permit, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully perform closure, whenever required to do so, of each facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit, as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended.

And, if the Principal shall faithfully perform post-closure care of each facility for which this bond guarantees post-closure care, in accordance with the post-closure plan and other requirements of the permit, as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules and regulations may be amended.

And if the Principal shall faithfully perform corrective action of each facility for which this bond guarantees corrective action in accordance with the corrective action plan and other requirements of the permit as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended.

Or, if the Principal shall provide alternate financial assurance as specified in Subpart H of 40 CFR Part 264, as adopted by reference in Section 62-730.180, Florida Administrative Code (F.A.C.), and obtain the FDEP Secretary's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the FDEP Secretary from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by the FDEP Secretary that the Principal has been found in violation of the closure requirements of 40 CFR Part 264, as adopted by reference in Section 62-730.180, F.A.C., for a facility for which this bond guarantees performance of closure, the Surety(ies) shall either perform closure in accordance with the closure plan and other permit requirements or place the closure amount guaranteed for the facility into the standby trust fund as directed by the FDEP Secretary.

Upon notification by the FDEP Secretary that the Principal has been found in violation of the post-closure requirements of 40 CFR Part 264, as adopted by reference in Section 62-730.180, F.A.C., for a facility for which this bond guarantees performance of post-closure care, the Surety(ies) shall either perform post-closure care in accordance with the post-closure plan and other permit requirements or place the post-closure amount guaranteed for the facility into the standby trust fund as directed by the FDEP Secretary.

Upon notification by the FDEP Secretary that the Principal has been found in violation of the corrective action requirements of 40 CFR Part 264, as adopted by reference in Section 62-730.180, F.A.C., for a facility for which this bond guarantees performance of corrective action, the Surety(ies) shall either perform corrective action in accordance with the corrective action plan and other permit requirements or place the corrective action amount guaranteed for the facility into the standby trust fund as directed by the FDEP Secretary.

Upon notification by the FDEP Secretary that the Principal has failed to provide alternate financial assurance as specified in Subpart H of 40 CFR Part 264, as adopted by reference in Section 62-730.180, F.A.C., and obtain written approval of such assurance from the FDEP Secretary during the 90 days following receipt by both the Principal and the FDEP Secretary of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the FDEP Secretary.

The Surety(ies) hereby waive(s) notification of amendments to closure plans, permits, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the FDEP Secretary, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the FDEP Secretary, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Secretary of the FDEP.

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new "Required Action" amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the FDEP Secretary.

In Witness Whereof, The Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is substantially identical to the wording specified in 40 CFR 264.151(c), as adopted by reference in Section 62-730.180, F.A.C., as such regulations were constituted on the date this bond was executed.

PRINCIPAL

US Ecology Tampa, Inc.

Signature

Calvin R. Boyd, Treasurer

Type Name and Title

Corporate Seal

CORPORATE SURETY(IES)

For each co-surety provide the following

Western Surety Company

Name and address

151 N Franklin St., Chicago, IL 60606

SD

State of Incorporation

Liability Limit $ $754,868.69

Signature

Amber Engel, Attorney-in-Fact

Type Name and Title

Corporate Seal

Bond premium: $ 3,586.00

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Kathleen M Mitchell, Holly E Ulfers, Roxana Palacios, Lori Stark, Debbie Lindstrom, Scott Alderman, Jamie Armfield, Kathy Nye, Tara Koloski, Amber Engel, Individually

of Seattle, WA, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 5th day of October, 2022.

WESTERN SURETY COMPANY

Paul T. Bruflat, Vice President

State of South Dakota
County of Minnehaha } ss

On this 5th day of October, 2022, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires
March 2, 2026

M. BENT
NOTARY PUBLIC
SOUTH DAKOTA

M. Bent, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 7th day of July, 2023. .

WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Form F4280-7-2012

Go to www.cnasurety.com > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

Authorizing By-Law

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

Mail Document and Notices to:
Solid Waste Financial Coordinator
Florida Department of Environmental Protection
2600 Blairstone Road MS 4548
Tallahassee, Florida 32399-2400

THIS BOND REPLACES AND SUPERSEDES PRIOR
GREAT AMERICAN INSURANCE GROUP
POLICY #CPC E620953 02, dated 1/9/2023

DEP Form # 62-701.900(5)(c)
Form Title SW Fac. Performance Bond
Form Effective Date February 15, 2015
Incorporated in Rule 62-701.630(6)

STATE OF FLORIDA
SOLID WASTE FACILITY PERFORMANCE BOND

The term "Required Action" as used in this document means closing, long-term care, or corrective action, or any combination of these, which is identified below.

Check Appropriate Box(es): ☒ Closing ☐ Long-Term Care ☐ Corrective Action

Date bond executed: 7/7/2023

Effective date: 7/1/2023

Principal is a Corporation.
Type of Legal Entity (e.g., corporation, limited liability company, partnership, sole proprietorship)

Principal: US Ecology Tampa, Inc.
Legal Name of Owner or Operator

2002 N. Orient Road, Tampa, FL 33619
Business Address of Owner or Operator

Surety(ies): Evergreen National Indemnity Company
Name as listed on Treasury Circular 570

6150 Oak Tree Blvd., Ste. 440, Independence, OH 44131
Business Address

Ohio
State of Incorporation of Surety

List for each facility covered by this bond: FDEP identification number (WACS or EPA ID), facility name and site address.
Include facility amounts (the amount for each facility covered by this bond) only when more than one facility is covered by this bond.
Facility amount equals penal sum when not specified.

FDEP I.D. No.	Facility Name and Site Address
WACS 44633	US Ecology Tampa, Inc. 2002 N. Orient Road Tampa, FL 33619

Total penal sum of bond: $ 160,460.52

Surety's bond number: 880419

Bond premium: $ 1,284.00

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Florida Department of Environmental Protection (hereinafter called FDEP), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

WHEREAS, said Principal is required, under the Florida Solid Waste Management Act as amended, to have a permit in order to construct, operate or close each solid waste management facility identified above, and

WHEREAS, said Principal is required to provide financial assurance for the "Required Action," as a condition of the permit(s), and

WHEREAS, said principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

NOW, THEREFORE, the conditions of the obligation are such that if the Principal shall faithfully perform Required Action(s), whenever required to do so, of each facility for which this bond guarantees Required Action(s), in accordance with the Required Action plan(s) and other requirements of the permit, as such plan(s) and permit(s) may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

Or, if the Principal shall provide alternate financial assurance and obtain the FDEP Secretary's, or the Secretary's designee's (the "designee"), written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the FDEP Secretary, or designee, from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by the FDEP Secretary, or designee, that the Principal has been found in violation of the Required Action requirements for a facility for which this bond guarantees performance, the Surety(ies) shall either perform Required Action(s) in accordance with the Required Action plan(s) and other permit requirements or place the amount guaranteed for the facility into the standby trust fund as directed by the FDEP Secretary, or designee.

Upon notification by the FDEP Secretary, or designee, that the Principal has failed to provide alternate financial assurance and obtain written approval of such assurance from the FDEP Secretary, or designee, during the 90 days following receipt by both the Principal and the FDEP Secretary, or designee, of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the FDEP Secretary, or designee.

The Surety(ies) hereby waive(s) notification of amendments to Required Action plans, permits, applicable laws, statutes, rules, and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the FDEP Secretary, or designee; provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the FDEP Secretary, or designee, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies); provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the FDEP Secretary, or designee.

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees new facility amount(s), provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the FDEP Secretary, or designee.

IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies), and that the wording of this surety bond is identical to the wording as adopted and incorporated by reference in Rule 62-701.630(6)(a), F.A.C.

PRINCIPAL US Ecology Tampa, Inc.

Signature of Authorized Representative of Principal

Calvin R. Boyd, Treasurer
Type Name and Title

Telephone Number

E-mail Address

Signature of Witness or Notary

7/14/2023
Date of Witness or Notary

Amber Chambers
Printed Name of Witness or Notary Seal

CORPORATE SURETY(IES)
Provide the following for each surety (co-surety). Attach pages as needed.

Evergreen National Indemnity Company
Surety Company

NA
Liability Limit (for co-sureties only)

Signature of Authorized Representative of Surety (Attach Power of Attorney) (SEAL)

Amber Engel, Attorney-in-Fact
Type Name and Title

601 Union Street, Ste 1000, Seattle, WA 98101
Address of Authorized Representative

206-695-3102
Telephone Number

Amber.Engel@usi.com
E-mail Address

EVERGREEN NATIONAL INDEMNITY COMPANY

Independence, Ohio

POWER OF ATTORNEY

Bond No. 880419

KNOW ALL MEN BY THESE PRESENTS: That the Evergreen National Indemnity Company, a corporation in the State of Ohio does hereby nominate, constitute and appoint:

Amber Engel

its true and lawful Attorney(s)-In-Fact to make, execute, attest, seal and deliver for and on its behalf, as Surety, and as its act and deed, where required, any and all bonds, undertakings, recognizances and written obligations in the nature thereof, PROVIDED, however, that the obligation of the Company under this Power of Attorney shall not exceed TWENTY-FIVE MILLION AND 00/100 DOLLARS ($25,000,000.00)

This Power of Attorney is granted and is signed by facsimile pursuant to the following Resolution adopted by its Board of Directors on the 23rd day of July, 2004:

"RESOLVED, That any two officers of the Company have the authority to make, execute and deliver a Power of Attorney constituting as Attorney(s)-in-fact such persons, firms, or corporations as may be selected from time to time.
FURTHER RESOLVED, that the signatures of such officers and the Seal of the Company may be affixed to any such Power of Attorney or any certificate relating thereto by facsimile; and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company; and any such powers so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached."

IN WITNESS WHEREOF, the Evergreen National Indemnity Company has caused its corporate seal to be affixed hereunto, and these presents to be signed by its duly authorized officers this 1st day of April, 2022.

EVERGREEN NATIONAL INDEMNITY COMPANY

By: _____
Matthew T. Tucker, President

By: _____
David A. Canzone, CFO

Notary Public)
State of Ohio) SS:

On this 1st day of April, 2022, before the subscriber, a Notary for the State of Ohio, duly commissioned and qualified, personally came Matthew T. Tucker and David A. Canzone of the Evergreen National Indemnity Company, to me personally known to be the individuals and officers described herein, and who executed the preceding instrument and acknowledged the execution of the same and being by me duly sworn, deposed and said that they are the officers of said Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and the said Corporate Seal and signatures as officers were duly affixed and subscribed to the said instrument by the authority and direction of said Corporation, and that the resolution of said Company, referred to in the preceding instrument, is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at Cleveland, Ohio, the day and year above written.

Julie K Bowers
Notary Public
In and For the State of Ohio
My Commission Expires
August 13, 2024

_____
Julie K. Bowers, Notary Public
My Commission Expires August 13, 2024

State of Ohio) SS:

I, the undersigned, Secretary of the Evergreen National Indemnity Company, a stock corporation of the State of Ohio, DO HEREBY CERTIFY that the foregoing Power of Attorney remains in full force and has not been revoked; and furthermore that the Resolution of the Board of Directors, set forth herein above, is now in force.

Signed and sealed in Independence, Ohio, this 7th day of July 2023.

_____
Wan C. Collier, Secretary

APPENDIX Q

Facility Preparedness & Prevention Plan and Contingency/Emergency Response Plan

FACILITY CONTINGENCY & EMERGENCY RESPONSE PLAN

US ECOLOGY TAMPA, INC.

7202 East 8th Avenue &
2002 North Orient Road
Tampa, Hillsborough County, Florida

PREPARED FOR

US Ecology Tampa, Inc.
7202 East 8th Avenue
Tampa, FL 33619

PREPARED BY

PACSCON GeoEnvironmental, Inc.
4517 George Road, Suite 220
Tampa, FL 33634

Revision: 00
October 3, 2023
PACSCON No. 2023-1816

Facility Preparedness & Prevention Plan

And

Contingency/Emergency Response Plan

US Ecology Tampa, Inc.
7202 East 8th Avenue &
2002 North Orient Road
Tampa, Hillsborough County, FL

Prepared for:

US Ecology Tampa, Inc.
7202 East 8th Avenue
Tampa, FL 33619

Prepared by:

PACSCON GeoEnvironmental, Inc.
4517 George Road, Suite 220
Tampa, FL 33634

Revision: 00
October 3, 2023
PACSCON No. 2023-1816

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1.0 FACILITY PREPAREDNESS & PREVENTION PLAN

This section discusses the facility preparedness and prevention plan for the USET Ecology Tampa, Inc. (USET) facility located in Tampa, FL. It should be noted that in addition to this Facility Preparedness & Prevention and Contingency/Emergency Response Plan, USET maintains and operates under a comprehensive Emergency Action Plan (EAP) that is available for review at the facility office during normal business hours. An emergency contact and response agency list is provided in **Appendix A**. Additionally, as requested by the Florida Department of Environmental Protection (FDEP or Department), the hurricane preparedness and recovery information available on the United States Environmental Protection Agency (USEPA) website is contained in **Appendix B**.

1.1 Facility Overview

USET is a division of EQ Holding Company, a Michigan Corporation, and a wholly owned subsidiary of Republic Services. USET operates a permitted solid/non-hazardous waste processing facility in combination with a hazardous waste treatment and storage facility the pertinent facility and operating permit details of which are summarized below:

- Facility Name: US Ecology Tampa, Inc.
- Facility Address: 7202 East 8th Avenue, Tampa, FL 33619
- Facility County: Hillsborough
- Facility Telephone No.: (813) 623-5302
- Facility EPA Identification No.: FLD 981 932 494
- Hazardous Waste Permit No.: 34875-018-HO
- Solid Waste Permit No.: 34757-016-SO

The USET facility comprises 4.46 acres, more or less, with processing storage, transportation and administrative operations conducted on two separate but adjacent/contiguous parcels located north and south of East 9th Avenue. The facility is located outside the 100-year floodplain and the land was previously undeveloped prior to its current use. It is located in a heavy industrial zoned area known as Orient Park within the City of Tampa and the surrounding land uses are heavy industrial in nature.

The USET facility is a permitted non-hazardous and hazardous waste storage and treatment facility and a registered hazardous waste transporter with a State-registered (onsite) transfer facility. No onsite disposal occurs at the USET facility. USET manages non-RCRA regulated waste, household hazardous waste, used oil and filters, mercury containing lamps and devices, TSCA-exempt and limited quantity exempt PCB and asbestos wastes, recyclable materials, and other similar substances, materials, and wastes. The primary waste management operations are: staging, storage, consolidation, solidification and transfer of non-hazardous and hazardous wastes, and treatment of hazardous wastes (D-002, D-004 through D-011, and K-062). The main office and mailing address is 7202 East 8th Avenue (south side of East 9th Avenue); however, the majority of inbound wastes are delivered to the 2002 North Orient Road property (north side of East 9th Avenue).

1.2 Facility Design & Operations

The USET facility was specially designed and built for non-hazardous and hazardous waste storage, transfer, and treatment and consists of a loading/unloading area, an office building, a 5,866 square-foot Container Storage Building (CSB) with an attached 1,786 square-foot Improved Secondary Containment Area (ISCA), and a Consumer Products Consolidation Platform (CPCP) located on the North Orient Road property, hereinafter referred to as the "Orient Road Property" or "Area 1." The 8,050 square-foot Waste Processing Building (WPB) is located on the East 8th Avenue property, hereinafter referred to as the "8th

Avenue Property" or "Area 2.". An overall facility layout plan is provided as **Figure CP-1** and a permitted facility layout plan is depicted on **Figure CP-2**. The area designations are depicted on **Figure CP-1**.

The Inbound/Outbound (I/O) Staging Area is co-located with the 10-day Transfer Area on the E. 8th Avenue property and used for incoming loads of hazardous waste awaiting receipt and unloading, and for full loads awaiting transportation to an offsite disposal and/or recycling facility.

The office building located on the E. 8th Avenue property does not conduct commercial hazardous waste storage, transfer, or treatment. The facility's quality control laboratory is located in the office building. The lab generates small quantities (5 gallons or less) of satellite accumulation wastes, which are taken to the CSB for storage prior to shipment to an offsite permitted disposal facility.

The loading/unloading area is used for the loading and unloading of hazardous waste and are shown on **Figure CP-3**. Transport vehicles delivering shipments of hazardous waste back into any one of seven available loading/unloading docks. The docks have roll-up doors, which allow unloading directly from transport vehicle to the CSB. Similarly, outbound waste is loaded directly from the CSB to the transport vehicles. The loading/unloading area is an impervious contained surface constructed of concrete and asphalt. An epoxy coating covers the ISCA in front of Bay 2/Bay 3A. There is a 60-foot roof overhang from the CSB over the loading/unloading area. All stormwater run-off from the loading/unloading area is contained and inspected prior to release to the stormwater management system. Surface water flow and the stormwater management system are shown on **Figure CP-4**.

The CSB was designed and built specifically for hazardous waste storage, transfer, and treatment, and contains a floor that is constructed of five inches of 4,000 psi concrete placed monolithically and coated with a chemical resistant sealant and two layers of chemical resistant polyurethane coating. The CSB consists of three separate bays. An eight-inch-wide concrete block wall separates each bay. The walls extend from the floor to the roof and are designed with a minimum fire resistance of four hours. Storage Bays 1 and 3 are at opposite ends of the CSB and have identical dimensions of approximately 48- by 50-feet. Storage Bay 2 is in the center of the CSB and is approximately half the size of Bays 1 and 3. Specifically, the dimensions of Bay 2 are approximately 22- by 50-feet.

The CSB has five separate containment sumps with a capacity of 1,001 gallons each, which provide a combined total of 5,005 gallons of containment capacity. The floors of each bay are sloped 1/8-inch per foot to each containment sump. The 1/8 inch per foot slope of the floors provides additional containment beyond the 1,001 gallons of each containment sump. Conservatively, the additional containment available from the floor slope has not been included in containment calculations. Each containment sump is available to contain spills or leaks of different hazard class materials. This eliminates the potential for incompatible materials to spill or leak into the same containment sump. The sloping of the floors directs potential spills or leaks to the appropriate containment sump. Two sumps each are in Bays 1 and 3 and one sump is in Bay 2. The layout of the CSB and covered processing area is shown on **Figure CP-5**.

The WPB houses the solid/non-hazardous waste solidification tank, an on-ground hazardous waste treatment tank, and a reactives magazine and includes a hazardous waste container storage area with a permitted capacity of 9,900 gallons. The layout of the WPB is shown on **Figure CP-6**. Characteristically hazardous waste codes D-002 (corrosivity), D-004 (arsenic), D-005 (barium), D-006 (cadmium), D-007 (chromium), D-008 (lead), D-009 (mercury), D-010 (selenium), and D-011 (silver) and listed waste code K-062 ("spent pickle liquor") are treated in the on-ground hazardous waste treatment tank located in the WPB. Non-hazardous wastes (sludges or liquid wastes) are mixed with a solidification agent (sawdust or other approved agent) to absorb residual free liquids in the non-hazardous waste solidification tank. The reactives magazine, which is located in the west central portion of the WPB, is used for the temporary storage and pass-through of road flares, DOT 1.4 material, marine aerial and signal flares, small arms

munitions, black powder, residential fireworks, and other permitted explosives. No forbidden explosives will be transported to the facility and/or stored in the magazine, and no treatment or processing of explosive materials is completed onsite.

1.3 Facility Personnel Training & Inspections

All USET employees have reviewed and are familiar with the Contingency Plan. "Hands on" operations personnel involved in hazardous waste handling, transportation, emergency response, storage, or treatment have successfully completed a program of classroom instruction or on-the-job training that teaches Contingency Plan implementation. The course outline for the USET Contingency Plan training is included in the Training Program (described in **Section 6.0** of **Volume 1 of 3**). The Contingency Plan training includes an on-site emergency response drill and post-drill evaluation.

As described in **Section 5.0** of **Volume 1 of 3**, the USET facility is regularly inspected for malfunctions and deterioration, operator errors, and discharges, which may cause (or lead to) release of hazardous waste constituents to the environment or a threat to human health. These inspections are intended to identify problems in time to correct them before a release of hazardous waste or constituents occur. A facility inspection log is maintained to document the results of these inspections.

All monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment, including the on-ground hazardous waste treatment tank, which are important to preventing, detecting, or responding to human health or environmental hazards will be inspected daily (each operating day). The inspections will be performed by trained USET operations personnel. All inspections will be reviewed and approved by a senior USET employee (manager, supervisor, or chemist).

The inspector will look for the items listed on the USET Facility Inspection Log (see **Section 5.0** of **Volume 1 of 3**). All areas subject to spills, such as the loading/unloading, container storage areas, and the hazardous waste treatment tank are inspected daily (each operating day). All containers are inspected for container condition, closure, labeling, and aisle space. Housekeeping and proper storage are also inspected daily. The vehicle loading and unloading areas and transfer facility vehicles and wastes are inspected daily to identify problems. External areas such as the area for storage of empty containers and the stormwater systems (trenches, filter, and retention pond) are inspected daily to identify problems. Safety and emergency equipment is inspected daily for condition, availability, and operations capability. The safety and emergency equipment inspected includes fire control equipment, communication devices, safety showers and eye washes, spill kits, exits, safety supply lockers, fire suppression and alarm systems, and lower explosive limit (LEL) meter and sensors. The contents of the safety supply lockers will be inspected and inventoried monthly. The date of inspection and inventory will also be noted on the Facility Inspection Log. The contents of the safety supply lockers are to be used only in the event of an emergency. The date of re-inspection and re-inventory will be noted on the Facility Inspection Log. The waste inventory for the CSB, WPB, ISCA, CPCP, I/O Staging Area, 10-Day Transfer Area, and Bulk Container Storage Areas (BSCAs) are noted daily on the inspection log.

Every unsatisfactory condition noted during the inspection will be immediately corrected if possible. Items not immediately corrected will be noted on the inspection log. Unsatisfactory conditions noted on the inspection log will be corrected within thirty (30) days. USET will submit a written schedule to correct the deficiency to the FDEP should any deficiency not be corrected within thirty (30) days. Where a hazard is imminent or has already occurred, remedial action will be taken immediately. The Contingency/Emergency Response Plan (**Section 2.0** of this document) will be implemented if a fire, explosion, or unplanned release of hazardous waste or hazardous waste constituents occurs to the air, soil, groundwater, or surface water at the facility that could threaten human health or the environment. All remedial actions completed will be noted on the inspection log.

Further, as discussed in **Section 3.4** of **Volume 1 of 3** (Ignitable, Reactive, or Incompatible Wastes), USET has taken precautions to prevent reactions that may:

1. Generate extreme heat, pressure, fire, explosion, or violent reaction;
2. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantity to threaten human health or the environment;
3. Produce uncontrolled flammable fumes or gases in sufficient quantities to threaten human health or the environment;
4. Damage the structural integrity of the device or facility; and,
5. Through other similar means which threaten human health or the environment.

1.4 Required Equipment

1.4.1 Internal Communications

The facility is equipped with an internal communications and alarm system capable of providing immediate emergency instruction (or signal) to facility personnel. Internal communications and alarms consist of the following:

1. Emergency air horns;
2. Pull alarms;
3 Two-way radios;
4 Cellular phones; and,
3. Landline Telephones.

1.4.2 External Communications

The facility is equipped with landline telephones, cellular phones, and pull alarms capable of summoning emergency assistance from local police departments, fire departments, or other emergency response departments. Local emergency assistance is readily available by dialing 911. The facility fire alarms are direct to the Tampa Fire Department.

1.4.3 Fire, Spill & Decontamination Equipment

The facility is equipped with portable, multipurpose (ABC) fire extinguishers; Halon and Metal-X fire extinguishers are also available. The CSB is equipped with sprinkler systems and smoke and flame detectors. The facility has a continuous automatic fire monitoring system. Fire alarms automatically notify the Tampa Fire Department of emergency fire or smoke conditions.

The flammable materials storage bay (Bay 2) is equipped with an automatic high expansion foam fire suppression system. Bay 2 is also equipped with a LEL monitoring system. The LEL meters are mounted so that vapors less dense than air and vapors more dense than air are both monitored. Emergency exhaust fan ventilation is automatically activated at 10% of LEL. The foam system is automatically activated at 10% of LEL. An alarm to the Tampa Fire Department is also activated at the 10% LEL. Fire control equipment within the CSB is identified on the building as-built record drawing provided as Figure 6.

A water hose is available on the CPCP for basic firefighting needs. The RUNI screw compactor located at the CPCP is intrinsically safe with an integrated LEL monitoring system that will automatically shut the unit down when threshold levels are reached. A 200-pound CO_2 fire extinguisher is also integrated into the RUNI screw compactor unit.

Spill control, fire, explosion, and other supplemental safety equipment are located throughout the facility. The equipment is readily available to facility personnel. The supplemental emergency equipment is discussed in **Section 2.4** of this document and a listing of the equipment is provided in **Appendix C**.

Decontamination equipment is readily available at the facility; however, the need for decontamination is minimal. Most personal protective equipment (PPE) and sampling equipment is disposable, thereby eliminating the need for decontamination. Water and decontamination solutions such as trisodiumphosphate (TSP), bleach, detergent, lime, and citric acid are available for decontamination. Mercury spill cleanup materials (e.g., HgX, Mercsorb, or equivalent) are also available.

1.4.4 Water Volume & Pressure

The facility has water available at adequate volume and pressure to supply firefighting equipment. The water volume is rated at 463 gallons per minute (gpm) volume and 32.4 pounds per square inch (psi) pressure at the base of a 6-inch diameter riser. A jockey pump connected to the city water supply augments the suppression system.

1.5 Testing & Maintenance of Equipment

All equipment at the USET facility will be maintained and tested in accordance with the manufacturer's recommendations. USET has a maintenance agreement with a fire control firm to maintain the fire control equipment. The equipment serviced under this agreement includes the foam suppression system, LEL detectors, smoke detectors, flame detectors, fire control panels, sprinkler system, piping, and fire alarm systems. USET will routinely inspect this equipment as outlined in the inspection plan. The fire control firm will inspect the equipment (at a minimum) annually. This will serve to keep the equipment operational for use in times of emergency.

1.6 Access to Communications or Alarm Systems

Communication and alarm systems present in the WPB are detailed on **Figure CP-6** and safety and fire control systems present in the CSB are indicated on the as-built record drawing for the building provided on **Figure CP-7**. Access to communications and alarm systems are readily available to all employees regardless of their location. It is Republic Services, Inc. (RSI) company policy that at least two employees will be present before entering any active operating portion of the facility. If there is ever just one employee entering any active operating portion of the facility, the employee will have immediate access, at the scene of operation, to a communications device (such as telephone) capable of summoning external emergency assistance.

1.7 Required Aisle Space

The facility has been designed for the safe unobstructed movement of personnel, fire protection equipment, spill control equipment, and/or decontamination equipment to any operations area during an emergency. There will be a minimum of two feet of aisle space between double rows of containers (or between rows of pallets of containers). The actual aisle space between rows of containers and pallets is usually three feet. Containers (or pallets of containers) may be stored over the containment sumps in the CSB. The containment sumps will be readily visible and aisle space will be maintained with containers (or pallets of containers) stored over the sumps. The containers (or pallets of containers) can easily be moved to remove any material from the sumps. No containers (or pallets of containers) will be stored within two feet of any safety equipment located on any wall. Adequate aisle space will be maintained to access all safety, spill

control, and decontamination equipment stored along any wall. Hazardous waste inbound, outbound, and transfer facility shipments are loaded on transportation vehicles in accordance with all applicable DOT and RCRA regulations. Materials such as containers or pallets of containers can be easily unloaded and transferred to the CSB, or another transport vehicle should any emergency require unloading of waste containers from a transport vehicle.

1.8 Arrangements with Local Authorities

This plan has been submitted to all required agencies listed in **Section 2.3** in both hard copy and electronic format, as required. All agencies have been invited to tour the facility to become familiar with its layout including entrances and roads inside the facility, the properties of the non-hazardous and hazardous waste managed at the facility and associated hazards, the places where facility personnel would normally be working during an emergency, and the primary and secondary facility evacuation routes detailed on **Figure CP-8** attached hereto.

No agency has notified USET that they would not be able to respond to any potential emergency. Most of the agencies listed have utilized or contracted USET for emergency response operations. This has provided a degree of familiarity between USET and responding agency personnel.

2.0 CONTINGENCY/EMERGENCY RESPONSE PLAN

This Contingency/Emergency Response Plan contains detailed information on how the USET facility will respond to and report a hazardous waste incident. The USET emergency coordinators are provided on the emergency contact list provided in **Appendix A** so they are readily available. Information regarding handling a response, interagency agreements, government agency notification, post-emergency operations and reporting is provided in the below sections.

2.1 General Facility Information & Plan Introduction

Detailed information regarding the facility and its design and operations are provided above in **Sections 1.1** and **1.2**. Overall, the facility is designed to minimize the potential for any release of non-hazardous or hazardous wastes or constituents. Vehicles are able to load and unload directly to and from the CSB. Virtually any potential release would be contained within the CSB and its sumps or within the transport vehicle. The covered processing area is sloped and diked for containment (see **Figure CP-5**). The epoxy lined ISCA is located in front of CSB Bay 2/Bay 3A. Waste materials are segregated by hazard class in the CSB to ensure that no incompatible wastes are stored together. Flammable materials are stored in a separate bay (Bay 2) designed for that purpose which contains the fire monitoring and safety equipment discussed in **Section 1.2**. In addition, the CSB is fully sprinkled and contains both smoke and flame detectors that are continuously monitored. Fire extinguishers and fire hoses are located throughout the facility. Safety equipment, proximity suits, self-contained breathing apparatus (SCBA), and material handling equipment are located at the facility. A listing of supplemental emergency and safety equipment is provided in **Appendix C**.

Hazardous materials potentially onsite may include: acids, alkalis, poisons, flammables, combustibles, oxidizers, reactives and other regulated solids or liquids that do not fall into these classifications. Most will be present in small quantities or in diluted concentrations when compared to the original raw material. As discussed in **Section 1.2**, a reactives magazine is located in the WPB that is used for the temporary storage and pass-through of permitted explosives and no treatment or processing of explosive materials is completed onsite. A daily inventory of all materials stored at the facility is readily available.

In the event of a power outage, emergency backup lighting is provided in the facility, and the security system will activate its backup battery.

In order to prevent releases to the atmosphere, containers will remain closed at all times except when it is necessary to add or remove waste from the container.

Operations personnel at this site are trained in emergency response, hazardous waste operations, firefighting procedures, emergency first aid, and CPR as appropriate for their position (see **Section 1.3**).

2.1.1 Plan Purpose

The purpose of this plan is to provide USET employees and responding agencies with an organized procedure for responding to unusual occurrences or emergencies involving hazardous chemicals and/or wastes when such releases could cause potential harm to human health or the environment. This plan is designed to present as simply as possible the necessary steps required in an emergency.

Emergencies covered under this procedure are fires, explosions, floods, hurricanes, or an unplanned sudden and non-sudden release into the environment of hazardous waste including liquids, vapors and particulates which could cause harm to human health or the environment.

2.1.2 Plan Implementation

This Contingency Plan will be implemented immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents to air, soil, surface water, or groundwater at the facility, which could threaten human health or the environment.

2.1.3 Plan Copies

Copies of this plan are maintained at both the administration building located on the E. 8th Avenue property and in the office building located on the N. Orient Road property. Key personnel such as the USET emergency coordinators have direct electronic access of this plan.

Copies of the plan have previously been submitted to the Tampa Police Department, Tampa Fire Department, Local Emergency Planning Committee (LEPC), FDEP, Tampa General Hospital and Brandon General Hospital. The plan will be resubmitted to these agencies and entities either electronically or via hardcopy following approval of the pending permit renewal application.

2.1.4 Plan Amendment

The plan will be reviewed at least annually and amended immediately, if necessary, whenever:

1. The facility permit is revised or renewed;
2. The plan fails in an emergency;
3. The facility changes design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
4. The USET emergency coordinators list changes; or,
5. The emergency equipment list changes.

2.2 Emergency Response Coordinators

At all times, there will be at least one employee either at the facility or on call that will be responsible for coordinating all necessary emergency response operations. The coordinator and alternates are thoroughly familiar with all aspects of this plan, all facility operations and the location and characteristic of wastes managed, the location of facility records, and the facility layout. The designated USET emergency coordinators are provided on the emergency contact list provided in **Appendix A.**

All USET emergency coordinators have authority to commit corporate funds and resources during an emergency incident involving a fire, explosion, or release of hazardous waste(s) and or constituents to the air, soil, surface water, or ground water at the facility which could threaten human health or the environment.

2.3 Coordination Agreements

The City of Tampa Fire Department, Tampa Police Department, FDEP, hospitals (Tampa General and Brandon General Hospitals) and an outside spill response contractor have been notified as to the operation of this facility. As discussed above in **Section 1.8**, a copy of this plan has been sent to these organizations and they have all been invited to tour the facility to become familiar with its layout and operations.
An emergency contact and response agency and organization list and is provided in **Appendix A**.

2.4 Emergency Equipment & Communications Systems

This chapter describes the emergency equipment and alarm systems within the CSB and the WPB at the USET facility. Supplemental emergency and safety equipment located at the USET facility is listed in **Appendix C**.

1. **Fire extinguishers** are located throughout and are identified by signs and red markings. ABC extinguishers are located in Bays 1 and 3 of the CSB. Halon and metal-x extinguishers are located in the flammable storage area (Bay 2) in the CSB. ABC fire extinguishers are also located throughout the WPB, CSB, and CPCP and are prominently identified by signs and red markings.
2. **Chemical Spill Treatment Kit** containing six 2-pound containers of Spill-X-S (100% carbon) used for solvent spills is located in Bay 2 of the CSB.
3. **Oil-Dri** and **Vermiculite** are used for solvent and oil spills. This material is located on the ramp leading to Bay 3 of the CSB in bags identified with the words Oil-Dri or Vermiculite.
4. **Soda Ash** is used to neutralize acids. This material is located in Bay 1 of the CSB in bags identified by the words Soda Ash.
5. **Caustic Spill Treatment Kit** containing six 2-pound containers of Spill-X-C (75% Citric Acid) used for caustic spills is located in Bay 3 of the CSB.
6. **Spill control/sorbent booms/pads** used to contain any spill. Spill control booms are available in various lengths and are located in Bay 3 of the CSB. The entire WPB is secondarily contained and spill control supplies are available onsite for incidents within this structure, as necessary.
7. **Protective Clothing** is located in Bays 1 and 3 of the CSB. Protective Suits are available in Levels B through D. Appropriate PPE, including chemical resistant suits, safety glasses, splash guards, and hardhats, for the activities completed in the WPB and CSB are available onsite.
8. **Full-face respirators** located in Bays 1 and 3 of the CSB and **SCBAs** located in Bays 1 and 3 of the CSB and the main facility office are available for respiratory protection.
9. **Gloves**, **boots**, **face shields**, **goggles** and **hard hats** may be used as protective equipment and are located in Bays 1 and 3 of the CSB. This protective equipment is also available in the main facility office building for waste management activities conducted in the WPB.
10. **Acid Spill Treatment Kit** containing six 2-pound containers of Spill-X-A (78% Magnesium Oxide) used for acid spills is located in Bay 1 of the CSB.
11. **Air powered pumps with hose** for removal of liquids or water identified by lack of electrical connection and capable of fitting inside of a drum bung are located in Bays 1 and 3 of the CSB and on the CPCP.
12. **Manual pump** for removal of any flammable liquids.
13. **Shovels, brooms, buckets, mops, tools, bung wrenches**, etc. are located in Bays 1, 2 and 3 of the CSB as well as in the WPB.
14. Empty **DOT-approved containers** for recontainerizing damaged or leaking containers are located in Bays 1 and 3 of the CSB and on the ramp adjacent to Bay 3.
15. Empty **85 and 110-gallon overpack drums** for recontainerizing damaged or leaking containers are located on the ramp leading to Bay 3 of the CSB.
16. An **emergency eye wash/shower** is located in both Bays 1 and 3 of the CSB. An emergency eye wash/shower in located in the middle on the west side of the CPCP. An emergency eye wash/shower is also located on the north wall is the center of the WPB.
17. **Two infrared flame detectors** are located in Bay 2 of the CSB and **photo beam smoke detectors** are located in all three bays in the CSB. **LEL** monitors are also located in Bay 2 of the CSB.
18. An **onsite laboratory and HAZCAT identification kit** are available as necessary to characterize a sample of a potential hazardous material. The facility waste sampling and HAZCAT standard operating procedures (SOPs) are included in **Appendix D**.

The emergency communication system equipment consists of:

1. **Air horns** are located throughout the CSB and in the WPB. In case of a spill, explosion, or other emergency, these can be used to alert all employees that evacuation is necessary.
2. **Two-way radios** are used for communications throughout the facility.
3. Twenty-four hour **monitored alarms** are located throughout the facility.
4. **Cellular phones** are available at the facility.
5. **Landline telephones** are available at the facility. The telephone in the CSB is located in Bay 1 near the northwest exit.

2.5 Evacuation Plan

Emergency situation and evacuation notification procedures are discussed in this section.

1. Notification to evacuate the USET facility in an emergency would be handled by one of several methods. These are:
   a. Emergency air horns located throughout the facility are sounded when evacuation is necessary.
   b. Pull alarms are located throughout the facility.
   c. Two-way radios are used for communications throughout the facility.
   d. Landline telephones are available throughout the facility. The telephone in the CSB is located in Bay 1 near the northwest exit.
   e. Cellular phones are also available at the facility.
2. In the event of an emergency situation (spill, fire, explosion), the first employee to notice it is to immediately sound the emergency air horns and/or alarms located throughout the facility.
3. All personnel are to evacuate the facility. The evacuation routes are shown on **Figure CP-8**. The primary evacuation route should be used unless blocked or impassable. In that case, the secondary evacuation route should be employed.

2.6 Emergency Procedures & Facility Personnel Actions

The purpose of this section is to establish the organizational structure which will be in force during a response to a chemical emergency and what procedures will be utilized to notify corporate officials, outside response teams, local government authorities, and State and Federal Regulatory Agencies.

2.6.1 Internal Communications

In the event of an emergency situation involving hazardous chemicals or wastes, the USET emergency coordinator or designate alternate will be responsible for coordinating the necessary response and/or cleanup. Refer to **Appendix A** for a listing of designated emergency contacts and response agencies and organizations.

USET management is to be notified immediately upon discovery of an emergency situation involving hazardous chemicals or wastes. Management will notify, via telephone, two-way radio, or cellular telephone, the required USET personnel for response to the scene. USET emergency response vehicles are equipped with necessary cleanup/safety materials and first aid supplies. Trailers, sheds, and lockers onsite also contain safety equipment and supplies.

2.6.2 External Communications

In any emergency situation, the following should be contacted:

1. Tampa Fire Department **(911)**. Indicate the extent and type of emergency which exists (e.g., fire, spill, etc.).
2. In the event of emergencies involving chemical spills, leaks, or explosions, which may require additional assistance, at the direction of the USET emergency coordinator a spill response contractor can be notified.

2.6.3 Government Agency Notification

In the event of an emergency, USET will comply with all requirements contained in Chapter 62-150, Florida Administrative Code (F.A.C.), titled *Hazardous Substance Release Notification*. In the event of an emergency where environmental contamination is imminent, in addition to notifying the Tampa Fire Department (**911 emergencies**), the following governmental agencies will be notified by the USET emergency coordinator. Initial notification to the National Response Center (NRC) will be completed within 15 minutes if a release of a hazardous substance to the environment occurs in an amount that equals or exceeds its reportable quantity (RQ). A listing of RQs for roughly 800 Superfund hazardous substances maintained by the EPA can be accessed by clicking here[1]. Further, the State will be notified within 24 hours as specified in Chapter 62-150, F.A.C.

1. State of Florida Warning Point
   800-320-0519 (24 Hours)
2. National Response Center
   800-424-8802 (24 Hours)
3. FDEP Southwest District Office
   Temple Terrace, Florida
   813-470-5700 (normal business hours)
4. Environmental Protection Commission
   of Hillsborough County
   813-627-2600 (normal business hours)

The following information will be communicated to the governmental agencies contacted:

1. Name and telephone number of the reporter;
2. Name and address of the facility;
3. Time of the incident;
4. Nature of incident (e.g., fire, explosion, or release);
5. Name of the material released;
6. Quantity of the material released;
7. Additional information such as liquid, vapor, or solid;
8. Type of incident (e.g., release from drum, tank, truck, or warehouse);
9. Extent of injury or injuries, if any;
10. Possible hazards to human health or the environment outside the facility;
11. Weather conditions (e.g., wind direction, rain, etc.); and,
12. Potential for release or spill of material to reach surface waters.

Within 15 days of any incident the facility manager will notify the FDEP, electronically, that the Contingency Plan has been implemented. All of the aforementioned items will be addressed as well as the quantity and disposition of all recovered materials resulting from the incident. The FDEP Southwest District Office notice will be provided to the Compliance Assurance Program electronically at: SWD_Waste@dep.state.fl.us.

[1] https://www.ecfr.gov/cgi-bin/text-idx?SID=5eb9206a60662143cb26a1b0a7263e74&mc=true&node=se40.28.302_14&rgn=div8

2.6.4 Identification of Hazardous Materials Locations

The CSB is located on the Orient Road property. The CSB doors (west/front side) are placarded with the hazard class of the material stored in that particular bay. The bay contents are summarized below.

CSB Bay 1 – North Bay:

1. Acids
2. Toxic Organics and Metals
3. Non-flammable solvents and halogens
4. Asbestos
5. Non-Regulated Materials

CSB Bay 2 – Center Bay:

1. Flammable liquids and solids
2. Reactive cyanides, sulfides, and metals
3. Corrosives

CSB Bay 3 – South Bay:

1. Poisons
2. Oxidizers
3. Caustics
4. Non-Regulated Materials

ISCA:

1. Flammable liquids and solids
2. Corrosives
3. Poisons
4. Caustics
5. Oxidizers
6. Reactive cyanides, sulfides, and metals
7. Non-Regulated Materials

The satellite accumulation area is located in the main facility office building on the 8th Avenue property.

Quality Control Laboratory:

1. Satellite accumulation (5 gallon or less) of flammable, corrosive, chemical rags, oxidizers, and poisons.

The WPB is located on the 8th Avenue property.

WPB:

1. Non-Hazardous and Non-Regulated solid waste
2. Characteristically hazardous waste (D-002 and D-004 through D-011) & listed hazardous waste (K-062)
3. Explosives (pass-through; no treatment or processing onsite)

The BSCAs and solid waste operations area are located on the 8th Avenue property.

BSCAs & Solid Waste Operations Area:

1. Non-Hazardous and Non-Regulated solid waste
2. Decharacterized hazardous waste meeting the LDRs

The I/O staging area and 10-day transfer area are collocated on the 8th Avenue property.

I/O Staging & 10-Day Transfer Areas:

1. Acids
2. Toxic Organics and Metals
3. Non-flammable solvents and halogens
4. Asbestos
5. Flammable liquids and solids
6. Explosives (pass-through; no treatment or processing onsite)
7. Reactive cyanides, sulfides, and metals
8. Poisons
9. Oxidizers
10. Caustics
11. Non-Hazardous and Non-Regulated solid waste

All vehicles containing hazardous waste are placarded and manifested per DOT and RCRA requirements. The placards will identify the hazard class of each trailer, roll-off, tanker, or vehicle.

Transfer Facility Vehicles:

1. Trailers
2. Box Trucks
3. Vans
4. Tankers
5. Roll-Offs
6. Vacuum Trucks

Processing equipment at the facility operates on a batch mode. The equipment will be shut off and disconnected when emergency situations occur. Waste containers in process will be closed when the equipment is shut down for an emergency.

Processing Equipment:

1. Paint Can Crusher
2. Drum Crusher/Rag Compactor
3. Transfer Pumps (portable air, electric, and manual)
4. RUNI Screw Compactor
5. Excavator
6. Front End Loader

2.6.5 Waste Types Managed

Approximately 1/3 of the waste managed at the facility is non-hazardous or non-regulated. These containers can be identified by a blue "Non-Regulated Waste" or a green “Non-Hazardous” label. The material presents **no hazard** (such as poison, flammable, corrosive, reactive, oxidizer) if the container does not have a DOT label. However, any release must be contained to prevent a release which may potentially contaminate waters or soils.

Several trailers may be at the facility which do not contain hazardous or non-hazardous wastes. These trailers may be empty, contain new empty drums, or contain used empty drums for recycling. No potential hazard is associated with these vehicles.

The USET emergency coordinator will coordinate the identification of hazardous materials involved in an emergency incident requiring implementation of the contingency plan. A complete inventory of all waste materials onsite is available at the facility. The identification can be narrowed by the source of the incident. For example, if an incident occurred in Bay 2 of the CSB, the materials would be limited to flammables and reactives. All containers are identified by a unique USET identification number, DOT hazard class labels, and hazardous waste shipping labels. The contents of any container can be fully characterized if the USET identification number is known. The facility's quality control laboratory will be used if it is necessary to characterize a sample of a potential hazardous material. The USET emergency coordinator is therefore able to identify the source, characteristics, amount, and extent of any released materials, by observations, review of facility data, records, and shipping documents, or by chemical analysis.

2.6.6 Hazardous Materials Emergency Response References

The following is a list of references available in the main office building at the USET facility:

1. HAZARDOUS CHEMICAL DATA, Department of Transportation/U.S. Coast Guard
2. HAZARDOUS MATERIALS EMERGENCY RESPONSE GUIDEBOOK, Department of Transportation/DOT P 5800.2
3. MERCK INDEX
4. HANDBOOK OF HAZARDOUS MATERIALS, Sax
5. NFPA 101 LIFE SAFETY CODE
6. CANCER CAUSING CHEMICALS, Sax
7. TOXIC ORGANIC CHEMICALS, E. Ellsworth Hackman III
8. NIOSH REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
9. EMERGENCY FIRST AID, American Red Cross
10. CONDENSED CHEMICAL DICTIONARY, Hawley
11. HAZARDOUS MATERIALS, SUBSTANCES, & WASTES COMPLIANCE GUIDE

2.7 Hazard Assessment

The USET emergency coordinator will assess the potential hazards to human health or the environmental that may result from a release, fire, or explosion of a hazardous substance. The assessment will consider both direct and indirect effects of the release, fire, or explosion.

The contingency plan will be implemented whenever the USET emergency coordinator determines an imminent or actual hazard exists that could threaten human health or the environment. This section provides the criteria used by the USET emergency coordinator in deciding to implement the contingency plan.

2.7.1 Fire or Explosion

For incidents involving a fire or explosion, the following situations will result in contingency plan implementation:

1. A fire which could cause the release of toxic fumes.
2. A fire which could spread and possibly ignite other materials or which could cause heat-induced explosions.

3. A fire which could spread to off-site areas.
4. The use of water or chemical fire suppressants which could result in contaminated runoff.
5. The imminent danger of an explosion which could result in a safety hazard due to flying fragments or shock waves.
6. The imminent danger of an explosion which could result in the release of toxic materials.
7. The occurrence of any explosion.

2.7.2 Fire Fighting Procedures

The USET facility is equipped with both smoke and flame detectors. Both are monitored on a twenty-four hour per day basis. If either are activated, the sprinkler and/or foam systems will automatically engage. The Tampa Fire Department is notified automatically by the continuous alarm/monitoring system in the case of the activation of a smoke or flame detector.

Also included in the monitoring system are two LEL detectors located within the flammable storage area (Bay 2 in the CSB). One is mounted in the spill sump to detect vapors which are denser than air, while the second is mounted on the ceiling to detect vapors that are less dense than air. If vapors in the flammable area exceed 10% of the LEL, the ventilation system will automatically engage, and the sprinkler and foam systems will be activated automatically. The Tampa Fire Department is notified automatically at 10% LEL.

Located throughout the facility are fire extinguishers for Class A, B or C fires. Located in the flammable area are Halon extinguishers (or equivalent). Fire hoses are located throughout the facility.

In the event of a fire, the following activities will be performed:

1. Notify other employees and if evacuation is necessary, sound the air horns and alarms.
2. Notify the Tampa Fire Department (911).
3. Move all transport vehicles away from the loading or unloading areas.
4. Control the fire with extinguishers if it can be done safely.
5. The facility is designed for minimal manual fire suppression.
6. Notify necessary agencies as indicated.

2.7.3 Unplanned Material Release

The contingency plan will be implemented for any release to the environment which results in one or more of the following conditions:

1. A spill which could result in the release of flammable liquids or vapors, thereby causing a fire or explosion hazard.
2. A spill which could cause the release of toxic liquids or fumes.
3. A spill which could be contained onsite, but which could potentially result in groundwater contamination.
4. A spill which cannot be contained onsite resulting in offsite soil, groundwater, or surface water contamination.
5. Any flooding of the site which could result in surface water contamination.

2.8 Personal Protective Equipment

In order to provide adequate protection from hazardous exposures, PPE must be used. The following indicates various hazardous situations and the PPE that is required.

2.8.1 Level A Protection

Hazard Involved:

- Situations immediately dangerous to life and health (IDLH).
- Oxygen deficient atmospheres.
- Unknown hazardous materials.
- Chemicals which can be absorbed through the skin.
- Materials which cannot be removed with an air purifying respirator.

Required PPE:

- SCBA or airline respirator with SCBA escape air system.
- Full body encapsulation suit.

2.8.2 Level B Protection

Hazard Involved:

- Oxygen deficient atmosphere where chemical composition of the material is known and falls into the classification of an irritant.

Required PPE:

- SCBA or airline respirator with SCBA escape air system.
- PVC splash suit with hood.
- Neoprene/nitrile/butyl rubber arm length gloves.
- Steel-toed rubber boots.

2.8.3 Level C Protection

Hazard Involved:

- Situations not immediately dangerous to life and health.
- Sufficient oxygen present to support life.
- Irritant or corrosive chemicals.
- Contaminated soils.
- Liquids/solvents not immediately dangerous to life and health.

Required PPE:

- Full-face mask with air purifying (cartridge) respirator, or half-face air purifying (cartridge) respirator with goggles and face shield.
- PVC splash suit.
- Protective gloves (type dependent on chemical being handled).
- Steel-toed rubber boots.

2.8.4 Level D Protection

Hazard Involved:

- Situations which contain no immediate hazard, but where there is the potential for accidental release of a hazardous substance.

Required PPE:

- Half-face air purifying (cartridge) respirator.
- Safety goggles.
- Disposable coveralls.
- Surgical rubber gloves or suitable hand protection.
- Rubber boots.
- Steel-toed shoes.

2.9 Containment & Control Measures

The purpose of this section is to alert all emergency response groups, regulatory agencies, and affected parties, as to the location of the hazardous waste storage areas within the facility, the design of containment control, and the procedures to be followed in response to emergencies, whether fire, explosion, or spill. **It must be understood that potentially toxic gases and vapors may be present in any incident involving hazardous materials.**

2.9.1 Entrance Procedures

The following procedures are to be followed by all response personnel before entering the hazardous waste storage areas in emergency situations:

1. Consult the attached drawings (**Figures CP-1** and **CP-2**) which indicate the layout of the facility and the types and locations of materials which would be stored in the area to be entered. A general description of these areas is included in the next section.
2. Assume toxic/hazardous materials are present in the area. A complete waste inventory is kept in the facility office.
3. Select proper PPE, including a SCBA, as necessary.
4. Consult DOT P 5800.2 HAZARDOUS MATERIALS EMERGENCY RESPONSE GUIDE BOOK which is available in the facility office.

Remember, the primary responsibility during initial emergency response efforts is to save lives and protect the environment.

2.9.2 Fire or Explosion Response Procedures

1. Notification to evacuate the USET facility during an emergency would be handled by one of several methods including:

    a. Emergency air horns are located throughout the facility and are sounded when evacuation is necessary.
    b. Pull alarms are located throughout the facility.
    c. Two-way radios are available and used for communications throughout the facility.
    d. Landline telephones are available throughout the facility. The telephone in the CSB is located in Bay 1 near the northwest exit.
    e. Cellular phones are available at the facility.

2. In the event of an emergency situation (e.g., fire or explosion) the first employee to notice it is to immediately sound the emergency air horns and/or alarms located throughout the facility.
3. All employees are to don the necessary PPE including a SCBA, as necessary. This equipment is located in the safety equipment cabinets in Bays 1 and 3 of the CSB, in the

storage room in the main facility office building, and in the safety equipment and supply building. Additional safety equipment is provided in these locations. Supplemental safety equipment for various situations is listed in **Appendix C**.

4. Firefighting should begin immediately under the direction of the USET emergency coordinator until the first responders arrive onsite. Refer to the CHRIS (Chemical Hazardous Response Information System) Manual for additional information.
5. The USET emergency coordinator is to contact emergency services and response agencies immediately (see **Appendix A**).
6. In the event of a fire or explosion, the sprinkler and foam systems will be automatically activated. Both the alarm and sprinkler system are monitored on a 24-hour basis. When the alarm or sprinklers are activated, the Tampa Fire Department will be notified immediately and automatically.
7. Electric service to the CSB should be shut off in the event of a fire or explosion. The main electric shut off is located on the outside south wall of the CSB. No additional process systems, valves, gauges, or equipment are required to be monitored or shut down since no potentially dangerous processes are employed at the facility.
8. All waste handling or processing in the affected area will be stopped immediately.
9. All waste feed lines and waste processing equipment will be shut down when this can be done safely. There are no continuous treatment processes. All treatment is on a batch basis. Power outages will simply make these processes inoperable.
10. Evacuation of the facility may be necessary in IDLH situations. This decision will be made by the USET emergency coordinator. If the evacuation occurs, the primary evacuation route should be used unless blocked or impassable. In that situation, the secondary evacuation route should be employed. Both routes are prominently outlined at the facility and are included with this plan (see **Figure CP-8**).

2.9.3 Spill or Release Response Procedures

The CSB and WPB at the facility are designed so that the rupture of containers would result in no release of contaminants outside of the facility. The storage area for acidic and alkaline wastes in the CSB are segregated to ensure that no co-mingling of these materials will result. All flammable/combustible materials are also stored in a separate bay in the CSB. All incompatible materials stored in the CSB have separate containments.

In the event of a spill, certain procedures must be instituted immediately. Immediately contact all required individuals/response agencies as indicated in **Section 2.2** of this document. These telephone numbers are posted at all facility telephones are provided in **Appendix A** hereto.

Should a spill or release occur, the following steps are to be taken:

1. Sound an alarm to notify of an emergency.
2. Don protective equipment located in safety cabinets.
3. Contact USET emergency coordinator.
4. The source of the spill/release will be determined and corrected. Further, the character, estimated amount, and extent of the release will be determined by appropriate emergency response personnel.
5. Waste handling or processing in the affected area will be stopped immediately.
6. All waste feed lines and waste processing equipment will be shut down as soon as this can be done safely.
7. All non-response personnel will leave the area immediately.

8. All injured persons will be removed from the area and treated by qualified medical personnel.
9. Contain the spill with sorbent boom, sorbent pillows, or bulk sorbent material. All sorbents and booms are stored in the spill control storage area in the CSB and the main facility office building for use in the WPB.
10. In the event of an acid spill, use calcium carbonate or lime to neutralize the spill.
11. Use citric acid to neutralize alkaline spills.
12. Once the spill has been contained, begin cleanup.
13. Contact the response contractors and request mobilization of personnel or equipment, if necessary. Republic Services IS group will serve as the response contractor (see **Appendix A**).
14. The USET emergency coordinator will contact all required agencies and note the discharge in the operating record.
15. If immediate evacuation of the CSB is required, two 5-minute egress bottles are attached to the supplied air system. Additional respiratory and personal protective clothing are located in the safety equipment cabinet located in Bay 3 of the CSB.
16. In the event that a release outside the facility leads to surface water, groundwater, or soil contamination, USET emergency coordinator will contact necessary contractors for all required remediation efforts.

2.9.4 Care of the Injured

In the event of an emergency, the objective is to provide first aid or immediate care for a person who has been injured or suddenly taken ill. Implement emergency first aid as required. Key USET facility personnel are trained in standard first aid and cardiopulmonary resuscitation (CPR) through accredited training organizations. First aid kits located in the CSB, WPB and the main facility office.

All injured shall be taken to Brandon Hospital or Tampa General Hospital by the local ambulance service. These hospitals have been notified as to the type of injuries which may result at the USET facility. In an emergency situation, they should be informed of the extent of the emergency and what injuries to expect. Routes to the hospitals are included on **Figure CP-9**.

The nearest emergency medical service and life squad is the City of Tampa Fire Department who can be contacted by dialing 911.

2.10 Post-Emergency Operations

2.10.1 Decontamination Procedures

After an emergency incident, decontamination of equipment is required. All expendable items, such as sorbent, booms and so on are to be placed into 55-gallon drums and disposed as required by state and federal law. Non-expendable items such as tools, chemical suites and material handling equipment are to be cleaned in an appropriate solvent and placed back in their normal location. The suitable solvent will be determined by a USET emergency coordinator or senior chemist. Disposal of the spent solvent will comply with applicable regulations. Specific decontamination solutions and strategies to be employed at the USET facility include:

Inorganic/Organic Acids
Prepare a mixture of 10% sodium carbonate or 10% hydrated lime or 10% trisodium phosphate in water. Clean items/area with cloth or mop. Wear appropriate PPE.

Alkali (Caustics)
Prepare mixture of 5% acetic acid (vinegar) or 5% citric acid in water. Clean items/area with cloth or mop. Wear appropriate PPE.

Oils and PCB
Methylene chloride or isooctane applied directly to the contaminated area. Remove solvent and contaminant with sorbent or absorbent cloths. Wear appropriate PPE.
Alkali and Alkaline Earth Metals
Cover immediately with dry soda ash (sodium-carbonate) and remove with broom and shovel. Keep dry and do not contact with water. Wear appropriate PPE.

Solvents
Cover with absorbent material as quickly as possible. Remove with broom and shovel. Wear appropriate PPE.

Mercury
Recover as much bulk mercury as possible. Cover the spill area using Mercsorb, HgX, or equivalent and spray with water to activate the material. Keep area well ventilated. Wear appropriate PPE.

All tanks and containerized waste will be thoroughly inspected for leaks, pressure build-up and structural integrity by the USET emergency coordinator. Any deficiencies will be immediately corrected.

Operations at the facility will not commence until such time as all emergency equipment has been cleaned, replaced, and restored to its original location. All emergency equipment will be tested to determine its effectiveness prior to resuming operation after an emergency incident. A supplemental list of emergency equipment available at the USET facility is included in **Appendix C**.

2.10.2 Reentry Monitoring

Before employees are allowed to return to the area after an emergency, the USET emergency coordinator will confirm the area is safe for re-entry. This will be accomplished by physical inspection of the area, the use of detection equipment, followed by decontamination as specified above in **Section 2.10.1**, if necessary. Air monitoring will be performed as required to ensure the facility is safe to resume normal operations. Chemical detection equipment or facilities available at the USET facility is as follows (note these items are located in the main facility office):

1. Chemical detector tubes (Draeger, MSA)
2. Explosion meter
3. Portable Organic Vapor Analyzer (OVA)
4. Portable pH/specific ion meter
5. The facility's quality control laboratory.
6. A fully equipped contract environmental laboratory is located nearby. Any wet chemical or instrumental analyses can be performed as required.

2.10.3 Emergency Waste Movement Coordination

In the event of an emergency situation where the movement of waste materials is required, the following procedures are to be employed:

1. Contact the USET emergency coordinator.
2. Contact USET and/or subcontract drivers.
3. Perform waste characterization verification as described in the USET WAP (refer to **Appendix J** in **Volume 3 of 3**).
4. Contact FDEP Emergency Response Group and the FDEP Southwest District Office to inform them of the emergency waste movement.
5. Load waste into drums, tankers, roll-off containers, or other suitable containers.
6. Load the containers to the vehicles. Follow all applicable DOT regulations pertaining to placarding, labeling, and loading.
7. Complete all shipping documents as required.
8. Dispatch waste shipments offsite to preapproved permitted waste treatment or disposal facilities.

2.10.4 Post-Emergency Assurances

No waste material that may be incompatible with any released material will be treated or stored in a portion of the facility where a release occurred until the decontamination and reentry procedures specified above in this Section are completed. All emergency equipment utilized will be cleaned and fit for its intended use before facility operations resume. Inoperable emergency equipment will be serviced, repaired, or replaced.

2.10.5 Post-Emergency Documentation

Operating Record
The USET emergency coordinator will note in the facility operating record the time, date, and details of any incident that requires Contingency Plan implementation.

Reporting
The USET emergency coordinator will submit a written incident report to the FDEP and other required agencies within 15 days after any incident at the USET facility requiring Contingency Plan implementation. The report will include the following information:

1. Name, address, and telephone number of the appropriate USET contact person;
2. Name, address, and telephone number of the USET facility;
3. Date, time, and type of incident;
4. Name and estimated quantity of materials involved;
5. Estimated quantity and disposition of any recovered materials resulting from the incident;
6. The extent of injuries, if any; and,
7. An assessment of hazards to human health or the environment, if applicable.

The report will be mailed (sent electronically to the FDEP) to the following parties, as necessary and/or appropriate:

Fire Chief Tampa Fire Department 808 East Zack Street Tampa, FL 33602	National Response Center c/o U.S. Coast Guard (CG-5335) - Stop 7581 2100 2nd Street, SW Washington, DC 20593-0001
Hazardous Waste Compliance Assurance Program Lead FDEP Southwest District Division of Waste Management 13051 North Telecom Parkway Temple Terrace, FL 33637	Amber Igoe, CHMM FDEP Division of Waste Management Hazardous Waste Program and Permitting 2600 Blair Stone Road M.S. 4560 Tallahassee, FL 32399

FIGURES

AREA 1
ORIENT ROAD PROPERTY
PERMITTED FACILITY

LOCATION OF EXISTING CONSOLIDATION PLATFORM & RUNI SCREW COMPACTOR (SEE FIGURE 17)

CONC
STAGING AREA (ASPHALT)
IMPROVED SECONDARY CONTAINMENT AREA (CONC.)
CONTAINER STORAGE BUILDING (1-STORY MASONRY)
RETENTION POND
OFFICE (1-STORY MODULAR)

E 9TH AVENUE

ORIENT ROAD

AREA 2
8TH AVENUE PROPERTY
PERMITTED FACILITY

LIFT STATION
SWALE
RETENTION POND
BULK CONTAINER STORAGE AREA
ASPHALT PAVEMENT
CONTROL LABORATORY LOCATION (APPROX.)
DIRT/ GRAVEL PARKING
DIRT/ GRAVEL PARKING
FIRE SAND ENCLOSURE
BULK CONTAINER STORAGE AREA
10-DAY TRANSFER AREA AND INBOUND/ OUTBOUND STAGING AREA
EXISTING OFFICE BUILDING (PRE-ENGINEERED STEEL STRUCTURE)
GRASS AREA
A/C WITHIN EXTERIOR ENCLOSURE
CONC PAD (SAWDUST STORAGE) WITH COVER
CONC PAD WITH TANKS
WASTE PROCESSING BUILDING (PRE-ENGINEERED STEEL STRUCTURE)
SOLID WASTE OPERATIONS AREA
EXISTING 2 STORY OFFICE BUILDING
CONCRETE STOOP WITH SANITARY CLEANOUT
CONC RAMP
RAISED CONCRETE DOCK AREA
8"X8" CONC CURB
PARKING STRIPE (TYPICAL)
BULK CONTAINER STORAGE AREA
8" CONCRETE WALL WITH STEEL RAILING
HAZ WASTE STORAGE AREA
RAISED CONCRETE DOCK AREA
RAMP
MANUAL WHEELED GATE WITH KEYED LOCK ON CHAIN
GRAVEL/ROCK
8"X8" CONC CURB
8" CONCRETE WALL WITH STEEL RAILING
EXTERIOR METAL SIDING
RETENTION POND

IN-TRANSIT TRUCK STAGING AREA (APPROX)

E 8TH AVENUE

71ST STREET
40' PLATTED RIGHT OF WAY
19'+/- ASPHALT PAVEMENT

AREA 3
LTL/RETAIL/LAB PACK/HHW
SERVICE GROUP
LEASED, NOT PERMITTED

E 7TH AVENUE
40' PLATTED RIGHT OF WAY
19'+/- ASPHALT PAVEMENT

ORIENT ROAD
38' PLATTED RIGHT OF WAY
21'+/- ASPHALT PAVEMENT

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SCALE VERIFICATION
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APPROVED BY: DATE:

PACSCON GEOENVIRONMENTAL, INC.
4517 GEORGE ROAD, SUITE 220
TAMPA, FLORIDA 33634
ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM

OVERALL FACILITY LAYOUT PLAN
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE CP-1

PACSCON
Client Centric | Geo-Environmentally Focused

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BCSA 20A STORAGE CONFIGURATION DETAIL

NOTE:
DUMP TRAILERS AND 20 YARD ROLL-OFF CONTAINERS MAY BE STORED IN BCSA'S PENDING OFF-SITE TRANSPORT.

LOCATION OF EXISTING CONSOLIDATION PLATFORM & RUNI SCREW COMPACTOR (SEE FIGURE 17)

CONC

IMPROVED SECONDARY CONTAINMENT AREA (CONC)

CONTAINER STORAGE BUILDING (1-STORY MASONRY)

RESTROOM

STAGING AREA (ASPHALT)

RETENTION POND

OFFICE (1-STORY MODULAR)

E 9TH AVENUE

ORIENT ROAD

SWALE

RETENTION POND

LIFT STATION

BULK CONTAINER STORAGE AREA SEE CONFIGURATION DETAIL ON THIS SHEET

ASPHALT PAVEMENT

CONTROL LABORATORY LOCATION (APPROX.)

DIRT/ GRAVEL PARKING

DIRT/ GRAVEL PARKING

BULK CONTAINER STORAGE AREA

FIRE SAND ENCLOSURE

A/C WITHIN EXTERIOR ENCLOSURE

CONC PAD (SAWDUST STORAGE) WITH COVER

CONC PAD WITH TANKS

WASTE PROCESSING BUILDING (PRE-ENGINEERED STEEL STRUCTURE)

10-DAY TRANSFER AREA AND INBOUND/ OUTBOUND STAGING AREA

EXISTING OFFICE BUILDING (PRE-ENGINEERED STEEL STRUCTURE)

GRASS AREA

SOLID WASTE OPERATIONS AREA

EXISTING 2 STORY OFFICE BUILDING

CONC RAMP

RAISED CONCRETE DOCK AREA

8"x8" CONC CURB

BULK CONTAINER STORAGE AREA

8" CONCRETE WALL WITH STEEL RAILING

HAZ WASTE STORAGE AREA

RAISED CONCRETE DOCK AREA

RAMP

8" CONCRETE WALL WITH STEEL RAILING

CONCRETE STOOP WITH SANITARY CLEANOUT

PARKING STRIPE (TYPICAL)

MANUAL WHEELED GATE WITH KEYED LOCK ON CHAIN

GRAVEL/ROCK

8"x8" CONC CURB

EXTERIOR METAL SIDING

RETENTION POND

IN-TRANSIT TRUCK STAGING AREA (APPROX)

E 8TH AVENUE

SD

BUILDING DETAIL INSET

SOLID WASTE OPERATIONS AREA

CONCRETE FOUNDATION COVERED WITH ROOF

OPEN

APPROXIMATE LOCATION OF ROLL OFF BOX AND/OR DUMP TRAILER OF SOLIDIFIED WASTE

APPROXIMATE LOCATION OF ROLL OFF BOX AND/OR DUMP TRAILER OF SOLIDIFIED WASTE

APPROXIMATE LOCATION OF ROLL OFF BOX AND/OR DUMP TRAILER OF SOLIDIFIED WASTE

APPROXIMATE LOCATION OF ROLL OFF BOX AND/OR DUMP TRAILER OF SOLIDIFIED WASTE

OPEN

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PERMITTED FACILITY LAYOUT PLAN

US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816

FIGURE CP-2

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LOCATION OF WASTE MANAGEMENT OPERATIONS

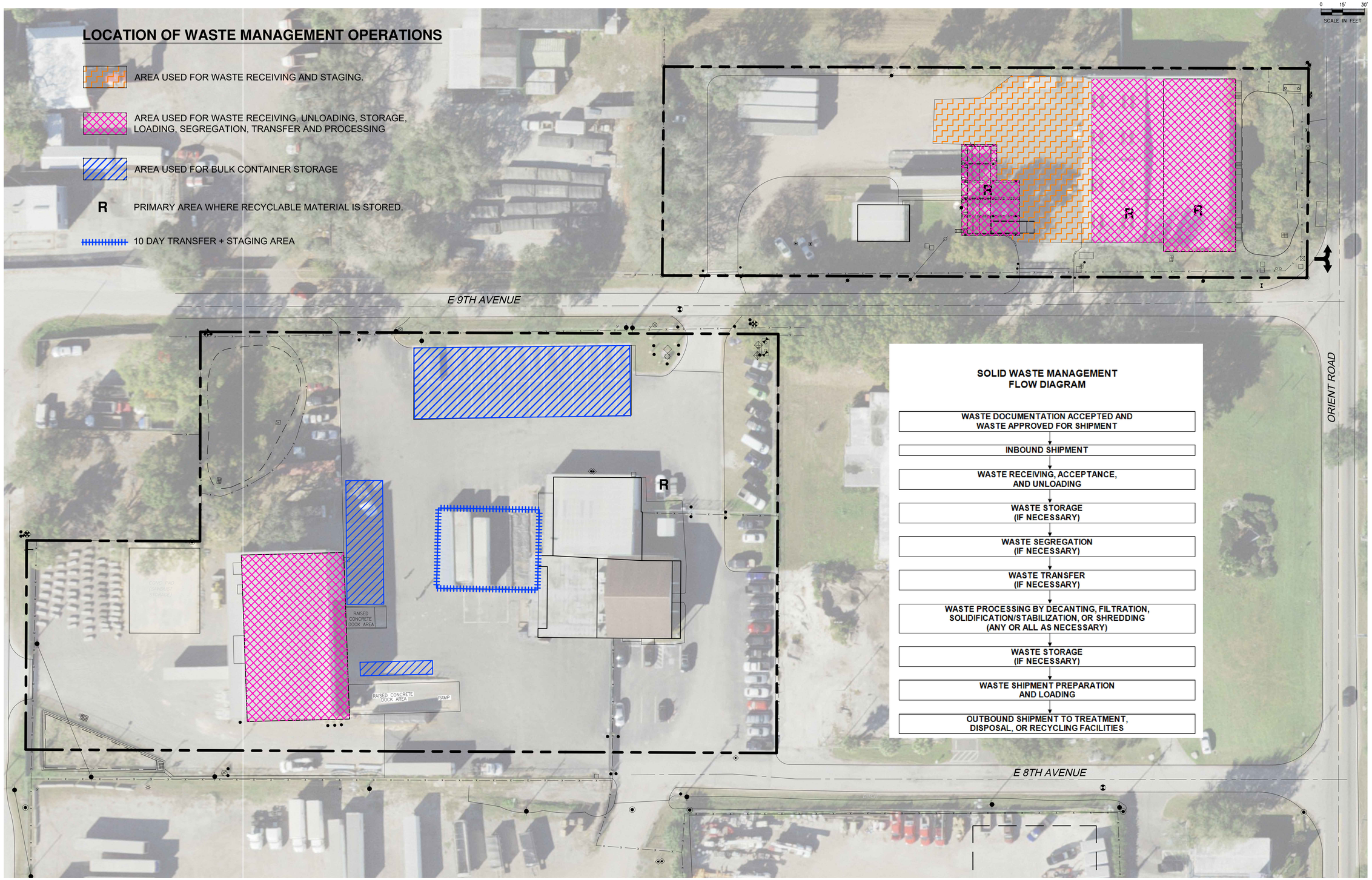
AREA USED FOR WASTE RECEIVING AND STAGING.

AREA USED FOR WASTE RECEIVING, UNLOADING, STORAGE, LOADING, SEGREGATION, TRANSFER AND PROCESSING

AREA USED FOR BULK CONTAINER STORAGE

R — PRIMARY AREA WHERE RECYCLABLE MATERIAL IS STORED.

10 DAY TRANSFER + STAGING AREA



SOLID WASTE MANAGEMENT FLOW DIAGRAM

WASTE DOCUMENTATION ACCEPTED AND WASTE APPROVED FOR SHIPMENT

↓

INBOUND SHIPMENT

↓

WASTE RECEIVING, ACCEPTANCE, AND UNLOADING

↓

WASTE STORAGE (IF NECESSARY)

↓

WASTE SEGREGATION (IF NECESSARY)

↓

WASTE TRANSFER (IF NECESSARY)

↓

WASTE PROCESSING BY DECANTING, FILTRATION, SOLIDIFICATION/STABILIZATION, OR SHREDDING (ANY OR ALL AS NECESSARY)

↓

WASTE STORAGE (IF NECESSARY)

↓

WASTE SHIPMENT PREPARATION AND LOADING

↓

OUTBOUND SHIPMENT TO TREATMENT, DISPOSAL, OR RECYCLING FACILITIES

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TAMPA, FLORIDA 33634
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WASTE MANAGEMENT AREA LOCATIONS

US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816

FIGURE **CP-3**

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PACSCON
Client Centric | Geo-Environmentally Focused

PROJECT No. 2023-1816	**DRAINAGE AREA STORMWATER CONTROLS** **US ECOLOGY TAMPA, INC.** **7202 EAST 8TH AVENUE** **TAMPA, FLORIDA 33619**	**PACSCON GEOENVIRONMENTAL, INC.** 4517 GEORGE ROAD, SUITE 220 TAMPA, FLORIDA 33634 ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162 PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM
FIGURE **CP-4**		

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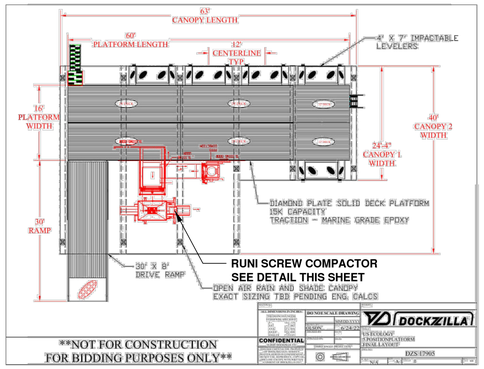
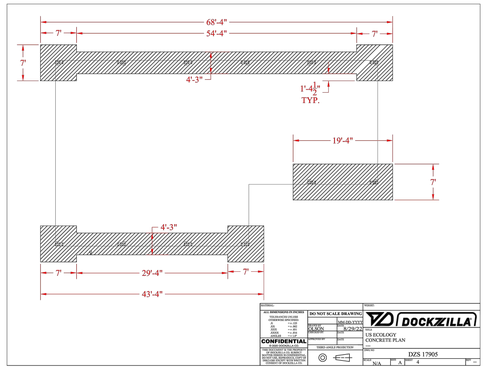
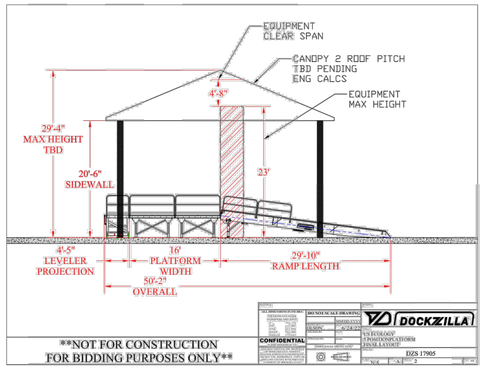
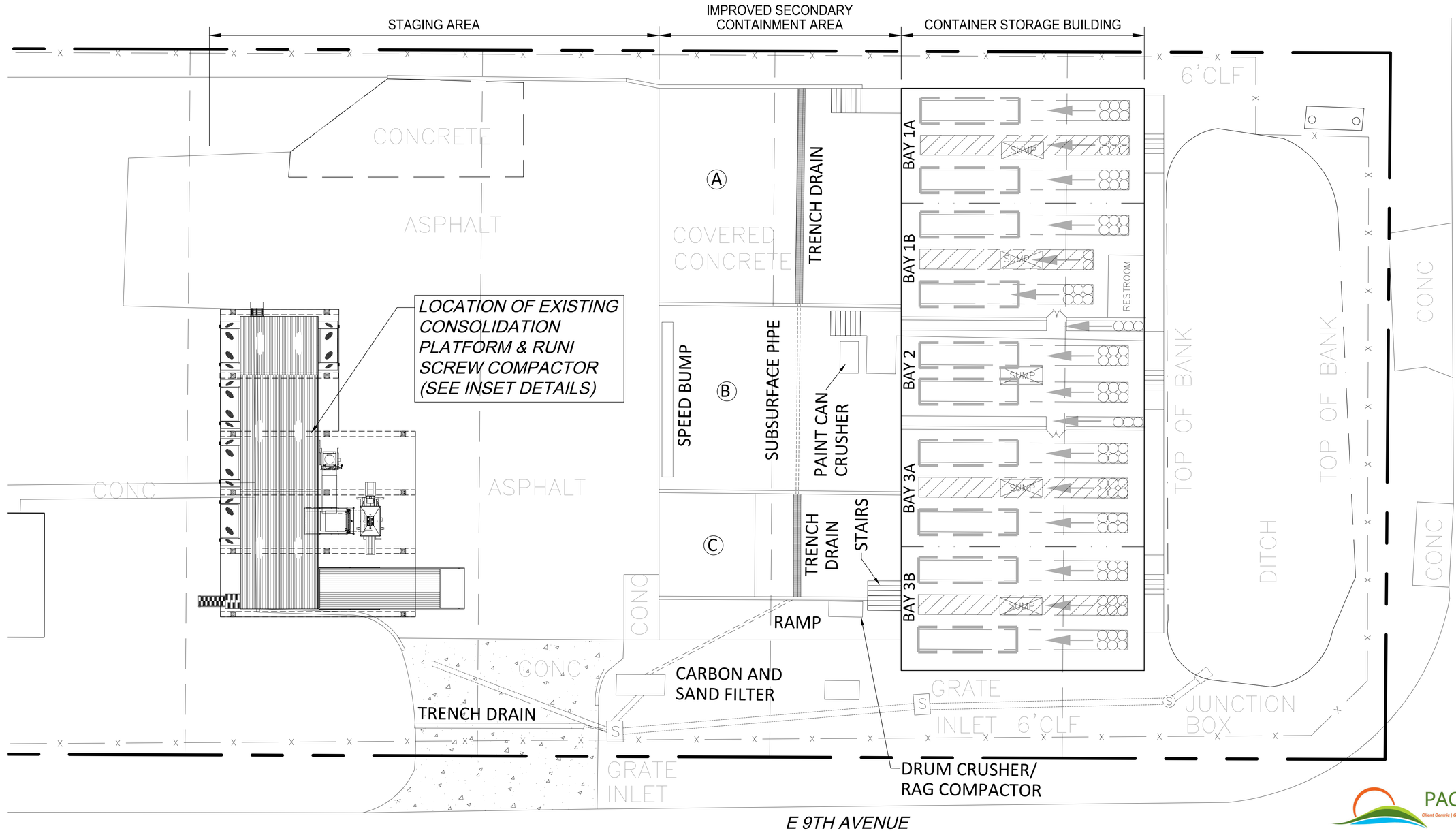






RUNI SK370 SCREW COMPACTOR

(RENDERING FOR INFORMATION PURPOSES ONLY)



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ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
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ORIENT RD. PROPERTY LAYOUT PLAN

US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816

FIGURE **CP-5**

PACSCON
Client Centric | Geo-Environmentally Focused

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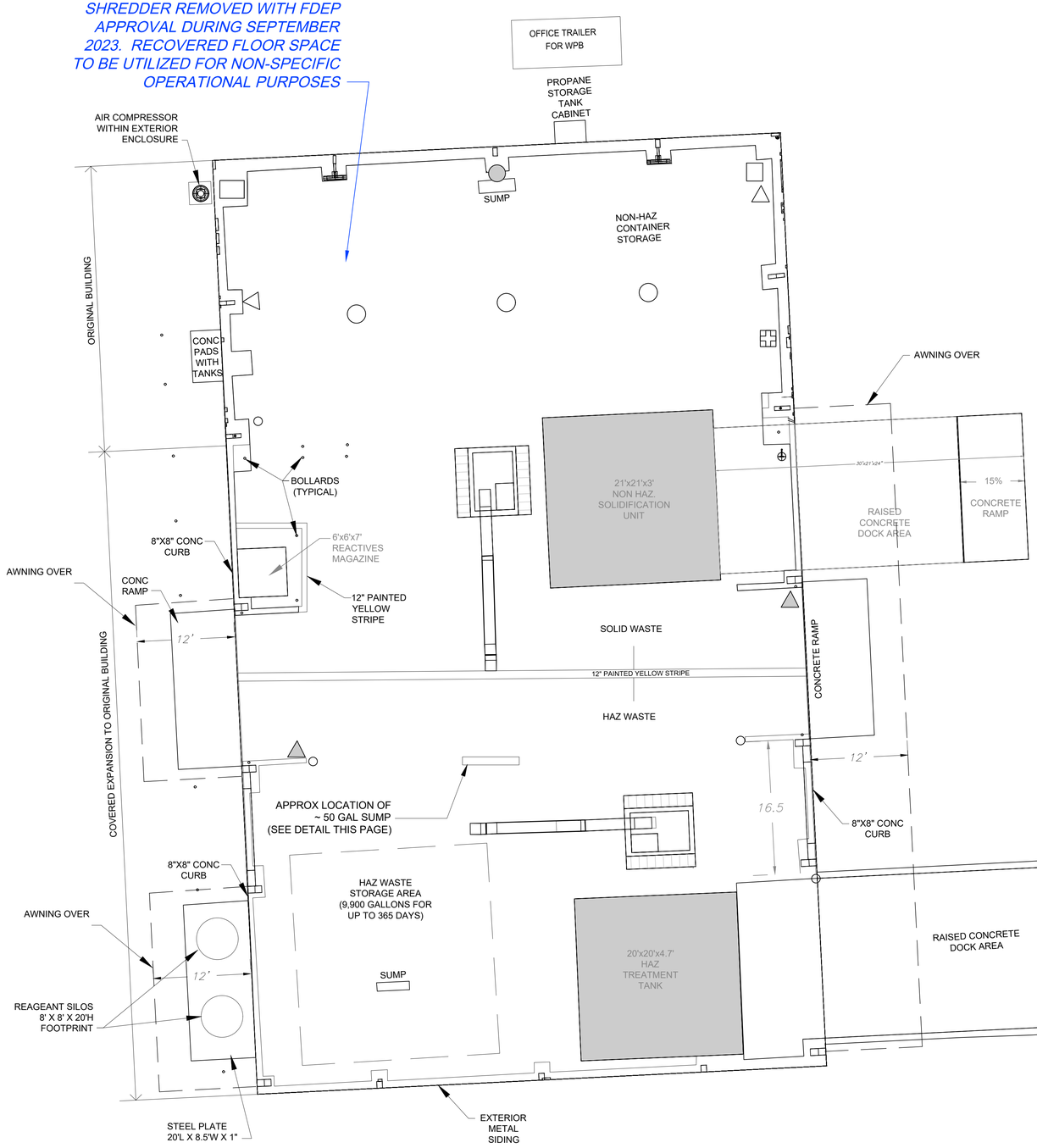
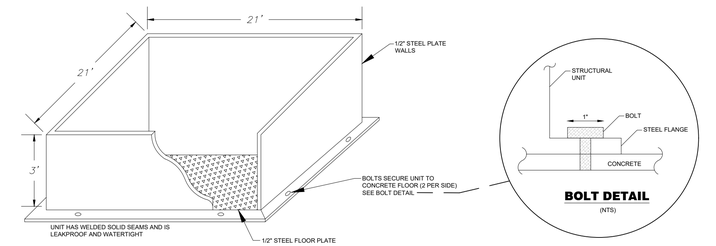
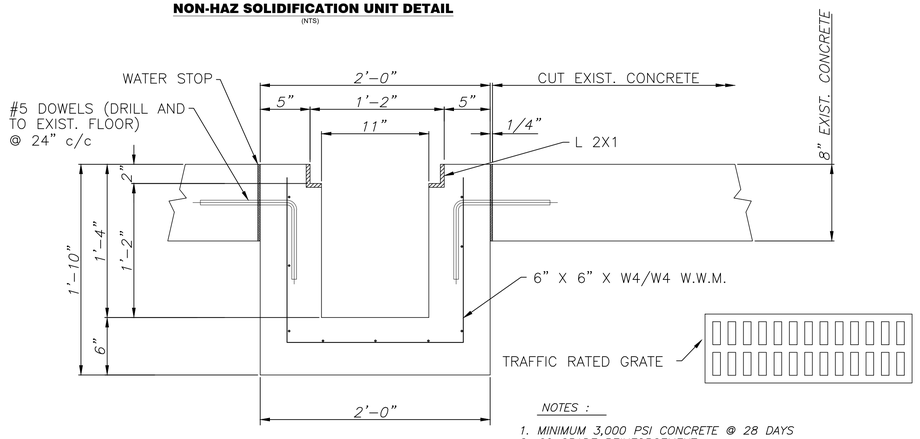
SHREDDER REMOVED WITH FDEP APPROVAL DURING SEPTEMBER 2023. RECOVERED FLOOR SPACE TO BE UTILIZED FOR NON-SPECIFIC OPERATIONAL PURPOSES





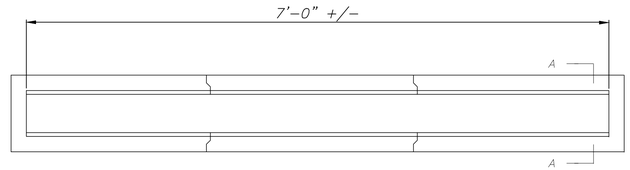
NON-HAZ SOLIDIFICATION UNIT DETAIL
(NTS)



NOTES :

1. *MINIMUM 3,000 PSI CONCRETE @ 28 DAYS*
2. *60 GRADE REINFORCEMENT*
3. *APPROX. WEIGHT = 325 LBS/LIN.FT.*

SECTION A-A



PLAN VIEW

NEW SUMP DETAIL

SAFETY EQUIPMENT LEGEND

- FIRST AID STATION
- SHOWER & EYE WASH STATION
- FIRE ALARM
- SPILL KIT
- AIR HORN
- FIRE EXTINGUISHER
- CEILING MOUNTED SMOKE DETECTOR TIED IN WITH ADT/TYCO

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4517 GEORGE ROAD, SUITE 220
TAMPA, FLORIDA 33634
ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM

WASTE PROCESSING BUILDING LAYOUT
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE **CP-6**

PACSCON
Client Centric | Geo-Environmentally Focused

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SECTION 14 TOWNSHIP 29 RANGE 19

HILLSBOROUGH COUNTY, FLORIDA

NORTH

GRAPHIC SCALE

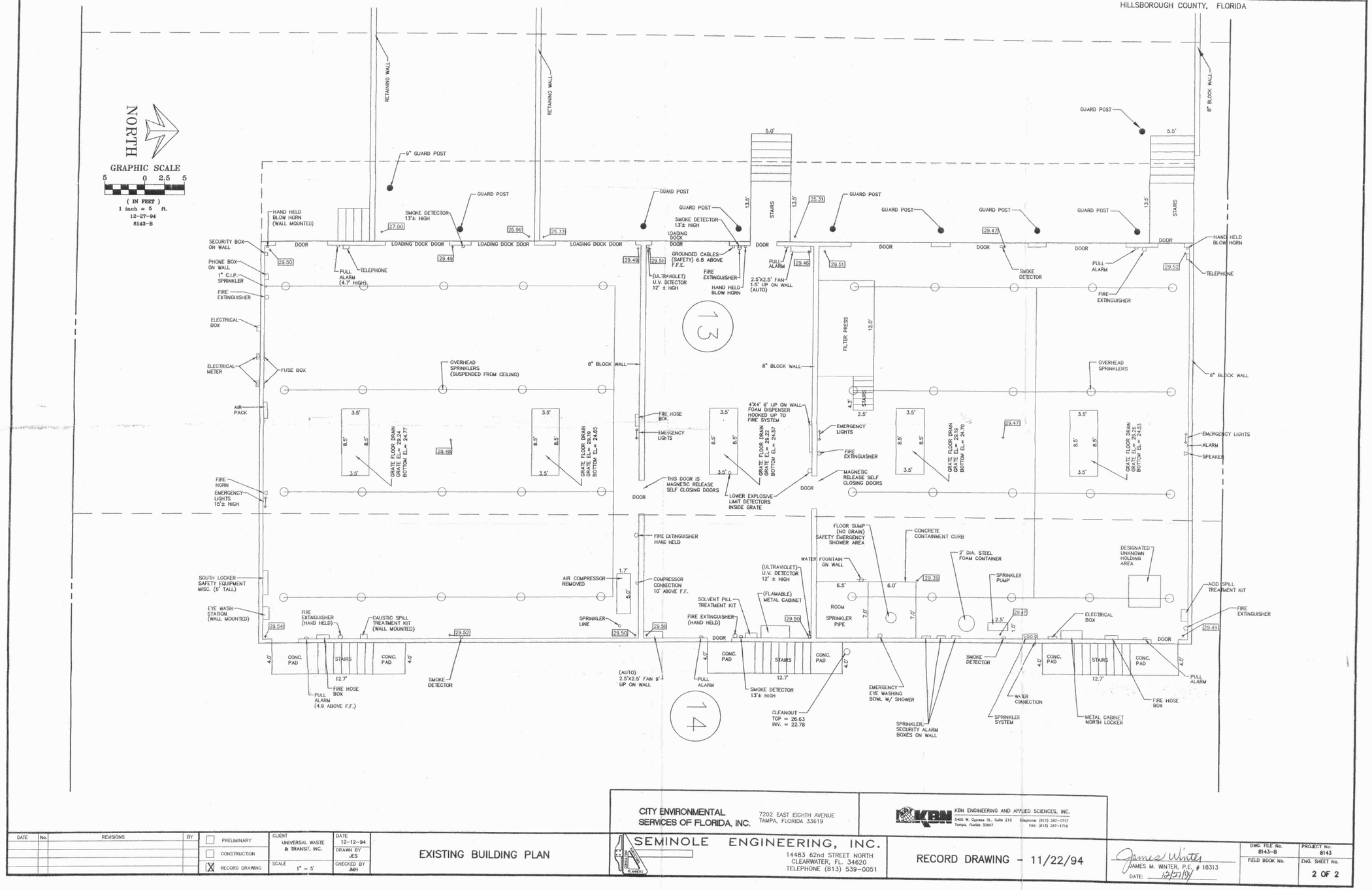
5 0 2.5 5

(IN FEET)

1 inch = 5 ft.

12-27-94

8143-B



CITY ENVIRONMENTAL SERVICES OF FLORIDA, INC. 7202 EAST EIGHTH AVENUE TAMPA, FLORIDA 33619

KBN ENGINEERING AND APPLIED SCIENCES, INC. 5405 W. Cypress St., Suite 215 Tampa, Florida 33607 Telephone: (813) 287-1717 FAX: (813) 287-1716

DATE	No.	REVISIONS	BY

☐ PRELIMINARY
☐ CONSTRUCTION
☒ RECORD DRAWING

CLIENT: UNIVERSAL WASTE & TRANSIT, INC.
SCALE: 1" = 5'
DATE: 12-12-94
DRAWN BY: JES
CHECKED BY: JMH

EXISTING BUILDING PLAN

SEMINOLE ENGINEERING, INC.
14483 62nd STREET NORTH
CLEARWATER, FL. 34620
TELEPHONE (813) 539-0051

RECORD DRAWING - 11/22/94

JAMES M. WINTER, P.E. # 18313
DATE: 12/27/94

DWG. FILE No. 8143-B
FIELD BOOK No.
PROJECT No. 8143
ENG. SHEET No. 2 OF 2

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TAMPA, FLORIDA 33634
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CONTAINER STORAGE BUILDING SAFETY & FIRE CONTROL SYSTEMS
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE CP-7

PACSCON
Client Centric | Geo-Environmentally Focused

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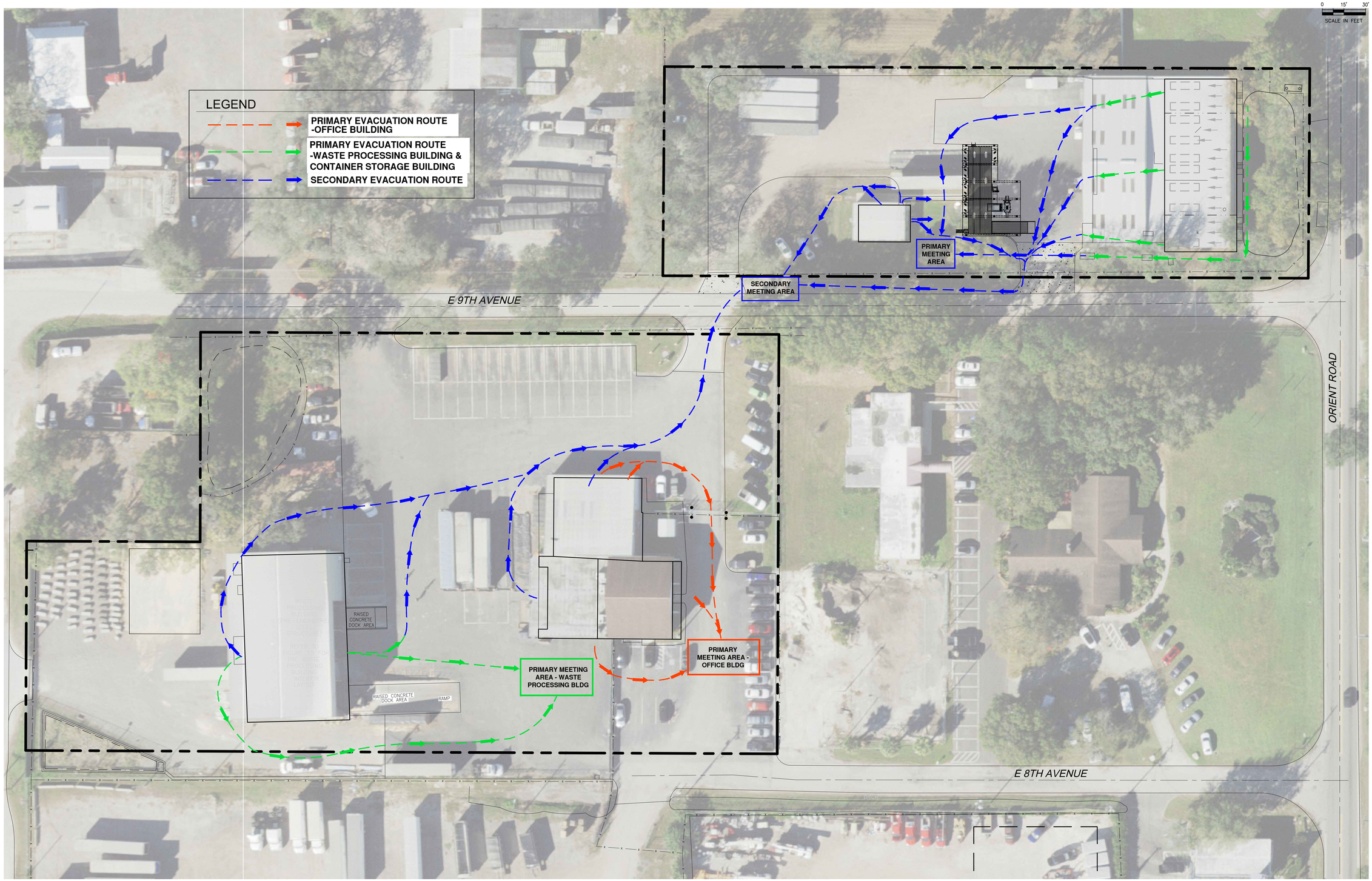

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USE TO VERIFY FIGURE

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DATE:

PACSCON GEOENVIRONMENTAL, INC.
4517 GEORGE ROAD, SUITE 220
TAMPA, FLORIDA 33634
ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM

EMERGENCY PREPAREDNESS PLAN

US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816

FIGURE CP-8

PACSCON
Client Centric | Geo-Environmentally Focused

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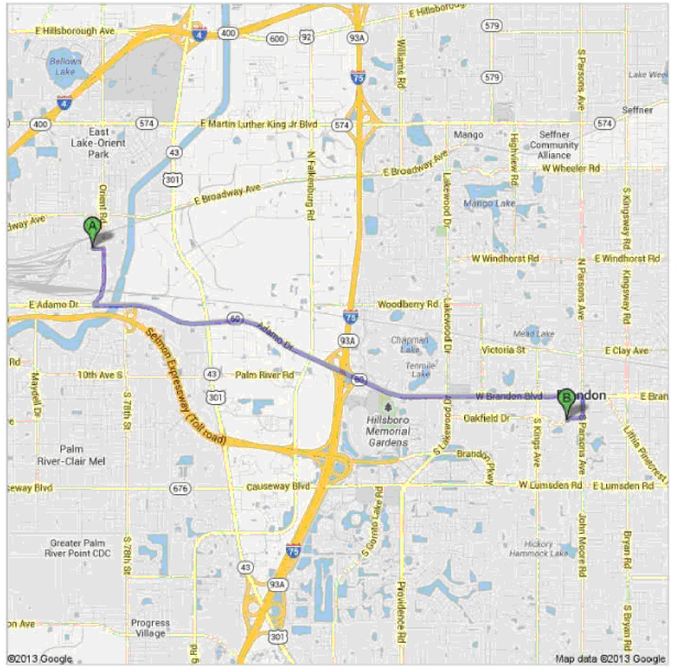

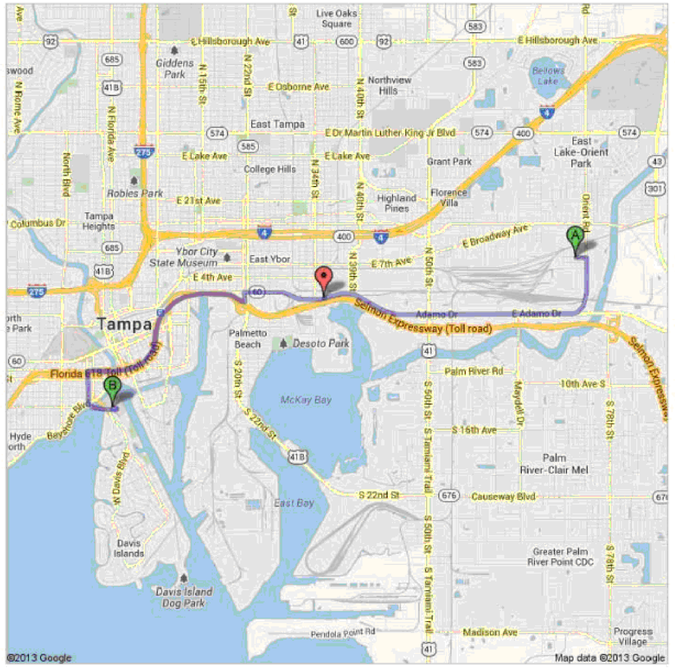

7202 E 8th Ave, Tampa, FL 33619

1.	Head **east** on **E 8th Ave** toward **N 72nd St**	go 0.1 mi total 0.1 mi
2.	Turn right onto **Orient Rd** About 3 mins	go 0.7 mi total 0.8 mi
3.	Turn left onto **FL-60 E/E Adamo Dr** Continue to follow FL-60 E About 10 mins	go 5.7 mi total 6.5 mi
4.	Turn right onto **S Parsons Ave**	go 0.2 mi total 6.7 mi
5.	Take the 2nd right onto **Oakfield Dr** Destination will be on the left	go 0.2 mi total 6.9 mi

Brandon Regional Hospital
119 Oakfield Dr, Brandon, FL 33511

7202 E 8th Ave, Tampa, FL 33619

1.	Head **east** on **E 8th Ave** toward **N 72nd St**	go 0.1 mi total 0.1 mi
2.	Turn right onto **Orient Rd** About 2 mins	go 0.6 mi total 0.8 mi
3.	Take the 3rd right onto **E Adamo Dr** About 7 mins	go 3.8 mi total 4.6 mi
4.	Turn left onto **N 21st St** About 1 min	go 495 ft total 4.7 mi
5.	Turn right onto the **Florida 618 West Toll** ramp to **St Petersburg** Toll road About 45 secs	go 0.3 mi total 4.9 mi
6.	Merge onto **Selmon Expressway** Toll road About 2 mins	go 1.8 mi total 6.7 mi
7.	Take exit **5** toward **Hyde Park Ave/Davis Islands** Toll road	go 0.2 mi total 6.8 mi
8.	Merge onto **W Brorein St**	go 381 ft total 6.9 mi
9.	Turn left onto **S Hyde Park Ave** About 2 mins	go 0.3 mi total 7.2 mi
10.	Take the exit toward **Tampa General Cir** About 46 secs	go 0.2 mi total 7.4 mi
11.	Keep left at the fork, follow signs for **Tampa General Hospital**	go 0.1 mi total 7.6 mi
12.	Keep left at the fork, follow signs for **Emergency/Physician Parking** and merge onto **Tampa General Cir**	go 194 ft total 7.6 mi
13.	Turn left to stay on **Tampa General Cir**	go 85 ft total 7.6 mi
14.	Turn left to stay on **Tampa General Cir** Destination will be on the right	go 233 ft total 7.7 mi

Tampa General Hospital
1 Tampa General Cir, Tampa, FL 33606

N

SCALE VERIFICATION
THIS BAR REPRESENTS 1" ON THE ORIGINAL DRAWING
0 1"
USE TO VERIFY FIGURE

REV.	DATE	DESCRIPTION

CAD FILE:
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE:
DATE:
DATE:

PACSCON GEOENVIRONMENTAL, INC.
4517 GEORGE ROAD, SUITE 220
TAMPA, FLORIDA 33634
ENGINEERING CERTIFICATION OF AUTHORIZATION: 32162
PHONE: (844) 772-2726 E-MAIL: INFO@PACSCON.COM

ROUTES TO HOSPITALS
US ECOLOGY TAMPA, INC.
7202 EAST 8TH AVENUE
TAMPA, FLORIDA 33619

PROJECT No. 2023-1816
FIGURE CP-9

PACSCON
Client Centric | Geo-Environmentally Focused

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APPENDIX A

Emergency Contact List

US ECOLOGY TAMPA
EMERGENCY CONTACT PERSONNEL / RESPONSE AGENCIES AND ORGANIZATIONS

***Dial 9 to get an outside line from any office phone**

7202 East 8th Avenue
Tampa, Florida 33619
(813) 623-5302 (During Business Hours)
(800) 839-3975 (24 Hours)
EPA ID #FLD 981 932 494

PRIMARY EMERGENCY COORDINATOR
Don Locke - Operations Manager
813-319-3410 (office)
813-347-3484 (cell)
SECONDARY EMERGENCY COORDINATOR
Ken Dean - Compliance Manager
813-319-3433 (office)
813-748-4403 (cell)
TERTIARY EMERGENCY COORDINATOR
Macho Cruz - Operations Supervisor
813-319-3419 (office)
734-752-5247 (cell)
MEDIA SERVICES
480-757-9770 (office)
media@republicservices.com
ELECTRIC, GAS, & WATER UTILITIES
Tampa Electric Co. (TECO): **877-588-1010** (24 Hours)
City of Tampa Utilities (Water): **813-274-7400** (24 Hours)
RESPONSE CONTRACTOR
Republic Services IS: **800-899-4672** (24 Hours)

EMERGENCY MEDICAL SERVICES
EMS: **911**
Brandon Hospital: **813-681-5551**
Tampa General Hospital: **813-844-7000**
Concentra Tampa East - Urgent Care: **813-490-0099** (During Business Hours)
GOVERNMENTAL AGENCIES
National Response Center: **800-424-8802** (24 Hours)
State of Florida Warning Point: **800-320-0519** (24 Hours)
Florida DEP: **850-245-8705** (During Business Hours)
Florida DEP Southwest District: **813-470-5700** (During Business Hours)
Hillsborough County EPC: **813-627-2600** (During Business Hours)
U.S. Coast Guard: **305-415-6820** (Spill to Navigable Waters)
US Environmental Protection Agency: **404-562-8700** (During Business Hours)
US Environmental Protection Agency: **404-562-8705** (24 Hours)
Poison Control Center: **800-222-1222** (24 Hours)
FIRE, POLICE, SHERIFF
Tampa Fire Department: **911 or 813-232-6800**
Tampa Police Department: **911 or 813-231-6130**
Florida Highway Patrol: **911 or 813-632-6859**
Hillsborough County Sheriff's Office: **911 or 813-247-8200**
OTHER CONTACTS
City of Tampa - Storm Water: **813-259-1693** (During Business Hours)

APPENDIX B

USEPA Hurricane Guidelines

An official website of the United States government

Hurricanes

ALWAYS CALL 911 if you are in immediate danger and need emergency help.

On this page:

Prepare for a hurricane - things you can do to get ready to minimize health or environmental dangers or expected problems.

- Current storm forecast <http://www.nhc.noaa.gov/>, from the National Hurricane Center

Recover from a hurricane - information about safety with generators, flooding, mold cleanup, managing debris, and more - for homes, schools, or facilities.

- Hurricane response <https://epa.gov/hurricane-response> - fact sheets and information
- EPA's emergency response capabilities <https://epa.gov/emergency-response> - general information

---

Prepare for a hurricane

See also: Flooding <https://epa.gov/natural-disasters/flooding>

Make any preparations that can minimize injury and property damage. Households, utilities, and businesses should plan for disaster before hurricane season starts, or make any possible preparations when a hurricane is predicted. Social media messages <https://epa.gov/natural-disasters/social-media-messages-you-can-use-during-or-after-natural-disaster> you can share from your own accounts.

Drinking water:

- Make a kit of supplies <http://www.ready.gov/build-a-kit>. Keep at least a 3-day water supply per person and for pets, too.
- What you can do to protect your household well. <https://epa.gov/privatewells>

Water and wastewater systems

- Activities to help water facilities plan for emergencies and natural disasters. <https://epa.gov/waterutilityresponse>
- Water resiliency planning tools <https://epa.gov/communitywaterresilience> for communities.

Planning for disaster debris:

Damage from a hurricane depends on the size, extent, and other factors. Damage debris can include destroyed structures, hazardous waste, green waste, or personal property. More about disaster debris planning <https://epa.gov/large-scale-residential-demolition/disaster-debris-planning>. This guide highlights the need for communities to plan ahead for debris cleanup after a major natural or man-made disaster, plus case studies. Read a printable version <https://epa.gov/natural-disasters/hazardous-weather-release-prevention-and-reporting>.

Chemical or fertilizer storage:

Properly designed or modified storage facilities <https://epa.gov/agriculture> enhance worker safety and minimize the risk contamination.

Summary of regulatory requirements related to shutdown operations - For complex industrial processes, shutdown operations require special care beyond normal operations. Facility owners and operators are required to minimize chemical releases during process shutdown operations; and if reportable releases occur, they must be reported immediately upon constructive knowledge of occurrence. Read more about applicable regulations: Reminder to minimize process shutdown-related releases and report releases in a timely manner. <https://epa.gov/natural-disasters/hazardous-weather-release-prevention-and-reporting>

Recover after a hurricane

ALERT: Generator exhaust is toxic. Always put generators outside well away from doors, windows, and vents. Never use a generator inside homes, garages, crawlspaces, sheds, or similar areas. Carbon monoxide (CO) is deadly, can build up quickly, and linger for hours. More information. <https://epa.gov/indoor-air-quality-iaq/carbon-monoxides-impact-indoor-air-quality> See also: Flooding <https://epa.gov/natural-disasters/flooding>

- News release: EPA encourages the public to avoid indoor air dangers. Use generators safely. <https://epa.gov/newsreleases/epa-encourages-public-avoid-indoor-air-dangers>

Report suspected spills, contamination or possible violations.

- To report oil,chemical, or hazardous substance releases or spills, call the National Response Center 800-424-8802.
- Report a suspected environmental violation on EPA's reporting page. <https://epa.gov/pesticide-incidents/how-report-spills-and-environmental-violations>

Flooding

- **Limit contact with flood water.** Flood water may have high levels of raw sewage or other hazardous substances. Early symptoms from exposure to contaminated flood water may include upset stomach, intestinal problems, headache and other flu-like discomfort. Anyone experiencing these and any other problems should immediately seek medical attention.
- **What do I do about water from household wells after a flood?** <https://epa.gov/privatewells/protect-your-homes-water> Do not turn on the pump due to danger of electric shock. Do not drink or wash with water from the flooded well until it is tested and safe to use**.** Read more about household wells. <https://epa.gov/privatewells/what-do-your-private-well-after-flood>
- **What do I do with my home septic system after a flood?** <https://epa.gov/septic/what-do-if-your-septic-system-fails> Do not use the sewage system until water in the soil absorption field is lower than the water level around the house. If you have a home-based or small business and your septic system has received chemicals, take extra precautions to prevent contact with water or inhaling fumes. Proper clean-up depends on the kinds of chemicals in the wastewater. Read more <https://epa.gov/septic/what-do-if-your-septic-system-fails>
- **For water and wastewater facilities** <https://epa.gov/waterutilityresponse>: <http://water.epa.gov/infrastructure/watersecurity/emergencyinfo/post-hurricane.cfm> Suggested post-hurricane activities to help facilities recover.

Mold

- **Mold cleanup:** <https://epa.gov/mold> **Mold can cause serious health problems. The key to mold control is moisture control.** After the flood, remove standing water and dry indoor areas. Remove and discard anything that has been wet for more than 24-48 hours.
- Mold cleanup in schools and commercial buildings. <https://epa.gov/mold/mold-remediation-schools-and-commercial-buildings-guide> Information for building managers, custodians, and others who are responsible for commercial building and school maintenance.
- Basic mold hazards <https://epa.gov/mold/learn-about-mold>. Cleaning up mold. <https://epa.gov/mold/mold-cleanup-your-home> What to wear <https://epa.gov/mold/brief-guide-mold-moisture-and-your-home#tab-4>
- More about mold <https://www.cdc.gov/mold> from Centers for Disease Control

Drinking water

- To kill all major water-borne bacterial pathogens, **bring water to a rolling boil for 1 full minute.** Boil **3** minutes at elevations above 5280 ft (1 mile or 1.6 km). More information about emergency disinfection of drinking water <https://epa.gov/ground-water-and-drinking-water/emergency-disinfection-drinking-water>.
- Drinking Water Emergency Incident Information <https://epa.gov/ground-water-and-drinking-water/drinking-water-emergency-response>

Home or facilities wastewater

Pesticides, chemical and oil spills, hazardous waste:

- Call the National Response Center 1-800-424-8802 (24 hours a day every day). For those without 800 access, please call 202-267-2675.
- Industries and businesses that encounter spills or discharges in the aftermath should contact the National Response Center immediately. You or your organization may have legal requirements for reporting or for taking other actions, depending on the spill.
- National Pesticide Information Center: 1-800-858-7378. Pesticide contacts <https://epa.gov/pesticides>
- Report spills or environmental violations <https://epa.gov/pesticide-incidents/how-report-spills-and-environmental-violations>

Managing debris

Disasters can generate tons of debris, including building rubble, soil and sediments, green waste (e.g.., trees and shrubs), personal property, ash, and charred wood. How a community manages disaster debris depends on the debris generated and the waste management options available. Burying or burning is no longer acceptable, except when permission or a waiver has been granted, because of the side effects of smoke and fire from burning, and potential water and soil contamination from burial. Typical methods of recycling and solid waste disposal in sanitary landfills often cannot be applied to disaster debris because of the large volume of waste and reluctance to overburden existing disposal capacity.

- Managing Debris After a Natural Disaster <https://epa.gov/natural-disasters/managing-debris-after-natural-disaster> - a fact sheet with guidelines to help make for a speedier removal process.
- General information on disaster debris <https://epa.gov/large-scale-residential-demolition/disaster-debris-planning> - planning for and management of debris is an essential but often overlooked component of an emergency response or disaster incident.

Renovation and rebuilding

Lead-safe work: By law, contractors need to use lead-safe work practices on emergency renovations on homes or buildings built before 1978. Activities such as sanding, cutting, and demolition can create lead-based paint hazards. Lead-contaminated dust is harmful to adults, particularly pregnant women, and children.

- Important information about post-disaster renovations and lead-based paint <https://epa.gov/lead/post-disaster-renovations-and-lead-based-paint>
- Ways to protect against lead-based paint hazards <https://epa.gov/lead>

Asbestos: Anyone working on demolition, removal, and cleanup of building debris needs be aware of any asbestos and to handle asbestos materials properly. People exposed to asbestos dust can develop serious lung health problems including asbestosis, lung cancer and mesothelioma. Although the use of asbestos has dramatically decreased in recent years, it is still found in many residential and commercial buildings and can pose a serious health risk.

- More about the dangers of exposure to asbestos <https://epa.gov/asbestos/learn-about-asbestos#exposed>
- OSHA guidance on asbestos <https://www.osha.gov/asbestos>

- General Preparedness Information <https://epa.gov/natural-disasters/general-information-disasters>
- Drought <https://epa.gov/natural-disasters/drought>
- Earthquakes <https://epa.gov/natural-disasters/earthquakes>
- Extreme Heat <https://epa.gov/natural-disasters/extreme-heat>

- Flooding <https://epa.gov/natural-disasters/flooding>
- Hurricanes <https://epa.gov/natural-disasters/hurricanes>
- Snow & Ice <https://epa.gov/natural-disasters/snow-and-ice>
- Tornadoes <https://epa.gov/natural-disasters/tornadoes>
- Tsunamis <https://epa.gov/natural-disasters/tsunami>
- Volcanoes <https://epa.gov/natural-disasters/volcanoes>
- Wildfires <https://epa.gov/natural-disasters/wildfires>
- en español <https://espanol.epa.gov/espanol/informacion-general-sobre-la-preparacion-y-la-respuesta-frente-desastres-naturales>

Related info

- National Weather Service: Hurricane Outlook <http://www.cpc.ncep.noaa.gov/products/outlooks/hurricane.shtml>
- Ready.gov: Prepare for a hurricane <http://www.ready.gov/hurricanes>

Contact Us <https://epa.gov/natural-disasters/forms/contact-epa-about-natural-disasters> to ask a question, provide feedback, or report a problem.

LAST UPDATED ON AUGUST 17, 2023

APPENDIX C

Supplemental Emergency & Safety Equipment

US ECOLOGY TAMPA, INC.

SUPPLEMENTAL EMERGENCY AND SAFETY EQUIPMENT

1. Hand-Held Air Horns (5)
2. Telephones (1)
3. Emergency Lights (6)
4. Pull Alarms (7)
5. Fire Extinguishers (22)
6. Emergency Exits (6)
7. Containment Sumps (5)
8. Spill Kits (Acid, Alkaline, Solvent) (1 each)
9. Fire Hoses (4)
10. Safety Equipment Cabinets (2)
11. UV Smoke and Flame Detectors (3)
12. Heat Sensors (4)
13. LEL Sensors (2)
14. LEL Meter (1)
15. SCBA Respirator (2)
16. Eye Washes (4)
17. Safety Shower (4)
18. Sprinkler Systems (2)
19. Foam System (1)
20. Intrusion Alarm System (1)
21. Fire Alarm System (2)

(Supplemental emergency and safety equipment which may not be referenced in the PPP/CP)

APPENDIX D

Standard Operating Procedures

Standard Operating Procedure (FL)

Document Number:	LAB-OP-008-FLA	Issue Date:	12/3/07
Approving Authority:	Shane Walker	Revision Date:	5/9/23
Job Title:	Lab Technician	Department:	LAB
		Review Date:	

TITLE: Facility Waste Sampling

PURPOSE: To ensure all incoming containers are properly marked and a representative sample is collected from each container.

SCOPE: This procedure applies to US Ecology Tampa offices and jobsites.

RESPONSIBILITIES:

Operations Manager:
The Operations Manager is responsible for ensuring the success of this procedure and for all operations under his control.

The Operations Manager or his/her designee shall monitor the employees periodically to ensure they provide their employees with sufficient training and equipment to allow them to both understand and comply with this procedure.

EHS Manager:
The EHS Manager is responsible for providing technical information and ensuring a safe and healthy working environment.

Employees:
Employees are responsible for compliance with the requirements of this procedure.

DEFINITIONS:

PROCEDURE:

1.0 Proceed to sampling area with sampling cart and set-up area (be sure drums are diked and separate from incompatibles and appropriate signs are in place per the permit requirements).

2.0 Prepare sample jars by placing one on each drum to be sampled. Mark sample lids and jars with LAB number, DOT hazard class, DATE sampled, and sampler's initials.

3.0 Put on appropriate safety equipment **(Level C)**. Respiratory protection must be worn when opening any container.

4.0 Visually inspect the drums for integrity and proper RCRA, DOT and non-regulated labeling. Document container types and count for any discrepancies.

5.0 **Liquid and sludge sample:**

5.1 Open the drum carefully, and slowly insert the sampling tube vertically until it reaches the bottom of the liquid portion.
5.2 Cover the top of the tube with the thumb and form a vacuum, and carefully withdraw the tube.
5.3 Collect the sample and drain the contents into a sample container.
5.4 When sampling evacuated aerosol liquid drums, open bung(s) slowly and allow drum to vent at least 10 minutes. Use a self-filling Coliwasa, to prevent possible back pressure. Collect sample and let contents drain into sample container.

6.0 **Solid sample:**

6.1 Open the drum, dig down at least two inches and take a sample.

7.0 If the drum contains liquids and solid parts, check the percent solid and liquid using the sampling tube and obtain the percent solids by sampling the

bottom of the drum. The amount of solids and liquid portions should be described in inches.

8.0 Composite samples will be prepared in the drum area from the individual drum samples. Composites will be composed of individual samples, not to exceed 10 sub-samples per composite.

9.0 Poison drums will not be analyzed in our QC lab until a separate system is established. Poison drums should be opened and inspected and checked using a pH test strip.

10.0 Close container immediately after sampling.

11.0 Bring the samples and receiving report to the lab and notify lab personnel of any discrepancies upon delivery of samples.

12.0 Place drums in their appropriate storage location according to hazard class and remove sampling signs.

13.0 If any problems or questions arise, contact your supervisor or the Lab Manager immediately.

14.0 DO NOT START TO BULK / OR LOAD ANY DRUM WITHOUT THE APPROVAL OF THE LAB MANAGER OR FACILITY MANAGER.

15.0 In the event a modification from the above procedure is requested, the Laboratory Manager or the Facility Manager must approve it.

16.0 All samplers using the above procedure must be trained and documented by the Lab Manager or the Facility Manger, or an experienced trainer as designated by the Laboratory Manager.

17.0 If sampling a Tanker, Sludge Box, Vacuum Truck, following above procedure except use a core auger sampler for the taking the sample.

18.0 The following waste types will receive a visual inspection only:

18.1 Propane Cylinders
18.2 Other gas Cylinders
18.3 Aerosol Cans
18.4 State of Florida Universal Waste
18.5 Labpacks
18.6 PCB Waste

19.0 Samples that fail QC will be put on hold in EQAI.

The EQAI Post Inspection Sheet will be used to verify that each receipt/approval is sampled in accordance with this procedure.

REFERENCES:

ASSOCIATED DOCUMENTS:

RECORDS: The cited records are retained in a manner that supports the requirements of the various local, State, and federal regulatory agencies to which Republic Services adheres.

History of SOP Revisions:

Date	Approver	Change	Training required	
			Yes	No
11/9/16	SW	Changed Document Format Changed Plant Manager Operations Manager		X
12/7/17	SW	Changed review date		X
9/28/18	SW	Changed review date		X
12/18/19	SW	Changed review date		X
5/9/23	KD	Changed Logo and edited wording in records section.		X

Standard Operating Procedure (FL)

Document Number:	LAB-OP-012-FLA	Issue Date:	12/6/07
Approving Authority:	Shane Walker	Revision Date:	5/9/23
Job Title:	Lab Technician	Department:	Lab
		Review Date:	

TITLE: Hazcat Procedures

PURPOSE: To properly and safely identify hazard class information on unknown chemicals.

SCOPE: This procedure applies to US Ecology Tampa offices and jobsites.

RESPONSIBILITIES:

Operations Manager:
The Operations Manager is responsible for ensuring the success of this procedure and for all operations under his control.

The Operations Manager or his/her designee shall monitor the employees periodically to ensure they provide their employees with sufficient training and equipment to allow them to both understand and comply with this procedure.

EHS Manager:
The EHS Manager is responsible for providing technical information and ensuring a safe and healthy working environment.

Employees:
Employees are responsible for compliance with the requirements of this procedure.

DEFINITIONS:

DOT – Department of Transportation
HCl – Hydrochloric Acid

PROCEDURE:

1.0 pH Test

1.1 Introduce a drop of sample onto a pH strip
1.2 Compare to the pH chart to obtain the unknown.

2.0 Oxidizer Test

2.1 Wet a Potassium Iodide starch paper with one drop of 10% HCl
2.2 Add one drop of the sample onto the starch paper.
2.3 If the paper turns **purple-black**, oxidizer is present.

3.0 Sulfide Test

3.1 Wet a Lead Acetate starch paper with one drop of 1:1 HCl
3.2 Add one drop of the sample onto the starch paper.
3.3 If the paper turns **brown- black**, sulfide is present

4.0 Cyanide Test

4.1 Place 5 drops of sample into a small test tube.
4.2 Add 5 drops of CN Reagent #1.
4.3 Add 5 drops of CN Reagent #2.
4.4 Add 5 drops of CN Reagent #3.
4.5 Gently, shake the test tube and let it stand for 10 seconds.
4.6 A color change to **pink or red** indicates the present of cyanide.

5.0 Ignition Potential (Flash Point)

5.1 Introduce 2 ml of sample into an aluminum disc.
5.2 Light up a burner or flame source and hold the flame immediately above the test sample without touching the visible flame to the sample for at least 10 seconds.
5.3 If the sample is ignites, the flammability is report as positive.

6.0 Mercury Test

6.1 Add few drops of sample onto aluminum disc.
6.2 Remove a red cap from a MercuryCheck Swabs.
6.3 Crush swab in center of paper sleeve.
6.4 Squeeze until fluid shows on tip.
6.5 Rub test area approximately 30 seconds.
6.6 If the tip turns **purple**, mercury is present.

7.0 Cadmium Test

7.1 Add few drops of sample onto aluminum disc.
7.2 Crush at “A” and “B” of Cadmium Check Swabs.
7.3 Squeeze until purple shows on tip.
7.4 Rub test area approximately 30 seconds.
7.5 If the tip turns **Peach**, Cadmium is present.

8.0 Silver Test

8.1 Obtain one silver strip from Silver Roll.
8.2 Immerse the reaction zones of the test strip in the solution for one second.
8.3 Shake off the excess liquid and compare with the color scale after 30 seconds.

9.0 Iron Test

9.1 Obtain one Iron strip from Iron Roll.
9.2 Immerse the reaction zone in the solution (1-7) for 1 sec.
9.3 Shake off excess liquid from the strip.
9.4 Wait 10 seconds, compare with the color scale, and read off result.

10.0 Chlorine Test

10.1 Obtain one chlorine paper from Chlorine Test Roll.
10.2 Dip about one inch of a test paper in the water to be tested and remove immediately.
10.3 The color turns purple, chlorine is present.

11.0 Peroxide Test

11.1 Obtain one peroxide strip from Peroxide Test Roll.
11.2 Immerse the reaction zone in the solution for 1 second.
11.3 Shake off excess liquid from the strip.
11.4 Compare the color scale after 15 seconds.

12.0 Solubility Test

12.1 Add 5 drops of sample into a test tube.
12.2 Add 5 drops of DI water into the same test tube.
12.3 Mix thoroughly and let it sit for 30 seconds.
12.4 If one layer formed, then it is soluble. If there is more than one layer, then the sample is not soluble in water.

13.0 Classifying DOT Classes

13.1 Performing a pH test on an unknown, if pH is <2.10 or >12.5, give D002 code.
13.2 Perform ignition Potential test, if positive then give an unknown a D001 code.
13.3 If negative then go on for metals test and perform all strip metals

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REFERENCES:

ASSOCIATED DOCUMENTS:

RECORDS: The cited records are retained in a manner that supports the requirements of the various local, State, and federal regulatory agencies to which Republic Services adheres.

History of SOP Revisions:

Date	Approver	Change	Training required	
			Yes	No
11/9/16	Shane Walker	1. Revised Document Format 2. Changed Plant Manager Operations Manager		X
12/19/19	SW	1. Changed revision date		X
5/9/23	KD	Changed logo and wording in records section. Added definitions.		X

4517 George Road, Suite 220

Tampa, Florida 33634

P| (844) 772-2726

F| (813) 563-0440

E| info@pacscon.com

APPENDIX R

Public Notice

Proof of publication and broadcast required under this permit application will be provided to the Department no later than 45 days after receipt of the Department's intended action.

4517 George Road, Suite 220

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