RCRA PERMIT RENEWAL

FOR

Clean Harbors Florida LLC.

EPA I.D. NUMBER – FLD 980 729 610

Existing Hazardous Waste Permit #64247-HO-010

May 2011

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APPLICATION FOR A HAZARDOUS WASTE FACILITY PERMIT
PART I - GENERAL
TO BE COMPLETED BY ALL APPLICANTS

Please Type or Print

A. General Information

1. Type of facility in accordance with Part 270.13(a):

   [ ] Disposal
   [ ] Landfill [ ] Land treatment [ ] Surface Impoundment
   [ ] Miscellaneous Units Type of Unit____________

   [X] Storage
   [X] Containers [X] Tanks [ ] Piles
   [ ] Surface Impoundment [ ] Containment Building
   [ ] Miscellaneous Unit Type of Unit____________

   [X] Treatment
   [X] Tanks [ ] Piles [ ] Surface Impoundment
   [ ] Incineration [ ] Containment Building
   [ ] Boiler/industrial Furnace Type of Unit____________
   [X] Miscellaneous Units Type of unit solids filter

2. Type of application:

   [ ] Temporary Operation Permit (TOP)
   [ ] Construction Permit
   [X] Operation Permit
   [ ] Construction and Operation Permit
   [ ] Research, Development & Demonstration (RD&D) Permit
   [ ] Postclosure Permit
   [ ] Clean Closure Permit
   [ ] Subpart H Remedial Action Plan
   [ ] Equivalency Demonstration

3. Revision Number: 0

4. Date current operation began (or is expected to begin): March 10, 1987

5. Facility name: Clean Harbors Florida, LLC

6. EPA/DEP I.D. No.: FLD 980 729 610

7. Facility location or street address: 170 Bartow Municipal Airport

8. Facility mailing address: 170 Bartow Municipal Airport
Street or P.O. Box
Bartow FL 33830
City State Zip

9. Contact person: John Bosek Telephone: (863) 533-6111
Title: General Manager

Mailing Address: 170 Bartow Municipal Airport
Street or P.O. Box
Bartow FL 33830
City State Zip
Email Address Bosekj@cleanharbors.com

10. Operator's name: Clean Harbors Florida, LLC Telephone (863) 533-6111

Mailing Address: 170 Bartow Municipal Airport
Street or P.O. Box
Bartow FL 33830
City State Zip

11. Facility owner's name: Clean Harbors Florida, LLC Telephone (863) 533-6111

Mailing Address: 170 Bartow Municipal Airport
Street or P.O. Box
Bartow FL 33830
City State Zip

12. Legal structure:
[ ] Corporation [ ] Non-profit Corporation [ ] Partnership [ ] Individual
[ ] Local Government [ ] State Government [ ] Federal Government [X] Other Limited Liability Corp.

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

County:_______________ State:

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

State of incorporation:_______________

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

Name:_______________

Address:_______________
Street or P.O. Box City State Zip

Name:_______________

Address:_______________
Street or P.O. Box City State

16. Site ownership status:

[ ] owned [ ] to be purchased [ ] to be leased______years
[X] presently leased; the expiration date of the lease is: 07/31/2016

If leased, indicate land owner's name: Bartow Municipal Airport

Address: PO Box 650 (Street or P.O. Box) Bartow (City) FL (State) 33830 (Zip)

17. Name of engineer:______________________ Registration no. ____________________:

Address:____
Street or P.O. Box City State Zip

Associated with:____

18. Facility located on Indian land: [ ] yes [X] no

19. Existing or pending environmental permits: (attach a separate sheet if necessary)

NAME OF PERMIT	AGENCY	PERMIT NUMBER	DATE ISSUED	EXPIRATION DATE
RCRA	FDEP	64247-HO-009	01/19/2007	12/10/2011
Air	FDEP	1050167-009-AF		11/02/2014
HSWA	FDEP	64247-HO-010	01/19/2007	12/10/2011
Southwest Florida Water Management	SWFWMD	401359	09/28/99	NA
APHIS	USDA	P330-09-00007		01/18/2012
TSCA	USEPA	FLD980729610	05/21/1998	05/21/2008 (renewal submitted)
Used Oil	FDEP	FLD980729610	03/28/2011	06/30/2012
Universal Waste Lamps	FDEP	FLD980729610	03/29/2011	03/01/2012
Storage Tanks	FDEP	9602192	05/28/2010	06/30/2011
Transporter & Transfer	FDEP	FLD980729610	11/01/2010	01/10/2011
Transporter	USDOT	052505 551 054NP	06/13/2008	06/30/2011

B. Site Information

1. Facility is located in : Polk County
The nearest community to the facility is : Eagle Lake
Latitude: 27° 57' 05" Longitude: 81° 47' 09"
Section: 14 Township: 29S Range: 25E UTM #: 17 / 422700 / 3091890

2. Area of facility site is: 10.2 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. Also show the hazardous wastes traffic pattern including estimated volume and control. See Appendix A for drawing, Appendix B for photographs, Appendix C for traffic patterns.

4. Attach topographic map which show all the features indicated in the instruction sheet for this part.
   See Appendix D

5. Is the site located in a 100-year flood plain? [ ] yes [X] no
   See Appendix E for 100 year flood plan map

6. The facility complies with the wellhead protection requirements of Rule 62-730-521, F.A.C.
   [X] Yes [ ] No

C. Land Use Information

1. The present zoning of the site ______ Industrial

2. If a zoning change is needed, what should the new zoning be? ______ NA

D. Operating Information

1. Is waste generated on site? [X] yes [ ] no

2. List the NAICS codes (5 to 6 digits) 56221

3. Using the codes and units provided in the instructions to complete the following table.
   Specify:

   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 QUANTITY OF HAZARDOUS WASTE AND UNITS OF MEASURE
S01	275,640 G	See Appendix G	See Appendix G
S02	72,600 G	See Appendix G	See Appendix G
T50	12,000 U (GPD)	See Appendix G	See Appendix G
T63	10,000 U (GPD)	See Appendix G	See Appendix G
T40	20,000 U (GPD)	See Appendix G	See Appendix G
T31	20,000 U (GPD)	See Appendix G	See Appendix G
T47	32,320 G	See Appendix G	See Appendix G

S01: 106,920 G – South Bld
136,400 G – North Bld
32,320 G – 4 rolloffs

S02: 60,000 G T101-T110
12,600 G R202-203

MGT CODES: H-141 (Repackaging/Bulking/Consolidation – No treatment or recovery on site), H-121 (Neutralization), H-129 (Solidification), H-061(Fuel Blending), H-039 (Filtration), H-020 (Solvent Recovery)

Revision Number	
Date	
Page of	

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

Signature and Certification

Facility Name Clean Harbors Florida, LLC

EPA/DEP I.D. No. FLD 980 729 610

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, 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.

Michael Crosby

Signature of the Operator or Authorized Representative*

Michael Crisenbery VP-Environmental Compliance

Name and Title (Please type or print)

Date 4/4/11

Telephone (513) 823-2280

- **Attach a letter of authorization**

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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 if Chapter 403, Florida Statutes, and all rules of the Department of Environmental Protection.

Michael Ostenberg
Signature of the Facility Owner or Authorized Representative*

Michael Ostenberg, VP-Environmental Compliance
Name and Title (Please type or print)

Date 4/4/11

Telephone (513) 823-2280

*** 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 or postclosure 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.

Cynthia L Barrow
Signature of the Land Owner or Authorized Representative*

Cynthia L. Barrow, Executive Director
Name and Title (Please type or print)

Date April 7, 2011

Telephone (863) 533-1195

*** Attach a letter of authorization**

Revision Number	
Date	
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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(7), 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

BRUCE CLARK
Name (please type)

Florida Registration Number 31924

Mailing Address SCS ENGINEERS, 4041 PARK OAKS BLVD.
street or P.O. Box

SUITE 100, TAMPA FL 33610
city state zip

Date 5/16/11

Telephone (813) 621-0080

(PLEASE AFFIX SEAL)

5/16/11

Assistant Secretary's Certificate

I, William Geary, Assistant Secretary of Clean Harbors, Inc. and all of its subsidiaries listed on Exhibit A, certify that each corporate compliance and corporate heath & safety person with the title of Vice President has the authority to sign and certify environmental documents, including but not limited to environmental reports, related to the operation of any and all of the subsidiaries listed on Exhibit A. I further certify, that each corporate compliance and corporate heath & safety person with the title of Vice President has the authority to sign and certify permit applications related to the operation of any facility with more than 250 people or having gross annual sales or expenditures in excess of $25 million dollars.

Witness the execution hereof under seal.

November 6, 2002

William Geary, Assistant Secretary

to

Assistant Secretary's Certification

11-06-02

Company
Altair Disposal Services, LLC
Baton Rouge Disposal, LLC
Bridgeport Disposal, LLC
Clean Harbors Andover, LLC
Clean Harbors Antioch, LLC
Clean Harbors Aragonite, LLC
Clean Harbors Arizona, LLC
Clean Harbors Baton Rouge, LLC
Clean Harbors BDT, LLC
Clean Harbors Buttonwillow, LLC
Clean Harbors Canada, Inc.
Clean Harbors Chattanooga, LLC
Clean Harbors Chemical Sales, LLC
Clean Harbors Coffeyville, LLC
Clean Harbors Colfax, LLC
Clean Harbors Deer Park, LP
Clean Harbors Deer Trail, LLC
Clean Harbors Environmental Servies, Inc.
Clean Harbors Florida, LLC
Clean Harbors Grassy Mountain, LLC
Clean Harbors Kansas, LLC
Clean Harbors LaPorte, LP
Clean Harbors Laurel, LLC
Clean Harbors Lone Mountain, LLC
Clean Harbors Los Angeles, LLC
Clean Harbors Mercier, Inc.
Clean Harbors of Baltimore, Inc.
Clean Harbors of Braintree, Inc.
Clean Harbors of Connecticut, Inc.
Clean Harbors of Mexico, LLC
Clean Harbors of Texas, LLC
Clean Harbors Pecatonica, LLC
Clean Harbors Plaquemine, LLC
Clean Harbors PPM, LLC
Clean Harbors Quebec, Inc
Clean Harbors Reidsville, LLC
Clean Harbors San Jose, LLC
Clean Harbors Tennessee, LLC
Clean Harbors Westmorland, LLC
Clean Harbors White Castle, LLC
Crowley Disposal, LLC
Disposal Properties, LLC
GSX Disposal, LLC
Harbor Industrial Services Texas, LP
Hillard Disposal, LLC
Laidlaw Environmental Services de Mexico, S.A. de C.V.
Northeast Casualty Real Property, LLC
Roebuck Disposal, LLC
Sawyer Disposal Services, LLC
Tulsa Disposal, LLC
510127 N.B. Inc.
Clean Harbors Lone Star Corp.

Bartow Municipal Airport and Industrial Park

September 20, 2006

To Whom It May Concern:

The Bartow Municipal Airport Development Authority was created by Legislation in 1967. The airport property is owned by the city of Bartow and per an agreement with the city and by city Ordinance (Section 203.1), the Airport Authority has exclusive rights to lease and develop the property, etc. I answer to an Airport Authority Board, which consists of the same five City Commissioners that were elected to the city of Bartow. When they meet on behalf of the Airport, they are considered Airport Authority Board members and when they meet to conduct city business, they meet as City Commissioners.

I personally was hired in 1976 and appointed as Executive Director in 1994. I have authorization to conduct and manage the Airport operations, including aviation and industrial park and more specifically with Clean Harbors – Bartow, Florida.

If additional information or verification is needed, please contact me or the Airport/City Attorney, Mr. George T. Dunlap, III, at 863/533-3146.

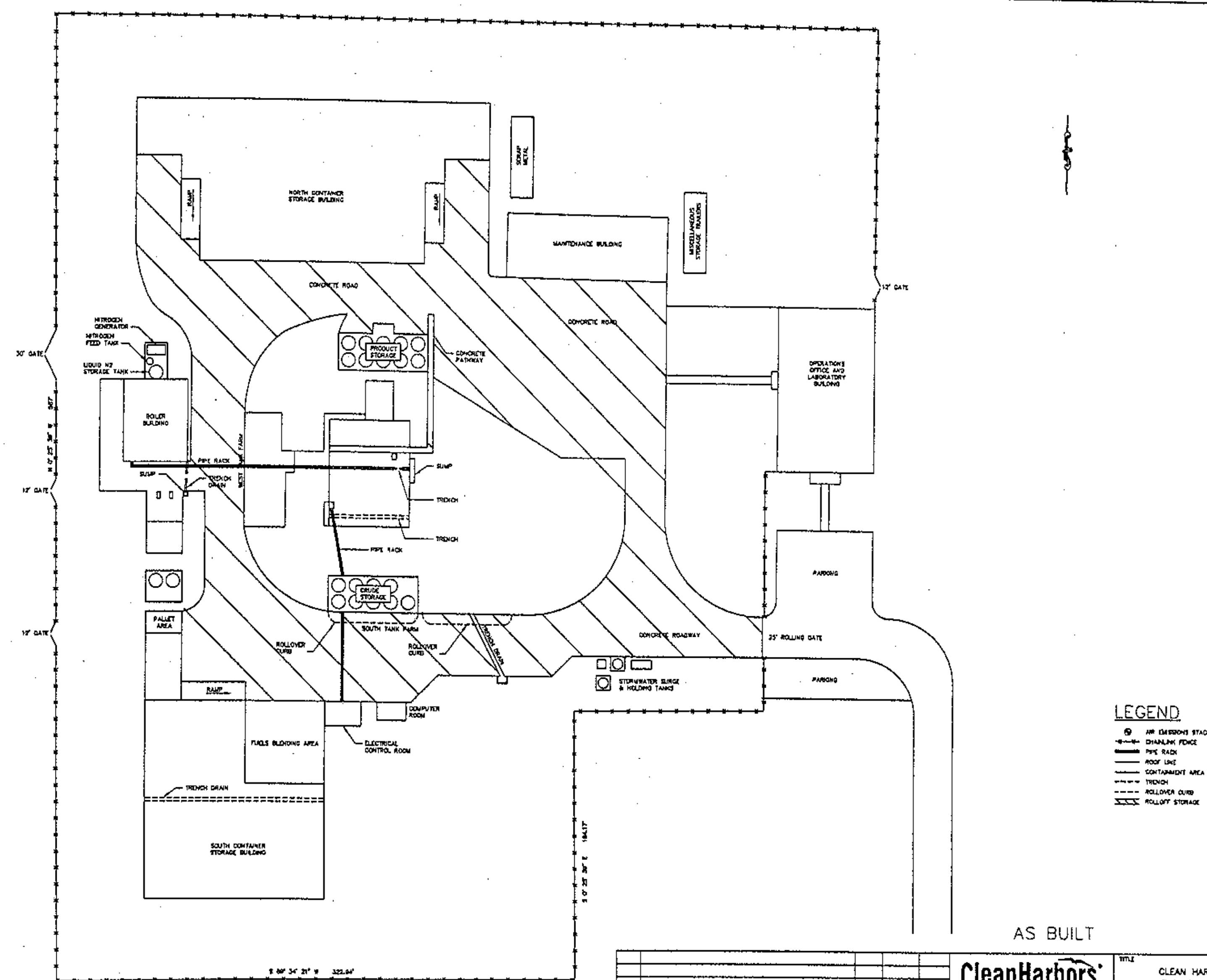
Very truly yours,

BARTOW MUNICIPAL AIRPORT DEVELOPMENT AUTHORITY

Cynthia L. Barrow

Cynthia L. Barrow
Executive Director

CHAPTER 1
APPENDIX A



AS BUILT

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
C	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE TANK T-106	K.M.C.	05/10/11	M.C.
B	REMOVED TANKS, HCFC STILL AND PROCESS AREA	K.M.C.	02/04/11	M.C.
A	FOR APPROVAL	JKM	04/21/05	JWC

CleanHarbors

BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM		1"=60'	04/21/05

TITLE: CLEAN HARBORS FLORIDA, LLC
FACILITY DRAWING/PLOT PLAN
APPENDIX A

DRAWING NO. BW-100-001

REV. C

CHAPTER 1
APPENDIX B

LIST OF PHOTOGRAPHS

1. Aerial photograph of facility (From Google Maps)
2. Front gate of facility
3. Crude storage tank farm secondary containment pad
4. Fuels Blending Tanks T-112 and T-114
5. Paint Can Crusher
6. South Container Storage Building (SCSB)
7. Non RCRA product storage tanks secondary containment pad
8. North Container Storage Building (NCSB)
9. Secured RCRA/Pharm Storage Drumtainer
10. PCB cell in NCSB
11. Reactive cell in NCSB
12. Staging areas in NCSB
13. North container storage area
14. Drum Scale in NCSB
15. West loading docks and ramp of NCSB
16. Used Oil Tanks

CHAPTER 1
APPENDIX C

DESCRIPTION OF OPERATION

I-C-1.1 Introduction

I-C-1.1.1 Process Summary

Clean Harbors Florida LLC (CHF) is in the business of storing and treating hazardous waste.

CHF stores waste in containers and tanks prior to shipment offsite for final treatment or disposal. Organic liquids as well as sludges and solids are blended into hazardous waste fuels. For this process, agitated mix tanks are used to develop the blends as shown in the fuels blending flowsheet provided as Figure F-1.2.

CHF uses a can crusher to transfer hazardous waste from smaller containers to larger ones. The can crusher is located in the fuels blending area of the South Container Storage Building (see Figure F-1.5). The waste is transferred from the smaller cans when placed into a can crusher which;

1) breaches the cans and crushes them, forcing the material from the cans into a receiving container or;
2) by opening the cans and pouring the liquid out, and subsequently placing the can on the can crusher, crushing it so the remaining contents are forced from the can. Generally the cans range in size from one-half pint to five gallon.

The material in the paint cans is analyzed (see Chapter 2) to determine if it can be managed as a fuel grade material. If the material is not a fuel grade material it will be shipped off-site or possibly reclaimed. The can crusher is located within the same secondary containment structure as the fuels blending equipment and is cleaned after each calendar day of use. The crushed empty cans are disposed of off-site as non-RCRA material. A process flowsheet for the can crusher is shown in Figure F-1.3.

CHF performs bulking operations of solids. These solids are typically bulked into larger containers (typically a roll-off) from smaller containers, typically 55-gallon drums or cubic yard boxes.

Solids filtering is conducted at CHF. This operation is simple in nature and involves a pump (typically portable), and a solids filter system (typically a basket filter).

Sometimes CHF receives containers of wastes, which have two phases of materials in them (solids and liquids). These solids and liquids are separated using a sludge box type or a roll-off with a screen near the bottom of the roll-off. The screen is elevated enough for the void beneath it to contain the liquids which flow to the bottom due to gravitational forces. The accumulated liquid is then transferred to a separate container.

CHF also performs consolidation of gases. These gases are typically bulked into larger cylinders from smaller cylinders. The gases managed will have a primary hazard class of flammable gas, 2.1, or nonflammable gas, 2.2. Containers received into the facility are sorted into groups according to their properties and compatibility. The consolidation operations will typically occur in the North Container Storage Building in a well-vented area or on the grounds within the facility's boundary. A log will be kept with the identity of the source containers that have been consolidated into each larger container.

I-C-1.1.2 Description of Wastes

CHF receives three general types of wastes (RCRA and non-RCRA):

1) fuel-grade wastes;
2) other non-fuel/non-reclaimable wastes; and
3) storage-only wastes.

These wastes are listed by EPA Hazardous Waste Code in Appendix G. Fuel grade wastes are not reclaimable to customer specifications because they are either too viscous or contaminated to be processed by on-site equipment, or the waste has a low recyclable value.

Non-fuel/non reclaimable wastes are those mentioned in Section F-1.2 that would be treated using the separation in the sludge box type of roll-off. Storage only wastes are those that cannot be reclaimed, blended into fuel, or treated on-site and will be stored until they are shipped off-site for subsequent treatment, storage, or disposal.

I-C-1.2 Waste Receiving

I-C-1.2.1 In-Processing of Wastes

Hazardous wastes delivered to the facility will be sampled and analyzed according to the Waste Analysis Plan (refer to Chapter 2) prior to acceptance for storage and/or treatment on-site. For waste sampled in accordance with Chapter 2, CHF attempts to verify the contents of containerized shipments within 5 working days after arrival, and bulk trucks within four work hours after arrival. For bulk shipments, the manifest is signed and entered into the operating record when the analysis demonstrates its acceptability. For containerized shipments the manifest is signed and entered into the operating record when the containers are unloaded into the staging area and piece count has been verified.

I-C-1.2.2 Non-Bulk and Small Bulk Containerized Shipments

Non-bulk containers and smaller bulk containers (such as a tote) will be off-loaded at a Container Storage Building. The containers will be removed from the truck and moved into a drum unloading staging area of a Container Storage Building (see Chapter 2 Section B for designated staging areas). There the containers will be inspected for deterioration and leakage, sampled and analyzed. Following verification of the contents of the shipment with the manifest information, the containers will be moved from the staging area and placed into the storage area designated for safe storage of that particular type of waste (refer to Section B for a description of the system to be used by CHF to segregate incompatible wastes). Incompatible materials will be isolated during staging and analysis. The isolation will be accomplished by placing the wastes in a compatible cell or by only placing wastes in the same compatibility group in the staging area at a particular time.

I-C-1.2.3 Large Bulk Shipments

Upon arrival, the contents of these larger bulk containers will be sampled and analyzed in accordance with the Waste Analysis Plan (see Chapter 2, Section A, Appendix H). Following verification of the acceptability of the material, the contents of the bulk container will be transferred into the appropriate storage tank (as described below), another container, or shipped off-site in the container in which it arrived to the facility. Compatibility between wastes introduced into and combined in tanks will be ensured according to CHF's waste classification scheme (refer to Section B). Incoming waste will be placed into a tank, which contains compatible waste and will not be placed into a tank containing incompatible waste. Furthermore, waste will not be placed in a tank, which previously held incompatible waste unless that tank has been properly cleaned.

I-C-1.2.4 Management of Empty Containers

Containers with less than one inch of residue (as well as meeting other 40 CFR 261.7 requirements to qualify as an empty container) will typically be sent off-site to a reclaimer, scrap metal or disposal facility.

Containers with more than one inch of residue (or otherwise not classified as empty) will be shipped off-site to a permitted facility or opened and emptied. If opened and emptied, the remaining sludge residue will be poured or scraped from the container into an accumulation container or directly to a sludge mix tank (T-112 or T-114). Accumulation containers will be in containers meeting DOT performance packaging standards. After emptying the containers in this fashion, they will be reused or loaded on a transport vehicle for shipment to a reclaimer, scrap metal dealer or disposal facility. (The sludge in the accumulation containers will be managed as described in Section F-1.4.3)

I-C-1.3 Fuel Blending

I-C-1.3.1 Wastes Amendable to Fuel Blending

Wastes that are blended into hazardous waste fuel are those that are not reclaimed because they are either too viscous or contaminated to be reclaimed off-site, or they have a low recyclable value. Fuel-grade wastes may include any of those deemed such by the waste analysis.

In 48 FR 11157, published on March 16, 1983, the EPA indicated, as policy, that hazardous waste fuel sent to an industrial furnace to be burned for energy recovery should have at least 5000 BTUs per pound, as generated. In the "BIF Rule" (56 FR 7134, published on February 21, 1991 (Section VII.D.)), the EPA rescinded this policy due to the fact that BIFs are now required to meet very stringent emissions control requirements. Based on this ruling, CHF will now be able to blend, as fuel, material that may have less than 5000 BTUs per pound.

I-C-1.3.2 Process Description

Hazardous waste fuel is developed on-site by blending fuel-grade waste from tanks in the South Tank Farm and containerized waste. The fuel is processed by blending to meet hazardous waste fuel specifications for items such as; BTU, water content, and chlorine content. The resulting fuel is pumped to the South Tank Farm or tank trucks for shipment off site.

I-C-1.3.3 Containerized Shipments

When adequate storage capacity is available in the South Tank Farm, containers of fuel-grade waste will be moved from their storage area to a containers unloading station. These fuel containers will be opened with spark-proof tools. Containers of fuel bearing mostly liquid wastes will be dumped or pumped to tank T-112, or T-114, blended, and then transferred to the South Tank Farm. In some cases the contents of the containers and contents of T-112 or T-114, may be transferred directly to tankers.

Containers with materials which are too viscous or have too high a solids content and cannot be processed in T-112, or T-114 may be placed in a drum-scraping machine which will loosen the material and reduce solids to a size which will allow the drum to be emptied. The waste may then be placed into T-112 or T-114 or a segregation tray may also be used to reduce waste particle size (refer to Figure F-1.5). Following this, the waste will be transferred to the South Tank Farm or to a tanker. Additionally, the solids may be transferred to an accumulation container for shipment off-site.

I-C-1.3.4 Tank Truck Shipments

Tank trucks will be unloaded into tanks after sampling and analysis according to the Waste Analysis Plan. Waste fuels will be segregated into tanks according to degree of chlorination and BTU value.

I-C-1.4 Corrosives and Alkalines

The contents of bulk shipments arriving in tank trucks will be sampled and analyzed according to the Waste Analysis Plan. After confirming the identity of the waste, acidic and alkaline waste will be transferred off-site to a permitted TSDF.

Containerized wastes will be stored in the North Container Storage Building prior to shipment off-site.

The neutralization of containers of these wastes will be conducted inside the curbed portions of the facility. The materials will be neutralized by adding an appropriate neutralizing agent at a rate determined in the compatibility testing described in Chapter Two. Once a waste is neutralized, the LDR status of the waste may be affected.

I-C-1.5 Waste Filtering

CHF also receives waste, which is contaminated only with solids. These wastes can be treated by a simple filtering process and then returned to the original generator or re-sold as a product. The process involves transferring the liquid through a filter, which is small enough to retain the solids in the waste. The liquid will be transferred to the intermediate storage tanks, the product storage tanks or a different container. The solids generated by the filtering process will be treated as a hazardous waste and managed on-site as a fuel material or shipped off-site to a permitted TSDF.

The pump(s) and filter(s) will be operated only inside the curbed area of the plant (typically the driveway area), therefore secondary containment will be provided for the process.

I-C-1.6 Storage of Waste

All incoming wastes from generators will be stored in either the North or South Container Storage Building, one of four roll-off boxes or the Tank Farm (unless it is shipped off-site in the transport vehicle in which it was shipped to CHF). The capacities of these areas are:

72,600 gallons -- T-101 to T-110, R202 & R203 (12 tanks) **
106,920 gallons -- South Container Storage Building

136,400 gallons -- North Container Storage Building
32,320 gallons -- Four 40 yd^3 roll-off boxes
348,240 gallons -- Total capacity for hazardous waste storage

** Total capacity retained but actual authorized utilization reduced by 18,600 gallons for removed tanks R202, R203 and T-106. Utilization of full capacity will resume upon DEP approval and tank replacement.

I-C-1.7 Sludge Management

Sludges from the container unloading stations and storage tanks will be accumulated in containers for disposal off-site. Sludge will also be generated from the waste filtering system.

All sludges to be disposed of will be analyzed (if necessary) and properly manifested to an EPA-permitted facility. If the sludges are amenable as a fuel additive for use in rotary kilns (e.g., chlorine, water content, and BTU value within acceptable limits) they will be manifested to such a facility for that purpose. If needed, absorbent will be added to containers of these sludges to absorb any free liquids, which may be present before being shipped off-site.

I-C-1.8 Storage Only Waste

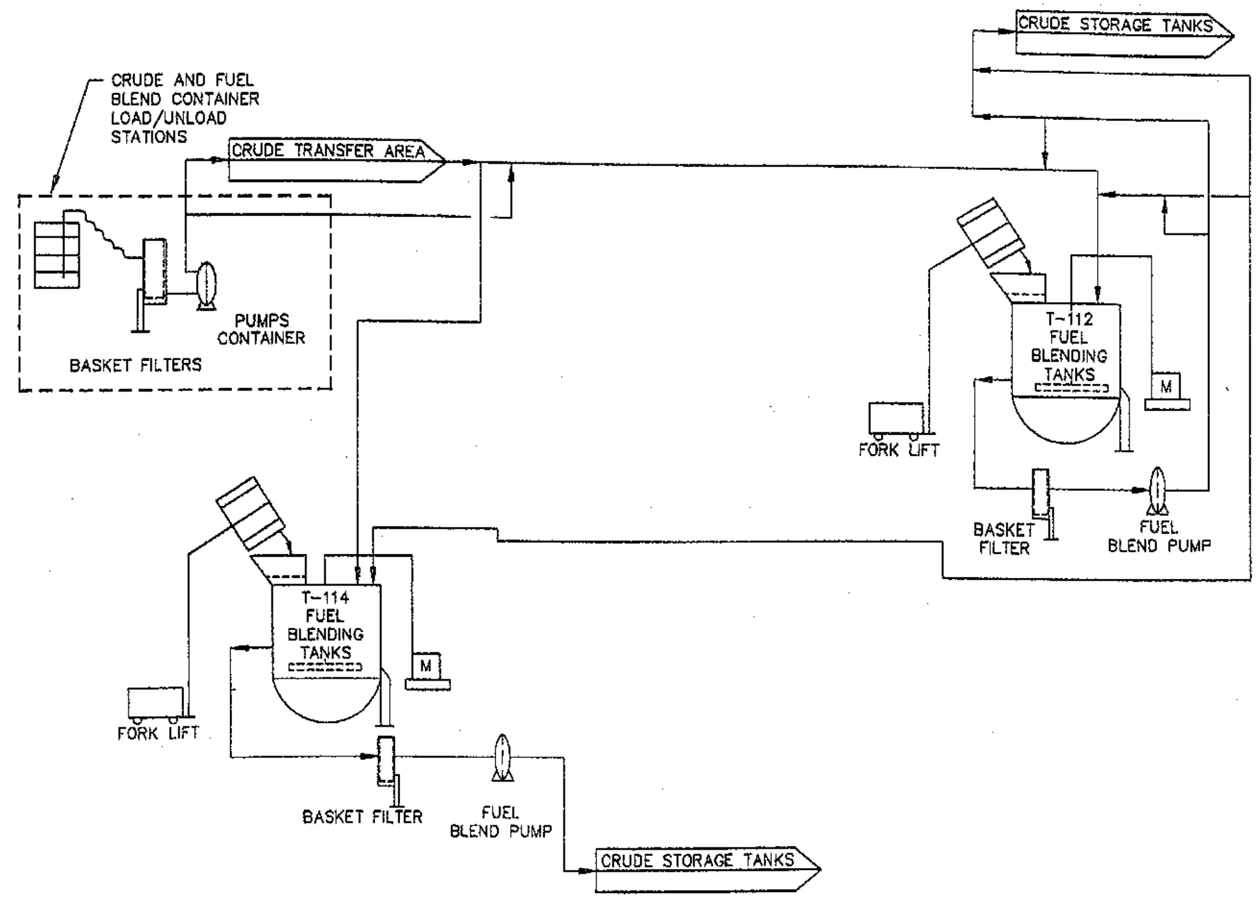
The waste received at CHF often contains solids that cannot be processed such as pieces of metal, wood, plastic, personal protective equipment (PPE), soil, etc. These items are not processable in the fuels blending equipment. These items are collected and shipped off-site for disposal at a permitted facility. This collected waste material is placed into DOT approved containers such as a drum or a roll-off container before it is shipped off-site.

Waste to be placed into the roll-off container is held in smaller containers, typically 55-gallon drums before it is placed into the roll-off.

CHF generated solids such as pieces of metal, wood, plastic; PPE clothing, soil, etc. are also placed into the roll-off. The waste codes and LDR information applicable to the waste placed into the roll-off are tracked and included on the outgoing manifest and LDR forms.

The roll-off is loaded within the concrete driveway area. This ensures that the driveway contains any accidental spills and its surrounding curb. Should a spill occur, it would be cleaned up as soon as possible. Since the wastes of concern are not liquid in nature, such spills would present only minimal run-off potential. Should solids consolidated into roll offs be in a form of sludge with any free liquids, absorbent may be added as stated in sludge management section above.

LIST OF FIGURES



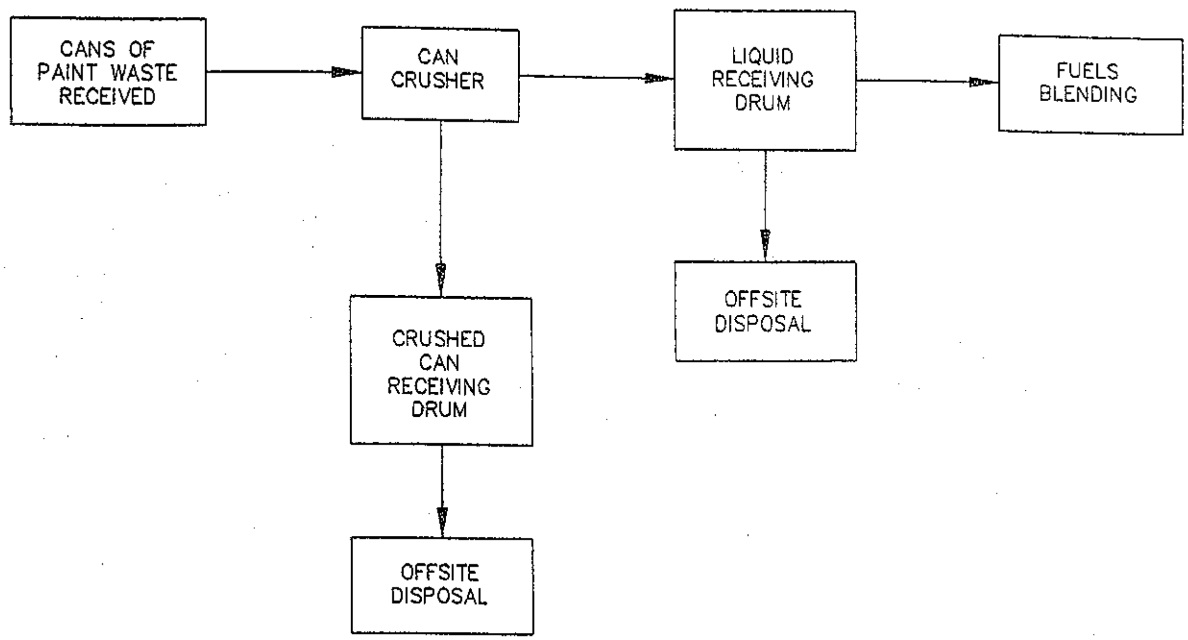
NOTES:

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/01/06	MJO
B	RCRA PERMIT RENEWAL	KMC	04/06/11	S.B.

CleanHarbors
BARTOW

TITLE: CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
FUELS BLENDING PROCESS FLOW

DRAWN	CHECKED	SCALE	DATE	DRAWING NO.	REV.
JKM	MJO	NTS	01/31/06	FIGURE F-1.2	B



NOTES:

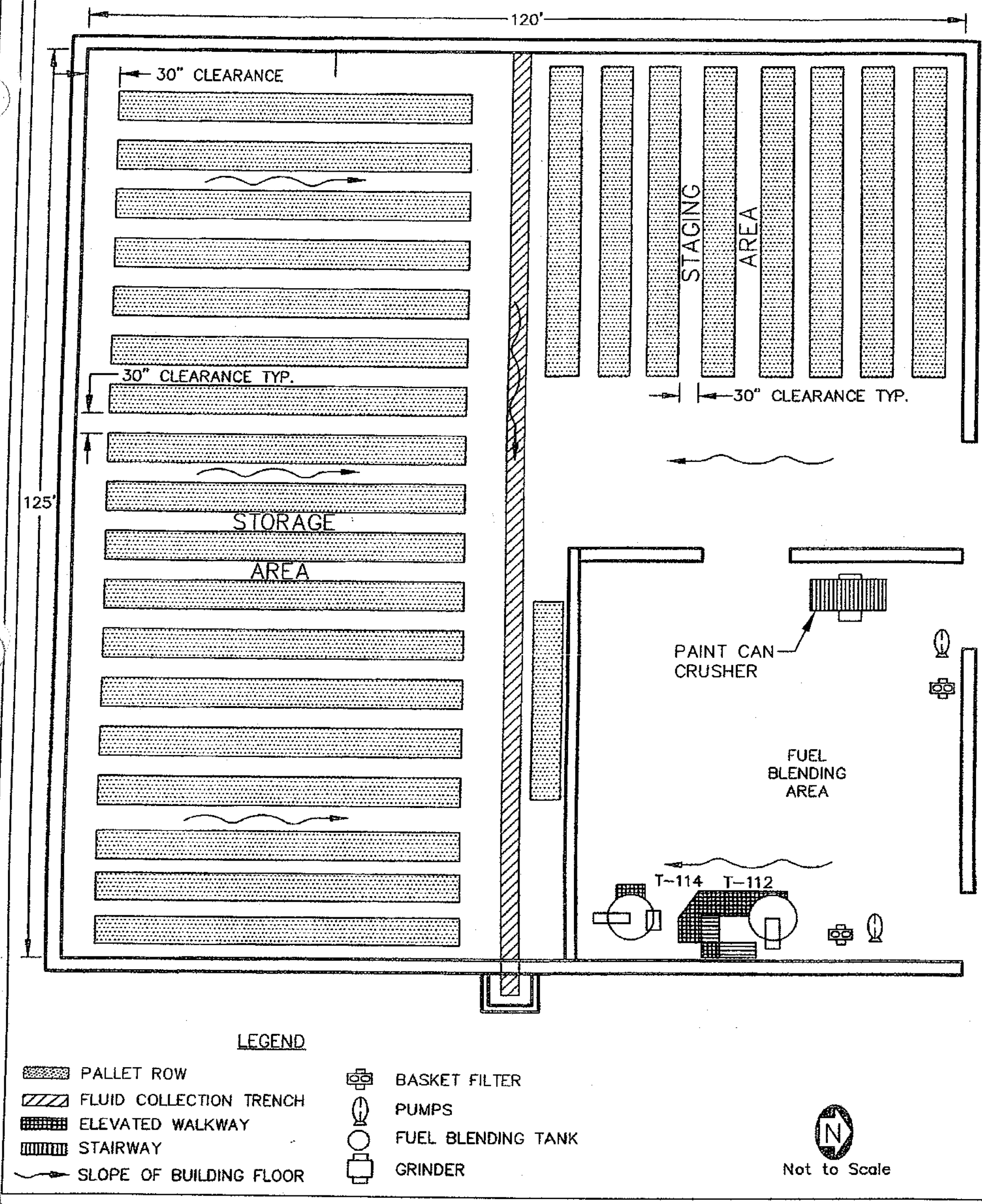
REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
B	REMOVED SOLVENT RECOVERY	K.M.C.	02/04/11	M.C.
A	FOR APPROVAL	JKM	01/31/06	MJG

CleanHarbors
BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM	MJG	NTS	01/31/06

TITLE
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
CAN CRUSHER PROCESS FLOW

DRAWING NO. FIGURE F-1.3 REV. B



NOTES:

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM		
B	RCRA PERMIT RENEWAL	KMC	01/06/11	S.B.

CleanHarbors
BARTOW

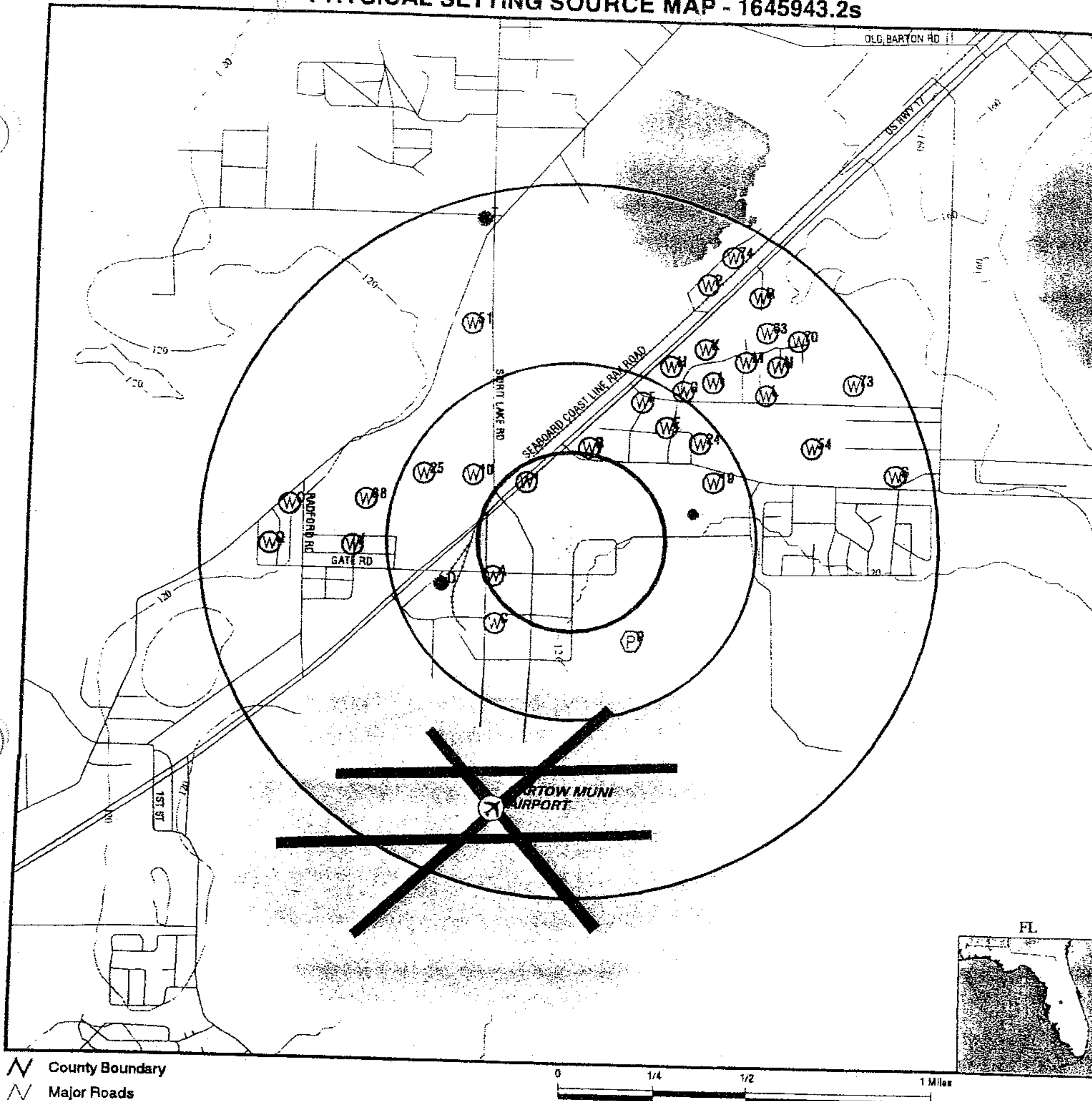
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
SOUTH CONTAINER STORAGE
BUILDING LAYOUT

DRAWN	CHECKED	SCALE	DATE	DRAWING NO.	REV.
JKM	MJG	NTS	01/31/06	FIGURE F-1.5	B

Revision: 0
Date: 02/14/11

CHAPTER 1
APPENDIX D.1

PHYSICAL SETTING SOURCE MAP - 1645943.2s



County Boundary
Major Roads
Contour Lines
Airports
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

Groundwater Flow Direction
(G I) Indeterminate Groundwater Flow at Location
(G V) Groundwater Flow Varies at Location
(HD) Closest Hydrogeological Data
Sink holes

SITE NAME:	Clean Harbors Bartow Facility	CLIENT:	SCS Engineers
ADDRESS:	170 Bartow Municipal Airport	CONTACT:	Dan Cooper
	Bartow FL 33830	INQUIRY #:	1645943.2s
LAT/LONG:	27.9543 / 81.7803	DATE:	March 31, 2006


Ave C
Ave C
Ave C
Ave D
Ave D
©2011 Google - Imagery ©2011 GeoEye, U.S. Geological Survey, Map data ©2011 Google


BE CAREFUL TODAY!
NOTICE
CAUTION
PLEASE PULL COMPLETELY THROUGH GATE BEFORE STOPPING
STOP
CHECK WITH OFFICE BEFORE ENTERING PLANT
NOTICE
NOTICE
SPEED LIMIT 5


DANGER
DANGER
DANGER
DANGER
OUT OF SERVICE

FUEL
FUEL
10
11
12
13
14
15
16
17


CLHA
TOXIC


0


L
REACTIVE PULL STATION ONLY
DANGEROUS WHEN WET
4
WARNING


F


TURBO OIL
01/28/2010


STAGE
01/28/2010


01/28/2010


-701
USED
OIL
-700
USED
OIL

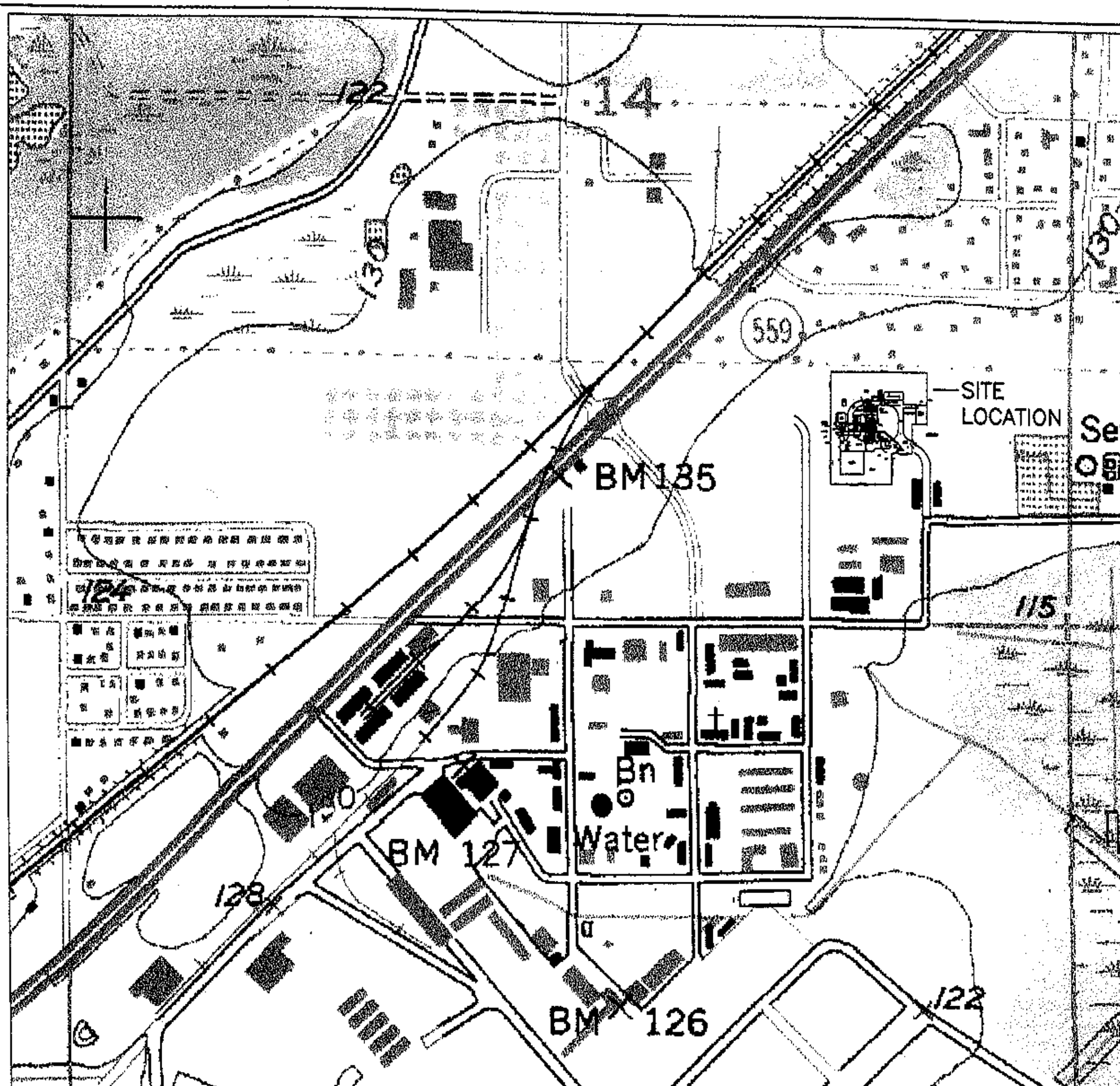
CHAPTER 2

CHAPTER 2

SECTION A – GENERAL

LIST OF APPENDICES

1. Appendix II-A - Topographic Map
2. Appendix II-B – Wind Rose
3. Appendix II-C - Traffic Patterns
4. Appendix II-D – Financial Responsibility Information
5. Appendix II-E - 100-year Floodplain Map
6. Appendix II-F – Facility Security Information
    1. Security Procedures
    2. Contingency Plan
    3. Procedures, Structures and Equipment
    4. Preparedness and Prevention Plan
    5. Training
    6. Inspections
7. Appendix II-G - Waste Code List
8. Appendix II-H – Waste Analysis Plan
9. Appendix II-I – Manifest System, Recordkeeping and Reporting



MAP SOURCE: UNITED STATES GEOLOGICAL SURVEY BARTOW QUADRANGLE 7.5 MINUTE SERIES PHOTO REVISED 1987

0 100 200 400
SCALE FEET

GENERAL NOTES

REFERENCE DRAWINGS

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
0	RCRA PERMIT RENEWAL	KMC	04/05/11	S.B.

CleanHarbors
BARTOW

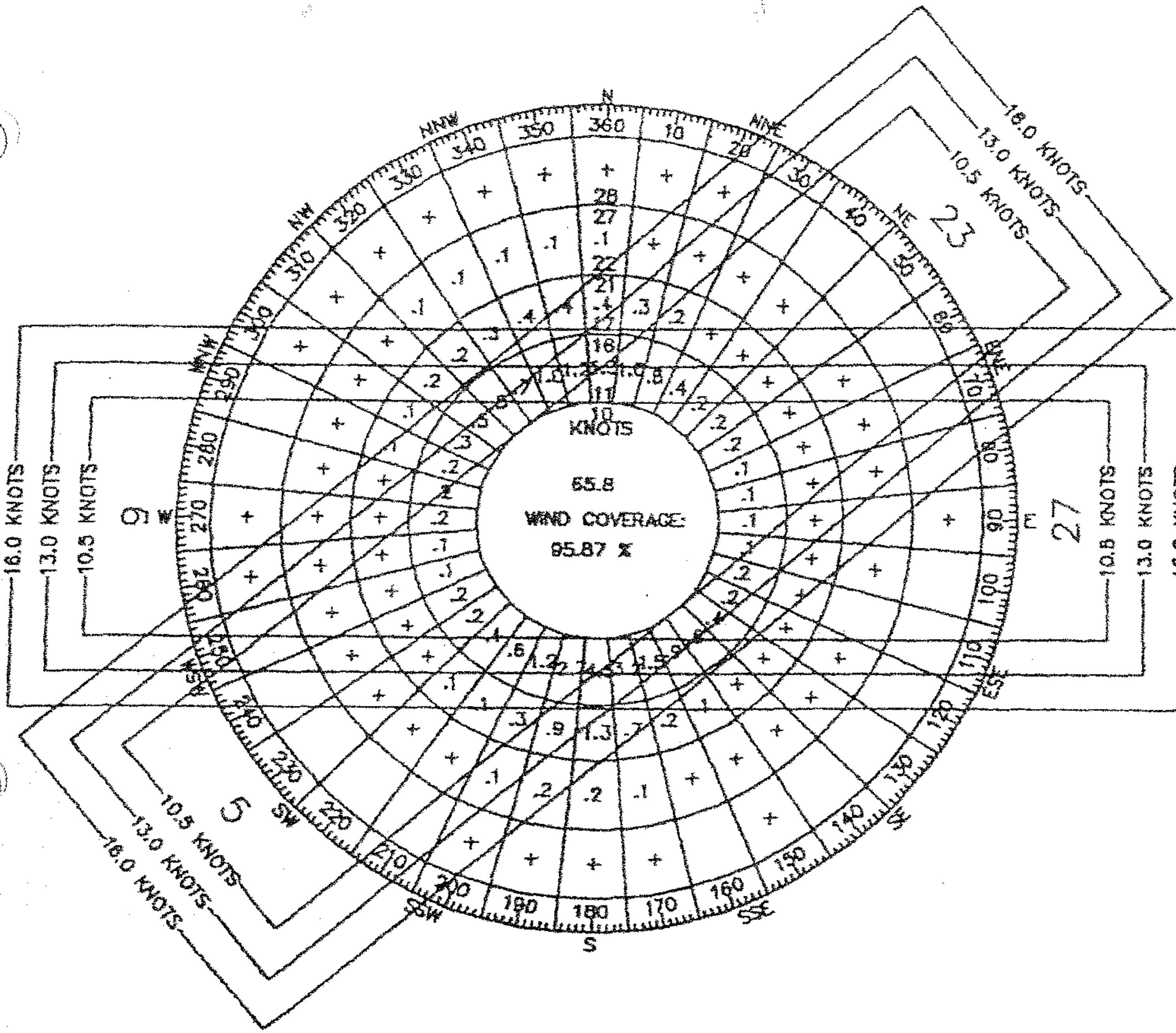
DRAWN	CHECKED	SCALE	DATE
KMC	S.B.	1"=200'	04/05/11

TITLE Appendix II-A

CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
SITE LOCATION MAP

DRAWING NO. Appendix II-A

REV. 0



WIND ROSE DATA

STATION: BARTOW
RECORD PERIOD: JAN 1, 1955 – DEC. 31, 1960
OBSERVATIONS: 22,644
SURFACE WINDS: CALM 4.2 % 1–11.2 MPH 55.3%

RUNWAY COVERAGE	10.5 KTS./12 MPH	13.0 KTS./15 MPH
RUNWAY 5–23	86.0%	94.5%
RUNWAY 9–27	89.9%	96.5%
COMBINED COVERAGE		
RUNWAY 5–23 & 9–27	97.0%	99.1%

BARTOW AIRPORT DATA TABLE- WIND ROSE

APPENDIX II-C

Traffic Patterns

The traffic patterns, including turns, stacking lanes, and traffic controls, for vehicles handling hazardous waste are depicted on Figure C-1.1. The number and type of vehicles expected to access Clean Harbors is estimated in the table below:

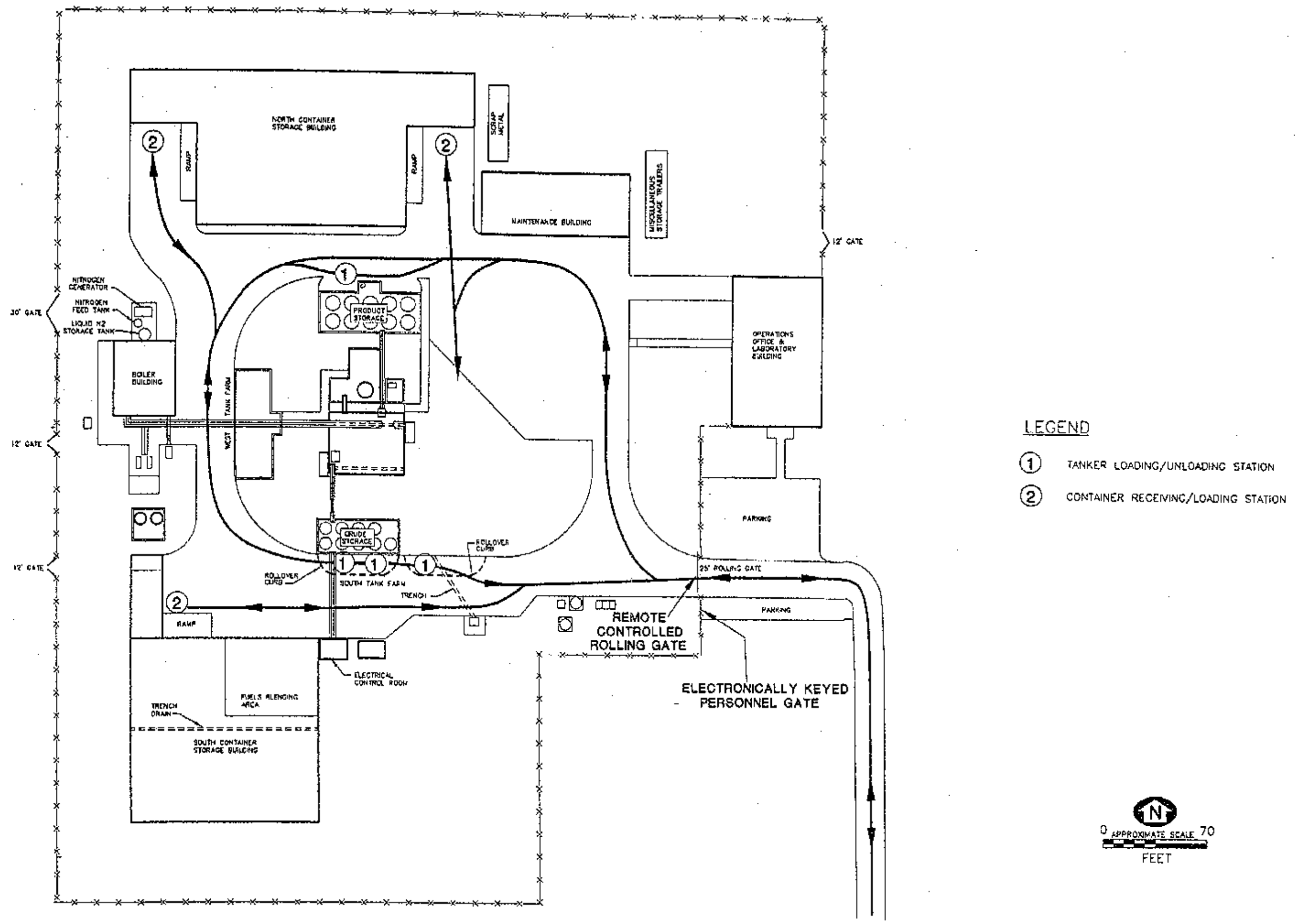
Type of Vehicle	Typical Number Per Day
Tank Truck	2
Van Trailer	4
Other	2

A four-lane divided highway (U.S. Highway 17) is the primary access road to the Bartow Municipal Airport Industrial Park, in which Clean Harbors is located. A traffic light and turning lanes are located at the main entrance to the industrial park.

U.S. Highway 17 and the Bartow Industrial Complex roads are constructed of Type II asphalt and have a minimum structural number of 2.17. This number is determined by the thickness of the road surfaces and the layer coefficient. A typical road for commercial and industrial traffic - constructed of stabilized sub-base, limerock and type II asphalt - would have a minimum structural number of 2.22, calculated as follows:

Road Material	Depth	Coefficient
Stabilized Sub-base	12"	0.06
Limerock	8"	0.15
ACSC Type II Asphalt	1 1/2"	0.2

Minimum Structural Number = (12 x 0.06)+(8 x 0.15)+(1.5 x 0.2) = 2.22



GENERAL NOTES

REFERENCE DRAWINGS

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
C	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE TANK T-106	K.M.C.	06/10/11	M.C.
B	REMOVED TANKS, HCFC STILL AND PROCESS AREA	K.M.C.	02/04/11	M.C.
A	FOR APPROVAL	JKM	01/31/06	MJG

CleanHarbors BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM	MJG	NTS	01/31/06

TITLE: CLEAN HARBORS BARTOW, INC. BARTOW FACILITY TRAFFIC PATTERNS

Figure C-1.1

DRAWING NO. Figure C-1.1

REV. C

APPENDIX II-D

COST ESTIMATE AND FINANCIAL ASSURANCE

1.0 Closure Cost Assumptions

This closure cost estimate is based on final closure occurring at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive. Costs are based on using a third party to close the facility and the expense of off-site treatment and disposal.

The permitted storage capacity is:

- 72,600 gallons in storage tanks;
- 243,320 gallons in containers in the Storage Buildings and/or 32,320 gallons in roll-offs, the total maximum container storage not to exceed 275,640 gallons
- Maximum permitted capacity RCRA waste is 348,240 gallons

Transportation and disposal costs are based on consolidating drums of waste into bulk transportation equipment per Section K. The following disposal facilities and respective costs are used throughout the closure costs:

Waste type	Technology	Facility	Trans	Disposal	T&D Total
Fuels/ Solvents	Cement Kiln	Geocycle Holly Hills SC	$0.26/gal	$0.18/gal	$0.44/gal
Solids	RCRA landfill	CWM Emelle AL	$79.10/T	$93.00/T	$172.10/T
Aqueous	Wastewater Treat	Dupont Deepwater NJ	$0.60/gal	$0.25/gal	$0.85/gal

Based on historical experience, the following inventory waste types are incorporated in this closure cost:

Containers

Waste type	Technology	Units	Total Gallons (or ton)
Fuels/ Solvents	Cement Kiln	3474 drums	191,070 gallons
Solids	RCRA landfill	950 drums	52,250 gallons (259 tons)
Solids	RCRA landfill	4 rolloffs	32,320 gallons (160 tons)
Total			275,640 gallons

Tanks

Fuels	Cement Kiln	72,600 gallons
Total		72,600 gallons

The following assumptions are used to calculate disposal costs:

- Tank solids and sludges will be slurried and disposed in bulk.
- Wastewater generated is assumed to be RCRA regulated.
- All drums are consolidated into bulk transporters for off-site shipments
- Empty drums will be shipped offsite for reclamation.
- Drums contain 55 gallons and weighs 545 lbs net weight.
- Bulks solid density is 2000 lbs/yd^3
- Roll-offs contain 30 yd^3
- Tankers contain 6000 gallons
- Wastewater will be loaded directly onto transporters.

Costs for decontamination and disposal of potentially contaminated equipment such as tanks, pipes, valves, pumps, filters, personal protective equipment, brooms, shovels, can crushers, drum scraper, compactor/drum crusher etc. are included in this estimate. Also included are costs for laboratory analyses, utilities, and an independent, registered professional engineer's certification of complete closure.

2.0 Closure Cost Calculation

Costs for each of the steps outlined in the Closure Plan are itemized below. References to section numbers correspond to those in Section K. (**NOTE:** the pressure washing activities will be done using a high pressure machine which conserves water and only 2 gallons per square foot are needed)

SOUTH CONTAINER STORAGE, STAGING, AND LOADING RAMP AREAS	
Steps 1 - 4, 6, & 8 Waste Removal and Disposal (This analysis assumes Step 5 is not possible, therefore Step 7 is not needed.)	
Skilled Laborer - 100 hours @ $31.00/hour	$3,100
Supervisor/Inspector - 50 hours @ $51.50/hour	$2,575
Off-site disposal - 1,544 fuel drums @ $24.20/drum (55 gal @ $0.44/gal)	$37,365
Off-site disposal - 400 RCRA solids drums (109 ton) @ $172.10/ton	$18,759
Off-site disposal - 4 roll-off containers (40 tons each) @ $172.10/ton	$27,536
Steps 9-11; Building Decontamination	
Supervisor - 140 hours @ $51.50/hour	$7,210
Skilled Labor - 252 hours @ $31.00/hour	$7,812
Skilled Labor - 63 hours @ $19.00/hour	$1,197
Pressure washer rental - 252 hours $860/month (160 hours/month)	$1,355
Miscellaneous Equipment - $20	$20
Detergent - $170	$170
Wastewater Transport – 40,500 gallons @ $0.60/gal	$24,300
Wastewater Disposal - 40,500 gallons @ $0.25/gallon (pressure wash 14,000 s.f. @ 2 gals/s.f. and triple rinse 12,500 s.f. @ 1 gal/s.f.)	$10,125

PPE - $10/day/person @ 42 days with 2 persons	$840
Steps 12-14; Rinsate Sampling	
Skilled Labor - 13 samples @ $22.50/sample	$293
Sample Analysis - 13 samples @ $475/sample	$6,175
Miscellaneous Equipment - $30	$30
Sample Shipping - 13 samples @ $20/sample	$260
Steps 15-26; Soil Sampling	
Skilled Labor - 14 samples @ $45/sample	$630
Sample Drilling - 14 samples @ $16.40/L.F. @ 1.5 L.F./sample	$344
Split Spoon Sample Collection - 14 samples @ $31.00/sample	$434
Sample Analysis - 14 samples @ $580/sample	$8,120
Miscellaneous Equipment - $40	$40
Decontamination of Drilling Equipment - 2 days @ $90/day	$180
Sample Shipping - 14 samples @ $20/sample	$280
Disposal of Drill Cuttings - $170	$170
Step 27: Independent Florida PE	$4,000
TOTAL FOR CLOSURE COST OF SOUTH CONTAINER STORAGE, STAGING, AND LOADING RAMP AREAS	**$163,320**

FUELS BLENDING AREA	
Steps 5-6; Equipment Cleaning and Disposal	
Mobilization (included as part of Tanks costs)	$0
Supervisor - 1 hour @ $51.50/hour	$52
Skilled Labor - 3 hours @ $31/hour	$93
Pressure Washer Rental - 3 hours @ $860/month (160 hours/month)	$16
Tank Removal - 2 tanks @ $1,284/tank	$2,568
Equipment Decontamination - 1 day @ $247/day	$247
Wastewater Transport - 568 gallons @ $0.60/gal	$341
Scrap Steel Transport - $1.70/mile @ 100 miles/truck for 2 trucks	$340
Wastewater Disposal - 568 gal @ $0.25/gallon (pressure wash 284 s.f. @ 2 gals/s.f.)	$142
Solid Waste/Carbon Steel Disposal (salvaged material)	$0
PPE $10/day/person @ 1 day with 3 persons and 1 day with 6 persons.	$90
Steps 7-9; Fuels Blending Area Decontamination	
Supervisor - 104 hours @ $51.50/hour	$5,356
Skilled Labor - 180 hours @ $31.00/hour	$5,580
Skilled Labor - 48 hours @ $19.00/hour	$912
Pressure Washer Rental - 180 hours @ $860/month (160 hours/month)	$968
Miscellaneous Equipment - $20	$20

Detergent - $130	$130
Wastewater Transport – 28,420 gallons @ $0.60/gal	$17,052
Wastewater Disposal - 28,420 gallons @ $0.25/gallon (pressure wash 9,472 s.f. @ 2 gals/s.f. and triple rinse 9,472 s.f. @ 1 gal/s.f.)	$7,105
PPE - $10/day/person @ 36 days with 2 persons	$720
Steps 10-12; Rinsate Sampling	
Skilled Labor - 8 samples @ $22.50/sample	$180
Sample Analysis - 8 samples @ $475/sample	$3,800
Miscellaneous Equipment - $30	$30
Sample Shipping - 8 samples @ $20/sample	$160
Steps 13-23; Soil Sampling	
Skilled Labor - 4 samples @ $45/sample	$180
Sample Drilling - 4 samples @ $16.40/L.F. @ 1.5 L.F./sample	$98
Split Spoon Sample Collection - 4 samples @ $31.00/sample	$124
Sample Analysis - 4 samples @ $580/sample	$2,320
Miscellaneous Equipment - $30	$30
Decontamination of Drilling Equipment - 1 day @ $90/day	$90
Sample Shipping - 4 samples @ $20/sample	$80
Disposal of Drill Cuttings - $170	$170
Step 24: Independent Florida PE	$4,000
TOTAL FOR CLOSURE OF THE FUELS BLENDING AREA	**$52,994**

NORTH CONTAINER STORAGE, STAGING, AND LOADING RAMP AREAS	
Steps 1 - 4, 6, & 8 waste removal and disposal (This analysis assumes Step 5 is not possible, therefore Step 7 is not needed.)	
Skilled Laborer - 150 hours @ $31.00/hour	$4,650
Supervisor/Inspector - 75 hours @ $51.50/hour	$3,863
Off-site disposal - 1,930 fuel drums @ $24.20/drum (55 gallon @ $0.44/gal)	$46,706
Off-site disposal – 550 RCRA solids drums (150 tons) @ $172.10/drum	$25,815
Steps 9-14; Building Decontamination	
Supervisor - 270 hours @ $51.50/hour	$13,905
Skilled labor - 457 hours @ $31.00/hour	$14,167
Skilled labor - 116 hours @ $19.00/hour	$2,204
Pressure washer rental - 457 hours @ $860/month (160 hours/month)	$2,456
Miscellaneous Equipment - $50	$50
Detergent - $313	$313
Wastewater Transport – 72,780 gallons @ $0.60/gal	$43,668
Wastewater Disposal - 72,780 gallons @ $0.25/gallon (pressure wash 24,844 s.f. @ 2 gals/s.f. and triple rinse 23,100 s.f. @ 1 gal/s.f.)	$18,195
PPE - $10/day/person @ 82 days with 2 people/day	$1,640
Steps 12-14; Rinsate Sampling	
Skilled Labor - 21 samples @ $22.50/sample	$473
Sample Analysis - 21 samples @ $475/sample	$9,975
Miscellaneous Equipment - $50	$50

Sample Shipping - 21 samples @ $20/sample	$420
Steps 15-25; Soil Sampling	
Skilled Labor - 16 samples @ $45/sample	$720
Sample Drilling - 16 samples @ $16.40/L.F. @ 4.5 L.F./sample	$1,181
Split Spoon Sample Collection - 16 samples @ $31.00/sample	$496
Sample Analysis 16 samples @ $580/sample	$9,280
Miscellaneous Equipment - $40	$40
Decontamination of Drilling Equipment - 2 days @ $90/day	$180
Sample Shipping -16 samples @ $20/sample	$320
Disposal of Drill Cuttings - $170	$170
Step 25: Independent Florida PE	$4,000
TOTAL FOR CLOSURE OF NORTH CONTAINER STORAGE, STAGING, AND LOADING RAMP AREAS	**$204,937**

TANKS	
Steps 1-6; Waste Removal and Disposal	
Supervisor/Inspector - 100 hours @ $51.50/hour	$5,150
Skilled Laborers - 350 hours @ $31.00/hour	$10,850
Transportation & Disposal costs for liquids –72,600 gal @ $0.44/gal (fuels blending)	$31,944
Steps 7-8; Tank Cleaning and Disposal	
Mobilization - $3,500	$3,500
Supervisor - 36 hours @ $51.50/hour	$1,854
Skilled Labor - 71 hours @ $31/hour	$2,201
Pressure Washer Rental - 71 hours @ $860/month (160 hours/month)	$382
Tank Removal - 12 tanks @ $1,284/tank	$15,408
Equipment Decontamination - 6 days @ $247/day	$1,482
Wastewater Transport – 14,912 gallons @ $0.60/gal	$8,947
Scrap Steel Transport - $1.70/mile @ 100 miles/truck and 12 trucks	$2,040
Wastewater Disposal - 14,912 gal. @ $0.25/gallon (pressure wash 7,456 s.f. @ 2 gals/s.f.)	$3,728
Scrap Steel Disposal (salvaged material)	$0
PPE - $10/day/person @ 11 days with 2 persons and 6 days with 6 person	$580
Steps 9-11; Containment Area Decontamination	
Supervisor - 40 hours @ $51.50/hour	$2,060
Skilled Labor - 68 hours @ $31.00/hour	$2,108
Skilled Labor - 18 hours @ $19.00/hour	$342
Pressure Washer Rental - 68 hours @ $860/month (160	$366

hours/month)	
Miscellaneous Equipment - $20	$20
Detergent - $50	$50
Wastewater Transport – 10,776 gallons @ $0.60/gal	$6,466
Wastewater Disposal - 10,776 gallons @ $0.25/gallon (pressure wash 3,592 s.f. @ 2 gals/s.f. and triple rinse 3,592 s.f.	$2,694
PPE - $10/day/person @ 12 days with 2 people	$240
Steps 12-14; Rinsate Sampling	
Skilled Labor - 16 samples @ $22.50/sample	$360
Sample Analysis - 16 samples @ $475/sample	$7,600
Miscellaneous Equipment - $30	$30
Sample Shipping - 16 samples @ $20/sample	$320
Steps 15-25; Soil Sampling	
Skilled Labor - 6 samples @ $45/sample	$270
Sample Drilling - 6 samples @ $16.40/LF @ 1.5 L.F./sample	$148
Split Spoon Sample Collection - 6 samples @ $31.00/sample	$186
Sample Analysis - 6 samples @ $580/sample	$3,480
Miscellaneous Equipment - $30	$30
Decontamination of Drilling Equipment - 1 day @ $90/day	$90
Sample shipping - 6 samples @ $20/sample	$120
Disposal of Drill Cuttings - $170.00	$170
Step 26; Independent Florida PE	$4,000
TOTAL FOR CLOSURE OF THE TANKS	**$119,216**

PERIMETER ROAD (STAGING AREA)	
Steps 3-5; Decontamination	
Supervisor - 76 hours @ $51.50/hour	$3,914
Skilled Labor - 120 hours @ $31.00/hour	$3,720
Skilled Labor - 32 hours @ $19.00/hour	$608
Pressure Washer Rental - 120 hours @ $860/month (160 hours/month)	$645
Miscellaneous Equipment - $20	$20
Detergent - $85	$85
Wastewater Transport – 18,765 gallons @ $0.60/gal	$11,259
Wastewater Disposal - 18,765 gallons @ $0.25/gallon (pressure wash 6,255 s.f. @ 2 gals/s.f. and triple rinse 6,255 s.f. @ 1 gal/s.f.)	$4,691
PPE - $10/day/person @ 21 days with 2 people	$420
Steps 6-8; Rinsate Sampling	
Skilled Labor - 5 samples @ $22.50/sample	$113
Sample Analysis - 5 samples @ $475/sample	$2,375
Miscellaneous Equipment - $30	$30
Sample Shipping - 5 samples @ $20/sample	$100
Steps 9-19; Soil Sampling	
Skilled Labor - 4 samples @ $45/sample	$180
Sample Drilling - 4 samples @ $16.40/L.F. @ 1.5 L.F./sample	$98
Split Spoon Sample Collection 4 samples @ $31.00/sample	$124
Sample Analysis - 4 samples @ $580/sample	$2,320
Miscellaneous Equipment - $30	$30
Decontamination of Drilling Equipment - 1 day @ $90/day	$90

Sample shipping - 4 samples @ $20/sample	$80
Disposal of Drill Cuttings - $170.00	$170
Step 20; Independent Florida PE	$4,000
TOTAL FOR PERIMETER ROAD (STAGING AREA)	**$35,072**

PERIMETER ROAD (NON-STAGING AREA)	
Non-Staging Area Decontamination	
Supervisor - 16 hour @ $51.50/hour	$824
Skilled Labor - 29 hours @ $31.00/hour	$899
Pressure Washer Rental - 29 hours @ $860/month (160 hours/month)	$156
Wastewater Transport – 6,000 gallons @ $0.60/gal	$3,600
Wastewater Disposal - 6,000 gallons @ $0.25/gallon (pressure wash 3,000 s.f. @ 2 gal./s.f.)	$1,500
PPE 10/day/person @ 5 days with 2 persons	$100
Non-staging Area Rinsate Sampling	
Skilled labor - 2 samples @ $22.50/sample	$45
Sample Analysis - 2 samples @ $475/sample	$950
Miscellaneous Equipment - $30	$30
Sample Shipping - 2 samples @ $20/sample	$40
Independent Florida PE	$1,500
TOTAL FOR PERIMETER ROAD (NON-STAGING AREA)	**$9,644**

MISCELLANEOUS EQUIPMENT	
Decontamination Skilled Labor - 45 hours @ $31.00/hour	$1,395
Supervisor - 20 hours @ $51.50	$1,030
Solvent cleaning - 125 gallons of solvent @ $1.03/gallon	$129
Disposal of solvent - 125 gallons @ $24.20/drum (3 drums)	$73
Disposal of expendable equipment, personal protective equipment, etc. - 100 drums (27 tons) @ $172.10/ton	$4,647
Independent Florida PE	$1,500
TOTAL FOR MISCELLANEOUS EQUIPMENT	**$8,774**
TOTAL CLOSURE COST ESTIMATE	**$593,957**

3.0 Amendment of the Closure Cost Estimate

By August 31 of each year, the closure cost estimate will be adjusted using the inflation factor derived from the annual Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its "Survey of Current Business". In addition, a new closure estimate will be prepared whenever a change in the closure plan affects the cost of such closure.

4.0 Financial Mechanism for Closure

A copy of CLHB's current financial instrument for closure (Certificate of Insurance) is presented in Attachment 1 and complies with 40 CFR Part 264.143 (d).

5.0 Liability Requirements

CLHB has liability insurance for sudden occurrences in the amount of one million dollars per occurrence with an annual aggregate of at least two million dollars. An originally signed duplicate of the agreement and appropriate insurance forms provided by the Florida Department of Environmental Protection (FDEP), have been completed and submitted back to the FDEP office in Tallahassee. The wording of the endorsement is identical to that specified in 40 CFR 264.151(g). A copy of CLHB's liability insurance document is enclosed in Attachment 2.

6.0 PCB Closure Requirements

A copy of the EPA approved estimate, for managing and storing PCB waste, is enclosed in Attachment 3.

ATTACHMENT 1

<u>NOTE:</u> THE UPDATED FINANCIAL ASSURANCE DOCUMENT HAS NOT YET BEEN PREPARED. IT WILL BE PROVIDED AS SOON AS THE FDEP INDICATES THEIR APPROVAL OF CHF'S CURRENT PROPOSED CLOSURE COST ESTIMATE, OR CHF MODIFIES THE ESTIMATE SHOULD THE FDEP REQUEST SUCH. THIS WILL STREAMLINE THE DOCUMENT PREPARATION PROCESS BECAUSE IT WILL SAVE HAVING TO MODIFY THE DOCUMENT IN THE EVENT THE COST ESTIMATE NEEDS TO BE MODIFIED.

ATTACHMENT 2

ATTACHMENT 3

The latest PCB closure cost estimate, including any adjustment resulting from inflation or modifications to the closure plan, will be kept at the facility during its operating life.

7.0 CLOSURE COST ESTIMATE

Closure cost estimates have been developed for the closure of the facility in accordance with the closure plan outlined above. These closure cost estimates were developed based on the use of off-site treatment, storage and disposal facilities for the disposal of all hazardous wastes, kerosene rinses, detergent rinses and clean water rinses as well as the use of third party contractors to perform labor and associated services. Closure cost estimates are based on the assumption that all storage cells are filled to capacity at the time of closure. Closure cost estimates are as follows.

ITEM	Cost
1. Transportation and disposal of 64 55 gallon (3,520 gallons) of PCB waste:	
a) Transportation @ $39.33/drum x 64	$2,517
b) Disposal @ $520/ drum (assumed highest cost for disposal of PCB liquids, solids or capacitors) x 64	$33,280
2. Decontamination of structure and equipment:	
Labor[1] $39.00/hr x 64	$2,496
Equipment rental[2]	$ 780
Disposal, 12 drums at $520/drum[3]	$6,240
Transportation at $39.33/drum x 12	$ 472
Supplies	$ 520
Disposal of pallets, 24 pallets @ $65/each	$1,560
3. Independent engineering certifications	$5,000
4. Sampling and analysis Includes: PCB wipe tests SW846 Method 8080, 12 @ $143	$5,070

PCB in water tests SW846 Method 8080, 12 @ $143
PCB in kerosene tests SW846method 8080, 12 @ $98
Labor - 12 hours @ $39/ hr

5. Project management and administration	$3,250
SUBTOTAL:	**$62,685**
CONTINGENCY (10%):	**$6,268**
TOTAL CLOSURE COSTS FOR PCBs:	**$68,953**

NOTES:

1. Labor costs include two laborers for two days to perform loading, unloading, sampling, decontamination, drumming waste materials and other activities as required.

2. Includes pumps, compressors and any other piece of equipment deemed necessary by management to achieve the closure performance standard.

3. Includes wash/rinse water, rags, spent solvent and disposable items such as gloves, coveralls, etc. Costs reflect "worst-case scenario" of incinerating the drummed material.

4. The cost also reflects the "worse case scenario" of having to incinerate the entire inventory.

The owner or operator will adjust the closure cost estimate for inflation within 30 days after the close of the company's fiscal year or within 60 days prior to the anniversary date of the establishment of the financial instrument used to comply with 40 CFR 765.65(f) (2), whichever is later. The inflation factor utilized will be derived from the annual Implicit Price Deflator for Gross National Product as published by the U. S. Department of Commerce in its Survey of Current Business.

During the active life of the facility, the owner or operator will revise the closure cost estimate within 30 days after the Regional Administrator approves a request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised cost estimate will be adjusted for inflation, as specified in 40 CFR 765.61(f)(2).

The latest closure cost estimate, including any adjustment resulting from inflation or modifications to the closure plan, will be kept at the facility during its operating life.

8.0 FINANCIAL ASSURANCE MECHANISM FOR CLOSURE

Financial assurance for closure will be provided in one of the forms allowed in accordance with 40 CFR 761.65 (g).

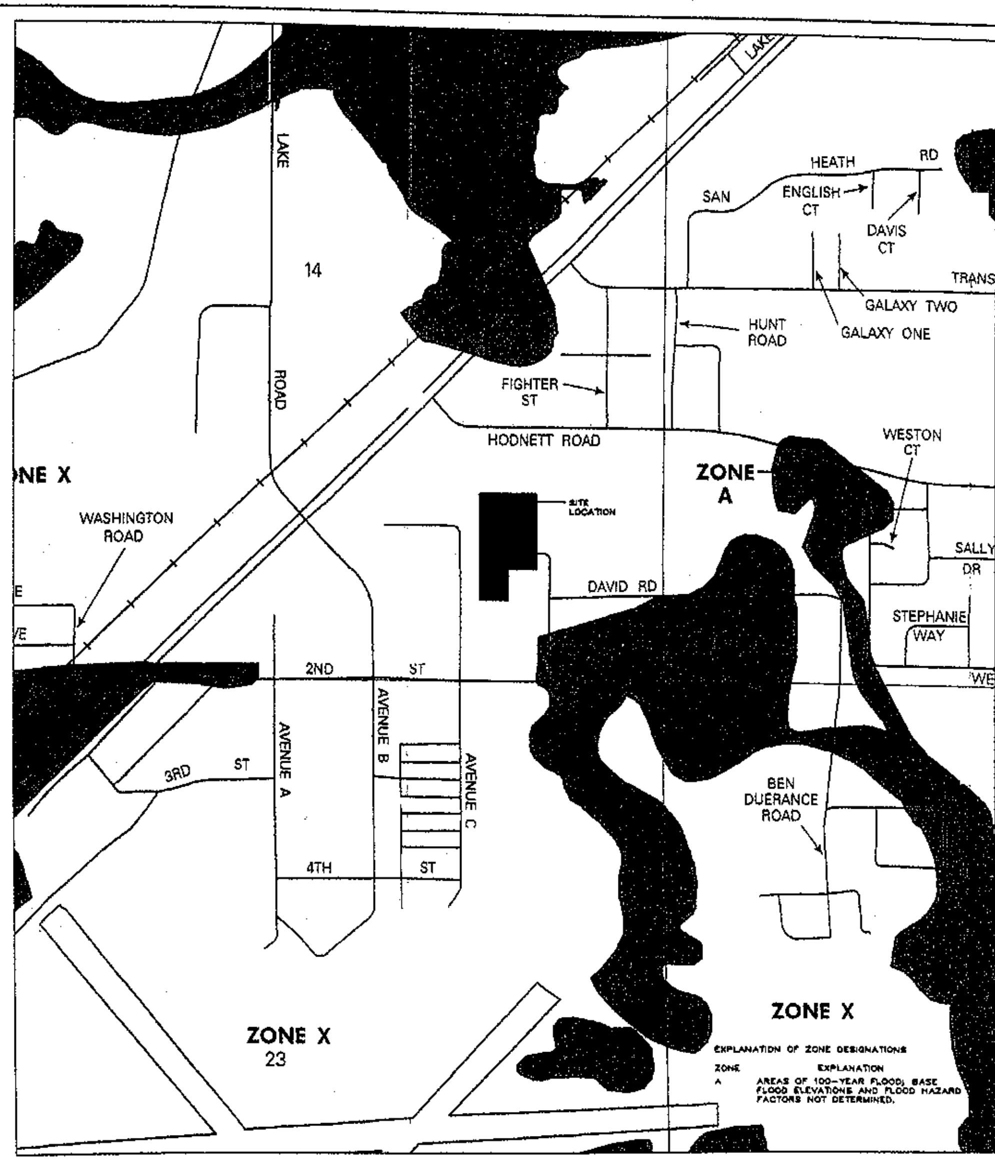
8.1 LIABILITY REQUIREMENTS

The company will provide liability coverage for sudden accidental occurrences in the amount of at least $1,000,000 per occurrence with an annual aggregate of at least $2,000,000. Such liability coverage will be demonstrated by an appropriate hazardous waste liability endorsement of an appropriate certificate of liability insurance (copy attached).

8.2 FLORIDA REQUIRED LIABILITY MECHANISM

The company will provide the appropriate federal and state financial assurance document as required by 40 CFR 762.65(g).

APPENDIX II-E



N

MAP SOURCE: FEMA FLOOD INSURANCE MAP PANEL 510 OF 1025, POLK COUNTY, FL EFFECTIVE DEC. 20, 2000

0 1000 2000 4000
SCALE FEET

GENERAL NOTES

REFERENCE DRAWINGS

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
0	ADD MAP SOURCE - FOR PERMIT APPROVAL	JWC	05/01/06	
A	FOR APPROVAL	JKM	01/31/06	MJG

CleanHarbors
BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM	MJG	1"=2000'	01/31/06

TITLE
Appendix E
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
100 YEAR FLOODPLAIN MAP

DRAWING NO. Appendix E
REV. 0

APPENDIX II-F.1

SECURITY PROCEDURES

The Clean Harbors facility is surrounded by a chain link fence (approximately 6' high) topped with barbed wire. The main access gate is electrically powered and operated from within the facility or the main office building. This gate will remain closed except to allow entry for authorized vehicles. Other access gates to the facility are identified on Figure 3.1.

Vehicles containing hazardous waste entering the site will park at the main gate and be identified by facility personnel. After the determination is made that the vehicle should be allowed to enter the facility, the gate will be opened by facility personnel and the vehicle will park on the paved or concrete area. Should an unauthorized person be seen on site, this will be reported to the appropriate supervisor.

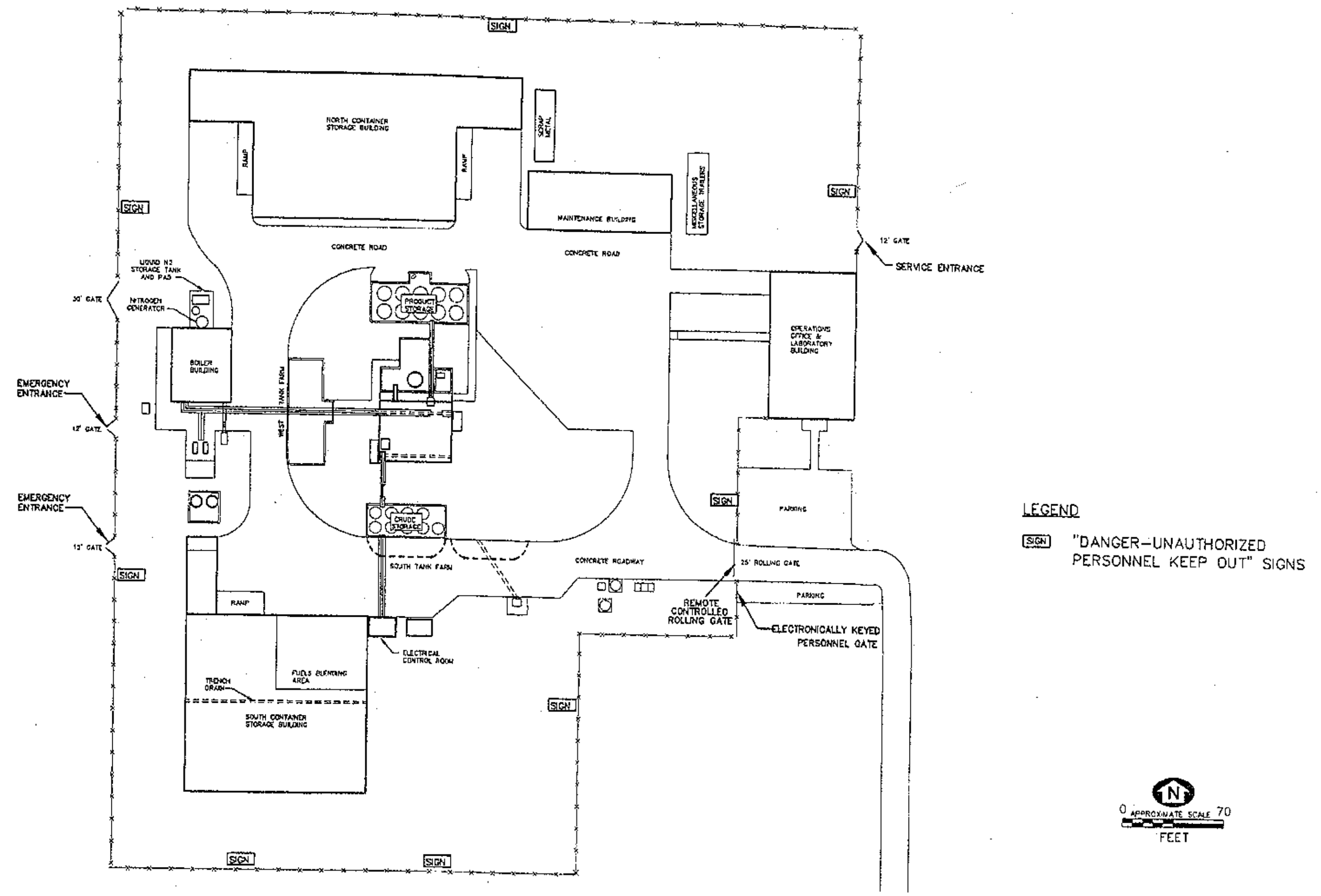
Two 12-foot wide double gates provide access for emergency vehicles in case the main entrance should be blocked. The gates are located on the west side of the plant (see Figure 3.1) and will remain locked unless in use.

A twelve-foot wide service gate is located behind the office building (Figure 3.1). This gate is used for service vehicles for the office building and to provide an emergency escape exit. This gate is locked unless in use. Personnel access will be through an electronically keyed gate adjacent to the main gate.

At a minimum, eight "Danger-Unauthorized Personnel Keep Out" signs, which are legible at 25 feet, are located on the fence surrounding the facility. Figure 3.1 illustrates the locations of these signs.

The Clean Harbors facility is located within the Bartow Municipal Airport Industrial Park. There are two entrances into the park. The main entrance has a security booth that is manned after normal work hours and the back entrance is closed after normal work hours. The complex is entirely fenced and has a security guard that patrols the entire site during non-working hours. The security guard is also on contract by Clean Harbors to enter the facility and tour the facility during weekends and holidays. Any problems are reported to the appropriate facility management.

LIST OF FIGURES



GENERAL NOTES

C	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE TANK T-106	K.M.C.	05/10/11	M.C.
B	REMOVED TANKS, HCFC STILL AND PROCESS AREA	K.M.C.	02/04/11	M.C.
A	FOR APPROVAL	JKM	01/31/08	MJG
REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY

REFERENCE DRAWINGS

CleanHarbors
BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM	MJG	NTS	01/31/08

TITLE

Figure 03.1

CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
ACCESS GATE, LOCATION OF "DANGER UNAUTHORIZED PERSONNEL KEEP OUT" SIGN

DRAWING NO. Figure 3.1 REV. C

Appendix II-F.2

CONTINGENCY PLAN

TABLE OF CONTENTS

CONTINGENCY PLAN

1.0 Purpose and Implementation of the Plan

This contingency plan is designed to minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden or non-sudden releases of hazardous waste or hazardous waste constituents to the air, soil, or surface water.

This plan will be implemented immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

2.0 Content of the Plan

2.1 Emergency Procedures

2.1.1 List of CHF Emergency Coordinators

The individuals who will act as CHF's Primary Emergency Coordinator and alternates are listed in Figure 6.1. At least one of these individuals or designee will be at CHF or on call at all times in order to coordinate all emergency response measures, and all have the authority to commit the resources needed to carry out the contingency plan (refer to Figure 6.2).

2.1.2 Primary Emergency Coordinator and Alternate Emergency Coordinator Responsibilities

During a release, fire or explosion, the Primary Emergency Coordinator (EC) (or designee in authority at the time of the incident) will immediately notify all facility personnel of the emergency by activating the fire alarm, using the public address system, or voice.

Upon becoming aware of the incident, the EC will immediately proceed to the scene to identify the character, exact source, amount and extent of any released material and; to assess possible hazards to human health or the environment that may result from the release, fire or explosion (refer to Section 8.0 for assessment procedures). If the EC determines that the incident presents an imminent hazard or is an actual emergency, he/she will immediately notify:

1. Director, Hazardous Materials Team, Public Safety Department, 911 or (863) 534-5600.

2. The Polk County Fire Department, 911 or (863) 534-0380.

If the situation requires the evacuation of areas surrounding CHF (evacuation assessment procedures are presented in Sections 2.4 and 8.0), the EC shall notify:

1. The Florida Department of Environmental Protection (813) 632-7600. (8 am to 5 pm, non-weekend days and non-holidays)

2. The Polk County Sheriff's Department 911 or (863) 298-6200

3. The National Response Center 1-800-424-8802.

4. The Division of Emergency Management (Florida) (850) 413-9911.

When notifying the National Response Center, the EC will provide the following information:

1. His/her name and telephone number.

2. The name and location of the facility. (CHF, Avenue D, North, Bartow Municipal Airport Industrial Park Building # 170).

3. Time and type of incident.

4. Chemicals involved and quantity, if known.

5. The extent of injuries, if any.

6. The possible hazards(s) to human health or the environment outside the facility, if any.

If the EC determines that the release may create a possible hazard to human health or the environment outside the facility, he/she will notify the National Response Center (800-424-8802) and the Florida Division of Emergency Management (850-413-9911).

If the emergency response to a fire, explosion, or release requires CHF to stop operations, the EC will take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. The EC will also ensure that tanks, valves, pipes, and other equipment are monitored to detect leaks, pressure build-up, gas generation, and ruptures.

The EC will direct the activities of responding agencies assisting in an emergency. Coordination agreements have been submitted to various local agencies (see Section 2.2).

Immediately after an emergency, the EC will initiate and supervise clean-up of the areas affected by the incident. If necessary, a clean-up contractor will be contacted to perform the clean-up operation. Otherwise, the on-site employees will contain and recover the hazardous wastes released during the emergency. Recovered waste, contaminated soil, surface water, contaminated residues, or any other material resulting from the emergency will be accumulated for analysis and characterization, and treatment or disposal. The EC will ensure that no waste which may be incompatible with the released material is treated, stored, or disposed until clean-up procedures have been completed.

Recovered hazardous wastes will be treated as follows:

1. Spilled waste in a containment area will be placed into a container or tank and stored until processed.

2. If a significant amount of water has contaminated the wastes, the wastes will be stored until tested. If within the allowable limits it will be discharged to the P.O.T.W. Logs of the water discharged to the P.O.T.W. will be maintained in the operating record for three years. These logs will include: test results of the water, volume discharged, date and time of discharge. If the levels are too high for discharge, the water will either be treated on-site or shipped to a RCRA permitted TSDF facility.

3. If soil becomes contaminated with hazardous waste, the soil will be collected and analyzed. If it is determined to be hazardous, the contaminated soil will be shipped to RCRA permitted TSD facility.

The EC will notify the Director of the Southwest District of the Florida Department of Environmental Protection (FDEP) that:

- no waste that may be incompatible with the released material is treated, stored, or disposed until cleanup procedures are completed; and

- all emergency equipment listed in this Contingency Plan is cleaned and fit for its intended use before operations are resumed.

Under the supervision of the EC all emergency equipment used to respond to an emergency will be cleaned and fit for its intended use before operations at CHF are resumed. Equipment such as disposable protective clothing will be placed into a container for shipment to a permitted TSDF facility. All small equipment will be cleaned inside a container within a secondary containment area. The rinse water from this cleaning will be analyzed by the on-site laboratory to determine the proper disposal method.

Decontamination equipment available on-site includes the following:

- Open head container - located near the South Container Storage Building to collect and accumulate decontamination rinsate.

- Chemical resistant hoses - located in the Maintenance Building - to act as a conduit for the flow of decontamination solutions.

- Pressure washer - located in the Maintenance Building.

CHF will notify the FDEP and local authorities that the facility is in compliance with 40 CFR 264.56(h) before operations are resumed in the affected area(s) of the facility.

The EC shall ensure that the time, date, and details of the incident are noted in CHF's operating record. Within 15 days of the incident, the EC shall submit to the FDEP the following information:

1. Name, address, and telephone number of owner or operator.
2. Name, address and telephone number of the facility.
3. Date, time, and type of incident.
4. Name and quantity of material(s) involved.
5. The extent of injuries, if any.
6. Assessment of the actual or potential hazards to human health or the environmental, where applicable.
7. Estimated quantity and disposition of recovered material that resulted from the incident.

2.2 Arrangements With Local Authorities

Coordination agreements have been submitted to various local agencies designating their response roles in the event of an emergency (see Figures 6.3 and 6.4). Copies of all executed agreements are maintained at the facility.

2.3 Emergency Equipment

2.3.1 General

Two emergency response cabinets are maintained for the storage of spill response equipment. One cabinet is located in the Maintenance Building and one is in the South Container Storage Building. The spill response equipment maintained in each cabinet, its uses and capabilities, are listed in Figure 6.5. First aid kits are also located near each cabinet and the North Container Storage Building.

CHF maintains equipment in addition to that stored in each emergency response cabinet at other locations at the facility. A list of this equipment, its uses and capabilities is also contained in Figure 6.5 or listed below:

- Open head salvage drums.
- Absorbent open head drums in each Container Storage Building, at each tank farm, and in the process area.
- Push brooms and shovels in each Container Storage Building, at each tank farm, and in the process area.
- Face Shields in the South Container Storage Building and in the process area.

2.3.2 Fire Suppression Equipment

The South Container Storage Building is protected by a closed-head wet pipe automatic fire sprinkler system using 286°F fusible link sprinkler heads. To assist personnel in controlling a fire, there is also a 50-foot 1.5-inch hose connected to the sprinkler system at the northeast corner of the building.

The North Container Storage Building is protected by a closed-head wet pipe automatic fire sprinkler system using 286°F fusible link sprinkler heads. To assist personnel in controlling a fire, there are also four 100-foot 1.5-inch hoses connected to the sprinkler system in the building (two on the North side and two on the South side).

Four fire hydrants are located at the facility and two are equipped with foam capabilities. Two 125-pound dry chemical extinguishes are provided on wheeled carts. One is located at the north side of the South Container Storage Building and one is just west of the process area. In addition to these units, portable ABC-rated fire extinguishes are located throughout the facility (see Figure 6.6). The locations and description of each fire extinguisher is presented in Figure 6.7.

The reactives room in the North Container Storage Building is equipped with an automatically activated CO_2 system. It also has a fire door with closes automatically when a fire is present. The door has a fuse link which releases the door, allowing closure at 165°F. The CO_2 system is activated at 190°F.

2.3.3 Communication Equipment

In the event of a release, fire or explosion, communication on-site is accomplished by voice, intercom and/or sounding the alarm. To summon outside assistance, the following equipment is available.

- Pull stations - (to sound the alarm, alert the fire department and open the front gate) are located inside the North and South Container Storage Buildings, inside the Boiler Building, outside (south side) of the Maintenance Building, the Process Area and the Main Office Building.

- Telephones - (available to Emergency Coordinator to notify outside agencies and summon emergency response assistance) are located in the Maintenance Building, North and South Container Storage Buildings, Process Area, in the small room adjacent to the South Container Storage Building and the Main Office Building.

2.4 Evacuation Plan

The EC will assess the need for evacuation of the facility or off-site areas as follows. If it is unsafe for personnel to remain on-site, he will order an immediate evacuation. Unsafe conditions may include the presence of hazardous constituents in gaseous or liquid form in quantities which will endanger plant personnel or residents off-site; imminent explosions, or the potential for any of the above to occur. Evacuation routes and the assembly point are specified on Figure 6.8. The primary evacuation route is the main gate (shown of Figure 6.8) and should this main route be blocked or inaccessible, the gates on the east and west sides of the facility will be unlocked and opened to provide alternate routes of escape. The signal to evacuate is given by voice, public address system or indicated by the sounding of the fire alarm (initiated by activating one of the pull stations or the activation of the sprinkler system.

3.0 Copies of Plan

A record of revisions to this contingency plan will be recorded on the Revisions and Amendments Log (see Figure 6.9) which will be maintained on-site. The contingency plan, as well as revisions and amendments, will be submitted to the local police department, fire department, hospitals, and State and local emergency response teams and other outside organizations that may be called upon to provide emergency service (see Figure 6.10).

4.0 Amendment of Plan

This plan will be reviewed and, if necessary, amended whenever:

- the facility permit is revised; or
- the plan fails in an emergency; or
- CHF changes in its 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 CHF changes the response necessary in an emergency; or
- the list of emergency coordinators changes; or
- the list of emergency equipment changes.

5.0 Response to Release

5.1 General Response Actions

General response actions necessary to mitigate releases involving hazardous waste and hazardous waste constituents are described below. Specific response actions for specific waste types and units are described in sections 5.0 through 7.0.

1. Identify the source and extent of the release.
2. Identify the specific chemical, if possible.
3. Notify the Emergency Coordinator and/or Operations Manager of the release.
4. Obtain back-up help.

5. If contact with the chemical is likely, don appropriate protective clothing.

6. Move fire fighting equipment, mobile spill control equipment, and portable pumps, as determined necessary by the Emergency Coordinator, to the release site.

7. Take appropriate measures to stop the release.

8. Once the source of the release has been stopped, contain the release.

9. Collect the released material using pumps, absorbent, or other procedure that is appropriate.

10. Place released residues in DOT-specification containers or, if volume warrants, into a tank or tank truck.

11. Decontaminate the release area.

A release occurs when a reportable quantity as described by Comprehensive Environmental Response Compensation and Liability Act (CERCLA) is allowed to enter (in an unpermitted fashion) the air, soil or surface water. If a release occurs, the National Response Center (800-424-8802) and the Florida Bureau of Disaster Preparedness (850-413-9911) will be immediately notified. If the Emergency Coordinator determines that the release may threaten human health or the environment as stated in 40 CFR 264.51(b), the provisions of this Contingency Plan will be implemented. A release could occur from; transportation activities; containers; tanks and; overhead piping.

5.2 Response to Releases From Transportation Activities

On-site transportation of hazardous waste may involve the movement of containers along or across the perimeter road. Therefore, it is very unlikely that a release could occur to the soil or surface water. If a large amount of waste were spilled, a release to the air could occur. Releases or spills from transportation activities, will be cleaned up within four hours of discovery (unless additional time is needed for identification, or additional equipment is needed) to minimize the possibility of a release to the air. Liquid from this type of spill will be contained by the perimeter road, which is curbed on each edge and sloped to the center (3-inch pitch across 24-foot width). The total containment capacity of the perimeter roadway is 26,098 gallons. Liquids collected on the perimeter road drain to a sump. If the spill is not large enough to reach the sump area, the liquid on the road will be removed using absorbent. Spilled materials from transportation activities which reach the sump will be:

- transferred into a DOT approved non-bulk container and placed in a Container Storage Building; or

- absorbed using a suitable sorbent, which will be placed into a DOT approved non-bulk container for disposal at a RCRA permitted disposal facility; or

- Transferred to a bulk container; or
- pumped directly into the appropriate tank in one of the hazardous waste tank farms (using a portable pump).

5.3 Response to Releases From Containers

Containers (except for satellite accumulation areas) are managed only in curbed driveway area and the North and South Container Storage Buildings which are equipped with curbs and secondary containment. All releases in the container storage buildings, including those in the South Container Storage Building that may result from emptying containers into mix tanks and operation of the can crushers, will be contained by the buildings' concrete floors, which are diked and sloped to contain any spills. These containment systems will prevent the spread of any releases involving hazardous waste.

Any spill which occurs in the driveway from a container will be handled in the same manner as a spill from transportation activities mentioned in Section 5.2. A release from a container to the soil or surface water is very unlikely due to the fact they are always managed on curbed concrete surfaces. A release to the air could occur if the spill were large enough. The contents of a container will be identified using the drum number as each container has a unique number.

5.4 Response to Releases from Tanks

Releases from tanks may be due to either overfilling a tank or a breach in the tank wall. Both types of release should be captured by the secondary containment system. Also releases could occur from transfer operations from hoses, couplings, flanges, valves, etc.

A release due to a breach in the tank wall will require transfer of hazardous waste from the tank and containment system to a compatible tank in good condition. In order to facilitate the characterization of waste released from a tank system, all tanks are numbered. By identifying the number of the tank from which a release is occurring and checking the Daily Inventory Report, the identity of a waste can be quickly determined. Again, since the tanks are equipped with secondary containment, a release to the soil or surface water is very unlikely. A release to the air could occur if the spill from a breach or overfill were large enough.

Should a spill or release occur during transfer operations from a hose coupling, flange, valve, etc., the operation will be stopped as soon as the operator can shut down the system (usually 2 or 3 minutes since an operator is always present during transfer operations). Waste flow from the source (another tank, tanker, etc.) will be stopped and isolated from the leaking equipment. Identification or the waste in the source will be determined from the Daily Inventory Report, tanker number or drum number of the source tank or container.

The notification to the Emergency Coordinator and/or Operations Manager will include the following information:

- identity of tank,
- chemical in the tank, and
- volume of liquid in the tank.

The flow of waste to a breached tank system will be stopped by closing off the valve or pump system feeding the tank. If it is necessary to cease operations due to a release from a tank, the associated valves, pipes, and other equipment will be monitored to detect leaks, pressure build-up, gas generation, and ruptures.

Waste in the tanks secondary containment system will be:

- Transferred into DOT-specification non-bulk containers and placed in a Container Storage Building; or

- absorbed using a suitable sorbent, which will be placed into DOT-specification non-bulk containers and transferred to a Container Storage Building; or

- Transferred to a bulk container; or

- pumped directly into a compatible tank in the hazardous waste tank farm.

5.5 Response to Releases from Overhead Piping

If a leak from piping is detected the flow into the pipe will be shut off by the operator (usually within 2 or 3 minutes since a operator is present during operations which require flow through piping). Releases from piping will be contained by the roadway containment system and/or the secondary containment constructed around the tank farm and process unit. Any leaks from piping will be readily detectable and will be fully contained. The perimeter road is completely diked on both edges. All process areas and tank farms are protected by diked containment areas. Again, since the piping is above secondary containment, a release to the soil or surface water is very unlikely. A release to the air could occur if the spill from a pipe were large enough. If a release is detected in the containment systems, the released liquids will be:

- pumped into a DOT-specification non-bulk container and placed in a Container Storage Building; or

- absorbed using a suitable sorbent, which will be placed into a DOT specification non-bulk container and transferred to a Container Storage Building; or

- Transferred to a bulk container; or

- pumped directly into a compatible tank in one of the hazardous waste tank farms.

6.0 Response to Fires

In the event of a fire in a waste management area, the individual(s) discovering the fire will do the following:

1. Immediately sound alarm from the nearest pull station (see Figure 6.6) and activate the appropriate fire fighting system. Pull stations are located inside the Container Storage Buildings, inside the Boiler Building, Maintenance Building, in the Process Area, and the office area.

   <u>The sounding of the alarm alerts the fire department.</u> The front gate will automatically open and all non-essential personnel will leave the plant site and meet at the evacuation assembly area outside the fenced-in area of the plant. If the Emergency Coordinator feels that the fire cannot be safely handled by employees on-site, he will evacuate all remaining employees.

2. Emergency shut-down procedures will be initiated by personnel in the process area if instructed by the Emergency Coordinator. Emergency shut-down procedures may involve closing of tank valves leading to the process area.

3. As long as contact from the chemicals or fire can be avoided, one person shall remain in the process area to monitor equipment or circumvent any dangerous situation which may arise. The order to evacuate this area shall come from the Emergency Coordinator or an alternate.

4. Additional fire fighting systems will be activated by the Emergency Coordinator, if necessary. If it is safe to do so, employees will fight the fire until the fire department arrives and assumes control, or until the evacuation signal is given. When this signal is sounded the personnel shall immediately evacuate the area using the safest route available. Figure 6.8 illustrates all emergency gates to be used in the event of an evacuation.

5. Liquid residues (e.g. fire fighting solutions and released wastes) will be collected in containers for analysis when it is safe to enter the area again. (large amounts may be pumped to a tank using a portable pump).

6. The area will be assessed for contamination and the Emergency Coordinator will initiate decontamination efforts.

7. In the event of a fire, it will be un-necessary to remove containers from the Container Storage Buildings to prevent the spread of the fire because the buildings are protected by an automatic foam-generating fire suppression systems. The safest response to a fire in the building will be to allow the foam system to operate and to not enter the building in an effort to remove waste containers.

<u>7.0 Response to Explosions</u>

All areas where flammable liquids are handled are designed with explosion-proof equipment. To minimize the potential for explosions by avoiding the generation of sparks, grounding and bonding procedures for flammable liquid transfers involving containers and tanks are followed.

Although the likelihood of an explosion at CHF is minimal, if explosions do occur, the Emergency Coordinator will immediately sound the evacuation alarm. Figure 6.8 illustrates all evacuation routes. At no time will any CHF employee attempt to control a situation in which explosions are occurring.

8.0 Chemical Data

In the event of a release, fire, or explosion involving hazardous wastes or hazardous waste constituents, the Emergency Coordinator will assess the hazards of the incident as follows. First, he/she will determine the source of the incident. This will involve determining from which unit or piece of equipment a release of material has occurred, the name of the material and the volume released. In the event of a fire, he will identify the unit which is on fire (or which caused the fire) and the extent of the fire. After determining the source, the Emergency Coordinator will identify the impact of the release or fire on human health and the environment by referring to either Material Safety Data Sheets for the raw materials involved or to other appropriate references which contain information on hazardous substance biological, physical, and chemical properties. CHF's Material Safety Data Sheets and other reference materials are available at CHF for inspection by regulatory personnel.

9.0 Power Outages

All facility operations are conducted in a batch mode. In the event of a power outage all equipment, including waste feed systems will immediately shut down. This will ensure that hazardous waste or hazardous waste constituents are not released from any tank system, container, pipe, or containment system.

LIST OF FIGURES

FIGURE 6.1 LIST OF EMERGENCY COORDINATOR AND ALTERNATES

PRIMARY EMERGENCY COORDINATOR:	**Wes McDuffie**
Address:	510 Little Lake Court Winter Haven, FL 33884
Home Telephone Number:	(863) 324-0498
Work Telephone Number:	(863) 533-6111
Cell Phone Number:	(863) 559-1613

****

First Alternate:	**Mike Bodiford**
Address:	2351 Gerber Dairy Road Winter Haven, FL 33880
Home Telephone Number:	(863) 651-5680
Work Telephone Number:	(863) 533-6111
Cell Phone Number:	(863) 559-2144

****

Second Alternate:	**John Bosek**
Address:	1323 Monte Lake Drive Valrico, FL 33594
Home Telephone Number:	(813) 655-9220
Work Telephone Number:	(863) 533-6111
Cell Phone Number:	(863) 559-1610

FIGURE 6.2 AUTHORIZATION TO COMMIT CHF RESOURCES

I, John Bosek, do hereby grant the following persons the authority to commit the necessary resources to implement the contingency plan in responding to an emergency situation:

PRIMARY EMERGENCY COORDINATOR: **Wes McDuffie**

Address: 510 Little Lake Court
Winter Haven, FL 33884

Home Telephone Number: (863) 324-0498
Work Telephone Number: (863) 533-6111
Cell Phone Number: (863) 559-1613

****

First Alternate: **Mike Bodiford**

Address: 2351 Gerber Dairy Road
Winter Haven, FL 33880

Home Telephone Number: (863) 651-5680
Work Telephone Number: (863) 533-6111
Cell Phone Number: (863) 559-2144

****

Second Alternate: **John Bosek**

Address: 1323 Monte Lake Drive
Valrico, FL 33594

Home Telephone Number: (813) 655-9220
Work Telephone Number: (863) 533-6111
Cell Phone Number: (863) 559-1610

****

General Manager: ______________________
John Bosek

FIGURE 6.3 COORDINATION AGREEMENT WITH RESPONSE AGENCY

Date

Address

Dear Sir or Madam:

Clean Harbors Florida LLC (CHF) is a waste treatment and storage facility offering waste treatment services such as fuels blending and solvent recovery. With this letter, CHF is submitting to your agency a copy of our facility's Contingency Plan.

This plan is designed to minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. We are submitting it to you to familiarize you with our facility, wastes handled at our facility and their hazards, places where facility personnel would normally be working, entrances to, and roads inside our facility, and possible evacuation routes.

Title 40 of the Code of Federal regulations, Part 264.37, requires us to obtain an agreement with your agency regarding the implementation of our contingency plan and your ability to assist us within your capabilities in the event of an emergency, please sign the attached letter of confirmation.

Please feel free to contact me if you have any questions or if you would like me to arrange a plant tour to familiarize you with our facility at 863-533-6111.

Sincerely,

CHF

FIGURE 6.4 LOCAL AGENCY RESPONSE

Date

Clean Harbors Florida LLC
170 Bartow Municipal Airport
Bartow, Florida 33830-9504

Dear Sir or Madam:

This is to confirm that we have received a copy of the Clean Harbors Florida Contingency Plan. Our agency will assist your facility within our capabilities in the event of an emergency.

We can offer the following services:

_____ Fire Response _____ Spill Response

_____ Medical _____ Traffic Control

_____ Other (specify):____

Sincerely,

Name: ____

Title: ____

Organization: ____

Address:____

____

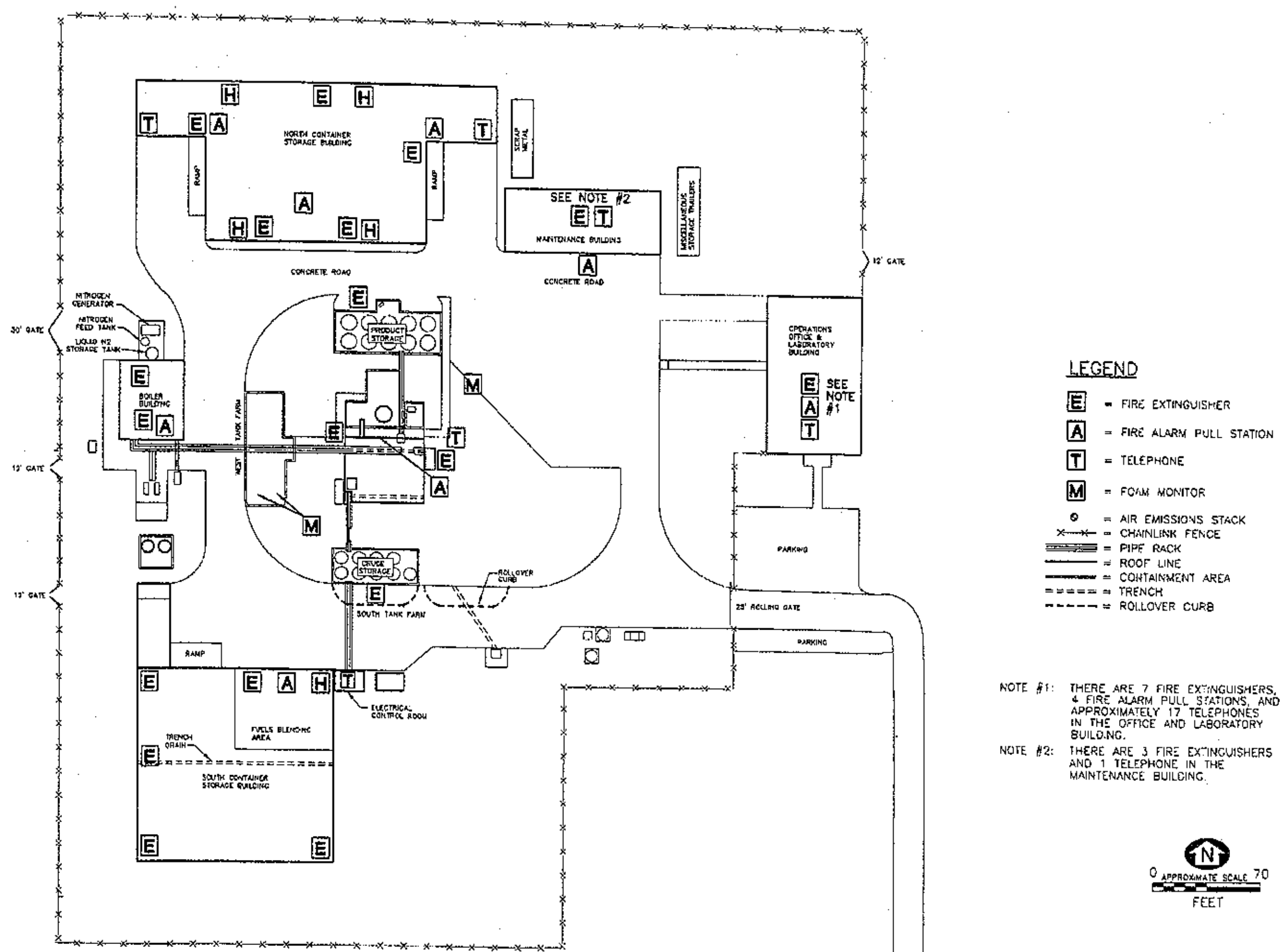
____

Figure 6.5 Spill Response Equipment, Uses and Capabilities

Item	Use and Capabilities
Salvage Drum	Deposit spill residue and over pack leaking containers; DOT-specification 85 gallon open head and 55-gallon containers
Gloves*	Protect hands from chemical exposure; chemical - resistant (6 pair per cabinet)
Absorbent	Absorb and prevent the spread of non- corrosive liquid spills
Push Broom	Sweep up spent absorbent
Shovel	Sweep up spent absorbent and solid spill residues; spark-proof blade
Fully Encapsulating Suit*	Protect skin from exposure to hazardous waste; chemical resistant; Tyvek coated; disposable (1 per cabinet)
Apron*	Cover body and partially cover legs to protect from exposure to hazardous waste splashes; chemical resistant (3 per cabinet)
Goggles*	Protect eyes from exposure to hazardous waste splashes (6 pair per cabinet)
Face Shield	protect eyes from exposure to hazardous waste splashes; chemical resistant
Boots*	Protect feet from chemical exposure chemical resistant (3 pair per cabinet)
Coveralls*	Chemically resistant pants and jacket combination to protect body and legs from spills (3 pair per cabinet)
Self Contained Breathing Apparatus*	Provide 30 minutes breathing air, with low supply alarm (1 per cabinet)

* Maintained in each emergency response cabinet.

FIGURE 6.6 LOCATIONS OF FIRE RESPONSE EQUIPMENT



GENERAL NOTES

REFERENCE DRAWINGS

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
C	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE TANK T-106	K.M.C.	05/10/11	M.C.
B	REMOVED TANKS, HCFC STILL AND PROCESS AREA	K.M.C.	02/04/11	M.C.
A	FOR APPROVAL	JKM	01/31/06	MJG

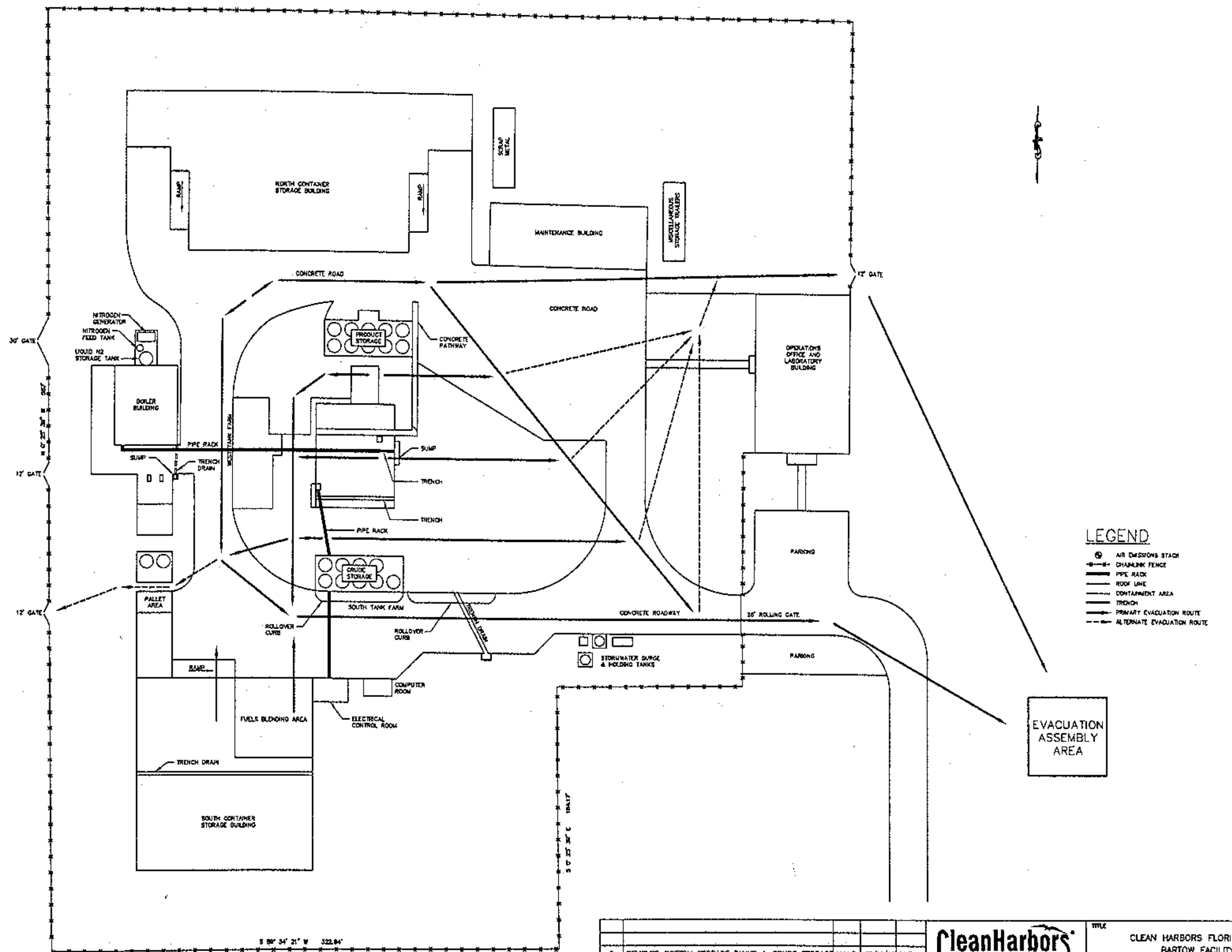
CleanHarbors
BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM	MJG	NTS	01/31/06

TITLE
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
LOCATIONS OF FIRE RESPONSE EQUIPMENT

DRAWING NO. Figure 6.6 REV. C

FIGURE 6.8 EVACUATION ROUTES



REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
C	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE TANK T-106	K.M.C.	05/10/11	M.C.
B	REMOVED TANKS, HCFC STILL AND PROCESS AREA	K.M.C.	02/04/11	M.C.
A	FOR PERMIT RENEWAL	JWC	04/04/06	

CleanHarbors
BARTOW

TITLE: CLEAN HARBORS FLORIDA, LLC
BARTOW FACILITY
EVACUATION ROUTES

Figure 6.8

DRAWN	CHECKED	SCALE	DATE	DRAWING NO.	REV.
JWC		1"=60'	04/04/06	FIGURE 6.8	C

FIGURE 6.9 CONTINGENCY PLAN REVISIONS AND AMENDMENTS

Revision Number	Date of Revision or Amendment	Date Entered	Pages Affected	Name of Person Entering Changes	Signature of Person Entering Changes

FIGURE 6.10 LIST OF ORGANIZATIONS CAPABLE OF PROVIDING EMERGENCY SERVICE IN THE EVENT OF A RELEASE, FIRE, OR EXPLOSION

1.	Director of Emergency Management Polk County Department of Public Safety 1295 Brice Boulevard Bartow, Florida 33830	Tel #863-534-5600
2.	Polk County Sheriff Polk County Sheriff's Department 455 North Broadway Avenue Bartow, Florida 33831	Tel #863-298-6200
3.	Administrator Bartow Regional Medical Center P.O. Box 1050 Bartow, Florida 33831	Tel #863-533-8111
4.	Director Florida Division of Emergency Management 2555 Shumard Oak Blvd. Tallahassee, Florida 32399-2100	Tel #800-320-0591
5.	Polk County Fire services 250 Bartow Municipal Airport Ste.1 Bartow, FL 33830	Tel #863-519-7350

APPENDIX II-F.3

PROCEDURES, STRUCTURES AND EQUIPMENT

The CHF facility is designed and operated to minimize the possibility of environmental releases of hazardous wastes while emphasizing personnel safety.

1.0 Loading/Unloading Operations

When a truck with containers is to be unloaded, it will usually be positioned at an unloading dock ramp adjacent to a Container Storage Building. Forklifts used to unload the containers will have the appropriate safety rating for the type activities performed. The unloading docks and ramp are curbed to either contain spillage or sloped to discharge into the curbed driveway area. In addition, the perimeter road is curbed to contain spills that may occur during loading and unloading operations. The loading and unloading procedures for bulk tankers are described in Section C of this application.

All tanks, containers, and equipment used in operations involving the transfer of flammable liquids into tanks and containers will be properly grounded to avoid the build up of a static charge. The procedures set forth in the National Fire Code (Recommended Practice on Static Electricity NFPA 77-1977) will be followed. All electrical equipment located in the storage and production areas meets the appropriate NFPA specification.

2.0 Containment

2.1 South Container Storage Building

The details pertaining to the South Container Storage Building, including basic design parameters, and dimensions, are presented in Figure 7.1. The walls and roof of the building are constructed of metal and are capable of minimizing the infiltration of precipitation during a rainfall event. The floor is constructed of reinforced concrete which is sealed with a sealant to prevent permeation of hazardous waste into the concrete.

All wastes are stored in containment areas on impervious concrete surfaces. The South Container Storage Building has a containment capacity of 16,852 gallons, which is considerably greater than ten percent of the total storage volume of the building. Containment of a released waste within the South Container Storage Building, as well as potential leakage from containers and the fuels process tanks is ensured by the design of the floor, which is sloped to the center line of the building (with a containment trench). The sloped floor is bounded by a containment dike on both ends of the building.

All liquids that accumulate in the trench will be properly handled and managed according state and federal requirements.

Run-on into the storage building is precluded from all four directions. Run-on from the south, east and west is prevented by the side walls and roof of the building. Run-on from the north is prevented due to the slope of the apron and perimeter road in front of the South Container Storage Building, which drain away from the building.

All wastes are stored at least 50 feet from the facility boundary. Incompatible wastes will not be stored together in this building. Hazardous wastes will not be placed in containers that have not been decontaminated if the container previously held an incompatible waste or material. The Waste Analysis Plan identifies procedures that will be used to determine waste compatibility.

2.2 North Container Storage Building

The North Container Storage Building is located at the northwest portion of the facility. The walls and roof of the building are constructed of metal and are capable of minimizing the infiltration of precipitation during a rainfall event. The floor is constructed of reinforced concrete which is capable of preventing migration of waste to the environment.

All wastes are stored in segregated containment areas on impervious concrete surfaces. The waste segregation is made according to the compatibility of each waste stream. The North Container Storage Building has a storage capacity of 136,975 gallons. The containment capacity and calculations are presented for each cell are shown in Section B, Figure 11.3. Containment of a spill within the North Container Storage Building is ensured by the design of the floor slab, which is sloped to a corner within each curbed cell. These segregation cells are separated by a concrete curb capable of containing 10% of the contents stored within the cell (see Figures 7.2 and in Section B, Figure 11.3).

All liquids that accumulate within these segregation cells will be properly handled and managed according to state and federal requirements.

Precipitation accumulation and run-on into the storage building is precluded from all four directions by the side walls, roof, roof overhang and the fact that the building is above grade.

All ignitable wastes are stored at least 50 feet from the facility boundary. Incompatible and reactive wastes will be properly segregated. Hazardous wastes will not be placed in containers that have not been decontaminated if the container previously held an incompatible waste or material. The Waste Analysis Plan identifies procedures that will be used to determine waste compatibility.

2.3 Tank Farms

The containment areas for the tank farms contain at least 100% of the volume of the largest tank, in addition to the precipitation that would result from a 25-year, 24-hour rainfall. Procedures for cleaning and collecting spilled wastes are described in the facility's Contingency Plan. The containment structures are constructed of reinforced concrete. The concrete is compatible with all of wastes handled by CHF. In addition, all expansion joints are sealed with an appropriate sealant. The secondary containment area of each tank farm drains to a sump area where rainwater or spilled waste can be collected, analyzed and properly managed.

2.4 Perimeter Road

The perimeter road allows for the containment of releases beyond the capacity of, or in the unlikely event of a failure of, the secondary containment system of the Container Storage Buildings and the hazardous waste tank farms. It also provides containment for releases from vehicles transporting hazardous waste and the roll-offs. The perimeter road, which is constructed of reinforced concrete and is diked on both edges, provides for the containment of 26,098 gallons. The road drains to a sump capable of containing 300 gallons.

3.0 Contamination of Water Supplies, Run-on and Run-off Control

Due to the containment design for all waste storage areas and the perimeter road, no contamination to the water supplies should occur.

The facility is designed to contain run-off and to prevent the movement of run-on onto the active portions of the facility. This is accomplished by the secondary containment systems surrounding each tank farm and the concrete, curbed roadway which encompasses the facility. Both of these systems preclude run-on and run-off at the facility.

4.0 Power Outages

All facility operations are conducted in a batch mode. In the event of a power outage all equipment, including waste feed systems, will immediately shut down. This will help to ensure that hazardous waste or hazardous waste constituents are not released from any tank system, container, pipe, or containment system.

5.0 Personnel and Process Safety

All personnel will be given extensive training in safety, emergency response, and operation of the plant.

Due to the flammable nature of some of the wastes handled by CHF, smoking and the use of matches and lighters will be prohibited at all times on the active portion of the plant.

6.0 Prevention of Air Releases

CHF is permitted for air emissions from the processes and activities conducted on site. A release could potentially occur from activities such as a spill, containers left open, a tank left open, etc. Spills are cleaned up and containerized as soon as possible when they occur therefore minimizing any release to the air. All containers and tanks are kept closed except when necessary to add or remove waste.

There also exists a slight possibility of an air release from a fire or explosion. Procedures described above will minimize the possibility of a fire or explosion.

7.0 Ignitable, Reactive and Incompatible Wastes

To assist in the prevention of ignition of ignitable wastes, "No Smoking" signs will be posted at the entrances of the plant so anyone entering the plant will be notified that smoking is prohibited. Any maintenance requiring open flames, frictional heat, or procedures which may result in sparks (or other heat generation) will be conducted when (or where) no ignitable wastes are present. If maintenance which may create sparks is to be conducted on a tank which contains an ignitable liquid, the tank will be emptied, opened and all flammable liquids and vapors removed prior to the repairs or modifications or inerted with a material such as nitrogen.

Spontaneous ignition of ignitable wastes will be prevented by the safety procedures described above.

Ignition due to radiant heat will be precluded by the storage of all containerized wastes in the Container Storage Buildings which will provide adequate shelter from radiant heat. The outer shell of the tanks is a light color which will ensure that the radiant heat load to the tanks is minimized.

The plant operating record will document all of the equipment and procedures described above to ensure that ignitable wastes are not subjected to elements which would cause fires, explosions, or other uncontrolled releases which may endanger human health or the environment.

8.0 Location Information

Location: Clean Harbors Florida LLC
170 Bartow Municipal Airport
Bartow, FL 33830

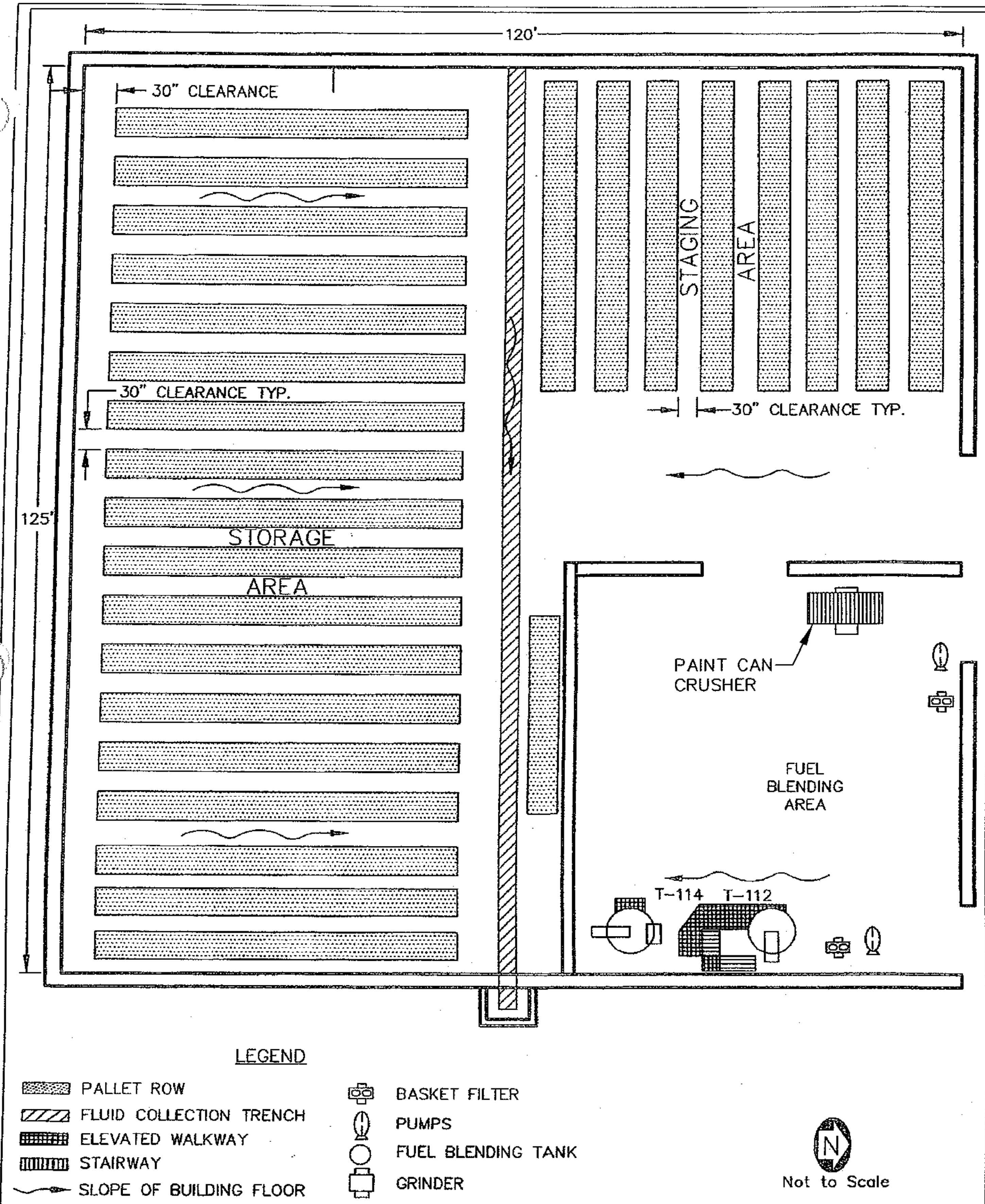
Polk County, Florida

Owner: Clean Harbors Florida LLC
Bartow Municipal Airport (Land only)

Operator: Clean Harbors Florida LLC

CHF is not located in an area listed in Appendix VI of 40 CFR 264, and, therefore, demonstration of compliance with the seismic standard is not necessary.

LIST OF FIGURES



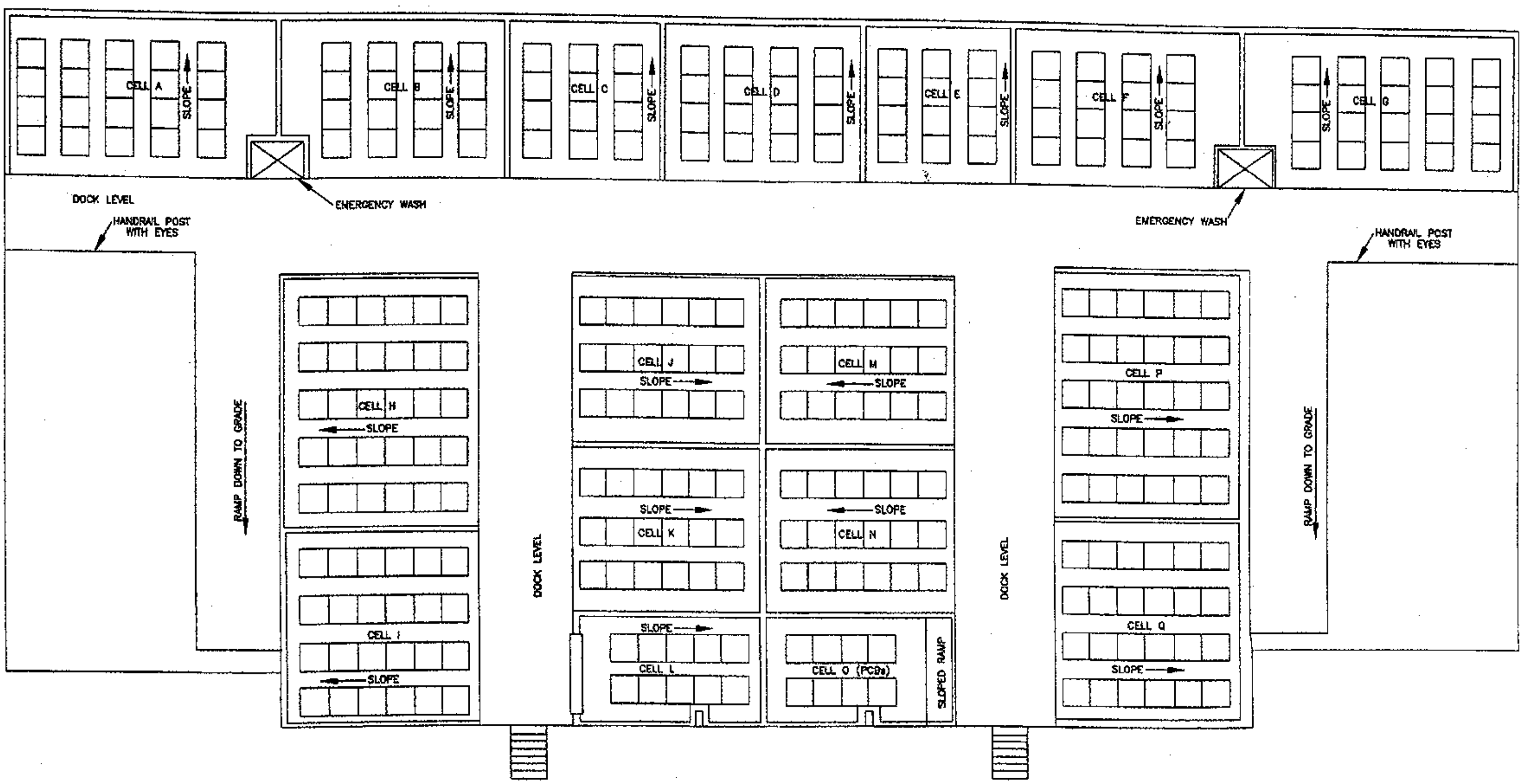
NOTES:

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/31/06	
B	RCRA PERMIT RENEWAL	KMC	04/06/11	S.B.

CleanHarbors
BARTOW

TITLE: CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
SOUTH CONTAINER STORAGE
BUILDING LAYOUT

DRAWN	CHECKED	SCALE	DATE	DRAWING NO.	REV.
JKM	MJC	NTS	01/31/06	FIGURE 7.1	B



GENERAL NOTES

REV.	DESCRIPTION	DRAWN BY	DATE	APP'D BY
A	FOR APPROVAL	JKM	01/31/06	MJQ

REFERENCE DRAWINGS

CleanHarbors

BARTOW

TITLE: CLEAN HARBORS BARTOW, INC. BARTOW FACILITY NORTH CONTAINER STORAGE BUILDING LAYOUT

DRAWN	CHECKED	SCALE	DATE	DRAWING NO.	REV.
JKM	MJQ	NTS	01/31/06	Figure 7.2	A

APPENDIX II-F.4

PREPAREDNESS AND PREVENTION

1.0 Design and Operation of Clean Harbors Florida (CHF)

The CHF facility has been designed to minimize the possibility of a fire, explosion or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

2.0 Required Equipment

2.1 Employee Notification of Emergencies

In the event of a spill, fire, or explosion involving hazardous waste or hazardous waste constituents, the first person on the scene will notify CHF employees of the situation via the fire alarm (for fires and explosions) or the public address system for all other emergencies. Both the fire alarm and the public address system are audible throughout the facility. Should an incident render the alarm and intercom system inoperable, voice notification will be used. Also in some areas of the facility where noise may prevent the audible alarm from being heard, strobe lights are present for visual warning.

2.2 Access to Outside Assistance

The Emergency Coordinator or alternates will summon emergency assistance from local police departments, fire departments, or state or local emergency response teams using the telephone. Telephones are located in the Maintenance Building, Process Area, in the small room adjacent to the South Container Storage Building, North Container Storage Building, and Main Office.

2.3 Fire Protection, Spill Control and Decontamination Equipment

A description of the capabilities of and the location of fire protection equipment at CHF is presented in the Facility's Contingency Plan (see Appendix II-F.2). Spill control equipment is also described in the plan as well as the decontamination equipment available on-site. The first person on the scene of a fire will immediately sound the fire alarm.

There is water at adequate volume and pressure to supply water hose streams, foam producing equipment and sprinkler systems at the facility. Fire flow tests conducted by the Fire Department on the fire hydrant system at the facility provided the following information:

Flow Rate: 1000 GPM. (2 1/2" outlet)
Static Pressure: 54 psi
Flow Pressure: 34 psi (This reading was taken at the next fire hydrant while one hydrant was being used.)

In addition to the existing water lines provided by the industrial park, CHF has installed an 8-inch water line, which is dedicated to fire fighting. This line provides the following:

Flow Rate (max.): 1500 gpm
Flow Pressure @ 1500 gpm: 50 lbs.

This line supplies water to the automatic sprinkler systems in the Container Storage Buildings, the two stationary monitors, and to the two fire hydrants located in the processing area of the plant.

Also, to protect against the possibility of fire from static electricity buildup, whenever liquids are transferred from one container/tank to another container/tank each will be grounded.

3.0 Testing and Maintenance of Equipment

Facility communications, alarm systems, fire protection equipment, spill control equipment, and decontamination equipment will be inspected to ensure proper operation in time of emergency according to schedules outlined in Appendix II-F.6. If the equipment tests indicate potential failure of any of the equipment, such equipment will be immediately repaired or replaced.

4.0 Access to Communications or Alarm System

Each of the hazardous waste processing and storage areas are near a telephone and/or a fire alarm pull station so, when an employee(s) is processing waste he/she will have immediate access to equipment capable of summoning external emergency assistance.

5.0 Required Aisle Space

The storage areas in the Container Storage Buildings have been arranged to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment. The arrangement of the hazardous waste storage tanks and process equipment is also designed for the unobstructed movement of equipment and personnel in the event of an emergency.

6.0 Arrangements with Local Authorities

CHF has made arrangements with local police, fire and emergency response agencies that may be required to respond in the event of a spill, fire, explosion, or other release involving hazardous waste at the facility. A description of these arrangements is presented in the Contingency Plan.

7.0 CHF Evacuation Plan

7.1 Purpose

The purpose of this plan is to provide for the timely and safe evacuation of the personnel from the CHF facility in the event of an incident, which might threaten or otherwise pose a risk to the safety of such personnel.

7.2 Decision to Evacuate

The decision to evacuate will be made by the Emergency Coordinator or, in his absence, by an Alternate Emergency Coordinator or designee.

7.3 Notification of Evacuation

There are two means for causing this evacuation plan to be implemented:

A. When an event is deemed serious enough to require evacuation, a manual alarm pull station will be activated. Pull stations are located in the office building, container storage buildings, maintenance building, near the laboratory, process area and boiler building. When a pull station is activated, an alarm will sound throughout the plant and in the main office. The main gate will open automatically and the Polk County Fire Department will be notified by the contract alarm monitoring company.

B. In the event that one or both of the fire suppression systems in the container storage buildings is activated, the same alarm will sound, the gate will open, and the Polk County Fire Department will be notified.

APPENDIX II-F.5

PERSONNEL TRAINING

1.0 Overview of CHF's Training Program

The regulations (40 CFR 264.16) require that all personnel occupationally exposed to hazardous waste, or engaged in hazardous waste handling, be trained to perform their duties and in procedures for implementation of the Contingency Plan. This program has been developed to satisfy those training requirements.

CHF's training program consists of classroom sessions, demonstrations, and on-the-job training. Reasonable understanding of the regulations and procedures will be demonstrated by completion of examinations at suitable intervals and/or at the conclusion of the training period.

Each new employee whose responsibilities require working in the hazardous waste management areas of the plant will be required to receive job specific training within six months of employment. No new employee will be permitted to work unsupervised until he or she has completed the training program and each will receive instruction on how to properly respond to an emergency before they perform any duties. The training at a minimum will include the following topics: (Dependent on duties assigned)

1. Regulatory background, including the intent and purpose of RCRA, as well as local, state, and federal regulations regarding the generation, treatment, recovery, storage, and handling of hazardous wastes.

2. Implementation of the Contingency Plan, including emergency response to fires, explosions, and releases of hazardous wastes or hazardous waste constituents.

3. Emergency notification procedures.

4. Hands-on experience in the use of emergency response equipment.

5. Operational risk avoidance, including work procedures and precautions which will ensure that accident occurrences are minimized.

6. Properties of materials handled at CHF.

7. General safety rules and regulations, including first-aid, alarm station locations, safety shower and eye wash locations, personal protective equipment use and maintenance, etc.

8. Response to natural emergencies such as hurricanes, floods, etc.

9. Evacuation plan detailing primary and alternate routes.

10. Compliance with Preparedness and Prevention requirements.

11. Recordkeeping: manifests, inspection logs, and operating records.

12. Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment.

13. Key parameters for automatic waste feed cut-off systems.

14. How to use emergency communications and alarm systems.

15. Response to groundwater contamination incidents.

16. Shutdown of operations.

17. Proper sampling procedures for personnel who conduct sampling.

18. Proper clean-up procedures for personnel who are involved in clean-up activities after a spill, fire or explosion.

Management, supervisory, truck drivers, janitorial, lawn care, sales, customer service, lab, and office employees are not routinely involved in the day-to-day waste handling and will receive training consistent with their duties. Examples of training these employees receive are; contingency plan/evacuation routes; proper use of Material Profile Sheets, manifests and land ban forms; waste tracking; waste transportation, etc. If management desires one of these employees to be involved in the waste handling activities, the employee will receive the same detailed training as the operations personnel.

All employees are required to participate in an annual training update and review. During this review, all of the training elements described above will be reviewed. The training will be provided by the CHF Regulatory Compliance Manager (RCM) or his designee. The RCM or designee, as the trainer, will maintain a working knowledge of the regulations through research; reading regulations; attendance of training outside the facility; and of facility operations. Therefore it will not be necessary for them to receive the on-site facility training. The trainer will also review the facility's Contingency Plan before the annual training sessions.

On-the-job training is continually provided to further increase employee knowledge of hazardous waste management. This training provides detailed, job-specific guidance on how to implement emergency response procedures as well as how each employee must do his job in a manner which complies with RCRA regulatory requirements.

Management personnel will conduct unannounced practice drills for emergencies such as waste spills, and fires. During the fire drills the alarm will be activated and this will provide a test for the automatic operation of the front gate. These drills may include involvement of the appropriate local agencies. Records will be kept of these practice drills and who participated in them and will be placed in the operating record (for three years) or employee's training file.

Each time a significant change is made in the facility it will be incorporated into the next training session. Any change in procedures will be practiced in a drill following the training session so that all personnel who should be familiar with the change have reviewed it.

CHF will offer training for haulers and transport vehicle personnel covering on-site conduct; safety procedures; off-loading, and transfer procedures.

Training will also be given to the off-duty hours inspector. This training will involve procedures to follow should an emergency occur; should an intruder be discovered; or should a leak or spill be detected.

2.0 Training Documentation

Training will be documented for each employee, as follows:

- Names of persons giving and receiving training.
- Description of the type, amount, and frequency of training for each employee.
- Dates of training.

Job descriptions and the type of training received will be documented electronically. Records that document the training received by each employee will be maintained on-site for as long as the employee is employed by CHF and three years from the last day worked at CHF.

3.0 Job Descriptions

Job descriptions for personnel involved in the management of hazardous waste are presented below.

MANAGEMENT/ENVIRONMENTAL PERSONNEL

Facility Manager
Environmental Compliance Manager
Regulatory Compliance Specialist

OPERATIONS PERSONNEL

Operations Manager
Technical Services Manager/Local Resource Manager
Disposal Coordinator/Scheduler
Lead Lab Tech/Lab Supervisor
Lab Tech
Process Manager
Disposal Manager
QC Chemist
Manifest Clerk
Operations Supervisor/Lead Person
Chemical Handler/Technician
Warehouse Worker/Material Inspector
Process Operator
Lead Maintenance Mechanic/Supervisor
Maintenance Mechanic
Grounds Keeper

FIELD OPERATIONS

Field Operations Manager
Projects Manager
Projects Supervisor
Contract Manager
Proposal Manager
Field Operations Supervisor
Field Chemist
Truck Driver

SALES/CUSTOMER SERVICE PERSONNEL

Sales Manager/Coordinator
Customer Service Manager
Customer Service Representative/Chemist

OFFICE/GENERAL PERSONNEL

Accounting
Secretary, Receptionist, Administrative Assistant

APPENDIX II-F.6

INSPECTIONS

1.0 General Inspection Requirements

CHF will conduct regular inspections to detect malfunctions, deterioration, operator errors, or discharges which may be causing or may lead to a release of hazardous waste constituents to the environment or a threat to human health. The schedule for inspections as well as all equipment, structures and devices to be inspected is described below. The frequency of inspections is based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident. Unless otherwise indicated, all inspection records (which include the remedial actions) will be maintained electronically and/or on-site for at least three years. (An example of the Facility Inspection Form used to document the inspections conducted along with findings is shown in Figure 4.1)

2.0 Daily Inspections

At least once each operating day (i.e., normal work days, Monday - Friday, 8 am to 5 pm, except designated holidays) the following items will be visually inspected and findings documented:

- above ground portions of the tank systems to detect corrosion or releases of waste;
- construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system to detect erosion or signs of releases of hazardous waste;
- areas subject to spills, such as loading and unloading areas;

3.0 Weekly Inspections

On a weekly basis, areas where containers are stored (Container Storage Buildings and perimeter road for roll-offs) will be inspected for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors. The can crusher will also be inspected on a weekly basis for deteriorating or malfunctioning equipment as well as the perimeter road area which will be inspected for integrity, cracks, etc.

Safety and emergency equipment will be inspected on a weekly basis.

Each pump at the CHF facility, which comes in contact with hazardous waste, will be visually inspected on a weekly basis for indications of liquids dripping from the pump.

4.0 Monthly Inspection

Safety and security devices will be inspected on a monthly basis.

Each valve and pump at CHF which comes into contact with hazardous waste will be monitored monthly for leaks according to the applicable requirements of 40 CFR Part 264, Subpart BB. As provided for in 40 CFR 264.1062, CHF may elect to use one of the alternate monitoring periods for pumps and valves. If an alternate method is chosen, the appropriate notification required by 264.1062(a)(2) will be made.

5.0 Annual Inspections

Each permitted tank will be inspected annually for shell thickness. The results of this inspection will be recorded on the Annual Tank Shell Thickness Inspection Log (see example Figure 4.2).

6.0 Schedule of Remedial Action

Any deterioration or malfunction of equipment, structures or devices which an inspection reveals, will be remedied on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action would be taken immediately. Any item noted during an inspection will be noted on the inspection form and forwarded to the person(s) assigned to conduct the remedial action.

LIST OF FIGURES

CleanHarbors
ENVIRONMENTAL SERVICES®

Bartow, FL

CONTAINER STORAGE AREA INSPECTION FORM

FormCode BWCMPFRM02

Full Name:	SAMPLE	**Date:**	
Location:		**Military Time:**	

Instructions: Note condition of inspection items. If item does not apply to an area, mark N/A. All unsatisfactory findings must be explained below. Include any repairs, changes or other remedial actions required or performed.

INSPECTION ITEM	YES	NO	N/A	REASON FOR FAILURE	WORK TICKET STAT
Container Placement and Stacking	●	○	○		
Sealing of Containers	●	○	○		
Labeling of Containers	●	○	○		
Containers	●	○	○		
Pallets	●	○	○		
Doors (indoor area)	●	○	○		
Base / Foundation / Roof	●	○	○		
Berms / Racks	●	○	○		
Debris and Refuse	●	○	○		
Warning Signs	●	○	○		

Aisle Space	(•)	( )	( )		
Loading and Unloading Areas	(•)	( )	( )		
Sumps	(•)	( )	( )		
Alarm and Communication System	(•)	( )	( )		
Storage Capacity	(•)	( )	( )		
Bonding / Grounding	(•)	( )	( )		
Pumps	(•)	( )	( )		
PCB Cell	(•)	( )	( )		
Satellite Accumulation Containers	(•)	( )	( )		
Consolidation/Bulking Equipment	(•)	( )	( )		
Are all containers stored on pallets?	(•)	( )	( )		
On-Demand Work Ticket (please describe reason below)					

Select Overall Assessment of Inspection Results	Pass

Submit

Supervisor's Signature ______________________

TANK SYSTEMS INSPECTION FORM

FormCode

Full Name:	SAMPLE	Date:	1/21/2011
Location:	South Tank Farm T-100	Military Time:	

Instructions: Note condition of inspection items. If item does not apply to an area, mark N/A. All unsatisfactory findings must be explained below. Include any repairs, changes or other remedial actions required or performed.

INSPECTION ITEM	YES	NO	N/A	REASON FOR FAILURE	WORK TICKET STAT
Tanks	●	○	○		
Pipes	●	○	○		
Valves	●	○	○		
Fittings	●	○	○		
Liquid Level	●	○	○		
Secondary Containment	●	○	○		
Sumps	●	○	○		
Bonding and Grounding	●	○	○		
Transfer Equipment (pumps, filters, strainers, hoses)	●	○	○		
Communication and Alarm System	○	○	●		

Satellite Accumulation Containers (filter/basket, solids, etc.)	○	○	●		
Manways, Hatches, Other Openings	○	○	●		
Pressure Relief Valves (PRV)/Flame Arrestors	○	○	●		
Tanks marked with the words "HAZARDOUS WASTE"	●	○	○		
Tanks not used marked "OUT OF SERVICE"	○	○	●		
Tanks Marked as to Contents (NON-HAZ ONLY)	○	○	●		
Monitoring Equipment (Pressure/Temperature Guages, Level Indicators)	○	○	●		
Loading / Unloading Areas	●	○	○		
On-Demand Work Ticket (please describe reason below)					

Select Overall Assessment of Inspection Results	Pass

Submit

Supervisor's Signature ______________________________

CleanHarbors
ENVIRONMENTAL SERVICES®

SAFETY & SECURITY INSPECTION FORM

FormCode

Full Name:	SAMPLE	**Date:**	1/13/2011
Location:	Bartow Facility	**Military Time:**	

Instructions: Note condition of inspection items. If item does not apply to an area, mark N/A. All unsatisfactory findings must be explained below. Include any repairs, changes or other remedial actions required or performed.

INSPECTION ITEM	YES	NO	N/A	REASON FOR FAILURE	WORK TICKET STAT
Perimeter Fences	●	○	○		
Gates	●	○	○		
Warning Signs	●	○	○		
Exit Signs	●	○	○		
Exits / Firelanes / Evacuation Routes Clear?	●	○	○		
Lighting System	●	○	○		
Emergency Lighting System	●	○	○		
Accessibility of Safety Equipment/Protective Gear (helmets, faceshields,goggles,boots,gloves,clothing,duct tape, ab. pads)	●	○	○		
Adequate Supply of Safety Equipment/Protective Gear	●	○	○		
Condition of Safety Equipment/Protective Gear	●	○	○		

Breathing Apparatus Accessibility	●	○	○		
Breathing Apparatus Adequate Supply/Full Charge	●	○	○		
Breathing Apparatus Condition	●	○	○		
First Aid Kits	●	○	○		
Blood Borne Pathogen Kits	●	○	○		
Emergency Eyewashes	●	○	○		
Emergency Showers	●	○	○		
Internal/External Communications (Phones/Radios)	●	○	○		
Fire Extinguishers	●	○	○		
Absorbent Supply	●	○	○		
Recovery Drum Supply	●	○	○		
Respirators and Cartridges	●	○	○		
Fire Suppression System (monitors, pull stations, alarms) Accessibility	●	○	○		
Fire Suppression System Operable?	●	○	○		

Water Lines / Hydrants	●	○	○		
Alarm Systems	●	○	○		
Fire Blankets	●	○	○		
Strainers on Fire Suppression System	●	○	○		
Surveillance System/Guard Service	●	○	○		
Supplied Air Delivery System and Reserve	●	○	○		
Wind Sock	●	○	○		
Decontamination Equipment	●	○	○		
Portable Sump Pumps	●	○	○		
Gasoline Pumps	●	○	○		
Loud Speakers	●	○	○		
Chocked Wheels on Parked Vehicles	●	○	○		
Cylinders Secure	●	○	○		
Ventilation Operable	●	○	○		

Fall Protection	●	○	○		
Electrical Boxes	●	○	○		
Emergency Contact Info Posted	●	○	○		
Hearing Protection Available	●	○	○		
Housekeeping	●	○	○		
Portable Compressor	●	○	○		
Lime Supply	●	○	○		
QC Lab Hood	●	○	○		
Rolloff Parking Area	●	○	○		
Dumpster / Outside Contianers	●	○	○		
Stormwater Collection System	●	○	○		
Rally Point	●	○	○		
Visitors Log	●	○	○		
Contingency Plan	●	○	○		

Wind Instrument	(•)	( )	( )		
On-Demand Work Ticket (please describe reason below)					

Select Overall Assessment of Inspection Results	Pass

Submit

Supervisor's Signature ______________________________

FIGURE 4.2 ANNUAL TANK SHELL THICKNESS MEASUREMENT LOG

Inspection Date(s): ______________________

Measurements Taken By: ______________________

Units of measurements: ______________________

		Vertical Section of Tank Side					
Tank No.	Tank Side	A*	B*	C*	D*	Top	Bottom
	East (0°)						
	North (90°)						
	West (180°)						
	South (270°)						
	East (0°)						
	North (90°)						
	West (180°)						
	South (270°)						
	East (0°)						
	North (90°)						
	West (180°)						
	South (270°)						
	East (0°)						
	North (90°)						
	West (180°)						
	South (270°)						

* Varying vertical locations on each tank

APPENDIX II-G

WASTE ACCEPTED, STORED AND PROCESSED BY CHF

**Amounts reflected are estimated Tons per year for all RCRA waste codes permitted.

	S01	**S02**	**T31**	**T50**	**T40**	**T63**	**T47**
	Container Storage	Tank Storage	Neutralization	Blending	Filtration	Solvent recovery	Solidification & Can Squisher
D001	5000	5000	N/A	3100	3100	1000	3100
D002	500	5	500	1	1	1	1
D003	100	5	N/A	0	0	1	0
D004	100	100	↓	10	10	1	10
D005	100	100		10	10	1	10
D006	100	100		10	10	1	10
D007	100	100		10	10	1	10
D008	100	100		10	10	1	10
D009	100	100		10	10	1	10
D010	100	100		10	10	1	10
D011	100	100		10	10	1	10
D012	50	50		1	1	1	1
D013	50	50		1	1	1	1
D014	50	50		1	1	1	1
D015	50	50		1	1	1	1
D016	50	50		1	1	1	1
D017	50	50		1	1	1	1
D018	1000	1000		500	500	10	500
D019	1000	1000		500	500	10	500
D020	50	50		1	1	1	1
D021	1000	1000		500	500	10	500
D022	1000	1000		500	500	10	500
D023	1000	1000		500	500	10	500
D024	1000	1000		500	500	10	500
D025	1000	1000		500	500	10	500

D026	1000	1000		500	500	10	500
D027	1000	1000		500	500	10	500
D028	1000	1000		500	500	10	500
D029	1000	1000		500	500	10	500
D030	1000	1000		500	500	10	500
D031	50	50		1	1	1	1
D032	1000	1000		500	500	10	500
D033	1000	1000		500	500	10	500
D034	1000	1000		500	500	10	500
D035	1000	1000		500	500	10	500
D036	1000	1000		500	500	10	500
D037	50	50		1	1	1	1
D038	1000	1000		500	500	10	500
D039	1000	1000		500	500	10	500
D040	1000	1000		500	500	10	500
D041	1000	1000		500	500	10	500
D042	1000	1000		500	500	10	500
D043	1000	1000		500	500	10	500
F001	5000	5000		500	500	100	500
F002	5000	5000		500	500	100	500
F003	5000	5000		3100	3100	100	3100
F004	1000	1000		500	500	50	500
F005	5000	5000		3100	3100	100	3100
F006	1000	1000		10	10	1	10
F007	100	100		5	5	5	5
F008	100	100		5	5	5	5
F009	100	100		5	5	5	5
F010	100	100		5	5	5	5
F011	100	100		5	5	5	5
F012	100	100		5	5	5	5

F019	100	100		5	5	5	5
F020	10	10		1	1	1	1
F021	10	10		1	1	1	1
F022	10	10		1	1	1	1
F023	10	10		1	1	1	1
F024	100	100		10	10	1	10
F025	100	100		10	10	1	10
F026	100	100		10	10	1	10
F027	100	100		10	10	1	10
F028	100	100		10	10	10	10
F032	100	100		10	10	1	10
F034	100	100		10	10	1	10
F035	100	100		10	10	1	10
F037	100	100		10	10	1	10
F038	100	100		10	10	1	10
F039	100	100		10	10	1	10
K001	100	100		10	10	1	10
K002	100	100		10	10	1	10
K003	100	100		10	10	1	10
K004	100	100		10	10	1	10
K005	100	100		10	10	1	10
K006	100	100		10	10	1	10
K007	10	10		1	1	1	1
K008	100	100		10	10	1	10
K009	100	100		10	10	1	10
K010	100	100		10	10	1	10
K011	10	10		1	1	1	1
K013	10	10		1	1	1	1
K014	10	10		1	1	1	1
K015	100	100		10	10	1	10

K016	100	100		10	10	1	10
K017	100	100		10	10	1	10
K018	100	100		10	10	1	10
K019	100	100		10	10	1	10
K020	100	100		10	10	1	10
K021	100	100		10	10	1	10
K022	100	100		10	10	1	10
K023	100	100		10	10	1	10
K024	100	100		10	10	1	10
K025	100	100		10	10	1	10
K026	100	100		10	10	1	10
K027	100	100		10	10	1	10
K028	100	100		10	10	1	10
K029	100	100		10	10	1	10
K030	100	100		10	10	1	10
K031	100	100		10	10	1	10
K032	100	100		10	10	1	10
K033	100	100		10	10	1	10
K034	100	100		10	10	1	10
K035	100	100		10	10	1	10
K036	100	100		10	10	1	10
K037	100	100		10	10	1	10
K038	100	100		10	10	1	10
K039	100	100		10	10	1	10
K040	100	100		10	10	1	10
K041	100	100		10	10	1	10
K042	100	100		10	10	1	10
K043	100	100		10	10	1	10
K044	100	100		10	10	1	10
K045	100	100		10	10	1	10

K046	100	100		10	10	1	10
K047	100	100		10	10	1	10
K048	100	100		10	10	1	10
K049	100	100		10	10	1	10
K050	100	100		10	10	1	10
K051	100	100		10	10	1	10
K052	100	100		10	10	1	10
K060	100	10		1	1	1	1
K061	100	100		10	10	1	10
K062	100	100		10	10	1	10
K069	100	100		10	10	1	10
K071	100	100		10	10	1	10
K073	100	100		10	10	1	10
K083	100	100		10	10	1	10
K084	100	100		10	10	1	10
K085	100	100		10	10	1	10
K086	100	100		10	10	1	10
K087	100	100		10	10	1	10
K088	100	10		1	1	1	1
K093	100	100		10	10	1	10
K094	100	100		10	10	1	10
K095	100	100		10	10	1	10
K096	100	100		10	10	1	10
K097	100	100		10	10	1	10
K098	100	100		10	10	1	10
K099	100	100		10	10	1	10
K100	100	100		10	10	1	10
K101	100	100		10	10	1	10
K102	100	100		10	10	1	10
K103	100	100		10	10	1	10

K104	100	100		10	10	1	10
K105	100	100		10	10	1	10
K106	100	100		10	10	1	10
K107	100	100		10	10	1	10
K108	100	100		10	10	1	10
K109	100	100		10	10	1	10
K110	100	100		10	10	1	10
K111	10	10		1	1	1	1
K112	100	100		10	10	1	10
K113	100	100		10	10	1	10
K114	100	100		10	10	1	10
K115	100	100		10	10	1	10
K116	10	10		1	1	1	1
K117	100	100		10	10	1	10
K118	100	100		10	10	1	10
K123	100	100		10	10	1	10
K124	10	10		1	1	1	1
K125	100	100		10	10	1	10
K126	100	100		10	10	1	10
K131	10	10		1	1	1	1
K132	100	100		10	10	1	10
K136	100	100		10	10	1	10
K141	100	100		10	10	1	10
K142	100	100		10	10	1	10
K143	100	100		10	10	1	10
K144	100	100		10	10	1	10
K145	100	100		10	10	1	10
K147	100	100		10	10	1	10
K148	100	100		10	10	1	10
K149	100	100		10	10	1	10

K150	100	100		10	10	1	10
K151	100	100		10	10	1	10
K156	100	100		10	10	1	10
K157	100	100		10	10	1	10
K158	100	100		10	10	1	10
K159	100	100		10	10	1	10
K161	100	100		10	10	1	10
K169	100	100		10	10	1	10
K170	100	100		10	10	1	10
K171	100	100		10	10	1	10
K172	100	100		10	10	1	10
K174	100	100		10	10	1	10
K175	100	100		10	10	1	10
K176	100	100		10	10	1	10
K177	100	100		10	10	1	10
K178	100	100		10	10	1	10
K181	100	100		10	10	1	10
P001	10	1		1	1	1	1
P002	10	1		1	1	1	1
P003	10	1		1	1	1	1
P004	10	1		1	1	1	1
P005	10	1		1	1	1	1
P006	10	1		1	1	1	1
P007	10	1		1	1	1	1
P008	10	1		1	1	1	1
P009	10	1		1	1	1	1
P010	10	1		1	1	1	1
P011	10	1		1	1	1	1
P012	10	1		1	1	1	1
P013	10	1		1	1	1	1

P014	10	1		1	1	1	1
P015	10	1		1	1	1	1
P016	10	1		1	1	1	1
P017	10	1		1	1	1	1
P018	10	1		1	1	1	1
P020	10	1		1	1	1	1
P021	10	1		1	1	1	1
P022	10	1		1	1	1	1
P023	10	1		1	1	1	1
P024	10	1		1	1	1	1
P026	10	1		1	1	1	1
P027	10	1		1	1	1	1
P028	10	1		1	1	1	1
P029	10	1		1	1	1	1
P030	10	1		1	1	1	1
P031	10	1		1	1	1	1
P033	10	1		1	1	1	1
P034	10	1		1	1	1	1
P036	10	1		1	1	1	1
P037	10	1		1	1	1	1
P038	10	1		1	1	1	1
P039	10	1		1	1	1	1
P040	10	1		1	1	1	1
P041	10	1		1	1	1	1
P042	10	1		1	1	1	1
P043	10	1		1	1	1	1
P044	10	1		1	1	1	1
P045	10	1		1	1	1	1
P046	10	1		1	1	1	1
P047	10	1		1	1	1	1

P048	10	1		1	1	1	1
P049	10	1		1	1	1	1
P050	10	1		1	1	1	1
P051	10	1		1	1	1	1
P054	10	1		1	1	1	1
P056	10	1		1	1	1	1
P057	10	1		1	1	1	1
P058	10	1		1	1	1	1
P059	10	1		1	1	1	1
P060	10	1		1	1	1	1
P062	10	1		1	1	1	1
P063	10	1		1	1	1	1
P064	10	1		1	1	1	1
P065	10	1		1	1	1	1
P066	10	1		1	1	1	1
P067	10	1		1	1	1	1
P068	10	1		1	1	1	1
P069	10	1		1	1	1	1
P070	10	1		1	1	1	1
P071	10	1		1	1	1	1
P072	10	1		1	1	1	1
P073	10	1		1	1	1	1
P074	10	1		1	1	1	1
P075	10	1		1	1	1	1
P076	10	1		1	1	1	1
P077	10	1		1	1	1	1
P078	10	1		1	1	1	1
P081	10	1		1	1	1	1
P082	10	1		1	1	1	1
P084	10	1		1	1	1	1

P085	10	1		1	1	1	1
P087	10	1		1	1	1	1
P088	10	1		1	1	1	1
P089	10	1		1	1	1	1
P092	10	1		1	1	1	1
P093	10	1		1	1	1	1
P094	10	1		1	1	1	1
P095	10	1		1	1	1	1
P096	10	1		1	1	1	1
P097	10	1		1	1	1	1
P098	10	1		1	1	1	1
P099	10	1		1	1	1	1
P101	10	1		1	1	1	1
P102	10	1		1	1	1	1
P103	10	1		1	1	1	1
P104	10	1		1	1	1	1
P105	10	1		1	1	1	1
P106	10	1		1	1	1	1
P108	10	1		1	1	1	1
P109	10	1		1	1	1	1
P110	10	1		1	1	1	1
P111	10	1		1	1	1	1
P112	10	1		1	1	1	1
P113	10	1		1	1	1	1
P114	10	1		1	1	1	1
P115	10	1		1	1	1	1
P116	10	1		1	1	1	1
P118	10	1		1	1	1	1
P119	10	1		1	1	1	1
P120	10	1		1	1	1	1

P121	10	1		1	1	1	1
P122	10	1		1	1	1	1
P123	10	1		1	1	1	1
P127	10	1		1	1	1	1
P128	10	1		1	1	1	1
P185	10	1		1	1	1	1
P188	10	1		1	1	1	1
P189	10	1		1	1	1	1
P190	10	1		1	1	1	1
P191	10	1		1	1	1	1
P192	10	1		1	1	1	1
P194	10	1		1	1	1	1
P196	10	1		1	1	1	1
P197	10	1		1	1	1	1
P198	10	1		1	1	1	1
P199	10	1		1	1	1	1
P201	10	1		1	1	1	1
P202	10	1		1	1	1	1
P203	10	1		1	1	1	1
P204	10	1		1	1	1	1
P205	10	1		1	1	1	1
U001	100	100		10	10	10	10
U002	500	500		500	500	10	500
U003	10	10		1	1	1	1
U004	100	100		10	10	10	10
U005	10	10		1	1	1	1
U006	10	10		1	1	1	1
U007	100	100		10	10	10	10
U008	10	10		1	1	1	1
U009	10	10		1	1	1	1

U010	100	100		10	10	10	10
U011	100	100		10	10	10	10
U012	100	100		10	10	10	10
U014	100	100		10	10	10	10
U015	100	100		10	10	10	10
U016	100	100		10	10	10	10
U017	100	100		10	10	10	10
U018	100	100		10	10	10	10
U019	100	100		10	10	10	10
U020	10	10		1	1	1	1
U021	100	100		10	10	10	10
U022	100	100		10	10	10	10
U023	100	100		10	10	10	10
U024	100	100		10	10	10	10
U025	100	100		10	10	10	10
U026	100	100		10	10	10	10
U027	100	100		10	10	10	10
U028	100	100		10	10	10	10
U029	100	100		10	10	10	10
U030	100	100		10	10	10	10
U031	100	100		10	10	10	10
U032	10	10		1	1	1	1
U033	10	10		1	1	1	1
U034	100	100		10	10	10	10
U035	100	100		10	10	10	10
U036	100	100		10	10	10	10
U037	100	100		10	10	10	10
U038	10	10		1	1	1	1
U039	100	100		10	10	10	10
U041	10	10		1	1	1	1

U042	100	100		10	10	10	10
U043	100	100		10	10	10	10
U044	100	100		10	10	10	10
U045	100	100		10	10	10	10
U046	100	100		10	10	10	10
U047	100	100		10	10	10	10
U048	100	100		10	10	10	10
U049	100	100		10	10	10	10
U050	100	100		10	10	10	10
U051	100	100		10	10	10	10
U052	100	100		10	10	10	10
U053	100	100		10	10	10	10
U055	100	100		10	10	10	10
U056	100	100		10	10	10	10
U057	100	100		10	10	10	10
U058	100	100		10	10	10	10
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U067	100	100		10	10	10	10
U068	100	100		10	10	10	10
U069	100	100		10	10	10	10
U070	100	100		10	10	10	10
U071	100	100		10	10	10	10
U072	100	100		10	10	10	10
U073	100	100		10	10	10	10

U074	100	100		10	10	10	10
U075	100	100		10	10	10	10
U076	100	100		10	10	10	10
U077	100	100		10	10	10	10
U078	100	100		10	10	10	10
U079	100	100		10	10	10	10
U080	100	100		10	10	10	10
U081	100	100		10	10	10	10
U082	100	100		10	10	10	10
U083	100	100		10	10	10	10
U084	100	100		10	10	10	10
U085	100	100		10	10	10	10
U086	100	100		10	10	10	10
U087	10	10		1	1	1	1
U088	100	100		10	10	10	10
U089	100	100		10	10	10	10
U090	100	100		10	10	10	10
U091	100	100		10	10	10	10
U092	100	100		10	10	10	10
U093	100	100		10	10	10	10
U094	100	100		10	10	10	10
U095	100	100		10	10	10	10
U096	10	10		1	1	1	1
U097	10	10		1	1	1	1
U098	10	10		1	1	1	1
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U101	100	100		10	10	10	10
U102	100	100		10	10	10	10
U103	10	10		1	1	1	1
U105	100	100		10	10	10	10

U106	100	100		10	10	10	10
U107	100	100		10	10	10	10
U108	100	100		10	10	10	10
U109	100	100		10	10	10	10
U110	100	100		10	10	10	10
U111	100	100		10	10	10	10
U112	100	100		10	10	10	10
U113	100	100		10	10	10	10
U114	10	10		1	1	1	1
U115	100	100		10	10	10	10
U116	100	100		10	10	10	10
U117	100	100		10	10	10	10
U118	100	100		10	10	10	10
U119	100	100		10	10	10	10
U120	100	100		10	10	10	10
U121	100	100		10	10	10	10
U122	100	100		10	10	10	10
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U129	100	100		10	10	10	10
U130	100	100		10	10	10	10
U131	100	100		10	10	10	10
U132	100	100		10	10	10	10
U133	10	10		1	1	1	1
U134	10	10		1	1	1	1
U135	10	10		1	1	1	1

U136	100	100		10	10	10	10
U137	100	100		10	10	10	10
U138	100	100		10	10	10	10
U140	100	100		10	10	10	10
U141	100	100		10	10	10	10
U142	100	100		10	10	10	10
U143	100	100		10	10	10	10
U144	10	10		1	1	1	1
U145	100	100		10	10	10	10
U146	100	100		10	10	10	10
U147	100	100		10	10	10	10
U148	100	100		10	10	10	10
U149	10	10		1	1	1	1
U150	100	100		10	10	10	10
U151	100	100		10	10	10	10
U152	10	10		1	1	1	1
U153	100	100		10	10	10	10
U154	100	100		10	10	10	10
U155	100	100		10	10	10	10
U156	100	100		10	10	10	10
U157	100	100		10	10	10	10
U158	100	100		10	10	10	10
U159	500	500		500	500	10	500
U160	10	10		1	1	1	1
U161	100	100		10	10	10	10
U162	100	100		10	10	10	10
U163	10	10		1	1	1	1
U164	100	100		10	10	10	10
U165	100	100		10	10	10	10
U166	100	100		10	10	10	10

U167	100	100		10	10	10	10
U168	100	100		10	10	10	10
U169	10	10		1	1	1	1
U170	10	10		1	1	1	1
U171	100	100		10	10	10	10
U172	100	100		10	10	10	10
U173	100	100		10	10	10	10
U174	100	100		10	10	10	10
U176	100	100		10	10	10	10
U177	10	10		1	1	1	1
U178	10	10		1	1	1	1
U179	100	100		10	10	10	10
U180	100	100		10	10	10	10
U181	100	100		10	10	10	10
U182	100	100		10	10	10	10
U183	100	100		10	10	10	10
U184	100	100		10	10	10	10
U185	100	100		10	10	10	10
U186	100	100		10	10	10	10
U187	100	100		10	10	10	10
U188	100	100		10	10	10	10
U189	10	10		1	1	1	1
U190	10	10		1	1	1	1
U191	100	100		10	10	10	10
U192	100	100		10	10	10	10
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U194	100	100		10	10	10	10
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U197	100	100		10	10	10	10
U200	100	100		10	10	10	10

U201	100	100		10	10	10	10
U202	100	100		10	10	10	10
U203	100	100		10	10	10	10
U204	10	10		1	1	1	1
U205	100	100		10	10	10	10
U206	100	100		10	10	10	10
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U208	100	100		10	10	10	10
U209	100	100		10	10	10	10
U210	100	100		10	10	10	10
U211	100	100		10	10	10	10
U213	100	100		10	10	10	10
U214	100	100		10	10	10	10
U215	100	100		10	10	10	10
U216	100	100		10	10	10	10
U217	100	100		10	10	10	10
U218	100	100		10	10	10	10
U219	100	100		10	10	10	10
U220	500	500		500	500	10	500
U221	10	10		10	10	10	10
U222	100	100		10	10	10	10
U223	10	10		1	1	1	1
U225	10	10		1	1	1	1
U226	100	100		10	10	10	10
U227	100	100		10	10	10	10
U228	100	100		10	10	10	10
U234	10	10		1	1	1	1
U235	100	100		10	10	10	10
U236	100	100		10	10	10	10
U237	100	100		10	10	10	10

U238	100	100		10	10	10	10
U239	100	100		10	10	10	10
U240	100	100		10	10	10	10
U243	100	100		10	10	10	10
U244	100	100		10	10	10	10
U246	10	10		1	1	1	1
U247	100	100		10	10	10	10
U248	100	100		10	10	10	10
U249	10	10		1	1	1	1
U271	100	100		10	10	10	10
U278	100	100		10	10	10	10
U279	100	100		10	10	10	10
U280	100	100		10	10	10	10
U328	100	100		10	10	10	10
U353	100	100		10	10	10	10
U359	100	100		10	10	10	10
U364	100	100		10	10	10	10
U367	100	100		10	10	10	10
U372	100	100		10	10	10	10
U373	100	100		10	10	10	10
U387	100	100		10	10	10	10
U389	100	100		10	10	10	10
U394	100	100		10	10	10	10
U395	100	100		10	10	10	10
U404	100	100		10	10	10	10
U409	100	100		10	10	10	10
U410	100	100		10	10	10	10
U411	100	100		10	10	10	10

Appendix II-H

Waste Analysis Plan

1.0 Identification of Wastes to be Managed

CHF manages a wide variety of hazardous wastes. These wastes are identified in Appendix II-G of Chapter One by EPA Hazardous Waste Code Number. CHF will not accept or manage any hazardous waste for which it is not permitted. (Please note that the list of waste codes in Appendix G does not apply to the Transfer Facility described in Chapter 3.)

CHF does not store any wastes in a manner that would result in a reduction in toxicity. Waste received and stored at the facility with LDR documentation will be shipped off-site with the same LDR documentation. Waste stored at the facility for recovery and resale, will be shipped off-site as a product without a LDR.

The specified treatment technology for some ignitable (D001), corrosive (D002), and reactive (D003) waste is deactivation. Wastes of these three types may contain liquids and solids. In cases where the liquid is pumped or poured from the solids, either the liquids or the solids portion may no longer meet the "D" code characteristic. The respective liquids or solids will then be considered deactivated. Containers of corrosive waste may be deactivated by neutralization, and the resultant material no longer meets the "D" code characteristic.

The portion of the waste, which no longer exhibits the "D" characteristic, will then meet the LDR criteria, provided no underlying constituents (40 CFR 268.48) apply to it. Any such waste on which this deactivation is performed, CHF will document such as required in 40 CFR 268.7 and 40 CFR 268, Appendix I.

All hazardous waste managed at CHF is managed in areas designated for ignitable waste. Incompatible wastes will be segregated as outlined in Chapter 2, Sections II-B & II-C. The information and analyses used to determine compatibility are described below.

2.0 Waste Pre-qualification Protocol

Every waste stream will be evaluated prior to consignment to CHF for management. The evaluation will be conducted by any of the following: Central Profile Group (CPG), Sales personnel, Customer Service personnel, Laboratory personnel, QC Chemist, Facility Manager, or Environmental Compliance Manager. In order for a new waste stream to be considered for management by CHF, the waste generator must submit a completed Material Profile Sheet (MPS). An example of the MPS is given in Figure 2.1. (**NOTE:** The MPS is subject to change due to regulatory changes, operational needs, etc. MPS forms and certification can be submitted via hard copy or electronically) Based on the information contained in the MPS, a determination will be made by technical personnel whether the waste can be managed on-site or whether additional information is needed to complete the evaluation.

Additional information, if requested would be based on either; the results of a previous analysis of the waste stream or; a representative sample of the waste stream. If a sample is requested and submitted, CHF's on-site laboratory will perform waste analysis using the appropriate test methods as described in Section 4 of this plan.

An updated MPS and any additional information deemed necessary will be requested from a waste generator when:

1. it is believed that the process or operation generating the hazardous waste has changed; or

2. the results of the waste analysis conducted by CHF on an incoming waste stream indicate that the waste is not appropriately characterized on the accompanying hazardous waste manifest.

3.0 Processing of Waste Shipments

3.1 Processing of Containers

Upon arrival at CHF, a shipment of containers undergoes a preliminary evaluation to verify that the markings on the containers match the shipment as described on the accompanying manifest. Any discrepancies noted on the manifest will be resolved with the generator and/or transporter. Additionally, the condition of each container is inspected. Containers of questionable integrity are overpacked before subsequent receiving is continued. Should the containers be too large to overpack (such as a tote) the contents will be transferred to another container(s).

After the preliminary evaluation, containers of waste are segregated into groups based on compatibility and other operating parameters and material verification is conducted. A representative sample will be obtained using the sampling methods specified in Section 5.3. A representative sample is a smaller quantity of waste than the whole container with the same characteristics of the whole contents.

3.2 Lab Pack and Paint Can Procedures

CHF also receives lab pack wastes and small cans of wastes (such as paint cans). The primary use of these wastes is for fuels. However should the waste not meet fuels specifications it will be shipped to an off-site permitted TSDF. This waste is shipped to CHF in small containers (ampoules to 5 gallon) inside larger containers. These wastes may be consolidated from the small containers into larger containers (typically 55 gallon drums). After the waste has been emptied into the larger container it is then sampled and analyzed.

The quality control procedure for a lab pack begins when the materials are packaged for shipment. Clean Harbors chemists who provide the packaging service are trained to follow the guidelines for lab packs. Each container is examined and the label verified prior to packaging. A packing list is prepared identifying the contents of every container packaged in the lab pack. CHF requires a packing list to be provided for each lab pack before the lab pack is received.

For the lab packs not packaged by Clean Harbors' or approved personnel, 10% of the lab packs are opened and the contents compared to the packing list to identify any discrepancies in quantity or identity. Should the contents in the container not match the description of same on the packing list, the discrepancy will be resolved with the generator or the lab pack could be rejected.

For small cans of waste, a packing list is not required. CHF will sample a portion of these containers to verify the contents. These waste streams are very consistent waste streams, so each container will not need sampling. The sampling procedures for sampling paint cans are given in Section 5.3.3.

3.3 Processing of Tank Trucks and Roll-offs

Documentation of the waste sample is initiated after a tanker is sampled. An internal process form is used to document this for all wastes received. An example of this form is presented in Figure 2.2. The sampling procedures for sampling these large bulk shipments are given in Section 5.3.2.

3.4 Special Wastes

With the exception of lab pack quantities, the generator must submit a completed MPS form to CHF and/or CPG prior to shipment to CHF for the following types of Special Wastes:

1. Single-substance spill contaminated material (e.g., absorbent, debris);

2. Off-specification or outdated commercial chemical products;

3. Contaminated commercial products;

4. Wastes which present special hazardous to the health and safety of employees if sampled (e.g., biomedical; infectious; asbestos waste);

5. Intact manufactured articles (e.g., thermometers), which contain a hazardous waste;

6. Containers of hardened solids or highly viscous wastes which cannot be sampled;

7. RCRA-empty (per 40 CFR 261.7) containers, drums, bags, liners, etc.; and

8. Aerosol cans or other compressed gases which are in good condition and which have an original label, or a label, which accurately reflects the generator's knowledge and/or testing of the contents of the container. All shipments of aerosol cans must be accompanied by a packing list, which accurately describes the contents of the shipment.

9. Universal Waste Pharmaceutical – also exempt from opening, sampling and analysis.

Upon arrival at the facility, each container shipment of special wastes shall be counted and inspected for proper labeling and marking to verify the container piece count and the waste identification information (e.g., EPA waste codes, written description) on the accompanying manifest and Land Disposal Restriction documentation.

With the exception of certain types of wastes which should not or cannot be opened, all containers shall be placed in a designated staging area where they are opened and visually inspected for color, physical state, (solid, semisolid, liquid) and free liquids to confirm that the waste shipped matches the general physical description of the waste approved during the prequalification process. The visual inspection shall be documented. Containers which may present a significant health risk if opened (e.g., biomedical; infectious; asbestos waste), or which may result in a "release" if opened (e.g., compressed gas cylinders) or containers that cannot be opened (e.g., mercury regulators) will remain closed at all times while on-site. Based upon a review of the manifest, MPS data, visual inspection, and/or other generator-supplied information, CHF shall confirm that the waste is authorized for storage and handling at CHF, and, if no discrepancies are noted, may accept the load. If any waste material is deemed unacceptable, CHF will reject the waste back to the generator or an alternate TSDF.

Electronic Waste (E Waste) and other materials shipped into CHF as RCRA regulated that can be managed as universal waste or recycled (ex: propane cylinders) will be managed as RCRA exempt and any applicable code will be dropped.

4.0 Waste Verification Methods, and Rationale

4.1 Waste Verification

Verification of materials is accomplished using fingerprinting procedures. These procedures are:

- Visual inspection
- Water miscibility
- pH screen
- Ignitability screen
- Cyanide reactivity screen
- Sulfide reactivity screen
- Oxidizer presence screen
- Radioactivity screen

The following table presents a list of parameters and test the facility may use as supplemental analyses:

Parameter*	Wastes for Which Test is Applicable
Major Organic Components	As necessary#
Moisture Content	Solvents as necessary#
TCLP Constituents	As necessary#
PCB's	Solvents and Fuels
Heating Value (BTU)	Fuels**
Compatibility	As necessary
Specific Gravity	Fuels and Solvents as necessary

*Should CHF not have the capability to perform the analysis or if CHF feels it necessary to confirm analysis, a contract lab may be used.

**Some chemicals have known and documented BTU values and when these chemicals are received the BTU analysis may not conducted.

#As necessary for Major Organic Components means that this analysis will be conducted when more details are needed on the major organic constituents of a waste stream; for Moisture Content, it means that this analysis will be conducted when more details are needed concerning the moisture content of a waste stream; for TCLP Constituents means that this analysis will be conducted when required to determine if characteristic waste codes should be assigned to a particular waste stream.

NOTE: Fingerprinting will be conducted where the sample is collected.

Used oil as defined by 40 CFR Part 279 will be analyzed for halogens using a screening test kit. If there is more than 1000 ppm of halogens, the generator will be contacted to rebut the presumption that this is now hazardous waste.

4.2 Methods and Rationale

4.2.1 pH

Fingerprinting pH is determined using pH paper. Should a more accurate pH be needed, the pH of a waste will be determined using Method 9040 from SW-846. This method uses a pH meter, which is calibrated using a series of standard solutions of known pH. Portable pH meters may also be used.

The rationale for measuring pH is to determine if the waste matches the MPS.

4.2.2 Major Organic Components

Major organic components are determined using gas chromatography according to procedures similar to those described in SW-846, Method 8000. The retention time of the waste's constituents are measured and compared to the retention time of a mixed standard.

The rationale for determining the major organic components is to verify MPS description and to determine how the waste will be processed.

4.2.3 Moisture Content

The Moisture content of a waste is measured as percent water using the standard method ASTM E203-75 basis.

The rationale for determining the water content is to verify if the waste matches the MPS description and to determine how the waste will be processed.

4.2.4 TCLP Constituents

When a TCLP analysis of a waste is measured, EPA method 1311 will be used.

The rationale for determining the TCLP constituents is to verify the characterization of waste as hazardous or non-hazardous; to verify if the waste matches the MPS description; and to determine how the waste will be processed.

4.2.5 PCB's

Analysis for PCB content will be conducted using the SW-846 method 8082 basis.

The rationale for determining the PCB content of a waste stream is to verify that it contains less than 50 ppm. If the waste contains 50 ppm or more it will be managed according to the requirements of the facility's permit issued under the Toxics Substances and Control Act (TSCA) by EPA.

4.2.6 Heating Value (BTU)

The analysis to determine the BTU value of each hazardous waste is conducted using the ASTM D-240 basis.

The rationale for determining the BTU content of each hazardous waste is to verify that the waste matches the MPS description and to determine how the waste will be processed.

4.2.7 Compatibility

Waste compatibility will be determined prior to mixing any waste.

The analysis will be conducted by drawing a representative sample from each waste stream to be composited. One waste sample will be slowly added to another. During the course of addition, the evolution of gas, temperature of the reaction, and viscosity of the mixture will be monitored. Two wastes streams will be determined incompatible if:

- a substantial temperature change occurs that cannot be controlled by the process equipment; or
- when combined in a storage or treatment tank, the evolution of gas would be too violent to be contained by the tank; or
- would result in a release that could threaten human health and the environment.

4.2.8 Specific Gravity

The Specific Gravity of liquid waste is determined using standard method ASTM D 5057.

The rationale for determining specific gravity is to determine if the material can be processed as intended.

4.2.9 Flash Point

The non-RCRA liquids that are screened for flash point will be screened using the standard method ASTM D 3828.

The rationale for screening flash point is to ensure that waste materials received at the facility are properly classified, and match the MPS.

5.0 Quality Assurance/Quality Control (QA/QC) Program And Sampling

5.1 QA/QC Program

The General Manager or designee will have responsibility for implementation, evaluation, and documentation of the QA/QC program. The goals of this program are to:

- ensure that representative sampling is being done,
- ensure the integrity of laboratory equipment,
- ensure that the proper analytical parameters are being evaluated,
- ensure the analytical methods are being properly followed,
- ensure that all data generated are scientifically valid, defensible and accurate, and
- ensure that the protocol described in the Waste Analysis Plan is being carried out and that the plan accurately reflects the waste analysis procedures conducted by CHF.

5.2 Waste Movements

The results of the waste analyses are input into a computer database. The information is reviewed by the appropriate personnel to designate how and where the waste is to be processed. The designated operations personnel then obtain the information, including the instructions, to direct the methods and locations for storage of or processing the specific waste.

5.3 Sampling

Personnel who have been properly trained to use the sampling equipment will sample all wastes. The training of the personnel involved in sampling will be evaluated and updated annually.

5.3.1 Small Container Sampling

1. Select, at a minimum, 10% of the containers from each waste shipment to be sampled.
2. Select a proper, clean sampling device. A sampling device may be a coliwasa, drum thief, sampling rod, etc.

3. After sampling a container, empty the volume of the sampling device into a sample container.

4. Use a clean sampling device to obtain a representative core sample of all solids in a drum.

5. Once the phases, appearance, and solids have been measured and recorded, the samples within a waste shipment can be composited into a single sample container. The lab and/or sampling personnel will create the composite.

6. No more than 20 drums can be composited.

7. If a container for compositing has more than one phase, then the composite sample must be taken using representative volumes of each phase.

8. If a shipment for compositing is single phased, an equal portion of each drum can be added directly to the composite sample.

9. All samples are to be labeled with the following information: bar code drum number.

10. All samples are delivered to the lab unless the analysis is simple (such as pH) and is conducted where the sample is taken.

11. The appropriate personnel will review all samples. If there is a problem, the appropriate personnel may request that the drums be re-sampled and/or re-composited.

5.3.2 Larger Container Sampling

1. Select a proper, clean sampling device. A sampling device may be a coliwasa, sampling rod, etc.

2. Take a sample from the container and empty into a sample jar. Make sure the sample is taken from the full depth of the material being sampled. Wipe any excess from the sampling device. (**NOTE:** these wipes, if disposable must be disposed as a hazardous waste).

3. If more than one compartment exists then sample each compartment following steps 1 and 2.

4. All samples are brought to the lab.

5. If a liquid load has more than one phase, then the sample must be taken using representative

volumes of each phase.

5.3.3 Sampling of Paint Can Consolidation Drums

1. Select proper, clean sampling device. A sampling device may be similar to a coliwasa, drum thief, sampling rod, etc.

2. Select 100% of the consolidated paint waste containers to extract a sample.

3. After sampling a container, empty the volume of the sampling device into a sample container. Use a clean sampling device to obtain a representative core sample of any solids in the container. The samples will be composited from no more than 20 drums for analysis. These composite samples will be from an equal portion of each drum. The samples may be composited by lab and/or sampling personnel.

4. All samples are to be labeled with the following information: bar code drum number.

5. The lab personnel will review all samples. If there is a problem, the lab may request that the paint cans be re-sampled and re-composited or analyzed individually.

LIST OF FIGURES

Figure 2.1 is a MPS

CleanHarbors

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH480725

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION #	*MAD999999999*	GENERATOR NAME:	*E Commerce Test Account 1*				
GENERATOR CODE (Assigned by Clean Harbors)	*ECOMT1*	CITY	*Braintree*	STATE/PROVINCE	*MA*	ZIP/POSTAL CODE	*02184*
ADDRESS *1501 Washington Street*				PHONE: *(803) 691-3525*			
CUSTOMER CODE (Assigned by Clean Harbors)	*ECOMT1*	CUSTOMER NAME:	*E Commerce Test Account 1*				
ADDRESS *1501 Washington Street*		CITY	*Braintree*	STATE/PROVINCE	*MA*	ZIP/POSTAL CODE	*02184*

B. WASTE DESCRIPTION

WASTE DESCRIPTION:

PROCESS GENERATING WASTE:

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ?

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
  - % FREE LIQUID
  - % SETTLED SOLID
  - % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 2 3

% BY VOLUME (Approx.)		
	TOP	*0.00*
	MIDDLE	*0.00*
	BOTTOM	*0.00*

VISCOSITY (If liquid present)
- 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

ODOR
- NONE
- MILD
- STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- > 200 (>93)

TOTAL ORGANIC CARBON
- <= 1%
- 1-9%
- >= 10%

FLASH POINT °F (°C)	pH	SPECIFIC GRAVITY	ASH		BTU/LB (MJ/kg)
< 73 (<23)	<= 2	< 0.8 (e.g. Gasoline)	< 0.1	> 20	< 2,000 (<4.6)
73 - 100 (23-38)	2.1 - 6.9	0.8-1.0 (e.g. Ethanol)	0.1 - 1.0	Unknown	2,000-5,000 (4.6-11.6)
101 - 140 (38-60)	7 (Neutral)	1.0 (e.g. Water)	1.1 - 5.0		5,000-10,000 (11.6-23.2)
141 - 200 (60-93)	7.1 - 12.4	1.0-1.2 (e.g. Antifreeze)	5.1 - 20.0		> 10,000 (>23.2)
> 200 (>93)	>= 12.5	> 1.2 (e.g. Methylene Chloride)			Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	-	MAX	UOM

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")?	YES	NO
If yes, describe, including dimensions:		
DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM?	YES	NO
DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL?	YES	NO
I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:		
The waste was never exposed to potentially infectious material.	YES	NO
Chemical disinfection or some other form of sterilization has been applied to the waste.	YES	NO
I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS	YES	NO
I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED.	YES	NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE.

CleanHarbors Clean Harbors Profile No. CH480725

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				
D005	BARIUM	100.0				
D006	CADMIUM	1.0				
D007	CHROMIUM	5.0				
D008	LEAD	5.0				
D009	MERCURY	0.2				
D010	SELENIUM	1.0				
D011	SILVER	5.0				

RCRA	VOLATILE COMPOUNDS	REGULATORY LEVEL (mg/l)
D018	BENZENE	0.5
D019	CARBON TETRACHLORIDE	0.5
D021	CHLOROBENZENE	100.0
D022	CHLOROFORM	6.0
D028	1,2-DICHLOROETHANE	0.5
D029	1,1-DICHLOROETHYLENE	0.7
D035	METHYL ETHYL KETONE	200.0
D039	TETRACHLOROETHYLENE	0.7
D040	TRICHLOROETHYLENE	0.5
D043	VINYL CHLORIDE	0.2
	SEMI-VOLATILE COMPOUNDS	
D023	o-CRESOL	200.0
D024	m-CRESOL	200.0
D025	p-CRESOL	200.0
D026	CRESOL (TOTAL)	200.0
D027	1,4-DICHLOROBENZENE	7.5
D030	2,4-DINITROTOLUENE	0.13
D032	HEXACHLOROBENZENE	0.13
D033	HEXACHLOROBUTADIENE	0.5
D034	HEXACHLOROETHANE	3.0
D036	NITROBENZENE	2.0
D037	PENTACHLOROPHENOL	100.0
D038	PYRIDINE	5.0
D041	2,4,5-TRICHLOROPHENOL	400.0
D042	2,4,6-TRICHLOROPHENOL	2.0
	PESTICIDES AND HERBICIDES	
D012	ENDRIN	0.02
D013	LINDANE	0.4
D014	METHOXYCHLOR	10.0
D015	TOXAPHENE	0.5
D016	2,4-D	10.0
D017	2,4,5-TP (SILVEX)	1.0
D020	CHLORDANE	0.03
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			
CHLORINE			
FLUORINE			
IODINE			
SULFUR			
POTASSIUM			
SODIUM			
AMMONIA			
CYANIDE AMENABLE			
CYANIDE REACTIVE			
CYANIDE TOTAL			
SULFIDE REACTIVE			

HOCs

NONE
< 1000 PPM
>= 1000 PPM

PCBs

NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCE	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	NONE OF THE ABOVE

CleanHarbors Clean Harbors Profile No. CH480725

F. REGULATORY STATUS

YES NO USEPA HAZARDOUS WASTE?

YES NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY:
VARIANCE INFO:

YES NO IS THIS A UNIVERSAL WASTE?

YES NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

CONTAINERIZED	BULK LIQUID	BULK SOLID
0-0 CONTAINERS/SHIPMENT STORAGE CAPACITY: CONTAINER TYPE: CUBIC YARD BOX PALLET TOTE TANK DRUM OTHER: DRUM SIZE:	GALLONS/SHIPMENT: ***0 Min -0 Max*** GAL.	SHIPMENT UOM: TON YARD TONS/YARDS/SHIPMENT: ***0 Min - 0 Max***

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE NAME (PRINT) TITLE DATE

FIGURE 2.2 – Waste-Receiving Report

CleanHarbors® Waste Receiving Report

SAMPLE

Plant Received Date:	4/5/2011 1:27 PM	Generator:	Products LLC 806
Work Order #:	2201	Customer:	Products LLC 806
Receiving Facility:	Bartow, FL Facility (BW)	Manifest:	[redacted] Cnt: 2
Equipment:	455117-8	Genrtr EPA ID:	[redacted]00[redacted]8[redacted]2 State EPA ID: D0060

Line Item	DOT Name / TDG	Cont. No Type	Total Quantity	Unit Wgt/vol	Pre Code	Scnd Wst	Profile Number	Pre-Note	Expected H Code
1	RQ, UN3175, WASTE SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (CYCLOHEXANONE, PETROLEUM NAPHTA), 4.1, PG II (D001)	2 DM	530	P	FB5		RD-012		H141

Profile Consituents (Ordered by Max %)	Min	Max						
GLOVES/RAGS/SCREENS/PLASTIC	50.0	50.0	GLOVES/RAGS/SCREENS/PLASTIC	50.0	50.0	Naphtalene	9.0	9.0
BUTANONE	9.0	9.0		7.0	7.0	DIPROPYLENE GLYCOL MONOMET	6.0	6.0
			Carbon black	3.0	3.0	GRAPHITE NATURAL	3.0	3.0
Isophorone	3.0	3.0	4-HYDROXY-4-METHYL-PENTAN-2-	3.0	3.0	ISOPROPYLACETATE	2.0	2.0
AMORPHUS SILICA	1.0	1.0	1-METHOXY-2-PROPANOL	1.0	1.0	ETHANOL	1.0	1.0
Cyclohexanone	1.0	1.0	POLYPROPYLENE GLYCOL	1.0	1.0			

Safety, Handling, or Special Instructions: **PPE Waste Safety Data Sheet: T-1 Level C**

Surcharges

Total Weight

Waste Codes: D001

Billing Requirements:

Container Y/N	Weight Y/N
	Y

Special Instructions:

Drum No.	Final Code	Cont. Size	Cont. Type	H20 Mix (+/-)	PH (Value)	Ign (+/-)	CN (+/-)	Sulfide (+/-)	PCB Value	Rad (+/-)	Oxid (+/-)	CC Insp	CHL (+/-)	Weight	Weight UOM	Comments
23537855		55DM	DM											276	LBS	
23537856		55DM	DM											276	LBS	

SAMPLE

APPENDIX II-I

MANIFEST SYSTEM, RECORDS AND NOTICES

1.0 In-Processing of Manifest

Upon delivery of incoming shipments of wastes they will be inspected for piece count and/or volume as required. Any discrepancies will be noted in Section 18 of the manifest. If a significant discrepancy exists between the delivered load and the waste described on the manifest, facility personnel will attempt to reconcile the discrepancy. Significant discrepancies are:

- bulk wastes variations greater than 10% in weight or volume,
- variations in container count, and
- mislabeling discrepancies between the manifest and container.

If the discrepancy cannot be resolved within 15 days of receipt with the generator or waste hauler, CHF will notify in writing the Florida Department of Environmental Protection (FDEP) of the unresolved discrepancy. This notification will include a description of the discrepancy, an explanation of the attempt to reconcile the discrepancy, and a copy of the manifest.

If wastes are rejected they will be returned to the generator, or transported to an alternate disposal facility as directed by the generator.

If the manifest is accurate and all discrepancies, if any, are resolved, facility personnel will:

1. Sign and date all manifests presented.
2. Immediately give a copy to the transporter.
3. Send one copy to the generator within 30 days of acceptance of the waste.
4. Place a copy in the facility filing system. These copies will be retained for 3 years.
5. Enter the appropriate information from the manifest into the operating record.

2.0 Unmanifested Waste Reports

If CHF accepts hazardous wastes which are not shipped on a hazardous waste manifest (i.e.

hazardous waste shipped to CHF on a non-hazardous manifest), an unmanifested waste report will be filed with FDEP within 15 days of receiving the wastes.

The report will include:

- CHF's name, address and EPA ID number,
- the date the waste was received,
- the name, address, and EPA ID number of the generator and transporter (if available),
- a description of the waste received and quantity,
- the method of treatment or storage for each hazardous waste,
- certification signed by the Facility Manager (or his authorized representative), and
- a brief explanation as to why the waste was unmanifested (to the extent known).

3.0 Additional Reports

Biennial Report (as required in Part 264.75)

Incident Report (as required in Part 264.56(i))

Facility Closure (as required in Part 264.115)

4.0 Operating Record

CHF's operating record describes all wastes accepted at the facility, the location of these wastes during storage, and the date which the wastes entered the production process.

The operating record will contain the following information:

- A description, by common name and EPA Hazardous Waste Number(s) from Part 261 which apply, of the waste received. The waste description will also include the waste's physical form (e.g., liquid, sludge, solid, or containerized gas). If the waste is not listed in Part 261, Subpart D, the description will also include the process that produced it.
- The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Appendix I, Table 1 of 40 CFR Part 264.

- The method(s) (by handling code(s) as specified in Appendix I, Table 2, of 40 CFR Part 264) and date(s) of treatment, storage, and disposal.
- Records and results of waste analyses performed as specified in 40 CFR Parts 264.13, 264.17 and 268.7.
- Summary reports and details of all incidents that require implementing the contingency plan as specified in Part 264.56(d).
- Records and results of inspections as required by Part 264.15(d).
- Monitoring, testing or analytical data, and corrective action where required by Subpart F as appropriate.
- Notices to generators as specified in Part 264.12(b).
- All closure cost estimates under Part 264.142.
- A certification which is updated annually, that CHF has a program in place to reduce the volume and toxicity of hazardous waste that it generates to the degree determined by CHF to be economically practicable, and that the proposed method of treatment, storage, or disposal is that practicable method currently available to CHF which minimizes the present and future threat to human health and the environment.
- Copies of the notices or certifications required by the land disposal restrictions in Part 268.7.

5.0 Manifests for Outgoing Shipments of Hazardous Waste

For hazardous wastes generated or processed on site and subsequently shipped off-site, CHF will complete hazardous waste manifests in accordance with the requirements of 40 CFR Part 262. Wastes shipped off-site may include hazardous waste fuels, filtered waste solids, storage-only wastes, self generated wastes, and wastes produced from closure activities.

6.0 Retention of Records

All plans and records pertaining to the operation of the CHF facility will be retained on-site, and will be made readily available for representatives of the FDEP upon request. The operating record and waste analysis records will be retained for the life of the facility when required. All manifests will be retained for three years from the date it is signed. All records of training completed by personnel will be maintained during their employment and for three years after termination. Land disposal notifications will be retained for a minimum of three years (or more as required by statute or regulations) from the date wastes are received by or shipped from CHF.

Upon closure, no hazardous wastes will remain on-site, therefore the requirements in 40 CFR 264.74(c) are not applicable.

7.0 Required Notices

7.1 International Shipments

In the event that CHF will receive hazardous waste from a foreign country the Director of the Florida Department of Environmental Protection (Tallahassee and Tampa offices) will be notified of the intent to receive such waste four weeks prior to receiving the waste into the facility. In the event that hazardous waste will be shipped off-site to a foreign country, permission will be obtained from the foreign country and the Directors office will be notified in advance of the shipment.

7.2 Generator Notices

Prior to or upon receiving waste, CHF will inform each generator that the facility is permitted to receive the waste stream.

7.3 Ownership Transfers

Prior to transfer of ownership, CHF will, in writing, notify the prospective owner of the requirements of 40 CFR, Parts 264 and 270.

SECTION B

CONTAINERS AND CONTAINMENT STRUCTURES FOR THE STORAGE OF HAZARDOUS WASTE

1.0 South Container Storage Building

1.1 Design of Aisle Space, Capacity, and Containment Volume

The South Container Storage Building consists of a graded 6-inch thick reinforced concrete slab with a dike beginning flush with the highest point of the slab and extending around the perimeter of the building, maintaining the same elevation as the highest point of the slab. The reinforced concrete foundation is enclosed with a structural steel super structure and a metal roof. The 6-inch reinforced concrete slab provides an effective impermeable base due to the rapid removal of any standing liquids. At the time of construction, the floor was sealed with a concrete curing agent and sealer making it impervious. All joints in the building have stainless steel troughs to direct any leakage to the building center trench for collection and removal. The building is not totally enclosed, but has the south, east and west sides closed, and the north side fully open. This configuration reduces the amount of rainfall which can blow into the building. In addition to providing shelter from the rain, these sides add structural support. The roof is equipped with several vents and skylights. The open air nature of this storage area is deemed to be the safest design in that it provides:

1. Shelter from the sun, which could otherwise cause problems with confined flammable liquids.
2. Shelter from rain, which could otherwise cause deterioration of the drums.
3. Will not allow a potentially explosive vapor buildup in the building in the case of a spill.
4. Allows access to control fires.

The South Container Storage Building will typically be used to store 55-gallon containers. Other types of containers stored are totes, cubic yard boxes, 5-gallon containers, 30-gallon containers, etc. The containers will be stored on pallets 42" X 42" or 48" X 48" with typically 4 drums placed on each pallet, and stacked two pallets high. The drums, with a 2' diameter, will extend over the sides of the pallets in some cases.
(**NOTE:** smaller containers such as 5-gallon pails may be stored more than two containers high but the total height of these containers will typically not exceed the height of two pallets of 85 gallon drums).

The pallets used for this operation are designed to hold the weight of 8 drums. The maximum weight that could be supported is 9,500 lbs. The pallets constructed for this purpose are typically manufactured from oak or plywood. Figure 11.1 illustrates the typical arrangement of pallets in the building. However, any alternate arrangement which may be used will not allow more than the maximum of 106,920 gallons in the storage building. Thirty-inch spacing will be provided as aisle space between each row of pallets. Eighteen (18) rows will be the maximum number of rows south of the collection trench and these 18 rows will have no more than 26 pallets (13 double Stacked) per row. Therefore, each row on Figure 11.1 represents a maximum of 104 55-gallon drums stored. There will be one row of nine pallets north of the collection trench located immediately behind the fuels blending area wall.

The building has the capacity to hold the volume equivalent of 1944 55-gallon drums (i.e. 106,920 gallons). CHF will store wastes in portions of the building which are protected by a low expansion foam fire protection system. All storage will conform to NFPA-30 requirements. Wastes to be stored in the South Container Storage Building are compatible with each other and will be at least 50 feet from the fence which is the facility boundary.

The South Container Storage Building is designed with a secondary containment volume of 16,852 gallons (10% of 106,920 gallons of storage requires 10,692 gallons of containment capacity). The building has an approximate slope of 1/8" per foot to allow for the drainage of any spills or rainwater. Since most of the liquids handled have viscosities very similar to water, and are not highly viscous wastes, the 1/8" per foot slope is considered to be adequate. This results in a 7 1/4" drop across the building. In addition, the drums will be resting on pallets, so they will not rest in standing liquids even if a removal system were not in place. The system for removal of standing liquids is the sloped floor provided by the concrete slab base. The calculation of design containment is very conservative because the pallets will allow liquids to collect within the volume they occupy. The volumes calculated were determined by the open area on the building floor, the allowable height of accumulated liquids prior to contacting the drums (5" at the drum locations), the containment volume of drainage ditch and slope of the floor. The containment volume calculations are as follows:

> At 1/8" per foot slope, liquid (at a depth of 5") will accumulate at a distance of 40' on each side of the centerline containment trench.
>
> The volume of this triangle shaped containment on each side of the trench is:
>
> $$\tfrac{1}{2}bhl = \tfrac{1}{2}(40')(.4167')(125') = 1041 \text{ ft}^3$$
>
> where: b = base
> h = height
> l = length

volume of the centerline trench is 171 ft^3 (20.125" deep on the east end, 4.5" deep on the west end, (for an average depth of 12.3125"), 16" wide and 125' long).

Total containment volume = $2(1041\ ft^3) + 171\ ft^3$
= $2253\ ft^3$
= 16,852 gal (@ 7.48 gal/ft^3)

1.2 Containment System Run-on

The containment system (building concrete pad) is constructed 6 inches above the surrounding grade. Therefore, run-on into the building is precluded. Some rainwater, however, could be trapped in the drainage system because of rain blowing it. This amount would be minimal, and as seen by the containment volume calculations, which is a very conservative figure, any rain blown into the building would be easily contained in addition to the 10% of the total volume of wastes.

Also the capacity allows for the volume occupied by the 8" concrete wall in back of, and on the west end of the fuels blending area. The wall is .67' wide; 102' in length (62' on back, 40' on west end); and 5" deep for a total volume of 28 ft^3 (213 gallons). It also leaves plenty of secondary containment volume for the fuels blending tanks (largest is 780 gallons of working volume).

Design Containment Volume	16,852 gallons
Volume occupied by fuel blend wall	213 gallons
Volume of fuels blending tank	780 gallons
10% of drums capacity*	10,692 gallons
Additional available containment	5,167 gallons

* This number will actually be less because solids which contain no liquids will also be stored in this building.

Spilled or leaked waste and accumulated precipitation will be removed within 24 hours of discovery (unless additional time is needed for identification, and/or additional equipment is needed) to assure that the collection trench will not overflow. Since the system is designed to drain the liquids away from the drums it is not critical that the liquids be removed immediately. Figure 11.1 depicts the drainage pattern in the building. Should waste accumulate in the trench, it will be collected in containers and managed in accordance with regulatory requirements. Water collected in the drainage ditch will be removed from the collection trench, analyzed and the analysis will define the handling procedures. If determined to be acceptable for discharge, it will be discharged to the P.O.T.W.

Access to remove the liquids can be accomplished without entering the building with any mechanical equipment since the drain extends outside of the building.

2.0 North Container Storage Building

2.1 Design of Aisle Space, Capacity, and Containment Volume

The North Container Storage Building consists of a graded reinforced concrete slab 8" thick. The floor is divided into 17 separate cells which allow segregated storage of incompatible wastes. The reinforced concrete foundation is enclosed with a structural steel super structure and a metal roof. The concrete floor is sealed with a concrete sealer and curing agent which makes it impervious. All joints in the containment cells have been sealed and are equipped with water stops to prevent migration from the containment area to the environment. The building is totally enclosed, except for the loading dock areas which are open. This configuration reduces the amount of rainfall which can blow into the building. In addition to providing shelter from the rain, these sides add structural support. The roof is also equipped with vents. The nature of this storage area is deemed to be the safest design because it provides:

1. Shelter from the sun, which could otherwise cause problems with confined flammable liquids.

2. Shelter from rain, which could otherwise cause deterioration of the drums.

3. Will not allow a potentially explosive vapor buildup in the building in the case of a spill.

4. Allows access to control fires.

The North Container Storage Building is typically used to store 55-gallon containers. Examples of other types of containers stored are totes, cubic yard boxes, 5-gallon containers, 30-gallon containers, etc. The containers will be stored on pallets 42" X 42" or 48" X 48" with typically 4 drums placed on each pallet, and stacked two pallets high. The drums, with a 2' diameter, will extend over the sides of the pallets in some cases. (**NOTE:** smaller containers such as 5-gallon pails may be stored more than two containers high but the total height of these containers will not exceed the height of two pallets of 85 gallon drums).

The pallets used for this operation are designed to hold the weight of 8 drums. The maximum weight that could be supported is 9,500 lbs. The pallets constructed for this purpose are typically manufactured from oak or plywood. Figure 11.2 illustrates the typical arrangement of pallets in the building. However, any alternate arrangement which may be used will not allow more than the maximum of 136,400 gallons in the storage building. Thirty-inch spacing will be provided as aisle space between each row of pallets.

The building has the capacity to hold the volume equivalent of 2480 55-gallon drums (i.e. 136,400 gallons). The building will be protected by a foam fire protection system. All storage will conform to NFPA-30 requirements. All flammable waste in the North Container Storage Building will be at least 50 feet from the fence which is the facility boundary.

Each cell in the North Container Storage Building is designed to contain greater than 10% of its total storage volume contained therein. The containment calculations of each cell are included in Figure 11.3. The system for removal of standing liquids is the sloped floor provided by the concrete slab base so that the liquids will drain to one side of each cell. Any contained liquid will then be removed using absorbent, a portable pump, etc. Should waste accumulate in the cells, it will be collected in containers and managed in accordance with regulatory requirements and will be handled and disposed as determined by analysis.

Pallets are placed in aisle for two purposes; while in the process of actively loading and unloading trucks, and to gain access to pallets stored behind the first pallet of a row.

2.2 Containment System Run-on

The containment system (building concrete pad) is constructed at least 3 feet above the surrounding grade. Therefore, run-on into the building is precluded. Some rainwater may, blow into the building from extreme weather events but this will be minimal and be on the dock area only.

3.0 CONTAINER MANAGEMENT PRACTICES

All containers will be kept closed during storage and opened only when material is being sampled, added or removed from the containers. Drums will be stored on wooden pallets, each measuring 42" X 42" or the typical 48" square and holding 4 drums. Each pallet will be moved using a forklift which meets the OSHA requirements of 29 CFR 1910.178. Other containers, such as totes which have legs may not be stored on pallets. In addition, the forklift may be equipped with a detachable device which will enable the driver to handle drums without pallets. Hand carts for moving drums will also be available. All containers used by CHF for the storage of hazardous wastes will meet appropriate D.O.T. performance standards.

A maximum of four hazardous waste roll-off containers are stored at the facility. They will be stored within the curbed driveway area which will provide secondary containment. The roll-offs will generally contain solids so the need for secondary containment will be minimal. The tops of the containers will be kept closed, unless it is necessary to add or remove waste. CHF uses two types of roll-offs, open top roll-offs and "sludge boxes". Liquids are not placed in open top roll-offs, however on occasion rain or absorbed liquids may accumulate in the bottom.

4.0 Waste Segregation and Classification System

4.1 Container Storage

CHF will use a waste classification system for containerized waste that will preclude incompatible reactions due to the commingling of incompatible hazardous wastes. Incompatible materials will be kept separate. In the North Container Storage Building there are 17 segregation cells. Wastes are segregated in one of these cells according to compatibility. These compatibility classes are based on the Department of Transportation (DOT) segregation rules (49 CFR Part 177.848) which apply to the commingling of wastes during transportation.

The container management practices outlined in this chapter as well as Appendices II-F.3, F.4 and F.5, provides for the safe management of containers. Employees who handle these containers receive extensive training on proper container management practices.

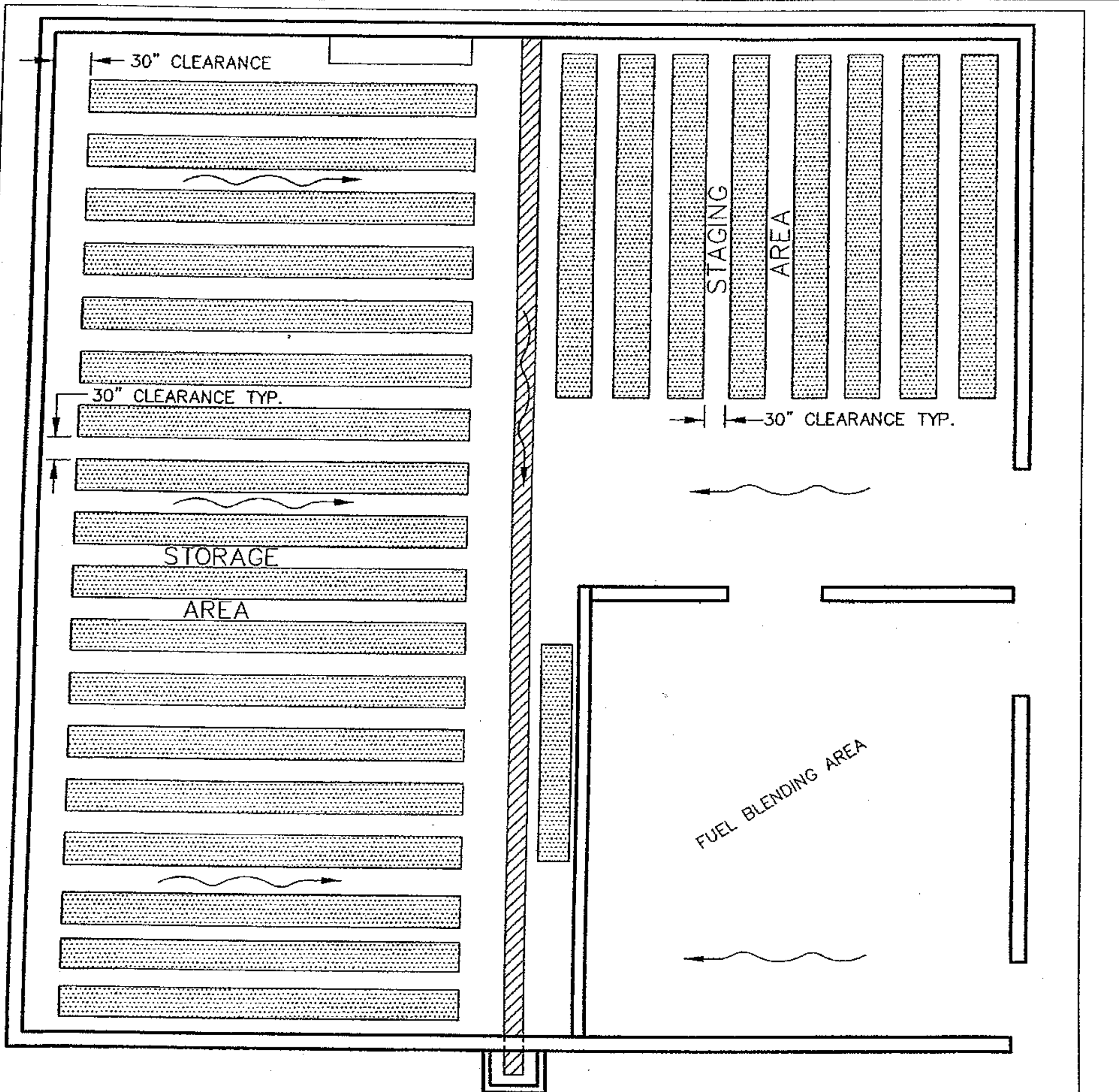
CHF has a procedure in place to minimize the possibility of mixing incompatibles. The procedure is based on the DOT shipping restrictions specified in 49 CFR 177.848. The Segregation Table for Hazardous Materials denotes which class of material may be transported together and any special precautions which must be observed. The items which cannot be transported together are denoted by an "X". CHF does not store those materials which are classified by an "X" in the same cell.

Storage compatibility decisions will be made based upon the primary hazard class of the material.

The South Container Storage Building does not contain segregation cells; therefore all wastes within this building are compatible.

Universal waste (including UPW Pharmaceutical) maybe stored in any permitted area as long as it is compatible with other wastes in that storage cell.

LIST OF FIGURES



NOTES:

1. CONTAINERS AND PALLETS MAY BE STAGED IN THE STAGING AREA TEMPORARILY FOR CHARACTERIZATION AND LABELING BEFORE STORAGE.

2. ANY ARRANGEMENT OF PALLETS WILL NOT ALLOW MORE THAN THE MAXIMUM OF 106,920 GALLONS IN THE CONTAINER STORAGE BUILDING.

N

Not to Scale

LEGEND

PALLET ROW

FLUID COLLECTION TRENCH

SLOPE OF BUILDING FLOOR

NOTES:

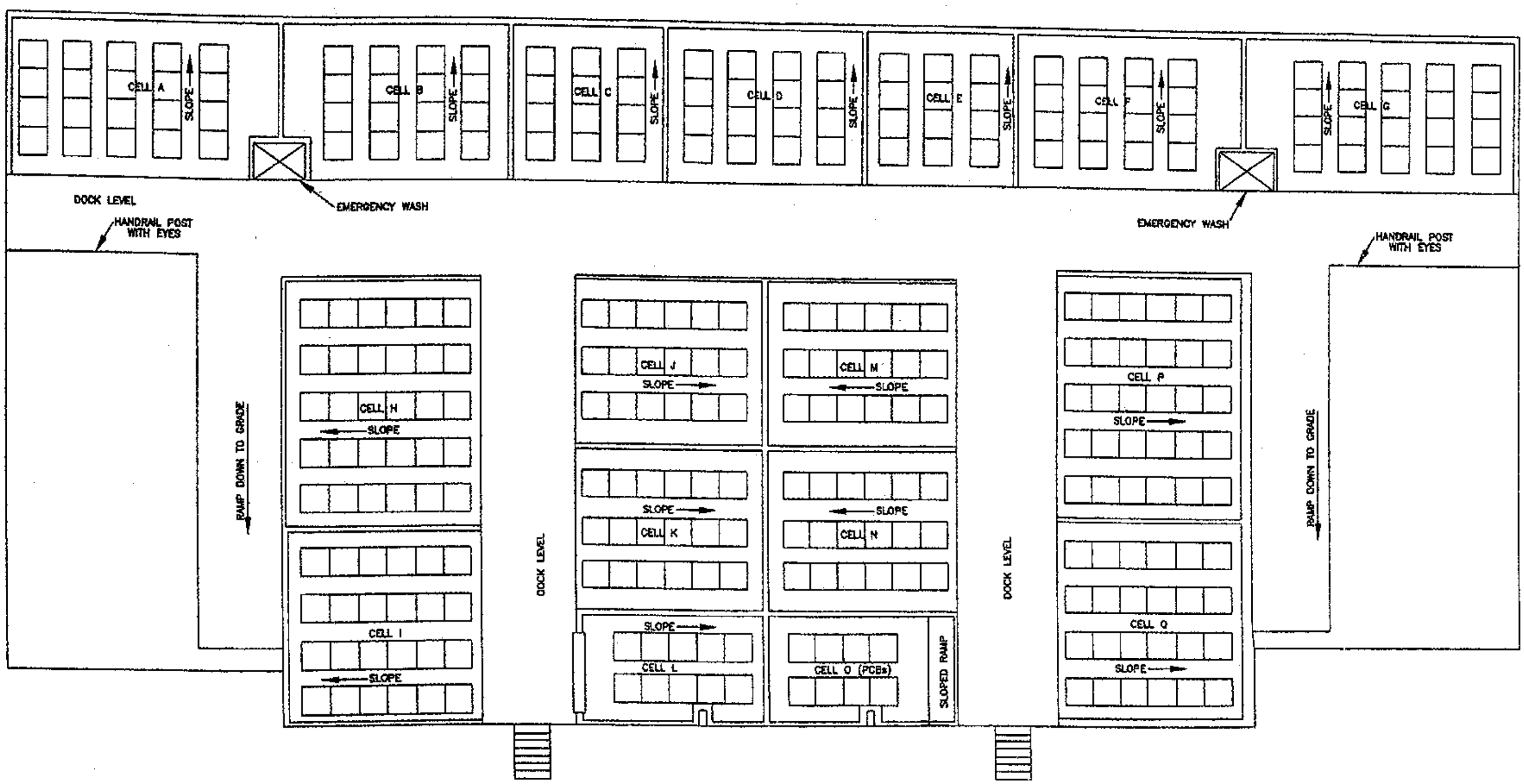
REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/31/08	

CleanHarbors

BARTOW

TITLE: CLEAN HARBORS BARTOW, INC. BARTOW FACILITY TYPICAL PALLET ARRANGEMENT AND DRAINAGE PATTERNS IN SOUTH CONTAINER STORAGE BLDG.

DRAWN	CHECKED	SCALE	DATE	DRAWING NO.	REV.
JKM	MJG	NTS	01/31/08	FIGURE 11.1	A



GENERAL NOTES

REFERENCE DRAWINGS

REV.	DESCRIPTION	DRAWN BY	DATE	APPD. BY
A	FOR APPROVAL	JKM	01/31/06	MJC

CleanHarbors
BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM	MJC	NTS	01/31/06

TITLE Figure 11.2

CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
FLOORPLAN & TYPICAL ARRANGEMENT IN
NORTH CONTAINER STORAGE BUILDING LAYOUT

DRAWING NO. Figure 11.2 REV. A

Figure 11.3 SECONDARY CONTAINMENT CALCULATIONS

NORTH CONTAINER STORAGE BUILDING

Storage capacity = 136,400 gallons (2480 55-gallon drum equivalent)

****

NOTE: the cross-sectional areas of these containment cells are triangles. Therefore the volume of each cell (except Cell Q) is calculated using the cross-sectional area of each triangular shaped cell multiplied by it's length. The formula is:

Area = (0.5 X Base X height) = 0.5bh
Volume = Area X Length = 0.5 bhl cubic feet
gallons = cubic feet X 7.48

****

CELL A:
Containment Volume:
b=19.25'
h=0.469'
l=39.43'
Volume = 0.5 X 19.25' X 0.457' X 39.43' = 178.0 ft^3
Volume occupied by support columns:
1.33' X 1.33' X 0.469' = 0.83 ft^3
1.33' X 0.25' X 0.69' = 0.16 ft^3
Volume occupied by emergency shower area:
5.0' X 4.5' X 0.05' = 1.13 ft^3
Available containment volume is:
178.0 ft^3 - 0.83 ft^3 - 0.16 ft^3 - 1.13 ft^3 = 175.9 ft^3
175.9 ft^3 X 7.48 gallons/ft^3 = **1315.6 gallons**
40 pallets (20 double stacked)
4 drums per pallet x 40 pallets = 160 drums
160 drums x 55 gal/drum = 8,800 gallons
1,315 gallons > 10% of 8,800 gallons
1,315 gallons > 880 gallons
Containment OK

CELL B:

Containment Volume:
b=19.25'
h=0.5'
l=32.3'
Volume = 0.5 X 19.25' X 0.5' X 32.3' = 155.4 ft^3
Volume occupied by support columns:
1.25' X 1.33' X 0.5' = 0.83 ft^3
1.33' X 2.0' X 0.5' = 1.33 ft^3
Volume occupied by emergency shower area:
5.0' X 4.5' X 0.05' = 0.96 ft^3
Available containment volume is:
155.4 ft^3 - 0.83 ft^3 - 1.33 ft^3 - 0.96 ft^3 = 152.3 ft^3
152.3 ft^3 X 7.48 gallons/ft^3 = **1139.4 gallons**
32 pallets (16 double stacked)
4 drums per pallet x 32 pallets = 128 drums
128 drums x 55 gal/drum = 7,040 gallons
1139 gallons > 10 % of 7,040 gallons
1139 gallons > 704 gallons
Containment OK

CELL C:

Containment Volume:
b=19.25'
h=0.479'
l=22.31'
Volume = 0.5 X 19.25' X 0.5' X 22.31' = 102.9 ft^3
Volume occupied by support column:
1.33' X 2.0' X 0.5' = 1.33 ft^3
Available containment volume is:
102.9 ft^3 - 1.33 ft^3 = 101.5 ft^3
101.5 ft^3 X 7.48 gallons/ft^3 = **759.4 gallons**
24 pallets (12 double stacked)
4 drums per pallet x 24 pallets = 96 drums
96 drums x 55 gallons/drum = 5,280 gallons
759.4 gallons > 10 % of 5,280 gallons
759.4 gallons > 528 gallons
Containment OK

CELL D:

Containment Volume:
b=19.25'

h=0.484'
l=28.47'
Volume = 0.5 X 19.25' X 0.484' X 28.47' = 132.6 ft^3
Volume occupied by support columns:
1.33' X 2.0' X 0.5' = 1.33 ft^3
1.33' X 2.0' X 0.5' = 1.33 ft^3
Available containment volume is:
132.6 ft^3 - 1.33 ft^3 - 1.33 ft^3 = 130.0 ft^3
130.0 ft^3 X 7.48 gallons/ft^3 = **972.2 gallons**
32 pallets (16 double stacked)
4 drums per pallet x 32 pallets = 128 drums
128 drums x 55 gallons/drum = 7,040 gallons
972.2 gallons > 10 % of 7,040 gallons
972.2 gallons > 704 gallons
Containment OK

CELL E:
Containment Volume:
b=19.27'
h=0.464'
l=22.04'
Volume = 0.5 X 19.27' X 0.464' X 22.04' = 98.5 ft^3
Volume occupied by support columns:
1.33' X 2.0' X 0.5' = 1.33 ft^3
Available containment volume is:
98.5 ft^3 - 1.33 ft^3 = 97.2 ft^3
97.2 ft^3 X 7.48 gallons/ft^3 = **727.1 gallons**
24 pallets (12 double stacked)
4 drums per pallet x 24 pallets = 96 drums
96 drums x 55 gallons/drum = 5,280 gallons
727.1 gallons > 10 % of 5,280 gallons
727.1 gallons > 528 gallons
Containment OK

CELL F:
Containment Volume:
b=19.25'
h=0.443'
l=32.27'
Volume = 0.5 X 19.25' X 0.443' X 32.27' = 137.6 ft^3
Volume occupied by support columns:
1.33' X 2.0' X 0.443' = 1.18 ft^3

1.33' X 1.33' X 0.443' = 0.78 ft^3
Volume occupied by emergency shower area:
4.75' X 4.75' X 0.08' = 1.81 ft^3
Available containment volume is:
137.6 ft^3 - 1.18 ft^3 - 0.78 ft^3 - 1.81 ft^3 = 133.8 ft^3
133.8 ft^3 X 7.48 gallons/ft^3 = **1001.0 gallons**
32 pallets (16 double stacked)
4 drums per pallet x 32 pallets = 128 drums
128 drums x 55 gal/drum = 7,040 gallons
1001.0 gallons > 10 % of 7,040 gallons
1001.0 gallons > 704 gallons
Containment OK

CELL G:
Containment Volume:
b=19.33'
h=0.443'
l=39.49'
Volume = 0.5 X 19.33' X 0.443' X 39.49' = 169.1 ft^3
Volume occupied by support columns:
1.33' X 0.21' X 0.443' = 0.12 ft^3
1.33' X 1.33' X 0.443' = 0.78 ft^3
Volume occupied by emergency shower area:
4.5' X 4.75' X 0.08' = 1.71 ft^3
Available containment volume is:
169.1 ft^3 - 0.12 ft^3 - 0.78 ft^3 - 1.71 ft^3 = 166.5 ft^3
166.5 ft^3 X 7.48 gallons/ft^3 = **1245.1 gallons**
40 pallets (20 double stacked)
4 drums per pallet x 40 pallets = 160 drums
160 drums x 55 gal/drum = 8,800 gallons
1245.1 gallons > 10% of 8,800 gallons
1245.1 gallons > 880 gallons
Containment OK

CELL H:
Containment Volume:
b=27.43'
h=0.490'
l=35.08'
Volume = 0.5 X 27.43' X 0.490' X 35.08' = 235.7.0 ft^3
Volume occupied by support columns:
1.33' X 2.0' X 0.490' = 1.30 ft^3

$1.33' \times 2.0' \times 0.490' = 1.30\ ft^3$
$1.43' \times 1.5' \times 0.490' = 1.05\ ft^3$

Available containment volume is:

$235.7\ ft^3 - 1.30\ ft^3 - 1.30\ ft^3 - 1.05\ ft^3 = 232.1\ ft^3$
$232.1\ ft^3 \times 7.48\ gallons/ft^3 =$ **<u>1736.0 gallons</u>**

60 pallets (30 double stacked)
4 drums per pallet x 60 pallets = 240 drums
240 drums x 55 gallons = 13,200 gallons
1,736.0 gallons > 10 % of 13,200 gallons
1,736.0 gallons > 1,320 gallons
Containment OK

<u>CELL I:</u>

Containment Volume:
b=27.43'
h=0.495'
l=28.43'
Volume = $0.5 \times 27.43' \times 0.495' \times 28.43' = 193.0\ ft^3$
Volume occupied by support columns:

$1.33' \times 2.0' \times 0.495' = 1.32\ ft^3$
$1.33' \times 1.33' \times 0.495' = 0.88\ ft^3$
$1.33' \times 2.0' \times 0.25' = 0.67\ ft^3$

Available containment volume is:

$193.0\ ft^3 - 1.32\ ft^3 - 0.88\ ft^3 - 0.67\ ft^3 = 190.2\ ft^3$
$190.2\ ft^3 \times 7.48\ gallons/ft^3 =$ **<u>1422.3 gallons</u>**

48 pallets (24 double stacked)
4 drums per pallet x 48 pallets = 192 drums
192 drums x 55 gallons/drum = 10,560 gallons
1422.3 gallons > 10 % of 10,560 gallons
1422.3 gallons > 1,056 gallons
Containment OK

<u>CELL J:</u>

Containment Volume:
b=27.83'
h=0.468'
l=23.52'
Volume = $0.5 \times 27.83' \times 0.468' \times 23.52' = 153.2\ ft^3$

$153.2\ ft^3 \times 7.48\ gallons/ft^3 =$ **<u>1145.7 gallons</u>**

36 pallets (18 double stacked)
4 drums per pallet x 36 pallets = 144 drums
144 drums x 55 gallons/drum = 7,920 gallons

1145.7 gallons > 10% of 7,920 gallons
1145.7 gallons > 792 gallons
Containment OK

CELL K:
Containment Volume:
b=27.91'
h=0.495'
l=23.54'
Volume = 0.5 X 27.91' X 0.495' X 23.54' = 162.6 ft^3
162.6 ft^3 X 7.48 gallons/ft^3 = **1216.3 gallons**
36 pallets (18 double stacked)
4 drums per pallet x 36 pallets = 144 drums
144 drums x 55 gallons/drum = 7,920 gallons
1216.3 gallons > 10% of 7,920 gallons
1216.3 gallons > 792 gallons
Containment OK

CELL L:
Containment Volume:
b=27.21'
h=0.531'
l=15.69'
Volume = 0.5 X 27.21' X 0.531' X 15.69' = 113.3 ft^3
Volume occupied by support column:
2.0' X 4.0' X 0.5' = 4.0 ft^3
Available containment volume is:
113.3 ft^3 - 4.0 ft^3 = 109.3 ft^3
109.3 ft^3 X 7.48 gallons/ft^3 = **817.9 gallons**
20 pallets (10 double stacked)
4 drums per pallet x 20 pallets = 80 drums
80 drums x 55 gallons/drum = 4,400 gallons
817.9 gallons > 10 % 4,400 gallons
817.9 gallons > 440 gallons
Containment OK

CELL M:
Containment Volume:
b=27.75'
h=0.495'
l=23.54'
Volume = 0.5 X 27.75' X 0.495' X 23.54' = 161.7 ft^3

161.7 ft^3 X 7.48 gallons/ft^3 = **<u>1209.3 gallons</u>**
36 pallets (18 double stacked)
4 drums per pallet x 36 pallets = 144 drums
144 drums x 55 gallons/drum = 7,920 gallons
1209.3 gallons > 10% of 7,920 gallons
1209.3 gallons > 792 gallons
Containment OK

<u>CELL N:</u>
Containment Volume:
b=27.75'
h=0.5'
l=23.54'
Volume = 0.5 X 27.75' X 0.5' X 23.54' = 163.3 ft^3
163.3 ft^3 X 7.48 gallons/ft^3 = **<u>1221.5 gallons</u>**
36 pallets (18 double stacked)
4 drums per pallet x 36 pallets = 144 drums
144 drums x 55 gallons/drum = 7,920 gallons
1221.5 gallons > 10% of 7,920 gallons
1221.5 gallons > 792 gallons
Containment OK

<u>CELL O:</u>

[**<u>NOTE:</u>** Cell O is not shaped the same as the others because it was designed to meet the requirements of the TSCA regulations (which exceed the requirements of the RCRA requirements). Instead of the cross sectional area being a triangle it is a rectangle. There is also an access ramp at the front of the cell which occupies a small amount of volume.]

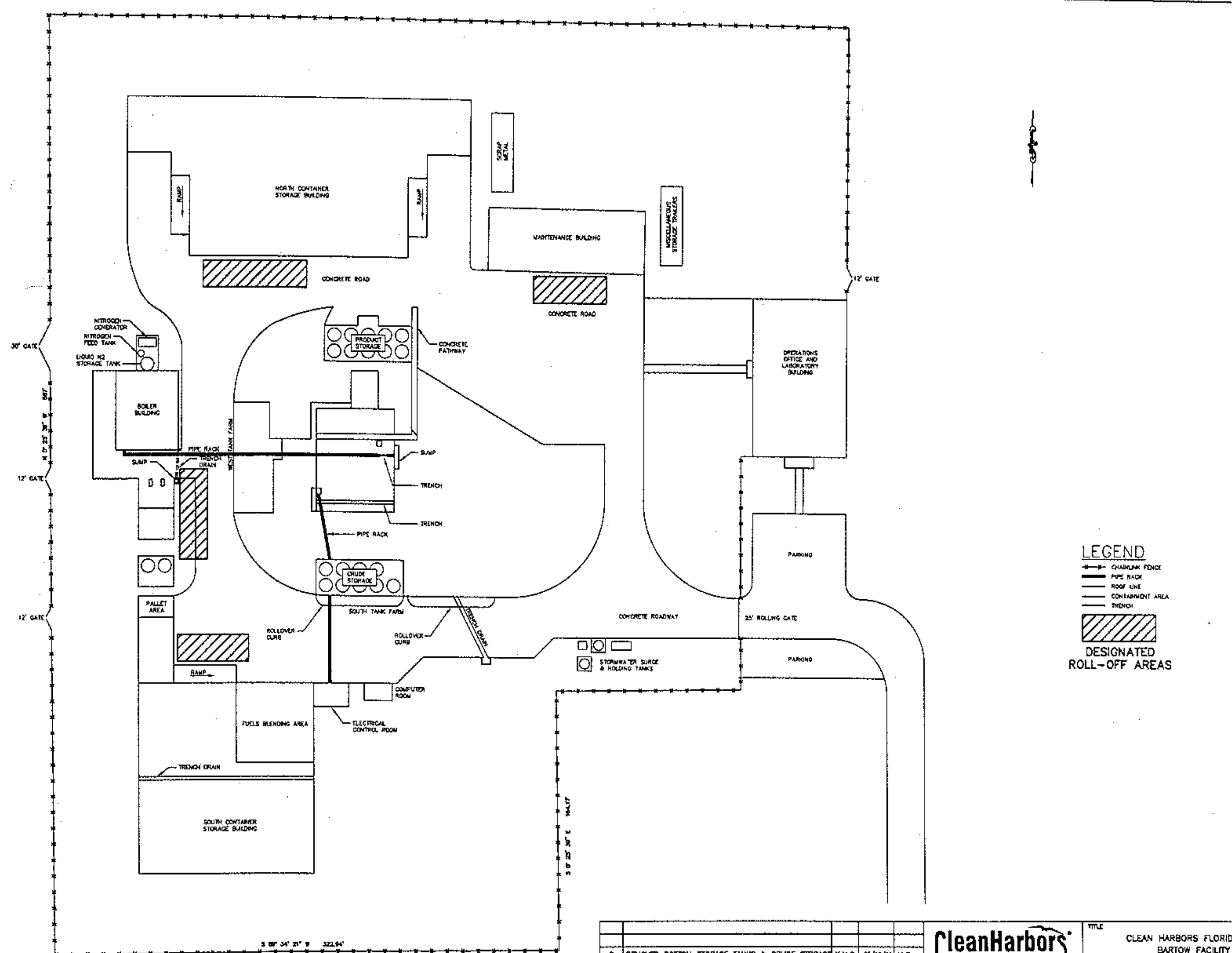
Containment Volume:
Volume = length X width X depth
l=27.21'
w=15.89'
d=0.526
Volume = 27.21' X 15.79' X 0.526' = 227.4 ft^3
Volume occupied by ramp:
0.5 X 4' X 0.526' X 15.89' = 16.72 ft^3
Volume occupied by support column:
1.33' X 2.0' X 0.5' = 1.33 ft^3
Available containment volume is:
227.4 ft^3 - 16.72 ft^3 - 1.33 ft^3 = 209.35 ft^3
209.35 ft^3 X 7.48 gallons/ft^3 = **<u>1565.9 gallons</u>**

16 pallets (8 double stacked)
4 drums per pallet x 16 pallets = 64 drums
64 drums x 55 gallons/drum = 3,520 gallons
1565.9 gallons > 10 % 3,520 gallons
1565.9 gallons > 352 gallons
Containment OK

<u>CELL P:</u>
Containment Volume:
b=27.43'
h=0.531'
l=35.05'
Volume = 0.5 X 27.43' X 0.531' X 35.05' = 255.3 ft^3
Volume occupied by support columns:
1.47' X 1.33' X 0.531' = 1.04 ft^3
1.33' X 2.0' X 0.531' = 1.41 ft^3
1.33' X 2.0' X 0.531' = 1.41 ft^3
Available containment volume is:
255.3 ft^3 - 1.04 ft^3 - 1.41 ft^3 - 1.41 ft^3 = 251.4 ft^3
251.4 ft^3 X 7.48 gallons/ft^3 = <u>**1880.4 gallons**</u>
60 pallets (30 double stacked)
4 drums per pallet x 60 pallets = 240 drums
240 drums x 55 gallons = 13,200 gallons
1880.4 gallons > 10 % of 13,200 gallons
1880.4 gallons > 1,320 gallons
Containment OK

<u>CELL Q:</u>
Containment Volume:
b=27.43'
h=0.521'
l=28.45'
Volume = 0.5 X 27.43' X 0.521' X 28.43' = 203.3 ft^3
Volume occupied by support columns:
1.33' X 2.0' X 0.521' = 1.39 ft^3
1.33' X 1.33' X 0.521' = 0.92 ft^3
1.33' X 2.0' X 0.521' = 1.39 ft^3
Available containment volume is:
203.3 ft^3 - 1.39 ft^3 - 0.92 ft^3 - 1.39 ft^3 = 199.6 ft^3
199.6 ft^3 X 7.48 gallons/ft^3 = <u>**1493.0 gallons**</u>
48 pallets (24 double stacked)
4 drums per pallet x 48 pallets = 192 drums

192 drums x 55 gallons/drum = 10,560 gallons
1493.0 gallons > 10 % of 10,560 gallons
1493.0 gallons > 1,056 gallons
Containment OK



REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
C	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE TANK T-106	K.M.C.	05/10/11	M.C.
B	REMOVED TANKS, HCFC STILL AND PROCESS AREA	K.M.C.	02/04/11	M.C.
A	FOR APPROVAL	JKM	01/31/06	MJG

CleanHarbors

BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM	MJG	NTS	01/31/06

TITLE

Figure 18.5.3

CLEAN HARBORS FLORIDA, LLC
BARTOW FACILITY
DESIGNATED ROLL-OFF AREAS

DRAWING NO. FIGURE 18.5.3

REV. C

SECTION C

TANK SYSTEMS

1.0 Tank System Integrity

An engineering assessment of an existing tank system's integrity is only required for tank systems that do not have secondary containment meeting the requirements of 40 CFR 264.193. Tanks T-101 to T-110, R-202 and R-203 are existing tank systems and have secondary containment meeting the requirements of 40 CFR 264.193; hence the engineering assessment provisions of 40 CFR 264.191 are not applicable. Tanks T-101, T-102, T-103, T-104 and T-105 were replaced in kind during 2000 as part of our O&M, notification was submitted to DEP.

The engineering assessment of tanks T-112 and T-114 (installed in 1989) is included in Attachment 12.1 of this Section.

2.0 Tank System Specifications

Three groups of RCRA hazardous waste tanks are in use at the CHF facility. Hazardous waste tank storage is conducted in tanks T-101 to T-110 (referred to as the crude storage tanks) located in the south tank farm and R-202/R-203 (referred to as bottoms tanks) located in the west tank farm. Blending of hazardous waste fuels is conducted in tanks T-112 and T-114 (referred to as the fuel blending tanks) located in the northeast corner of the South Container Storage Building.

All tanks are designed to conform to Underwriters Laboratories (UL) specification UL-142, where applicable. With small tanks, the UL specifications are much more stringent with regard to shell thickness than the American Petroleum Institute (API) standards; therefore, the UL standards were adhered followed. The specific gravity of material placed in these tanks ranges from 0.6 - 1.7. The flash points of these same materials range from < 0 to > 200. Each hazardous waste storage tank in the south and west tank farms is equipped with emergency vents and a nitrogen blanketing system. Should the nitrogen blanket be taken out of service, flame arresters will be placed on each crude and bottoms tank. The required vent opening size for the hazardous waste tanks and the actual size of the vent opening are listed below:

VENTING REQUIREMENTS FOR TANKS CONTAINING FLAMMABLE LIQUIDS

Normal Vent Size = 2 inches
Wetted Area = 404
Required Venting Capacity = 314,000 ft^3/hr
Minimum Vent Size = 8 inches

SPECIFICATIONS FOR CHF TANKS

- Normal Vent Opening - 3 inches
  Emergency Vent Opening - 20 inches
  Relief-pressure setting on manhole 0.5 oz/in^2

- Venting Capacity - > 314,000 ft^3/hr.

Nothing will be placed in a tank system that would cause the system to rupture, leak, or fail. All wastes stored in these tanks are compatible and no waste will be stored in any manner that may cause it to ignite or react. Additionally, all waste handling operations will be conducted to prevent reactions which:

- Generate extreme heat or pressure, fire or explosions, or violent reactions;
- Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
- Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- Damage the structural integrity of the tank system or facility; and
- Through other like means threaten human health or the environment.

Typical construction and installation standards for the hazardous waste storage tanks and fuel blending tanks are shown in Figures 12.1 through 12.3. The tanks used by CHF are designed to meet appropriate UL specifications. The hazardous waste tanks are over designed with regard to shell thickness, with a minimum 10% over design present.

Corrosion and erosion of the tank walls are monitored by CHF. The tanks will be inspected annually using ultrasonic thickness measuring tools. The frequency and number of tests per tank are discussed in Chapter Two, Appendix F.6. If testing indicates shell thickness at or below minimum thickness identified for the tank it will be placed out of service. If necessary, repairs will then be conducted, or the tank will be replaced. The minimum wall thickness for each tank is given below:

	Minimum Thickness		
Tank I.D.	Wall	Head	Cone/Bottom
Crude	0.1801"	0.1339"	0.2175"
Bottoms	0.1900"	0.1900"	0.1900"
Fuels Blend	0.1337"	0.1462"	0.1551"

The WIN daily inventory will be the operating record of which waste category is stored in each tank.

2.1 Crude Storage Tanks

The crude storage tanks are 6,600-gallon, carbon steel, cone bottom tanks. The tanks are located in the south tank farm. The working volume of these tanks is 6,000 gallons with a liquid level of 21 feet from the cone bottom.

The typical dimensions, piping, and instrumentation of each crude storage tank are presented in Figure 12.1(a) and 12.1(b). The tanks are painted to provide external corrosion protection.

2.2 Bottoms Tanks

The bottoms tanks are two 7,000-gallon, carbon steel tanks. The bottoms tanks are located in the west tank farm. The working volume of these tanks is 6,300 gallons with a liquid level of 12 feet from the bottom.

The typical dimensions, piping, and instrumentation for each bottoms tank are presented in Figure 12.2.

These tanks typically contain waste blended in the fuels blend tanks or waste received from customers.

2.3 Fuel Blending Tanks

The fuel blending tanks are two 980-gallon carbon steel tanks. These fuel blending tanks are located in the northeastern portion of the South Container Storage Building. The working volume of these tanks is 780 gallons with minimum of 2 feet of freeboard.

The typical dimensions, piping, and instrumentation for each fuel blending tank are presented in

Figure 12.3. The tanks are located indoors, so external corrosion has not historically been significant.

While these tanks are used primarily for fuels blending, they are also used to bulk and blend non-fuel material. When non-fuel material is blended in these tanks, the contents are transferred to a crude storage tank or bottoms tank which contains other non-fuel material or to a tanker.

3.0 Transfer Operations

Four types of transfer operations involving RCRA-regulated materials to/from tanks can occur:

1) pumping to/from tankers;
2) pumping to/from containers;
3) pouring container contents into the fuel blending tanks; and
4) pumping between tanks.

3.1 Tanker Transfers

Wastes will be transferred from incoming tankers into the crude storage tanks and/or bottoms tanks through dip tubes. The tanker will be connected to the fill line, which enters the storage tank through the top, with a flexible hose. The tanker can be off-loaded using either a gear pump, a centrifugal pump, a portable air-operated diaphragm pump, or the truck's onboard pump. The pumping rate is usually 100 gpm. During pumping, an operator is in constant attendance to monitor the tank liquid level and shut the system down in the event of a spill.

A high level alarm is provided on each tank to warn the operator in time to prevent overfilling. The alarm on the crude storage tanks is activated when the tank is filled to 5,300 gallons. The alarm on the bottoms tanks is activated when the tank is filled to 6,300 gallons. This allows a 700 gallon safety margin, which gives the operator approximately 7 minutes to shut off the pump before the tank overfills. This is considered to be adequate to stop the pumping operation because the transfer operator in charge of the transfer operation is required to stay in the immediate vicinity. The shutdown of the pumping operation and closing of the valves will take only a few seconds as the procedures are accomplished within a few feet of each other.

A roll-over curb around the tanker pumping station (approximately 50' x 12') is provided to contain minor spills and leaks caused during connection and disconnection of hoses and operation of equipment. A drum of absorbent is kept at the pumping station during unloading to clean up any leaks as they occur. Spill residues will be placed in DOT-approved open head 55-gallon drums, closed, labeled, placed in the hazardous waste storage area, and transported off site to a permitted facility. If a spill larger than the containment volume of the curbed area occurs, it will be contained within the perimeter road.

After loading is complete, the hoses are disconnected and drained into a pan or pail. The pan or pail is then poured into a DOT-approved accumulation drum, which is then closed, labeled, and placed in a satellite accumulation or hazardous waste storage area.

During all transfers from tankers, a drip pan or pail will be used to contain any possible minor spillage from the coupling operation between the pump in the containment area and the tanker. There is a potential for spills in this operation. One way is from the coupling attached to the truck where the hose connects, and another is from moving the hose after completing the operation. To avoid possible contamination of the road surface, one of four actions will be taken;

1) a pail or pan will be moved under the transfer point (from hose to tankers);
2) drain the hose of enough liquid so is does not leak from the hose;
3) lifting the end of the hose attached to the tanker and walking it into the containment area; or
4) a cap will be placed on the ends of the hose.

If more than one compartment is unloaded at a time, measures will be taken so the potential leaks from each compartment are contained. Any dripping collected in a drip pail or pan will be managed as a hazardous waste.

3.2 Container Transfers

Unloading of containers to the crude or bottoms tanks will be accomplished via aboveground fixed pipes leading from one of the container unloading areas. When a sufficient amount of a waste has been accumulated for processing or when sufficient capacity in the storage tank farms warrants, containers containing a particular category of waste, will be staged and prepared for unloading. After the container bungs are opened with a spark-proof bung wrench, a spark-proof wand will be inserted into the container and the contents pumped to a specified crude or bottoms tank using an air-operated diaphragm pump. Upon completion, the hose and wand will be elevated to ensure that all material possible is pumped from the hose. Residues left in the containers will be processed into the blending tanks, or collected into a satellite container.

The fuel blending tanks are equipped with hatch openings in the tank roof. The contents of hazardous waste containers can be pumped into these tanks according to the procedures described above, or the contents may be physically poured into the top of the fuel blending tanks, using a forklift to elevate and tip the containers for dumping. The operator observes the level of the tanks and verifies sufficient available volume before adding additional waste.

3.3 Tank to Tank Transfers

The wastes in both the crude storage tanks and the bottoms tanks may need to be transferred to another tank. When a decision is made to transfer a tank's contents, the contents will be pumped using either a centrifugal pump, gear pump, or air diaphragm pump. All piping will be over containment areas. Therefore, should a leak from the piping occur, it will be contained.

4.0 Tank System Secondary Containment

4.1 Crude Storage Tanks

The crude storage tanks are located in the south tank farm. The tanks are resting on a 12-inch-thick reinforced concrete slab measuring 55.3' by 22.7'. The slab is surrounded by a 16-inch-high, 8-inch-thick reinforced concrete block wall. In accordance with 40 CFR 264.193(e), the size of the secondary containment was designed and constructed to provide sufficient volume to contain 100% of the capacity of the largest tank within the containment and precipitation from a 25-year, 24-hour rainfall event and prevent run-on or infiltration of precipitation. The tank farm is surrounded by concrete that extends no less than 18.9 feet to contain any lateral release of waste from a tank. Calculations of the secondary containment volume are contained in Attachment 12.2.

According to Table 4-3 of "Technical Resource Document for the Storage and Treatment of Hazardous Waste in Tank Systems" (US EPA, December 1986, EPA/530-SW-86-044), concrete is compatible with the materials that will be stored at the south tank farm. The concrete will prevent hazardous waste that has leaked from the tanks from entering into the environment.

4.2 Bottoms Tanks

The bottoms tanks are located in the west tank farm. The tanks are resting on a 12-inch thick reinforced concrete slab covering 1,831.27 ft^2 (see Figure 12.5 for dimensions). The slab is surrounded by a 20-inch high reinforced concrete berm. In accordance with 40 CFR 264.193(e), the size of the secondary containment was designed and constructed to contain 100% of the capacity of the largest tank within the containment and precipitation from a 25-year, 24-hour rainfall event, and prevent run-on or infiltration of precipitation. Calculations of the secondary containment volume are contained in Attachment 12.2.

According to Table 4-3 of "Technical Resource Document for the Storage and Treatment of Hazardous Waste in Tank Systems" (US EPA, December 1986, EPA/530-SW-86-044), concrete is compatible with the materials that will be stored at the west tank farm. The concrete will prevent hazardous waste that has leaked from the tanks from entering into the environment.

4.3 Fuel Blending Tanks

The fuel blending tanks are located in the northeast corner of the South Container Storage Building. The building consists of a graded six-inch thick reinforced concrete slab with a dike beginning flush with the highest point of the slab and extending around the perimeter of the building, maintaining the same elevation as the highest point of the slab. The reinforced concrete foundation is enclosed by a structural steel super structure and a metal roof. The six-inch reinforced concrete slab provides an effective impermeable base due to the rapid removal of any standing liquids. Section B provides more detail about the secondary containment of the South Container Storage Building. The fuel blending tanks will not be used to store hazardous waste; however, should a total failure of one of the fuel blending tanks occur during use, the building has sufficient secondary containment volume reserve to contain the hazardous waste. Calculations of the secondary containment volume of the South Container Storage Building are contained in Section B.

Figures 12.4 through 12.6 diagram the tank and secondary containment layouts.

5.0 Controls And Spill Prevention

Each hazardous waste tank farm and its ancillary equipment, including aboveground piping, flanges, fittings, coupling devices, pumps, and lines, is designed, installed, and operated to prevent any release of hazardous waste or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system. The containment system is capable of collecting releases of hazardous waste from each tank system.

All tank systems used to store ignitable hazardous waste are designed with a 50-foot buffer zone between the storage area and the facility property line. This exceeds the requirement for such tank systems as specified in Tables 2-1 and 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (i.e., NFPA 30). The minimum shell-to-shell spacing set forth in the code is 1/6 of the adjacent tank diameters, but not less than three feet. The facility design uses a minimum three-foot separation.

The operational procedures which are followed to prevent any release of hazardous waste into the environment are described below.

- Each containment area will be visually monitored by personnel working in the vicinity of the tanks.
- Each containment system will be inspected daily for signs of releases according to the inspection schedule identified in Appendix F.6.

- The operator performing the transfer of waste to a tank will ensure that adequate storage capacity is available in the tank by checking the current tank volume prior to adding waste to the tank.

- Accumulated liquids detected in any of the containment systems will be collected and removed within 24 hours or in as timely a manner as is necessary to prevent harm to human health and the environment. If it is determined that hazardous waste constituents are present in the accumulated liquids, the tank system will be thoroughly inspected to determine the source of the release, if resulting from a leak, the leaking portion of the system will be removed from service until it is replaced or repaired. The accumulated liquid will be pumped into either a container or a tank. If it is determined that the accumulated liquid is water, it will be analyzed and if appropriate, the liquid will be discharged to the sanitary sewer.

Each of the containment systems is equipped with a blind sump which is designed to drain and remove liquids resulting from leaks, spills, or precipitation.

In order to prevent spills and overflows from the tank a high level alarm is provided on each crude tank. Each bottoms tank and fuels blend tank is equipped with a high level alarm. The alarm is activated when the tank is filled to approximately 90% capacity. This allows a sufficient margin of safety for an operator to shut off the pump before the tank overfills.

A drum of absorbent is kept near all pumping stations during unloading to clean up any hazardous waste leaks should they occur. Spill residues will be placed in DOT-approved containers, closed, labeled, placed in the hazardous waste storage area, or satellite accumulation area as appropriate.

After transfer of a hazardous waste into a tank is complete, hoses will be disconnected and drained into a pail. The waste residues in the pail will be poured into a DOT-specification accumulation drum, which will then be closed, marked, and placed in hazardous waste storage, placed into a satellite accumulation container, or put into process promptly.

6.0 Response To Leaks Or Spills And Disposition Of Leaking, Unfit-For-Use Tank Systems

If ever a tank system is found leaking or unfit for use, it will be immediately removed from service and:

- The flow of hazardous waste to the system will immediately be stopped and the system will be inspected to determine the cause of the release;

- Not greater than 24 hours after the detection of the leak, all of the hazardous waste will be removed to prevent release of hazardous waste to the environment and to allow inspection and repair of the tank system;

- If a waste is released to the secondary containment system, all released materials will be removed within 24 hours or in as timely a manner as is necessary to prevent harm to human health or the environment.

If visible releases to the environment are identified, CHF will immediately conduct a visual inspection of the release, and based on the inspection:

- Prevent further migration of the leak or spill to soils or surface water; and

- Remove and properly dispose any visible contamination of the soil or surface water.

Any reportable release to the environment, except for releases less than or equal to one pound which are immediately contained and cleaned up, will be reported to the Florida Department of Environmental Protection (FDEP) within 24 hours of its detection. Within 30 days of detection of a release to the environment, a report containing the following information will be submitted to FDEP:

- Likely route of migration of the release;

- Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);

- Results of any monitoring or sampling conducted;

- Proximity to downgradient drinking water, surface water, populated areas; and

- Description of response actions taken or planned.

If the spill or release has not damaged the integrity of the tank and containment system, the system will be returned to service as soon as released waste is removed, and repairs, if necessary, are made. If the cause of the release was a leak from the primary tank system into the secondary containment system, the system will be repaired prior to returning the tank system to service.

All tank systems are protected by secondary containment. Therefore, 40 CFR 264.196(e)(4) does not apply.

In the case where a tank ruptures or a tank is damaged, the spilled waste will be transferred to an available storage tank.

If CHF has repaired a tank system and the repairs have been extensive (e.g., repairs of ruptured primary containment or secondary containment), the tank system will not be returned to service until CHF has obtained a certification by an independent, qualified, registered, professional engineer in accordance with 40 CFR 270.11(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification will be submitted to FDEP within seven days after returning the tank system to use.

7.0 Waste Segregation and Classification System

CHF will accept the following three categories of hazardous waste for on-site management in tanks:

1) fuels;
2) reclaimable solvents; and
3) storage only.

Prior to adding waste to a tank which previously held or holds a waste, the compatibility of the two wastes will be confirmed as described in the Waste Analysis Plan. Ignitable wastes will not be placed in a tank system unless the waste is stored or treated in such a way that it is protected from any material or condition that may cause the waste to ignite.

8.0 Special Management Procedures For Ignitable Wastes

Hazardous waste will be stored and treated in a manner that will protect the waste from any material or condition that may cause it to ignite or react. Additionally, all waste handling operations will be conducted to prevent reactions which:

- Generate extreme heat or pressure, fire or explosions, or violent reactions;
- Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
- Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- Damage the structural integrity of the tank system or facility; or
- Through other like means, threaten human health or the environment.

9.0 Air Emissions From Tanks

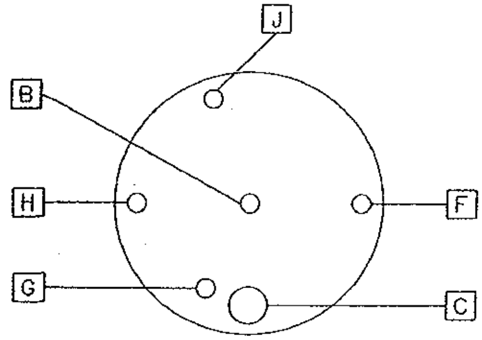
Section V details how CHF complies with 40 CFR 270.27 (40 CFR 264, Subpart CC).

The fuel blend tanks are not subject to the control device requirements of Subpart CC and they are equipped with fixed roofs. These fixed roofs have a hatch which is capable of being opened for the purpose of adding or removing waste, sampling, maintenance, etc. The hatch is equipped with a seal mechanism as required by Subpart CC. They are also equipped with a conservation vent.

The crude and bottoms tanks also are not subject to the control device requirements. They are also of a fixed roof design and are equipped with a common header system which is equipped with a common conservation vent. The hatches on these tanks are also kept closed except when opened for sampling, inspections, etc.

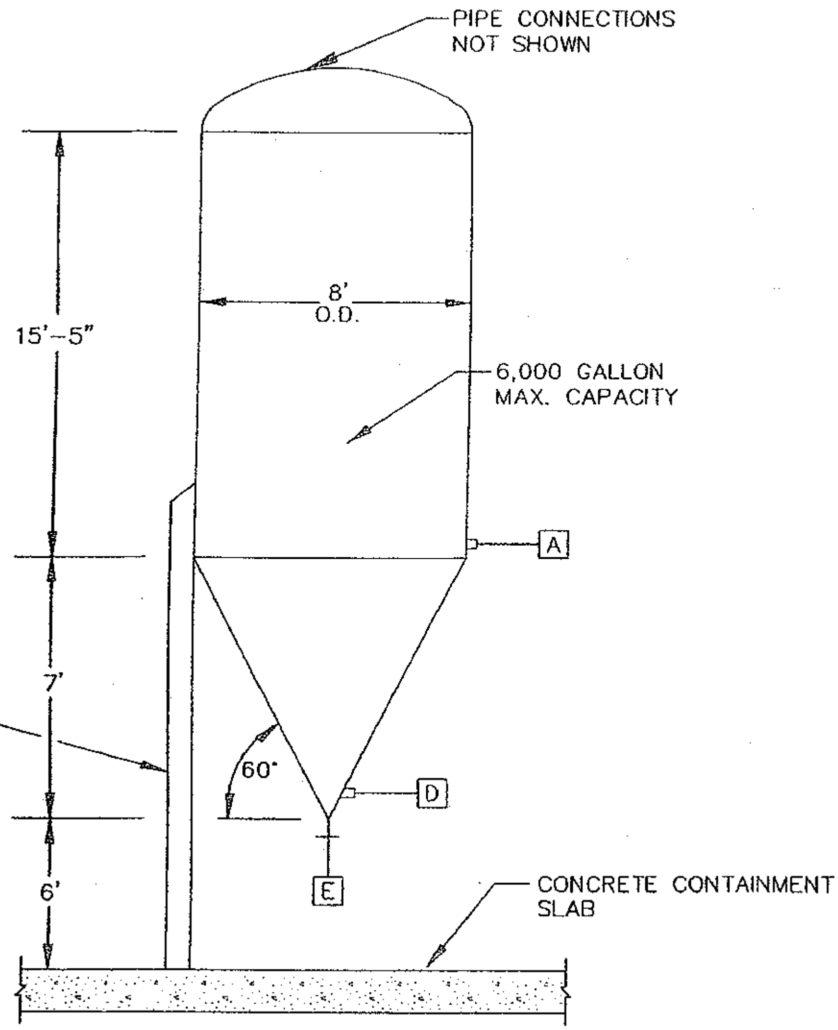
LIST OF FIGURES

LIST OF ATTACHMENTS



PLAN VIEW

MARK	DESCRIPTION	SIZE
A	SIDE DRAW-OFF	3"
B	VENT	3"
C	MANWAY/RELIEF	18"
D	CONE DRAW-OFF	2"
E	OUTLET	12"
F	FEED	4"
G	SAMPLE	3"
H	LEVEL	6"
J	LEVEL	1 ½"



ELEVATION
NOT TO SCALE

ES:

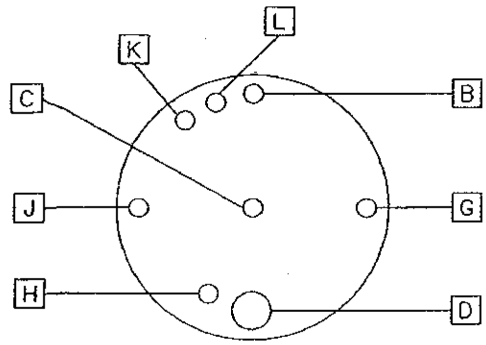
REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/31/06	

CleanHarbors
BARTOW

TITLE: CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
CRUDE STROAGE TANKS T-101 TO T-105
DIMENSIONS, PIPING & INSTRUMENTATION DETAILS

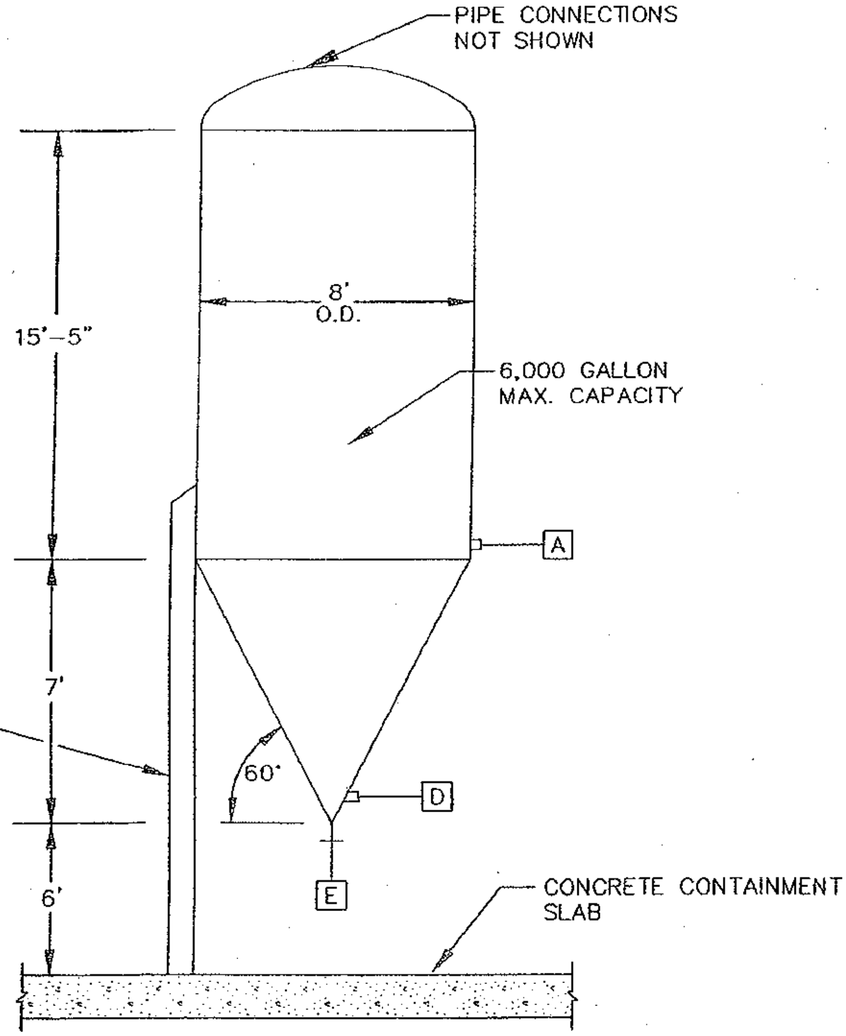
Figure 12.1a

DRAWN	CHECKED	SCALE	DATE	DRAWING NO.	REV.
JKM	MJC	NTS	01/31/06	FIGURE 12.1a	A



PLAN VIEW

MARK	DESCRIPTION	SIZE
A	SIDE DRAW-OFF	2"
B	SPARE	1 1/2"
C	VENT	3"
D	MANWAY/RELIEF	18"
E	CONE DRAW-OFF	2"
F	OUTLET	6"
G	FEED	4"
H	SAMPLE	4"
J	LEVEL	4"
K	SPARE	1 1/2"
L	LEVEL	1 1/2"



ELEVATION
NOT TO SCALE

NOTES:

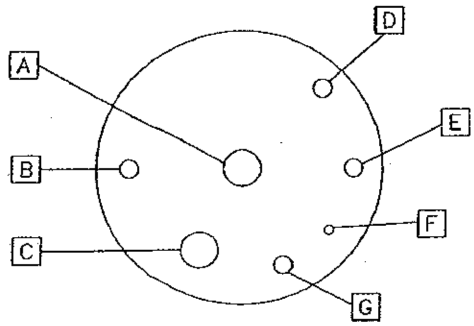
REV.	DESCRIPTION	DRAWN BY	DATE	APP'L BY
A	FOR APPROVAL	JKM	01/31/06	

CleanHarbors
BARTOW

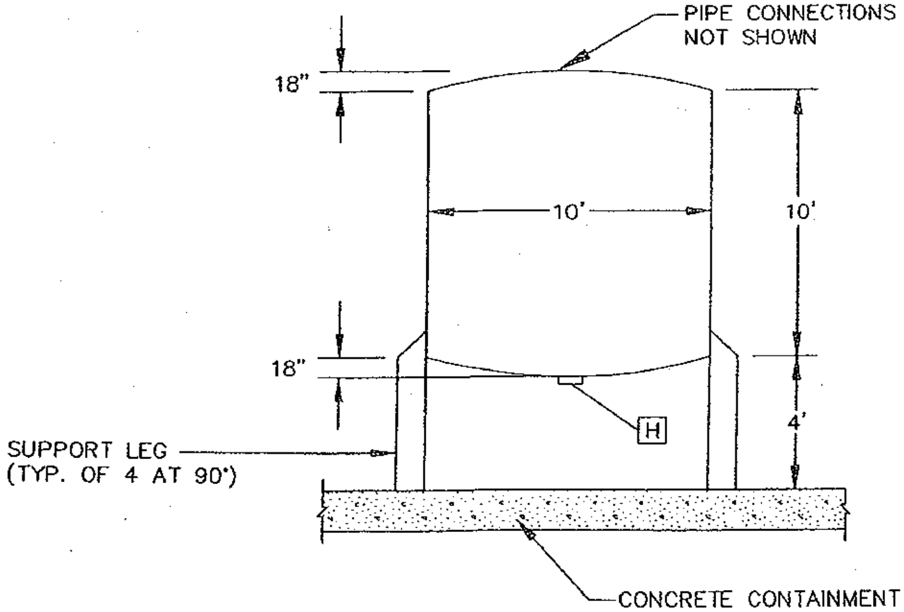
DRAWN	CHECKED	SCALE	DATE
JKM	MJG	NTS	01/31/06

TITLE Figure 12.1b
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
CRUDE STORAGE TANKS T-106 TO T-110
DIMENSIONS, PIPING & INSTRUMENTATION DETAILS

DRAWING NO. FIGURE 12.1b — REV. A



PLAN VIEW
NOT TO SCALE



ELEVATION
NOT TO SCALE

MARK	DESCRIPTION	SIZE
A	AGITATOR OPENING	20"
B	VALVE	3"
C	MANWAY	20"
D	VAPOR LINE	1"
E	PRESSURE RELIEF	3"
F	HIGH LEVEL ALARM	–
G	FEED	6"
H	OUTLET	6"

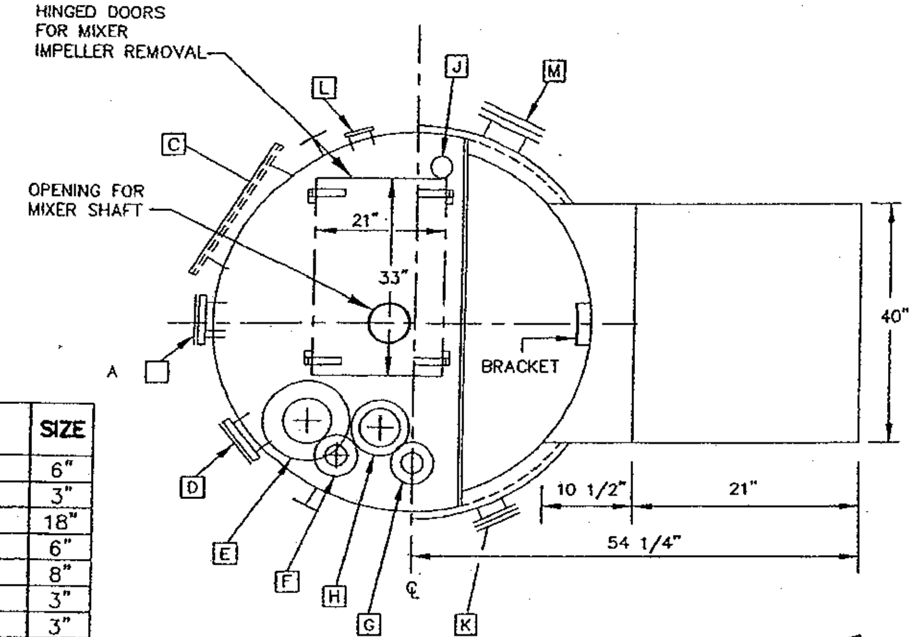
NOTES:

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/31/06	

CleanHarbors
BARTOW

TITLE
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
BOTTOM STORAGE TANK
DIMENSIONS, PIPING & INSTRUMENTATION DETAILS

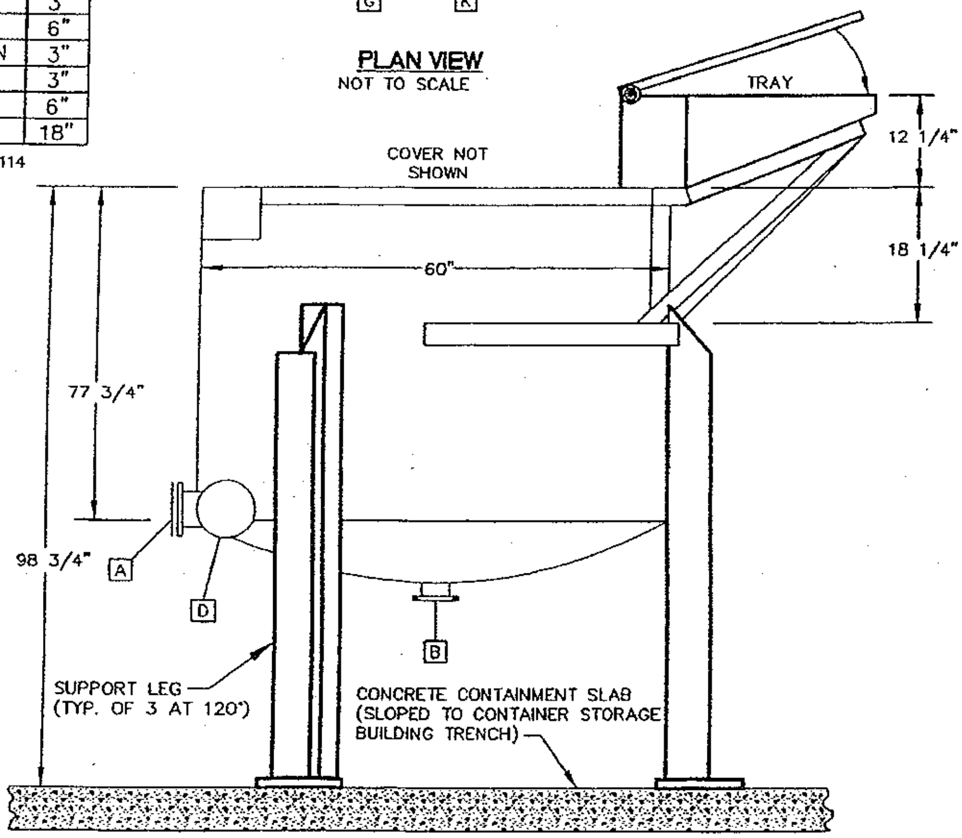
DRAWN	CHECKED	SCALE	DATE	DRAWING NO.	REV.
JKM	MJC	NTS	01/31/06	FIGURE 12.2	A



PLAN VIEW
NOT TO SCALE

MARK	DESCRIPTION	SIZE
A	OUTLET	6"
B	DRAIN	3"
C	MANWAY	18"
D	OUTLET	6"
E	VENT	8"
F	RECIRCULATION	3"
G	RUPTURE DISC	3"
H	FEED	6"
J	SAMPLE CONNECTION	3"
K	OVERFLOW	3"
L*	SPARE	6"
M*	SPARE	18"

* THESE ITEMS ARE FUTURE FOR T-114



ELEVATION
NOT TO SCALE

NOTES:

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/31/06	

CleanHarbors
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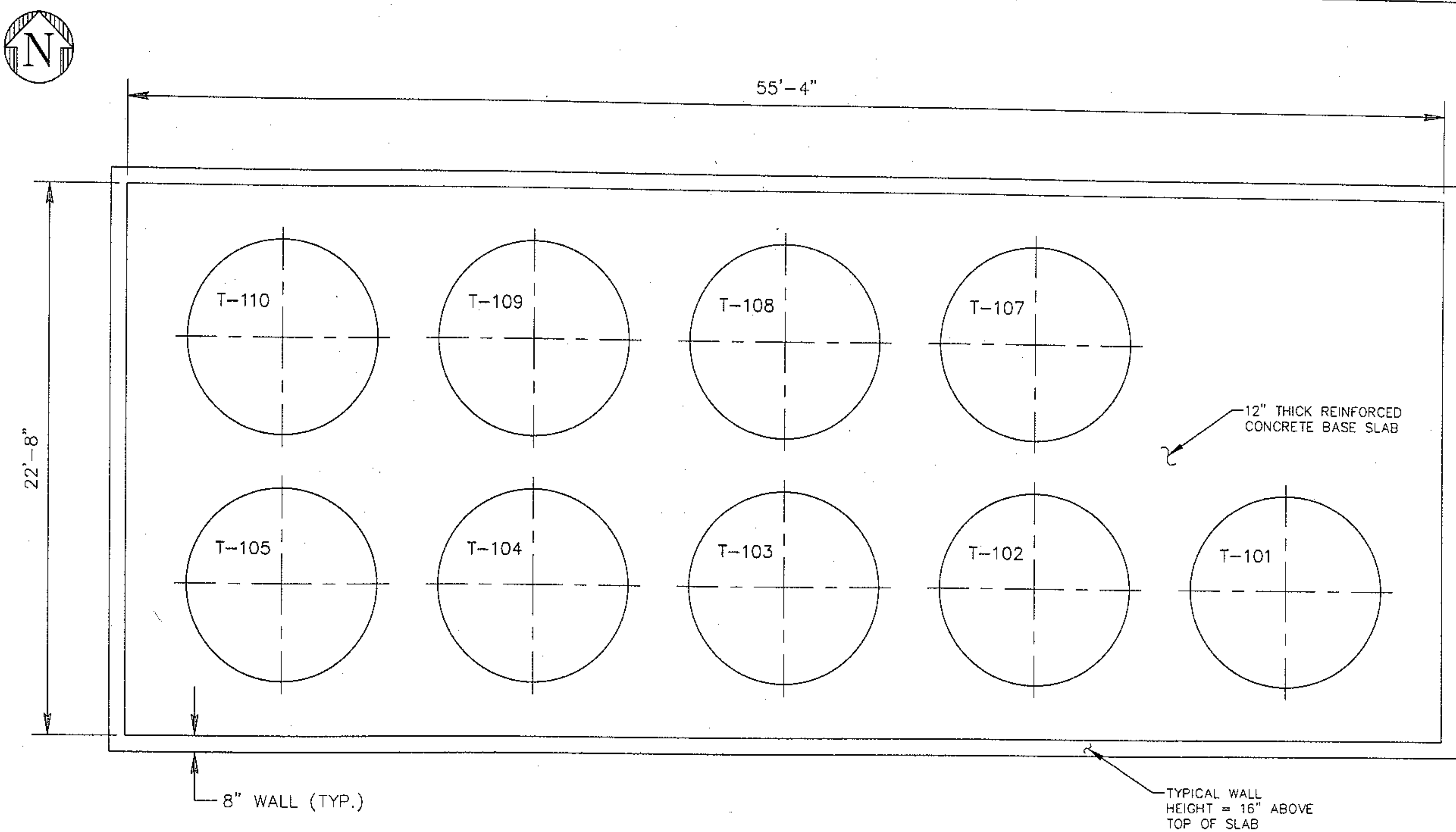
TITLE Figure 12.3
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
FUEL BLEND TANKS T-112 AND T-114
DIMENSIONS, PIPING & INSTRUMENTATION DETAILS

DRAWN	CHECKED	SCALE	DATE	DRAWING NO.	REV.
JKM	MJG	NTS	01/31/06	FIGURE 12.3	A



REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
B	REMOVED TANK T-106	K.M.C.	05/10/11	M.C.
A	FOR APPROVAL	JKM	01/31/06	

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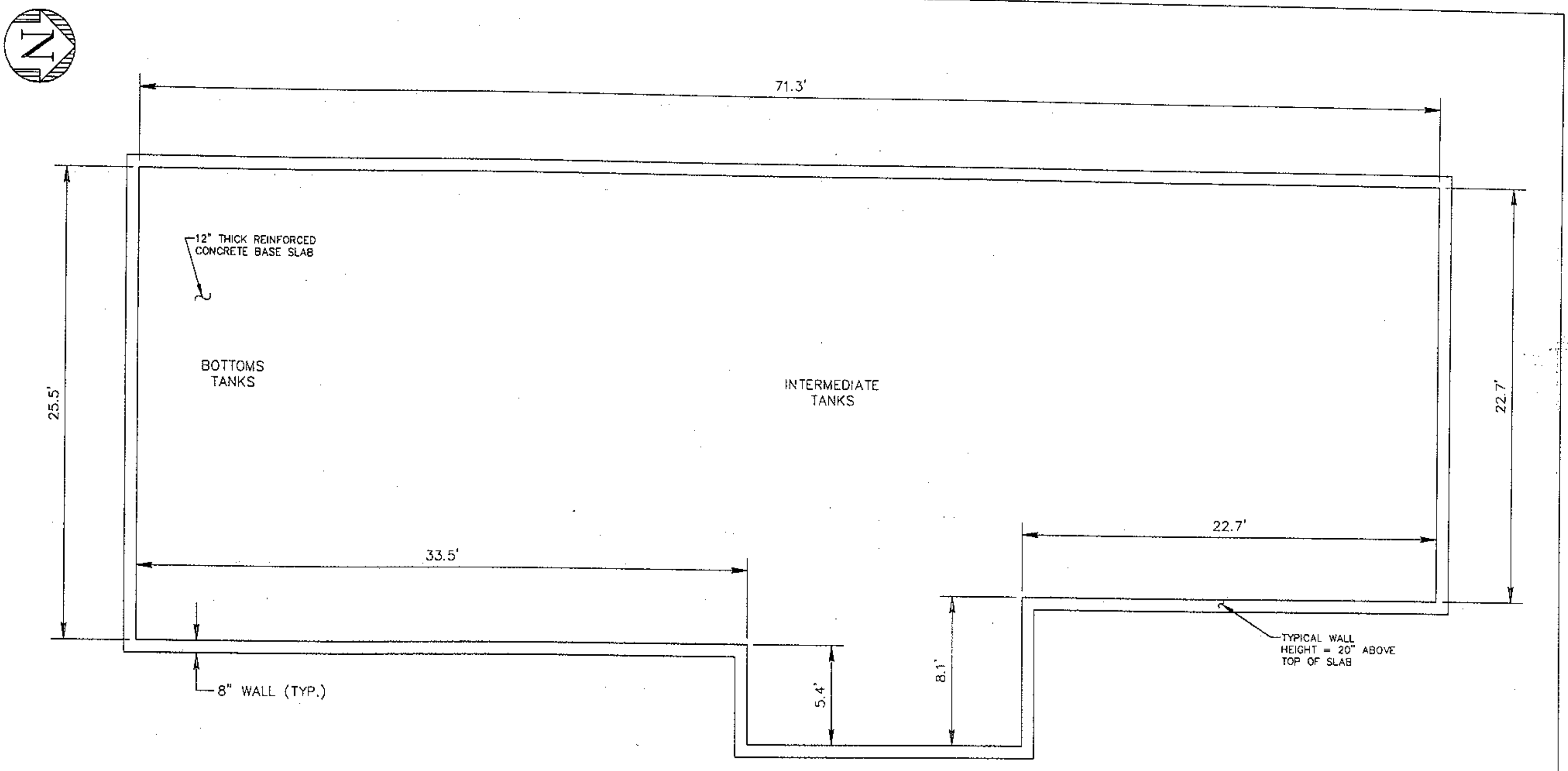
DRAWN	CHECKED	SCALE	DATE
K.M.C.	M.C.	1/4"=1'-0"	05/10/11

TITLE
Figure 12.4
CLEAN HARBORS FLORIDA, LLC
BARTOW FACILITY
CRUDE STORAGE TANKS LAYOUT

DRAWING NO. FIGURE 12.4
REV. B



REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
C	REMOVED TANKS R202 & R203	K.M.C.	05/10/11	M.C.
B	REMOVED TANKS 201 THROUGH 210	K.M.C.	02/04/11	M.C.
A	FOR APPROVAL	JKM	01/31/06	

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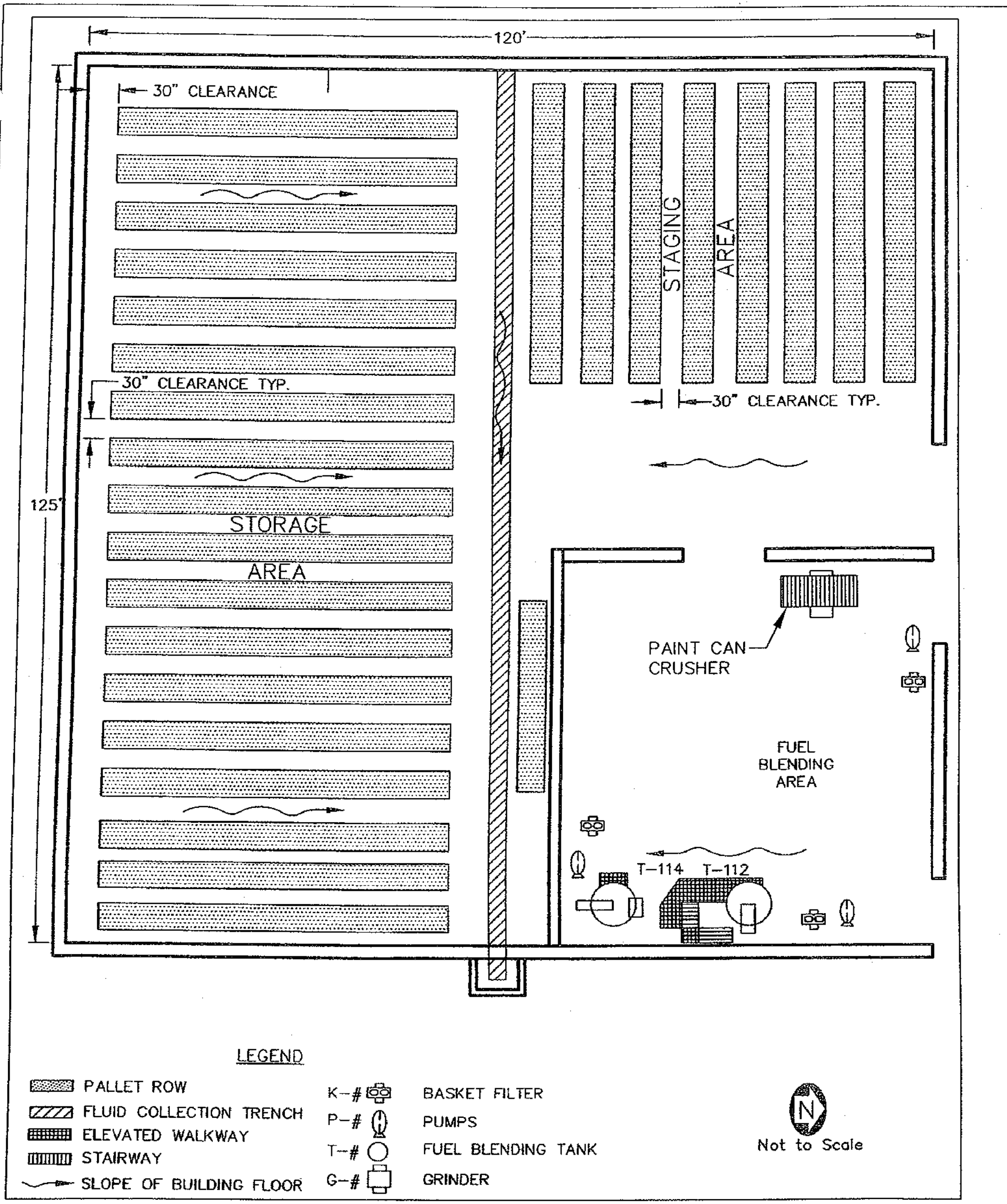
DRAWN	CHECKED	SCALE	DATE
K.M.C.	M.C.	3/16"=1'-0"	05/10/11

TITLE Figure 12.5

CLEAN HARBORS FLORIDA, LLC
BARTOW FACILITY
INTERMEDIATE AND BOTTOM
STORAGE TANKS LAYOUT

DRAWING NO.	REV.
FIGURE 12.5	C



NOTES

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/31/06	
B	RCRA PERMIT RENEWAL	KMC	04/05/11	S.B.

CleanHarbors

BARTOW

CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
FUEL BLENDING TANKS LAYOUT

DRAWN	CHECKED	SCALE	DATE	DRAWING NO.	REV.
JKM	MJC	NTS	01/31/06	FIGURE 12.6	B

ATTACHMENT 12.1

NOTE 1: CHF maintains the original certification on file which has the required PE seal on it. However, the seal does not show on the photocopied pages included in this application.

Attachment 12.1-1

Information, calculations and statements in this attachment from other engineers were included per permit requirements at start-up and may not be representative of the process area and/or equipment's current physical and structural condition.

R.O. COVINGTON & ASSOCIATES

CONSULTING ENGINEERS
Bartow Industrial Park
225-A Bartow Municipal Airport
Bartow, Florida 33830-9504
Phone: (813) 533-6282
Fax: (813) 534-1723

RECEIVED
SEP 0 2 1994

September 1, 1994

Keith Moore
Laidlaw Environmental Services
of Bartow, Inc.
170 Bartow Municipal Airport
Bartow, Florida 33830

Subject: T111, T112, T114

Dear Mr. Moore: Ref:2Y011

This letter is my certification of the written assessment covering the subject tanks.

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. 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 be 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.

Yours truly,

Robert O Covington

Robert O. Covington, P.E.

ROC/wc
Enclosures

Attachment 12.1-2

TANK ASSESSMENT REPORT

Three vessels: Tanks T111, T112, and T114 are used for on site management and blending of hazardous waste. All wastes are mutually compatible with each other in this category. The compatibility is confirmed as described in the Waste Analysis Plan of the RCRA application.

* The vessels are supported on a 6" sealed reinforced concrete foundation that sets on compacted soils. The soils supporting the foundation bear the load above with a 93% safety factor.

* The vessels are supported with steel legs that have a wide flange shape. The load imparted to these is a fraction of the allowable load. The legs flanges are welded to the sides of the individual tanks and to pads that are anchored to the floor.

* The tanks are nominal ¼ inch steel. They are of welded construction from plate, nozzles and a dished head. The tanks are partially covered with a steel plate to prevent splash over during the blending process. The wall thickness is confirmed by metal thickness testing (C/P Utilities Service Company, dated 05/23/94). The test result show a thickness range from 192 mils to 312 mils.

* The blend process is carried out in the vessels by circulating fuels and solvents through nozzles on the tank. The added materials are also agitated and broken up mechanically in the tanks by a mixer. All fuels, solvents and materials are compatible with the steel tanks.

* The tanks are open to atmosphere through the opening used to introduce material to be blended. Dedicated ten inch nozzles in the top provide safety release.

* The tanks are adequately designed and the tank system has sufficient structural strength, comparability with the wastes to be treated, and corrosion protection. The vessels physical properties ensure that they will not collapse, rupture or fail under normal use.

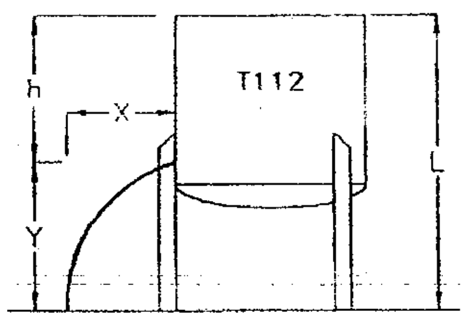
Design Standard according to which tanks are constructed is discussed in the following paragraphs. Tanks T111, T112, and T114 were designed constructed and put into service with out historical documentation. A review and visual inspection of the welds, metal thickness, size, supports nozzles and materials of construction show fabrication compliance for an open tank with API Standard 12F-82. The standard is used here even though the vessels are less than 90 barrels. Testing was hydrostatic (performed per optional design bases API 650-80 Section 5.3.9) demonstrated by actual use for period of more than 4 years. Supports (legs) are columnar members that transfer vessel weight to pads which in turn impart load to the concrete floor. The allowable column load on each leg is 81,000 pounds which is less than the design dead load of 1880 pounds for T111 and 2721 pounds for T112 and T114. The pads are anchored to the floor to resist vessel movements such as overturn and rotation.

Tank vent is a 10 inch nozzle opening in the cover. It exceeds the UL142 Table 9.2 vent size of 1¼ inch.

Secondary containment structure is reinforced concrete. It has sufficient strength and thickness to withstand design loadings. The calculations included in Attachment 12.6 demonstrate the structural integrity. The existing containment covers the surrounding earth. It prevents contact with a waste, if a waste were released or spilled from a tank.

The tanks placement in the containment area keeps any likely leakage away from the edge. The following verifies the placement.

Assume a square edge hole 1/16" diameter with flow coefficient of 0.6 (Ref: "Calculation & Short Cut Desk Book") McGraw-Hill Inc., N.Y. 1978 Also Assume T112 which is larger than T111.



Calculation

$Q = 19.65\ (d)^2 * C * (h)^{1/2}$ Ref: Crane Co. "Flow of Fluids through valves, fittings and pipes.

Q = flow rate, gal/min
d = hole diameter = 1/16 inch
C = flow coefficient = 0.6
h = height of liquid (ft)

$Q = 19.65 * (1/16)^2 * 0.6 * (h)^{1/2}$
$Q = .046 * (h)^{1/2} = Q_1$

$$Q = [(d)_2 * X * 2.56]/(Y)^{1/2}$$

X = Maximum horizontal distance a leaked liquid will project
Y = Vertical distance above ground to hole

$$Q = [(1/16)^2 * X * 2.56]/(Y)^{1/2} = Q_2$$

Let $Q_2 = Q_1$

$$.046(h)^{1/2} = .01 * X/(Y)^{1/2}$$
$$X = 4.6(h)^{1/2} * (Y)^{1/2} \text{ inches}$$
$$X^2 = 0.383(h)^{1/2}(Y)^{1/2} \text{ ft}$$

$$L = h + (Y/12)\text{ft}$$
$$Y = 12(L-h)$$
$$X = 0.383(h)^{1/2}[12(L-h)]^{1/2}$$
$$X = 1.33(Lh-h^2)^{1/2}$$

Take the first derivate with respect to h and set the result equal to zero, then solve for h.

$$d(h) = 1.33d(Lh-h^2)^{1/2}$$
$$= .665(lh-h^2)^{-1/2} * (L-2h)dh = 0$$
$$L-2h = 0$$
$$L = 1/2$$

Substitute and solve for X

$$X = 1.33[L*L/2-(L/2)^2]^{1/2}$$
$$X = .665\ L$$
$$X = 5.6 \text{ ft} \qquad \text{when } L = 8.5 \text{ ft}$$

All three tanks are at a distance greater than 6 ft from the edge of the containment. The containment area for the blend tanks contains more than 100% of the volume of the largest tank. The blend area is under roof which presents infiltration of precipitation that would result from a rainfall event.

The containment volume for the secondary containment structure in the blend area is calculated in Attachment 12.6 to be 795 cubic feet. The largest tank volume is calculated to be 131 cubic feet. Therefore the containment area exceeds Federal and State requirements for secondary containment.

The existing secondary containment is a contiguous structure placed on an earthen foundation that is capable of provideng support to the structure. There is a 93% safety factor for the soils supporting the containment structure as calculated in Attachment 12.6

Hazardous characteristics of waste(s) to be handled are listed in

$Q = [(d)_2 * X * 2.56]/(Y)^{1/2}$

X = Maximum horizontal distance a leaked liquid will project
Y = Vertical distance above ground to hole

$Q = [(1/16)^2 * X * 2.56]/(Y)^{1/2} = Q_2$

Let $Q_2 = Q_1$

$$.046(h)^{1/2} = .01 * X/(Y)^{1/2}$$
$$X = 4.6(h)^{1/2} * (Y)^{1/2} \text{ inches}$$
$$X^2 = 0.383(h)^{1/2}(Y)^{1/2} \text{ ft}$$

$$L = h + (Y/12)\text{ft}$$
$$Y = 12(L-h)$$
$$X = 0.383(h)^{1/2}[12(L-h)]^{1/2}$$
$$X = 1.33(Lh-h^2)^{1/2}$$

Take the first derivate with respect to h and set the result equal to zero, then solve for h.

$$d(h) = 1.33d(Lh-h^2)^{1/2}$$
$$= .665(1h-h^2)^{-1/2} * (L-2h)dh = 0$$
$$L-2h = 0$$
$$L = 1/2$$

Substitute and solve for X

$$X = 1.33[L*L/2-(L/2)^2]^{1/2}$$
$$X = .665\ L$$
$$X = 5.6 \text{ ft} \quad \text{when } L = 8.5 \text{ ft}$$

All three tanks are at a distance greater than 6 ft from the edge of the containment. The containment area for the blend tanks contains more than 100% of the volume of the largest tank. The blend area is under roof which presents infiltration of precipitation that would result from a rainfall event.

The containment volume for the secondary containment structure in the blend area is calculated in Attachment 12.6 to be 795 cubic feet. The largest tank volume is calculated to be 131 cubic feet. Therefore the containment area exceeds Federal and State requirements for secondary containment.

The existing secondary containment is a contiguous structure placed on an earthen foundation that is capable of provideng support to the structure. There is a 93% safety factor for the soils supporting the containment structure as calculated in Attachment 12.6

Hazardous characteristics of waste(s) to be handled are listed in

Table 1.3 and designated in Table 11.1 of the RCRA Part B permit application. The associated hazards for each waste code are listed in 40 CFR 261.31.

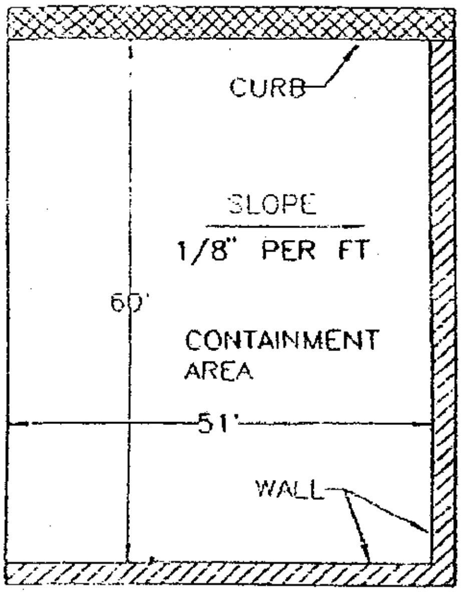
The steel tanks are painted on the exterior. The the paint protects the steel and prevent corrosion.

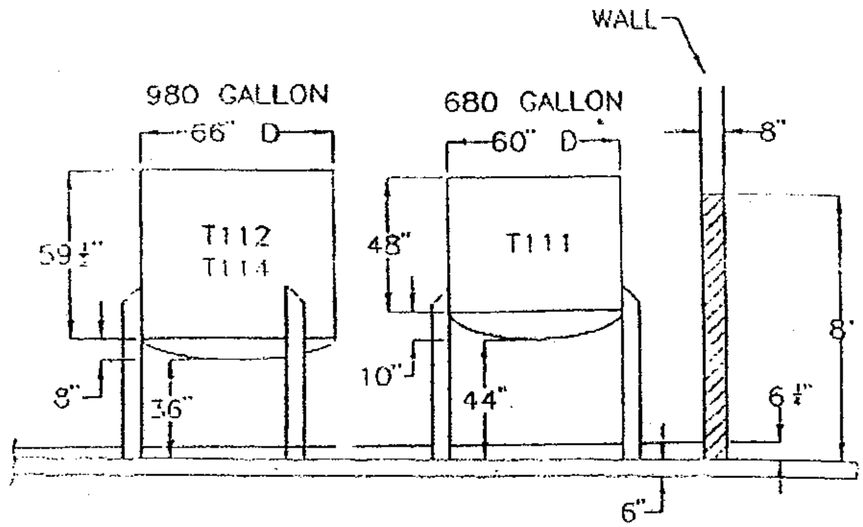
The tanks are in a climate zone (Central Florida) that is not subject to frost heave of the ground.

The ancillary equipment such as pumps, strainers, grinders, valves and mixers that serves to supply, blend, and/or remove wastes from the tanks is located in the containment area, and are anchored to the floor. The permanent piping that joins the ancillary equipment and tanks is schedule 40, ASTM A53 with welded joints. Fittings are standard weight ANSI B36.10 and flanges are in accordance with ANSI B16.5 for steel. The installation procedures followed ANSI B31.3 as the standard of practice.

ATTACHMENT 12.6

Calculations Documenting Support of
Secondary Containment Systems
Fuel Blending Area
T111, T112 & T114





BLEND FACILITY

A_c = Containment area

$A_c = (A_{CS}) - (A_{LG}) - (A_{MS})$

A_{CS} = Total area with in containment
A_{LG} = Total area of legs
A_{MS} = Total area of pumps, pipes & ramp
N = Quantity of item calculated

$A_{CS} = 60*51.2 = 3072$ sq ft

$A_{LG} = [6(3)*5/16]*N/144$
$= 5.625*31 = 1.2$ sq ft

$A_{MS} = [3*11*23+36*42+\pi(2)^2*39+(98*20)]/144$
$= 19$ sq ft

$A_c = 3072 - 1.2 - 19 = 3052$ sq ft

MINIMUM CONTAINMENT WALL HEIGHT

H = Height of containment
$H = (V_{LT}/A_c)*2$
V_{LT} = Volume of largest tank
V_{LT} = 980 gallons
V_{LT} = 980/7.48 gal/cu ft = 131 cu ft

$H = (131/3052)*2 = .086$ ft

TOTAL VOLUME WITHIN CONTAINMENT AREA

$V = A_{cs} * H^0$ H^0 = half of containment height or average height = .26 ft .

V = 3052 * .26 = 795 cubic feet

CONTAINMENT

131/795 * 100 = 16.5% of available is required.

SOIL LOADING

$SL = W_{TO}/A_{CS}$
$W_{TO} = W_{TT} + W_{CS}$
$W_{TT} = \sum W_T$
W_{CS} = Weight of Containment

W_T = Weight of empty tank, liquid & legs.
$= W_{TE} + W_{LQ} + W_{LG}$
$W_{TE} = (V_H + V_S + V_C)*ds$
$V_H = t*\pi*r^2$ (head)
$V_S = t*\pi*d*h$ (side)
$V_C = t*\pi*r^2$ (cover)
$W_{LQ} = V_{LT} * dw$
$W_{LG} = V_{LG} * ds$

ds = 492 lbs/cu ft(steel)
r=tank radius
h=tank height
t=shell thickness=.25"
d = tank diameter
dw = 8.33 lbs/gal (water)

T111

h = 58¼"
r = 30"
V_H = $.25*\pi*(30)^2$ = 706 cu-in
V_S = $.25*\pi*60*58.25$ = 2745 cu-in
V_C = $.25*\pi*(30)^2$ = 706 cu-in
W_{LQ} = 680 gal*8.33 lb/gal = 5664 lb
W_{LG} = 4 legs*3 ft*15 lb/ft = 180 lb

W_T = 1184+5664+180 = 7028. lb

T112

h = 67½"
r = 33"
V_H = $.25*\pi*(33)^2$ = 855 cu in
V_S = $.25*\pi*66*67.50$ = 3499 cu in
V_C = $.25*\pi*(33)^2$ = 855 cu in
W_{TE} = (5209/1728)*492 = 1483 lb
W_{LQ} = 980*8.33 = 8163 lb
W_{LG} = 3 legs*4ft*15 lb/ft = 180 lb

W_T = 1483+8163+180 = 9826 lb

T114

Same as T112
W_T = 9826 lb

W_{TT} = 7028+9826+9826 = 26680 lb

W_{CS} = W_{BASE} + W_{WALLS} + W_{MISC}

W_{BASE} = A_{CS}*T*dc — dc=150 lb/cu ft (concrete)

W_{BASE} = (3072 * .5')*150
W_{BASE} = 231400 lb — T = Thickness

W_{WALLS} = W_{CONC} + W_{STUD} + W_{BLDG} + W_{BLK}

W_{CONC} = 8"*(½*6.25)*51.2/144*150 = 1333 lb
W_{STUD} = L*H*dd/dd=4.5 Lb/sq ft(dry wall)
= (60+512)*11*45 = 5504. lb
W_{BLDG} = (Roof + Wall)* do — do=1.0lb/sq ft(bldg)
= (60*51.2+17+51.2)*1.0 = 3942.lb
W_{BLK} = L*H*db — db=36lb/sq ft(block)
= (60+51.2)*836 =32026 lb
W_{WALLS} = 1333+5504+3942+32026 = 42805 lb

W_{MISC} = W_{PIPE} + W_{MIX} + W_{EQP}

Assume 500 ft of pipe at 5 lb/ft
W_{PIPE} = 2500 lb
Assume 3 mixers @ 1100 lb ea.
W_{MIX} = 3300 lb
Assume Misc Platforms and Equipment @ 5000 lb
W_{EQP} = 5000 lb
W_{MISC} = 2500 + 3300 + 5000 = 10800 lb

W_{CS} = 231400 + 42805 + 10800 = 284005 lb

W_{TO} = W_{TT} + W_{CS}
= 26680 + 284005 = 310685 lb
SL = Soil Load
= W_{TO}/A_{CS}
SL = 310685/3072 = 101 lb/sq ft

There are no bearing test on the soil under the blend area. Physical inspection and consultation with the Polk County Soils Survey indicates a Tavares Series Classification. The texture is sand with up to 4% clay.

The "Civil Engineering handbook" (L.C. Urquahart) lists the bearing capacity of compacted sand/clay soils as 6,000 lb/sq ft.

The "Uniform Building Code" states that unless higher pressures are substantiated, the maximum allowable pressure in sand or clayey sand is 1,500 lb/sq ft.

Using the UBC allowable pressure the safety factor is

$$SF = \frac{1500-10.1}{1500} * 100 = 93\%$$

ATTACHMENT 12.2

CALCULATIONS OF SECONDARY CONTAINMENT VOLUMES

CRUDE STORAGE TANKS - SOUTH TANK FARM

South Tank Farm: ten 6,000-gallon tanks

$V_C = V_T - V_{LEGS} - V_{TANK}$

V_C = Volume of containment

V_T = Total volume

V_{LEGS} = Volume of tank legs

V_{TANK} = Volume of secondary containment that tank occupies

$V_T = L \times W \times H$

$V_T = 55.33' \times 22.67' \times 1.33'$

$V_T = 1668.26\ ft^3$

$V_{LEG} = (W)(W)(H)$

Each tank is supported by 3 square 11" legs

$V_{LEG} = (11")(11")(1.33')$

$V_{LEG} = 1.12\ ft^3$

$V_{LEGS} = 1.12\ ft^3 \times 30$ legs

30 legs in containment

$V_{LEGS} = 33.5\ ft^3$

V_{TANK} The bottom of the tank is 4' from the floor of the secondary containment. The height of the wall is 1'4". Therefore, the volume of the tank in the secondary containment is zero.

$V_{TANK} = 0$

$$V_C = V_T - V_{LEGS} - V_{TANK}$$

$$V_C = 1668.26 \text{ ft}^3 - 33.5 \text{ ft}^3 - 0$$

$$V_C = 1634.76 \text{ ft}^3$$

Secondary containment must contain 100% of the volume of the largest tank contained and the volume of precipitation generated by a 25-year, 24-hour rainfall event.

Surplus containment = $V_C - V_{LTANK} - V_{RAIN}$

V_{LTANK} = **Volume of largest tank**

V_{RAIN} = Volume of rainfall from 25-year, 24-hour rainfall event

Largest tank contained: 6,000 gallons

V_{LTANK} = 6000 gallons x (1 ft^3/7.48 gallons) = 802.12 ft^3

From the *Permit Information Manual Management and Storage of Surface Waters* (Southwest Florida Water Management District, Volume I, January 1994, p. C7), 7 inches of precipitation would accumulate in a 25-year, 24-hour rainfall event.

V_{RAIN} = 0.58' x 55.33' x 22.67' = 727.51 ft^3

Surplus containment = 1634.79 ft^3 - 802.12 ft^3 - 727.51 ft^3

Surplus containment = 105.16 ft^3

∴ Secondary containment volume for crude storage tanks is **sufficient.**

BOTTOM TANKS - WEST TANK FARM

West Tank Farm: two 7,000-gallon tanks
ten 6,000-gallon tanks

$V_C = V_T - V_{PADS} - V_{TANK} - V_{PIPE} - V_{LEGS} - V_{WALL}$

V_C = Volume of containment

V_T = Total volume

V_{PADS} = Volume of tank pads

V_{TANKS} = Volume of secondary containment that tanks occupy

V_{PIPE} = Volume occupied by the piping in containment area

V_{LEGS} = Volume occupied by the legs supporting the bottoms tanks

V_{WALL} = Volume occupied by the small divider wall between the two bottoms tanks and the 10 non-RCRA tanks.

V_T = containment area x H

contianment area = (71.3' x 22.7') + (5.4' x 15.1') + ((33.5' + 15.1') x (8.1' - 5.4'))

containment area = 1618.51 ft^2 + 81.54 ft^2 + 131.22 ft^2

containment area = 1831.27 ft^2

V_T = 1831.27 ft^2 x 1.67' = 3052.12 ft^3

$V_{PAD} = \Pi(d/2)^2$ (H)

6,000-gallon tanks supported by tank pads approximately 9' in diameter and 10" thick.

$V_{PAD} = \Pi(9'/2)^2$ (10")

V_{PAD} = 53.01 ft^3

V_{PADS} = 53.01 ft^3 x 10   10 tank pads in containment

V_{PADS} = 530.1 ft^2

V_{TANK} The tank pad is 10" thick. The height of the containment wall is 20". Therefore, the volume displaced by the 10 non-RCRA tanks is given below (**Note:** The bottoms tanks are more than 20" from the continment sytem bottom, therefore they will not occupy any containment capacity).

$V_{TANK} = \Pi(8'/2)^2\ (H)$

$V_{TANK} = 41.89\ ft^3$

$V_{TANKS} = 418.9\ ft^3$ 10 non-RCRA tanks

V_{PIPE} There is approximately 600 feet of 3" piping in the containment area. For calculation estimates, assume the O.D. of the piping is 4".

$V_{PIPE} = \Pi(0.33'/2)^2\ (L)$

$V_{PIPE} = 51.32\ ft^3$

V_{LEGS} There are 8 support legs for the two bottoms tanks which are one foot in diamter.

$V_{LEG} = \Pi(1'/2)^2\ (H)$

$V_{LEG} = 1.31\ ft^3$

$V_{LEGS} = 10.49\ ft^3$ 8 legs

$V_{WALL} = L \times W \times H$

$= 25.5' \times 0.67' \times 1'$

$= 17.09\ ft^3$

$V_C = V_T - V_{PADS} - V_{TANKS} - V_{PIPE} - V_{LEGS} - V_{WALL}$

$V_C = 3052.12\ ft^3 - 530.1\ ft^3 - 418.9\ ft^3 - 51.32\ ft^3 - 10.49\ ft^3 - 17.09\ ft^3$

$V_C = 2024.22\ ft^3$

Secondary containment must contain 100% of the volume of the largest tank contained and the volume of precipitation generated by a 25-year, 24-hour rainfall event.

Surplus containment = $V_C - V_{LTANK} - V_{RAIN}$

V_{LTANK} = Volume of largest tank

V_{RAIN} = Volume of rainfall from 25-year, 24-hour rainfall event

Largest tank contained: 7,000 gallons

V_{LTANK} = 7000 gallons x (1 ft^3/7.48 gallons) = 935.83 ft^3

From the *Permit Information Manual Management and Storage of Surface Waters* (Southwest Florida Water Management District, Volume I, January 1994, p. C7), 7 inches of precipitation would accumulate in a 25-year, 24-hour rainfall event.

V_R = 0.58' x 1831.27 ft^2

V_R = 1062.14 ft^3

Surplus containment = 2024.22 ft^3 - 935.83 ft^3 - 1062.14 ft^3

Surplus containment = 26.25 ft^3

∴ Secondary containment is sufficient.

FUEL BLENDING TANKS - CONTAINER STORAGE BUILDING

Secondary containment calculations for the Container Storage Building are contained in Chapter 11.

SECTION K

CLOSURE PLAN

9.1 Closure Performance Standard

This plan identifies the steps necessary to completely close CHF at the end of the useful facility life. This plan describes how the facility will be closed in accordance with 40 CFR 264.178 and 40 CFR 264.197.

Closure of CHF will involve removing all wastes from the site, cleaning and decontaminating structures and equipment that held waste, and sampling to demonstrate that decontamination has been effective. This closure plan is designed to eliminate post-closure escape of hazardous waste, constituents, leachate, or hazardous waste decomposition products to groundwater, surface water, or the atmosphere. This will eliminate need for post-closure monitoring or maintenance and eliminates potential release of hazardous wastes, constituents, or contaminated rainfall after closure.

Partial closure is not planned during the operation of the CHF facility. The entire facility as described in Chapter One will remain open and not be closed during the active life of the facility. A post-closure plan is not required since CHF is not a disposal facility and no hazardous wastes or residues will remain at the site upon closure.

Because of the construction of the secondary containment system throughout the facility, the introduction of hazardous waste into the soil is precluded. Consequently, the landfill closure and post-closure requirements do not apply to this facility.

9.2 Amendment of the Closure Plan

Until final closure is completed and certified in accordance with 40 CFR 264.115, a copy of the approved plan and all approved revisions will be furnished to the Florida Department of Environmental Protection (FDEP) or the EPA Regional Administrator upon request. Partial closure is not anticipated, however, any single unit of the facility or piece of equipment may be closed independently for maintenance, repairs, or other reasons.

9.3 Maximum Waste Inventory at Closure

The maximum inventory of wastes that could be potentially stored in the Container Storage Buildings is 243,320 gallons. The maximum inventory of waste that could be potentially stored in storage tanks is 72,600 gallons. (The fuels blending tanks are treatment tanks only and not permitted storage tanks, therefore no waste volume is assumed to be stored in them.) Four roll-offs could contain the equivalent of 32,320 gallons.

These volumes are used to calculate the maximum RCRA inventory on-site for closure calculations. CHF may have RCRA waste in any combination of containers, including up to four roll offs. The maximum RCRA waste on-site is 348,240 gallons. The calculation of these volumes is shown in Figure 9.1.

9.4 Schedule for Final Closure

Final closure is anticipated during the year 2045 or thereafter. Complete closure is expected to take 180 days. If an extension of time for closure is necessary, the extension request will be in the form of a petition made to the FDEP. The petition will demonstrate that all reasonable steps will be taken to prevent threats to human health and the environment during the requested closure extension.

9.5 Closure Methods - South Container Storage Building

9.5.1 Container storage, staging and loading ramp areas

1. The FDEP will be notified at least 180 days prior to the date closure is to begin.

2. A review of the closure plan by appropriate CHF personnel will be conducted prior to closure commencement activities.

3. Acceptance of non-bulk containerized waste will be stopped on or before the date closure activities begin.

4. A physical inventory of containerized waste will be conducted and a check for proper labeling and marking will be conducted.

5. For liquid wastes, pre-bulking compatibility evaluation and/or testing will be conducted, and containerized wastes will be bulked to compatible storage tanks on-site or directly onto tankers, if available. Solid wastes will be bulked into roll-offs.

6. Wastes which cannot be bulked must be shipped off-site in separate containers. An assessment of the appropriate off-site treatment, storage, or disposal technology will be

performed, and an appropriate off-site TSD facility will be selected. The closure cost estimate identifies the current proposed method for off-site management of these wastes; however, at the time of closure improved methods of off-site management may be available.

7. Empty containers may be shipped to container re-conditioners, or off-site as scrap metal. Removal of containers and waste is expected to be completed within 60 days after closure activities begin.

8. After all containers are removed from the building; it will be examined for visual evidence of contamination. Contamination is expected to be minimal because all wastes will be stored in sound shipping containers, inspected regularly, and any spills or leaks will be cleaned up promptly.

9. A power washer will be used to pressure clean the floor of the container storage, staging, and ramp areas and the walls to a height of six feet above the floor (which corresponds roughly to the height of two 55-gallon drums stacked on pallets. Wash water will be directed into the containment trench and handled as a hazardous waste. Wash water will be pumped into suitable containers (i.e. tanker trucks or equivalent) and transported off-site to a RCRA-permitted facility for treatment.

10. After the floors, walls and ramp areas and containment trench are dry, a detergent solution (Simple Green or equivalent) will be applied to the floor and containment trench to remove remaining waste residues. The detergent solution will also be applied to the walls and ramp areas as needed to remove any remaining visible contamination.

11. The floor, containment trench, and walls (as needed) will be rinsed three times with potable water to remove detergent solution residues. Rinsate fluids shall be directed into the containment trench and handled as a hazardous waste. Rinsate fluids will be pumped into suitable containers (i.e., tanker trucks or equivalent) and transported offsite to a RCRA-permitted facility for treatment.

12. During the third rinse of various surfaces, a total of twelve samples of rinsate fluid and one sample of the potable water will be collected. One sample from the dock area, one sample from the ramp area, two samples from the staging area and two samples from each quadrant of the storage area will be collected and analyzed for the following parameter groups by the listed methods:

- Volatile organics (EPA Method 8260)
- Semivolatile organics (EPA Method 8270)
- RCRA metals, plus nickel (EPA Method 6010)
- Pesticides (EPA Method 8081)
- Total organic carbon (EPA Method 415.2)
- Total organic halides (EPA Method 9252)

13. In addition, quality control (QC) samples will be collected in accordance with frequencies specified in an FDEP-approved Comprehensive Quality Assurance Plan (CompQAP). Similarly, laboratory analyses will be performed by a laboratory with an FDEP-approved CompQAP.

14. Laboratory results will be compared to the groundwater clean-up target levels presented in Chapter 62-777 Florida Administrative Code (FAC). Decontamination will be considered complete if concentrations of contaminants are below these target levels or the practical quantification limit (PQL). In the event that decontamination is considered incomplete for a particular sample location, these decontamination procedures will be repeated in the immediate area of the sample and the rinsate will be re-sampled using the procedures described above until the concentrations meet the specified criteria.

15. As required by 40 CFR 264.112(b)(4), the soils beneath the container storage, staging, ramp areas, and the area surrounding the containment trench sump will be sampled and checked for possible contamination as outlined in steps 16-26 below.

16. These areas will be divided into a 10' x 10' grid and sampling locations selected at the line intersections.

17. Eight samples within the container storage area, four samples within the staging area and two from the ramp area will be obtained. The 14 locations will be chosen randomly from the intersection points on the grid lines. Each sample location will entail drilling through the concrete floor of the building and ramp area.

18. One additional soil sample will be taken from the area around the sump at the east end of the containment trench.

19. If cracks are present in the floor (other than surficial cracks) the soil beneath them will be sampled as well.

20. Samples will be taken at the soil surface, immediately beneath the concrete containment and analyzed for the following parameter groups by the listed methods:

- Volatile organics (EPA Method 8260)
- Semivolatile organics (EPA Method 8270)
- RCRA metals, plus nickel (EPA Method 6010)
- Pesticides (EPA Method 8081)
- Total organic carbon (EPA Method 415.2)
- Total organic halides (EPA Method 9252)

21. In addition, QC samples will be collected in accordance with frequencies specified in an FDEP-approved CompQAP. Similarly, all laboratory analyses will be performed by a laboratory with an FDEP-approved CompQAP.

22. While soil contamination is not expected, the procedures outlined in steps 23-26 will be followed in the event soil contamination is determined to exist.

23. Laboratory results will be compared to the soil cleanup target levels presented in 62-777 FAC. Additional soil sampling will not be required provided concentrations of contaminants are below these target levels or the PQL.

24. In the event surface soils at particular locations contain contaminants in concentrations above thresholds, those locations will be re-sampled at a depth of six to twelve inches. Additional soil sampling will not be required provided concentrations of contaminants are below target levels or the PQL.

25. In the event soil sample locations at the six-inch depth contain contaminants in concentrations above thresholds, soil sampling at those locations will continue at six-inch intervals until no contaminants exist in concentrations above thresholds or until CHF determines that excavation and removal of contaminants cannot be done or is not practical. If such a determination is made, a post closure plan will be submitted to the Department.

26. If concentrations of contaminants are detected above thresholds in soil, and the extent is such that removal is deemed impractical, the soil will be excavated to a depth of six inches below the depth of detected contamination. Excavated soil will be disposed at a RCRA-permitted TSDF. The excavated area will then be backfilled with clean, compacted soil and restored to the original condition. Confirmatory samples will be taken and analyzed for the contaminants of concern to demonstrate the contaminants of concern have been removed.

27. Facility personnel and an independent, Florida registered, professional engineer will inspect the container storage area, staging area and ramp area. A certification will be submitted to the FDEP indicating these areas have been decontaminated and closed in accordance with this closure plan.

9.5.2 Fuels Blending Area

1. The FDEP will be notified as least 180 days prior to closure commencement activities.

2. A review of the closure plan by appropriate CHF personnel will be conducted prior to closure commencement activities.

3. Treatment of waste in the fuels blending equipment will be stopped on or before the date closure activities begin.

4. Waste residues present, if any, will be removed and placed in DOT approved containers for management at an off-site RCRA-permitted TSD facility.

5. A power washer will be used to pressure clean the interior surfaces of the tanks. Wash water will be collected and handled as a hazardous waste. Wash water will be pumped into suitable containers (i.e., tanker trucks or equivalent) and transported offsite to a RCRA permitted facility for treatment.

6. Tanks T-112 and T-114 will be removed from the Fuels Blending Area and cut into pieces suitable for transport to a steel recycling facility. The carbon steel will be melted and reprocessed as scrap metal. Due to the method of disposal of these tanks, the scrap steel resulting from tank closure will not be handled as a hazardous waste pursuant to the solid waste exemption criteria set forth in 40 CFR 261.4 (a)(13).

7. A power washer will be used to pressure clean the floor, walls, and ceiling of the Fuels Blending Area. Wash water will be collected and handled as hazardous waste. Wash water will be pumped into suitable containers (i.e., tanker trucks or equivalent) and transported off-site to a RCRA-permitted facility for treatment.

8. After the floors and walls are dry, a detergent solution (Simple Green or equivalent) will be applied to these surfaces, as needed, to remove remaining waste residues.

9. The floors and walls will be rinsed three times with potable water to remove detergent solution residues. Rinsate fluids will be collected and handled as a hazardous waste. Rinsate fluids will be pumped into suitable containers (i.e., tanker trucks or equivalent) and transported off-site to a RCRA-permitted facility for treatment.

10. During the third rinse of the floors and walls, a total of five samples (one from each quadrant of the floor and one from the center of the floor) of rinsate fluid and one sample of potable water will be collected and analyzed for the following parameter groups by the listed methods:

- Volatile organics (EPA Method 8260)
- Semivolatile organics (EPA Method 8270)
- RCRA metals, plus nickel (EPA Method 6010)
- Pesticides (EPA Method 8081)
- Total organic carbon (EPA Method 415.2)
- Total organic halides (EPA Method 9252)

11. In addition, quality control (QC) samples will be collected in accordance with frequencies specified in an FDEP-approved Comprehensive Quality Assurance Plan (CompQAP). Similarly, laboratory analyses will be performed by a laboratory with an FDEP-approved CompQAP.

12. Laboratory results will be compared to the groundwater clean-up target levels presented in Chapter 62-777 FAC. Decontamination will be considered complete if concentrations of contaminants are below these target levels or the PQL. In the event that decontamination is considered incomplete for a particular sample location, these decontamination procedures will be repeated in the immediate area of the sample and the rinsate will be re-sampled using the procedures described above until the concentrations meet the specified criteria.

13. As required by 40 CFR 264.112(b)(4), the soils beneath the fuels blending area will be sampled and checked for possible contamination as outlined in steps 14-23 below.

14. This area will be divided into a 10' x 10' grid and sampling locations selected at the line intersections.

15. Four samples within the fuels blending area will be obtained. The four locations will be chosen randomly from the intersection points on the grid lines. Each sample location will entail drilling through the concrete floor of the building.

16. If cracks are present in the floor (other than surficial cracks) the soil beneath them will be sampled as well.

17. Samples will be taken at the soil surface, immediately beneath the concrete containment and analyzed for the following parameter groups by the listed methods:

- Volatile organics (EPA Method 8260)
- Semivolatile organics (EPA Method 8270)
- RCRA metals, plus nickel (EPA Method 6010)
- Pesticides (EPA Method 8081)
- Total organic carbon (EPA Method 415.2)
- Total organic halides (EPA Method 9252)

18. In addition, QC samples will be collected in accordance with frequencies specified in an FDEP-approved CompQAP. Similarly, all laboratory analyses will be performed by a laboratory with an FDEP-approved CompQAP.

19. While soil contamination is not expected, the procedures outlined in steps 20-23 will be followed in the event soil contamination is determined to exist.

20. Laboratory results will be compared to the soil cleanup target levels presented in 62-777 FAC. Additional soil sampling will not be required provided concentrations of contaminants are below these target levels or the PQL.

21. In the event surface soils at particular locations contain contaminants in concentrations above thresholds, those locations will be re-sampled at a depth of six to twelve inches. Additional soil sampling will not be required provided concentrations of contaminants are below target levels or the PQL.

22. In the event soil sample locations at the six-inch depth contain contaminants in concentrations above thresholds, soil sampling at those locations will continue at six-inch intervals until no contaminants exist in concentrations above thresholds or until CHF determines that excavation and removal of contaminants cannot be done or is not practical. If such a determination is made, a post closure plan will be submitted to the Department.

23. If concentrations of contaminants are detected above thresholds in soil, and the extent is such that removal is deemed practical, the soil will be excavated to a depth of six inches below the depth of detected contamination. Excavated soil will be disposed of at a RCRA-permitted TSDF. The excavated area will then be backfilled with clean, compacted soil and restored to the original condition. Confirmatory samples will be taken and analyzed for the contaminants of concern to demonstrate the contaminants of concern have been removed.

24. Facility personnel and an independent, registered, professional engineer will inspect the fuels blending area. A certification will be submitted to the FDEP indicating the area has been decontaminated and closed in accordance with this closure plan.

9.6 Closure Methods - North Container Storage Building

1. The FDEP will be notified at least 180 days prior to the date closure is to begin.

2. A review of the closure plan by appropriate CHF personnel will be conducted prior to closure commencement activities.

3. Acceptance of non-bulk containerized waste will be stopped on or before the date closure activities begin.

4. A physical inventory of containerized waste will be conducted and a check for proper labeling and marking will be conducted.

5. For liquid wastes, pre-bulking compatibility evaluation and/or testing will be conducted, and containerized wastes will be bulked to compatible storage tanks on-site or directly onto tankers, if available. Solid wastes will be bulked into roll-offs.

6. Wastes which cannot be bulked must be shipped off-site in separate containers. An assessment of the appropriate off-site treatment, storage, or disposal technology will be performed, and an appropriate off-site TSDF will be selected. The closure cost estimate identifies the current proposed method for off-site management of these wastes; however, at the time of closure improved methods of off-site management may be available.

7. The polychlorinated biphenyl (PCB) storage area will be closed in accordance with the TSCA permit, *Approval to Commercially Store Polychlorinated Biphenyl's (PCBs)*, issued by the EPA on May 21, 1998. A description of the closure activities as approved is enclosed as Attachment 1 of this Chapter.

8. Empty containers may be shipped to container re-conditioners, or off-site as scrap metal. Removal of containers and waste is expected to be completed within 60 days after closure activities begin.

9. After all containers are removed from the building; it will be examined for visual evidence of contamination. Contamination is expected to be minimal because all wastes will be stored in sound shipping containers, inspected regularly, and any spills or leaks will be cleaned up promptly.

10. A power washer will be used to pressure clean the floor of the container storage, staging, ramp, and loading dock areas and the walls to a height of six feet above the floor (which corresponds roughly to the height of two 55-gallon drums stacked on pallets. Wash water will be directed into the containment trench and handled as a hazardous waste. Wash water will be pumped into suitable containers (i.e. tanker trucks or equivalent) and

transported off-site to a RCRA-permitted facility for treatment.

11. After the floor, walls, staging area ramp area and loading dock are dry; a detergent solution (Simple Green or equivalent) will be applied to the floor, staging area, and cell curbs to remove remaining waste residues. The detergent solution will also be applied to the walls, ramp areas, and loading docks as needed to remove any remaining visible contamination.

12. The floor, staging area, and cell curbs will be rinsed three times with potable water to remove detergent solution residues. Walls, ramp areas, and loading docks also will be rinsed three times with potable water, as needed. Rinsate fluids will be pumped into suitable containers (i.e. tanker trucks or equivalent) and transported offsite to a RCRA-permitted facility for treatment.

13. During the third rinse of the various surfaces, a total of 21 samples will be collected. One sample will be collected from each cell storage area (16 samples, one from each ramp area (two samples), one from each dock area (two samples), and one from the potable water used (one sample). Each sample will be analyzed for the following parameter groups by listed methods:

    - Volatile organics (EPA Method 8260)
    - Semivolatile organics (EPA Method 8270)
    - RCRA metals, plus nickel (EPA Method 6010)
    - Pesticides (EPA Method 8081)
    - Total organic carbon (EPA Method 415.2)
    - Total organic halides (EPA Method 9252)
    - PCBs (EPA Method 8082; arochlors only)
    - Total cyanide (EPA Method 335.3)

14. In addition, quality control (QC) samples will be collected in accordance with frequencies specified in an FDEP-approved Comprehensive Quality Assurance Plan (CompQAP). Similarly, laboratory analyses will be performed by a laboratory with an FDEP-approved CompQAP.

15. Laboratory results will be compared to the groundwater clean-up target levels presented in Chapter 62-777 Florida Administrative Code (FAC). Decontamination will be considered complete if concentrations of contaminants are below these target levels or the PQL. In the event that decontamination is considered incomplete for a particular sample location, these decontamination procedures will be repeated in the immediate area of the sample and the rinsate will be re-sampled using the procedures described above until the concentrations meet the specified criteria.

16. As required by 40 CFR 264.112(b)(4), the soils beneath the container storage, dock areas, and ramp areas, will be sampled and checked for possible contamination as outlined in steps 17-26 below.

17. These areas will be divided into a 10' x 10' grid and sampling locations selected at the line intersections.

18. Eight samples within the container storage area, two samples within each dock area and two from each ramp area will be obtained. The 16 locations will be chosen randomly from the intersection points on the grid lines. Each sample location will entail drilling through the concrete floor of the building and ramp area.

19. If cracks are present in the floor (other than surficial cracks) the soil beneath them will be sampled as well.

20. Samples will be taken at the soil surface, immediately beneath the concrete containment and analyzed for the following parameter groups by the listed methods:

    - Volatile organics (EPA Method 8260)
    - Semivolatile organics (EPA Method 8270)
    - RCRA metals, plus nickel (EPA Method 6010)
    - Pesticides (EPA Method 8081)
    - Total organic carbon (EPA Method 415.2)
    - Total organic halides (EPA Method 9252)
    - PCBs (EPA method 8082; arachlors only)
    - Total cyanide (EPA Method 335.3)

21. In addition, QC samples will be collected in accordance with frequencies specified in an FDEP-approved CompQAP. Similarly, all laboratory analyses will be performed by a laboratory with an FDEP-approved CompQAP.

22. While soil contamination is not expected, the procedures outlined in steps 23-26 will be followed in the event soil contamination is determined to exist.

23. Laboratory results will be compared to the soil cleanup target levels presented in 62-777 FAC. Additional soil sampling will not be required provided concentrations of contaminants are below these target levels or the PQL.

24. In the event surface soils at particular locations contain contaminants in concentrations above thresholds, those locations will be re-sampled at a depth of six to twelve inches. Additional soil sampling will not be required provided concentrations of contaminants are below target levels or the PQL.

25. In the event soil sample locations at the six-inch depth contain contaminants in concentrations above thresholds, soil sampling at those locations will continue at six-inch intervals until no contaminants exist in concentrations above thresholds or until CHF determines that excavation and removal of contaminants cannot be done or is not practical. If such a determination is made, a post closure plan will be submitted to the Department.

26. If concentrations of contaminants are detected above thresholds in soil, and the extent is such that removal is deemed impractical, the soil will be excavated to a depth of six inches below the depth of detected contamination. Excavated soil will be disposed of at a RCRA-permitted TSDF. The excavated area will then be backfilled with clean, compacted soil and restored to the original condition. Confirmatory samples will be taken and analyzed for the contaminants of concern to demonstrate the contaminants of concern have been removed.

27. Facility personnel and an independent, registered, professional engineer will inspect the container storage area, dock areas and ramp areas. A certification will be submitted to the FDEP indicating these areas have been decontaminated and closed in accordance with this closure plan.

9.7 Closure Methods - Tanks

1. The FDEP will be notified as least 180 days prior to closure commencement activities.

2. A review of the closure plan by appropriate CHF personnel will be conducted prior to closure commencement activities.

3. Acceptance of bulk waste will be stopped on or before the date closure activities begin.

4. A physical inventory of bulk waste will be conducted to confirm that the Daily Inventory Sheet matches actual inventory.

5. Waste in the tanks will be loaded into tankers and these waste shipments will be transferred off-site to a RCRA-permitted TSD facility.

6. Any waste residues present in the tanks will be removed and placed in DOT approved containers for management at an off-site RCRA-permitted TSD facility.

7. A power washer will be used to pressure clean the interior surfaces of the tanks. Wash water will be collected and handled as a hazardous waste. Wash water will be pumped into suitable containers (i.e., tanker trucks or equivalent) and transported offsite to a

RCRA permitted facility for treatment.

8. The tanks in the Crude Storage Tank Area and in the Bottoms Tanks Area will be removed and cut into pieces suitable for transport to a steel recycling facility. The carbon steel will be melted and reprocessed as scrap metal. Due to the method of disposal of these tanks, the scrap steel resulting from tank closure will not be handled as a hazardous waste pursuant to the solid waste exemption criteria set forth in 40 CFR 261.4 (a)(13).

9. A power washer will be used to pressure clean the floor and walls of the containment area surrounding each group of tanks. Wash water will be directed to the sump within each containment area and handled as a hazardous waste. Wash water will be pumped into suitable containers (i.e., tanker trucks or equivalent) and transported off-site to a RCRA-permitted facility for treatment.

10. After the floors and walls are dry, a detergent solution (Simple Green or equivalent) will be applied to these surfaces, as needed, to remove remaining waste residues.

11. The floor and walls of each containment area will be rinsed three times with potable water to remove detergent solution residues. Rinsate fluids will be directed to the sump in each containment area and handled as a hazardous waste. Rinsate fluids will be pumped into suitable containers (i.e., tanker truck or equivalent) and transported off-site to a RCRA-permitted facility for treatment.

12. During the third rinse of the containment area floors and walls, a total of four samples (two from each containment area floor) of rinsate fluid and one sample of potable water will be collected and analyzed for the following parameter groups by the listed methods:

    - Volatile organics (EPA Method 8260)
    - Semivolatile organics (EPA Method 8270)
    - RCRA metals, plus nickel (EPA Method 6010)
    - Pesticides (EPA Method 8081)
    - Total organic carbon (EPA Method 415.2
    - Total organic halides (EPA Method 9252)

13. In addition, quality control (QC) samples will be collected in accordance with frequencies specified in an FDEP-approved Comprehensive Quality Assurance Plan (CompQAP). Similarly, laboratory analyses will be performed by a laboratory with an FDEP-approved CompQAP.

14. Laboratory results will be compared to the groundwater clean-up target levels presented in Chapter 62-777 FAC. Decontamination will be considered complete if concentrations

of contaminants are below these target levels or the PQL. In the event that decontamination is considered incomplete for a particular sample location, these decontamination procedures will be repeated in the immediate area of the sample and the rinsate will be re-sampled using the procedures described above until the concentrations meet specified criteria.

15. As required by 40 CFR 264.112(b)(4), the soils beneath the containment areas, and the area surrounding the south tank farm will be sampled and checked for possible contamination as outlined in steps 16-25 below.

16. Each containment area will be divided into a 10' x 10' grid and sampling locations selected at the line intersections.

17. One sample at the center of each tank farm containment area (two samples) will be obtained. Four additional samples will be taken from the area surrounding the south tank farm; one sample from each side (i.e. east, west, south and north) for a total of 6 samples. Each sample location will entail drilling through the concrete floor of the containment area or concrete perimeter road.

18. If cracks are present in the floor areas (other than surficial cracks) the soil beneath them will be sampled as well.

19. Samples will be taken at the soil surface, immediately beneath the concrete containment and analyzed for the following parameter groups by the listed methods:

    - Volatile organics (EPA Method 8260)
    - Semivolatile organics (EPA Method 8270)
    - RCRA metals, plus nickel (EPA Method 6010)
    - Pesticides (EPA Method 8081)
    - Total organic carbon (EPA Method 415.2)
    - Total organic halides (EPA Method 9252)

20. In addition, QC samples will be collected in accordance with frequencies specified in an FDEP-approved CompQAP. Similarly, all laboratory analyses will be performed by a laboratory with an FDEP-approved CompQAP.

21. While soil contamination is not expected, the procedures outlined in steps 22-25 will be followed in the event soil contamination is determined to exist.

22. Laboratory results will be compared to the soil cleanup target levels presented in 62-77 FAC. Additional soil sampling will not be required provided concentrations of contaminants are below these target levels or the PQL.

23. In the event surface soils at particular locations contain contaminants in concentrations above thresholds, those locations will be re-sampled at a depth of six to twelve inches. Additional soil sampling will not be required provided concentrations of contaminants are below target levels or the PQL.

24. In the event soil sample locations at the six-inch depth contain contaminants in concentrations above thresholds, soil sampling at those locations will continue at six-inch intervals until no contaminants exist in concentrations above thresholds or until CHF determines that excavation and removal of contaminants cannot be done or is not practical. If such a determination is made, a post closure plan will be submitted to the Department.

25. If concentrations of contaminants are detected above thresholds in soil, and the extent is such that removal is deemed impractical, the soil will be excavated to a depth of six inches below the depth of detected contamination. Excavated soil will be disposed of at a RCRA-permitted TSDF. The excavated area will then be backfilled with clean, compacted soil and restored to the original condition. Confirmatory samples will be taken and analyzed for the contaminants of concern to demonstrate the contaminants of concern have been removed.

26. Facility personnel and an independent, registered, professional engineer will inspect the tanks and submit to the FDEP certification that the tanks have been decontaminated and closed in accordance with this closure plan within 180 days of commencement of closure activities.

9.8 Perimeter Road

Contamination in the perimeter road is expected to be minimal because this area is inspected regularly, and any spills or leaks are cleaned up promptly. For the purpose of this Closure Plan, the perimeter road is divided into two separate areas.

One area is the portion to the north of the South Container Storage Building. This area is used for mixbox processing, staging before processing and/or loading/unloading activities and the potential for contamination is greater here than the remaining perimeter road area. The size of the area is the same as the length of the Container Storage Building (125') and extending 50 feet to the north of the South Container Storage Building. The closure of this staging area of the perimeter road is given in Section 9.8.1.

9.8.1 Perimeter Road (Staging Area)

1. The FDEP will be notified at least 180 days prior to the date closure is to begin.

2. A review of the closure plan by appropriate CHF personnel will be conducted prior to closure commencement activities.

3. A power washer will be used to pressure clean the surface of the staging area within the perimeter road. Wash water will be handled as a hazardous waste and directed to the perimeter road sump. Wash water will be collected and pumped into suitable containers (i.e., tanker trucks or equivalent) and transported offsite to a RCRA-permitted facility for treatment.

4. After the surface in this area is dry, a detergent solution (Simple Green or equivalent) will be applied to the Staging Area to remove remaining waste residues.

5. The staging area surface will be rinsed three times with potable water to remove detergent solution residues. Rinsate fluids will be directed into the sump and handled as a hazardous waste. Rinsate fluids will be pumped into suitable containers (i.e., tanker truck or equivalent) and transported offsite to a RCRA-permitted facility for treatment.

6. During the third rinse of the staging area surface a total of four samples (one from each quadrant of the staging area) of rinsate and one sample of potable will be collected and analyzed for the following parameter groups by the listed methods:

   - Volatile organics (EPA Method 8260)
   - Semivolatile organics (EPA Method 8270)
   - RCRA metals, plus nickel (EPA Method 6010)
   - Pesticides (EPA Method 8081)
   - Total organic carbon (EPA Method 415.2)
   - Total organic halides (EPA Method 9252)

7. In addition, quality control (QC) samples will be collected in accordance with frequencies specified in an FDEP-approved Comprehensive Quality Assurance Plan (CompQAP). Similarly, laboratory analyses will be performed by a laboratory with an FDEP-approved CompQAP.

8. Laboratory results will be compared to the groundwater clean-up target levels presented in Chapter 62-777 FAC. Decontamination will be considered complete if concentrations of contaminants are below these target levels or the PQL. In the event that decontamination is considered incomplete for a particular sample location, these decontamination procedures will be repeated in the immediate area of the sample and the rinsate will be re-sampled using the procedures described above until the concentrations meet the specified criteria.

9. The soils beneath the Perimeter Road Staging Area will be sampled and checked for possible contamination as outlined in steps 10-19 below.

10. The area will be divided into a 10' x 10' grid and sampling locations selected at the line intersections.

11. Four samples within the Perimeter Road Staging Area will be chosen randomly from the intersection points on the grid lines. Each sample location will entail drilling through the concrete floor of the containment area.

12. If cracks are present in the area (other than surficial cracks) the soil beneath them will be sampled as well.

13. Samples will be taken at the soil surface, immediately beneath the concrete containment and analyzed for the following parameter groups by the listed methods:

    - Volatile organics (EPA Method 8260)
    - Semivolatile organics (EPA Method 8270)
    - RCRA metals, plus nickel (EPA Method 6010)
    - Pesticides (EPA Method 8081)
    - Total organic carbon (EPA Method 415.2)
    - Total organic halides (EPA Method 9252)

14. In addition, QC samples will be collected in accordance with frequencies specified in an FDEP-approved CompQAP. Similarly, all laboratory analyses will be performed by a laboratory with an FDEP-approved CompQAP.

15. While soil contamination is not expected, the procedures outlined in steps 16-19 will be followed in the event soil contamination is determined to exist.

16. Laboratory results will be compared to the soil cleanup target levels presented in 62-77 FAC. Additional soil sampling will not be required provided concentrations of contaminants are below these target levels or the PQL.

17. In the event surface soils at particular locations contain contaminants in concentrations above thresholds, those locations will be re-sampled at a depth of six to twelve inches. Additional soil sampling will not be required provided concentrations of contaminants are below target levels or the PQL.

18. In the event soil sample locations at the six-inch depth contain contaminants in concentrations above thresholds, soil sampling at those locations will continue at six-inch

intervals until no contaminants exist in concentrations above thresholds or until CHF determines that excavation and removal of contaminants cannot be done or is not practical. If such a determination is made, a post closure plan will be submitted to the Department.

19. If concentrations of contaminants are detected above thresholds in soil, and the extent is such that removal is deemed impractical, the soil will be excavated to a depth of six inches below the depth of detected contamination. Excavated soil will be disposed of at a RCRA-permitted TSDF. The excavated area will then be backfilled with clean, compacted soil and restored to the original condition. Confirmatory samples will be taken and analyzed for the contaminants of concern to demonstrate the contaminants of concern have been removed.

20. Facility personnel and an independent, registered, professional engineer will inspect the container storage area, staging area and ramp area. A certification will be submitted to the FDEP indicating these areas have been decontaminated and closed in accordance with this closure plan.

9.8.2 Perimeter Road (Non-Staging Area)

Hazardous waste contamination in the perimeter road, non-staging area, is expected to be minimal as hazardous waste containers and drums are not handled or stored in these areas.

The non-staging area portion of the perimeter road will be visually inspected for signs of potential contamination. Areas of possible contamination will be pressure washed. Wash water will be handled as a hazardous waste and collected and pumped into suitable containers (i.e., tanker trucks or equivalent) and transported off-site to a RCRA-permitted facility for treatment. The area will be rinsed with potable water. One sample of rinsate fluid from the center of the washed area and one sample of potable water will be collected and analyzed for the following parameter groups by the listed methods:

- Volatile organics (EPA Method 8260)
- Semivolatile organics (EPA Method 8270)
- RCRA metals, plus nickel (EPA Method 6010)
- Pesticides (EPA Method 8081)
- Total organic carbon (EPA Method 415.2)
- Total organic halides (EPA Method 9252)

In addition, quality control (QC) samples will be collected in accordance with frequencies specified in an FDEP-approved Comprehensive Quality Assurance Plan (CompQAP). Similarly, laboratory analyses will be performed by a laboratory with an FDEP-approved CompQAP.

Laboratory results will be compared to the groundwater clean-up target levels presented in Chapter 62-777 FAC. Decontamination will be considered complete if concentrations of contaminants are below these target levels or the PQL. In the event that decontamination is considered incomplete for the rinsate fluid sample collected, the area will be rinsed a second time and the rinsate will be re-sampled using the procedures described above.

9.9 Miscellaneous Equipment

Expendable equipment such as personal protective equipment, shovels, brooms, buckets, hoses, pipes, etc. will be handled as hazardous waste and collected, contained, and shipped off-site to a RCRA-permitted TSD facility, as appropriate. Non-expendable equipment such as pumps, valves, control devices, can crushers, drum scraper, compactor/drum crusher etc. will be decontaminated by washing and wiping with appropriate cleaning agents. This also includes the filtering equipment used for the solids filtering process. Decontaminated equipment (including the tanks, and fuels blend equipment) may be left in place for subsequent use by a successor owner, transferred to another facility or taken to a scrap metal facility.

9.10 Run-on and Run-off Control During Closure Operations

The operating facility is designed to contain run-off and to prevent the movement of run-on onto the active portions of the facility. This is accomplished by the secondary containment systems surrounding each tank farm and the paved, curbed roadway which encompasses the facility. Both of these systems will remain intact during closure operations to control the movement of run-on and run-off at the facility.

9.11 Groundwater Monitoring

Because CHF does not operate a surface impoundment, waste pile, land treatment unit or landfill, the requirements of 40 CFR 264 Subpart F do not apply. Consequently, CHF will not conduct groundwater monitoring except as may be required for any corrective action program initiated on-site.

9.12 Certification of Closure

At the completion of closure activities, an independent, registered, professional engineer, licensed in the state of Florida, will inspect the entire facility and certify that closure was performed in accordance with the specifications in the approved Closure Plan. CHF will submit a certification of proper closure to the FDEP.

9.13 Survey Plat

Because CHF does not operate a landfill or other hazardous waste disposal unit, the requirements of 40 CFR 264.116 are not applicable.

9.14 Post Closure

Post closure is not required because CHF will not operate any hazardous waste disposal units on-site. However, should soil and/or groundwater contamination requiring post-closure care be found to exist, a post-closure care plan will be submitted as appropriate.

LIST OF FIGURES

Figure 9.1 MAXIMUM WASTE INVENTORY AT CLOSURE

CONTAINER STORAGE BUILDINGS

South Container Storage Building

1,944 drums x 55 gallons/drum (or equivalent) = 106,920 gallons

North Container Storage Building

2,480 drums x 55 gallons/drum (or equivalent) = 136,400 gallons

STORAGE TANKS

South Tank Farm

Tanks T-101 through T-110 .... 60,000 gallons

West Tank Farm

Tanks R-202 and R-203 .... 12,600 gallons

Fuel Blending Tanks

Tanks T-112 & T-114 .... 0 gallons

Subtotal - Tanks storage .... 72,600 gallons

ROLL-OFFS/MIXBOX

Four 40 yd^3 roll-off boxes .... 32,320 gallons

MAXIMUM STORAGE CAPACITY OF WASTE AT CHF = 348,240 gallons

ATTACHMENT 1

Closure Plan for PCB Area

8.0 PCB CLOSURE PLAN

8.1 Facility Description

8.1.1 Site Description

CHF is located at 170 Bartow Municipal Airport in the city of Bartow, Polk County, Florida. Figures 8.1 and 8.2 are the Site Location Map and Facility Site Plan, respectively. The Site Location Map and Facility Site Plan provide information on the property boundary, location of buildings, PCB and hazardous waste storage areas, surrounding property use and other major topographical and structural features.

The facility is not located within the 100-year Floodplain (see Figure 8.3).

A gate at the main entrance controls traffic within the facility. Vehicles proceed through the gate to a loading/unloading dock and then back to the same gate for exit.

The site is located within an existing industrial park and is zoned Industrial. The surrounding property is used for commercial and light industrial purposes.

The facility currently has a RCRA Part B hazardous waste operating permit, which was issued by the Florida Department of Environmental Protection (FDEP). The Part B Permit authorizes the facility for treatment in tanks (fuels blending), storage in tanks and containers, miscellaneous units, and to act as a transfer facility. RCRA hazardous waste codes that can be managed at the facility include D-, F-, K-, P- and U- listed wastes.

8.1.2 Environmental Conditions

The site is located in a commercially developed portion of Polk County. There are no drinking water withdrawal wells located within at least 1/4 mile of the facility. The nearest major environmental receptor (surface) are unnamed tributaries that lead to the Peace River which is located approximately 2 miles from the site.

All operating portions (including vehicular traffic) are located on concrete surfaces equipped with eight-inch berms thereby minimizing the potential for a release to soil and/or groundwater.

8.1.3 PCB Waste Storage Facility Design

PCB staging, unloading, loading and storage are located entirely within a building. Walls and roof protect the loading/unloading docks and bays, and the truck bays are sloped to collect any spills that may occur when transferring material from the trucks.

The PCB storage area is likewise located within the building. All PCBs stored at the facility will be stored in DOT specification and/or OSHA approved containers on pallets within the designated storage cell.

The storage cell is 15.75 feet by 27.1 feet with a six-inch high berm surrounding the cell on all sides. These dimensions provide an immediate containment of 1,468 gallons (see Section 6.2.3 for details). The containment required under TSCA is 25% of the maximum PCB volume stored. Therefore, the required volume is 64 drums x 55 gallons/drums x 25% equals 880 gallons. Details of the storage cell are provided in Figure 8.4.

The secondary containment system in the storage cell consists of containment berms of at least six inches in height on all four sides of the cell. All expansion joints are sealed. The joints as well as the floor, and berms of the cell are coated with an epoxy coating (polyurethane or equivalent).

All containers are stored on pallets with 30-inch wide aisles between the rows of pallets to grant easy access for leaks spill detection.

8.2 DISPOSAL OF PCB WASTE INVENTORY

8.2.1 Maximum Inventory

CHF intends to store a maximum PCB inventory of 3520 gallons. At any given time, the facility may have in storage PCB articles, PCB article containers, PCB containers, PCB capacities, PCB transformers; PCB contaminated electrical equipment, other PCBs and PCB waste. The respective quantities of any of these items in storage may vary in range from zero percent to one hundred percent of the permitted storage volume (3520 gallons or (64) 55-gallon drum equivalents). The concentrations of PCBs in any of these items will be greater than 50 PPM.

At no time will the actual inventory of PCB wastes exceed the rated capacity of the facility.

8.2.2 Disposal of Inventory

Within 90 days from receipt of the final shipment of PCB waste, the facility will dispose of the entire inventory of PCB waste. Clean Harbors Florida, LLC, at that point, will assume the role of "generator" and as such will comply with the regulations covering generators. Specifically, the facility will prepare manifests, perform the necessary recordkeeping and track the delivery and disposal of all PCB waste shipments.

For estimating purposes, it has been assumed that at closure, the entire PCB inventory (3520 gallons) plus decontamination wastes will be shipped off site for treatment and disposal.

All PCB-containing materials will be manifested to properly approved and permitted facilities. Only DOT and/or OSHA approved containers will be accepted on site, and any material transferred to any other container will only be transferred to DOT and/or OSHA approved containers. Removal and transportation of the stored materials will not present any extraordinary activities. All wastes received at the facility will have the necessary permits obtained prior to removal off site. Only approved sites will be used. Incinerators must meet the requirements set by 40 CFR 761.70(a), chemical waste landfills must meet the requirements established in 40 CFR 761.75(a) and storage facilities must meet the requirements of 40 CFR 761.65.

Disposal of PCB contaminated materials (inventory) will be managed in the following manner:

- Solids with PCB concentrations in excess of 50 PPM will be disposed of through incineration, other approved thermal treatment, and/or chemical landfill;

- Liquids with PCB concentrations of 50 PPM or greater will be disposed of through incineration, other approved treatment technology.

Clean Harbors Florida, LLC reserves the right to utilize other off site treatment technologies for the disposal of PCBs as they are developed and subsequently approved by the Regional Administrator.

Facilities such as Chemical Waste Management in Emelle, Alabama are examples of the types of facilities that may be used for final disposal. The types of materials that may be sent to these facilities include, but are not necessarily limited to, the final inventory of PCBs onsite, by-products from decontamination (rinse waters, solvent, rags, and other contaminated decontamination equipment) and pallets used for storage of PCBs. All materials shipped off-site at closure will be by permitted commercial carriers.

The closure schedule is provided in Section 8.5.

8.3 CLOSURE PLAN SAMPLING DECONTAMINATION AND COMPLIANCE WITH THE SPILL CLEANUP POLICY

8.3.1 Equipment and Area Classification

To ensure a thorough cleanup of the PCB storage area and associated operations and structures, the following is an itemization of the various components that will require decontamination during closure activities and confirmatory sampling. The basis for the sampling grid was taken from the respective classification as outlined in the Spill Cleanup Policy.

The PCB storage area is classified as an "Impervious Solid Surface" since the area is constructed with a concrete floor and berm, free of cracks, gaps, and inlet/outlet structures. Additionally, the storage area is coated and sealed by a polyurethane coating (or equivalent) to provide an impervious barrier between the containers of PCBs and the concrete floor. The types of epoxies used are resistant to degradation by PCB containing materials and are designed to withstand the abrasive activities associated with industrial operations. The specifications shown in Attachment 8-1 are typical of minimum requirements for the epoxy coating that will be used at the facility.

8.3.2 Numerical Standard

As previously mentioned, the area to be closed is classified as "Impervious Solid Surface". Closure of the PCB storage area will in all likelihood occur concurrently with overall facility closure as specified in the facility's RCRA Part B closure plan, in the year 2045. For the purpose of closure and decontamination, it has been assumed that the property may be made available for general use to the subsequent tenant and therefore, clean up will be performed to meet decontamination requirements for "non-restricted access areas". This standard requires that impervious solid surfaces be decontaminated to a PCB concentration of 10 micrograms/100 cm2 (as measured by the standard wipe test specified in EPA Guidance "Verification of PCB Spill Cleanup by Sampling and Analysis", 1985).

8.3.3 QA/QC

The PCB storage area will be decontaminated as outlined below in Section 8.4. The decontamination will be confirmed by taking random wipe samples.

The Health and Safety Plan is provided as Attachment 8-2 and will be followed during the closure process.

QA/QC - CHF uses a number of contract labs to perform various analyses. As a matter of practice, only qualified and certified labs are used. As part of Clean Harbors Florida, LLC's certification/qualification requirements, these labs must maintain strict adherence to a number of protocols and certifications including a comprehensive QA/QC plan.

Prior to initiating closure, the facility will transmit the selected laboratory's QA/QC Plan to the EPA regional QA officer for review and approval. At a minimum, the laboratory QA/QC plan will contain the following information:

1. Protocols
2. Certification and Performance
3. Checks
4. Procedural QC
5. Sample QC
6. Sample Custody

Table 8-1 is a sample Table of Contents from one of the laboratory's "Quality Assurance Plan" and exemplifies the level of detail that will be incorporated into the QA/QC Plan developed for closure of the PCB storage area.

TABLE 8-1 SAMPLE TABLE OF CONTENTS QA/QC PLAN

Section

8.3.4 Decontamination Procedures

All disposable items used in PCB closure and/or decontamination operations, such as gloves, clothing, respirators, and hand tools will be placed in appropriate shipping containers for disposal as PCB waste. All containers will be manifested, sealed and labeled as required by state, EPA and DOT guidelines for transport to an EPA permitted T/S/D facility (or one with interim status) for final disposition (i.e., secure landfill, incineration, etc.). Disposal of PCB contaminated materials will be managed in the following manner:

- Solids with PCB concentrations in excess of 50 PPM will be disposed of through incineration, other approved thermal treatment, and/or chemical landfill;

- Liquids with PCB concentrations of 50 PPM or greater will be disposed of through incineration, other approved treatment technology

CHF reserves the right to implement other treatment technologies for the disposal of PCBs as they are developed and subsequently approved by the Regional Administrator.

As previously indicated, only those incinerators that meet the requirements of 40 CFR 761.70(a), chemical waste landfills that meet the requirements established in 40 CFR 761.75(a), or storage facilities meeting the requirements stated in 40 CFR 761.65 will be used.

8.3.4.1 Decontamination of Structures

Upon commencement of closure activities, the floors, and berms of the storage location area will be decontaminated as outlined below:

- Swept thoroughly.

- Appropriate solvent (preferably water based) will be used to clean the floors and dikes to remove remaining particulates and PCB waste residues.

- After surfaces dry, they will be cleaned with soapy water to remove solvent residues and remaining waste residues.

- Surfaces will be cleaned twice with clear water to remove soap residues. Liquids will be shipped to appropriately approved disposal sites.

- All liquid and solid waste residues generated during decontamination activities will be containerized, properly characterized (as PCB contaminated or not). If these materials are free of PCBs they will be managed as such, otherwise they will be shipped to a PCB permitted disposal or storage facility. (Note: the wash water to be discharged to the local POTW if it is not prohibited by TSCA or the POTW.)

- The structure will be allowed to dry and air for one week. Decontamination will be confirmed by:

A. Walk around air monitoring with a portable organic vapor monitor.
B. Hexane swabs taken at random locations. Two blanks, one labeled

and one unlabeled will also be analyzed.

8.3.4.2 Decontamination of Equipment

All equipment used in the PCB closure operations will be decontaminated in a manner similar to that used for structures. Non-expendable equipment will be decontaminated and transferred to other Clean Harbors Florida, LLC facilities. Used expendable equipment such as protective clothing and cleaning gear will be disposed of in accordance with the appropriate procedures and regulations.

8.3.5 Post-Cleanup Verification Procedures

Post-cleanup sampling will be a random sampling protocol, which will demonstrate whether or not PCBs have been removed to an acceptable level (<10 micrograms/100 cm2).

8.3.5.1 Random Sampling

Random wipe samples will be taken from the PCB storage area floor and berms to verify proper decontamination has been achieved. The sampling locations are shown in figure 8.5. These locations were determined using a grid system. The grid system was derived using the guidelines from document entitled "Verification of PCB spill Cleanup by Sampling and Analysis". The area is greater than 400 square feet, so the grid is set up so the distance between gridlines is no more than 0.3r (NOTE: to determine "r", the smallest cell dimension of 15.75 feet was used to be conservative; i.e. (15.75'/2) x 0.3 = 2.36'). The point at which each grid line intersects is called a node and is numbered. Ten nodes have been selected for random sampling using a random number generator and will be sampled using hexane swabs to collect standard wipe samples. The samples will then be analyzed for SW-846 (latest edition) Method 8082 (or EPA approved equivalent) constituents (PCBs).

8.3.5.2 Disposal

All disposable items used in PCB closure and/or decontamination operations, such as gloves, clothing, respirators, and hand tools will be placed in appropriate shipping containers for disposal as PCB waste. All containers will be manifested, sealed and labeled per state, EPA and DOT guidelines for transport to an EPA permitted T/S/D facility (or one with interim status) for final disposition (i.e., secure landfill, incineration, etc.).

Disposal of PCB contaminated materials will be managed in the following manner:

- Solids with PCB concentrations in excess of 50 PPM will be disposed of through incineration, other approved thermal treatment, and/or chemical landfill;

- Liquids with PCB concentrations of 50 PPM or greater will be disposed of through incineration, other approved thermal treatment.

CHF reserves the right to implement other treatment technologies for the disposal of PCBs as they are developed and subsequently approved by the Regional Administrator.

As previously indicated, only those incinerators that meet the requirements of 40 CFR 761.70(a), and chemical waste landfills that meet the requirements established in 40 CFR 761.75(a), will be used.

8.3.5.3 Estimated Quantities of Materials to be Disposed During Decontamination

It can be anticipated that during closure and decontamination activities, wastes will be generated that will likely have to be managed as PCB wastes and/or RCRA type wastes. These waste types may include, but are not necessarily limited to, spent solvent, rags, gloves, coveralls, boots, shovels, brooms, other tools, samples, and debris. The liquid wastes (solvent, water) will be drummed and likewise the solid waste will be placed in drums for subsequent disposal. It has been estimated that the closure/decontamination activities will generate approximately six drums of waste material. Costs associated with the disposal are included in the closure cost estimate.

8.4 OTHER CLOSURE ACTIVITIES

As shown on the facility site plan, the entire storage area, including loading and unloading facilities, is located within a building completely roofed, walled and floored. The storage unit (bay) used to store PCBs is located in the interior of the building and surrounded by concrete aisles and buffer zones. Please refer to figure 8.4 for details of the secondary containment system.

However, in the unlikely event that PCB waste contacts and contaminates surrounding soil, the following procedure will be followed:

The area of the known or suspected contact will be identified and delineated. As soon as possible all soil, which is believed to be contaminated, will be removed and disposed of as PCB waste (as described in Section 8.3.5.2, for example). A sample point location grid will then be developed for the area in accordance with EPA's "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup". Soil samples will be collected using appropriate means from each applicable sample point to a depth of six inches and analyzed according to EPA SW-846 (latest edition), Method 8082, 8250 or 8270 (or EPA approved equivalent) in that order or preference. During and following sample collection, all standard operating procedures will be followed including strict chain of custody during sample transfer. If analytical findings indicate contamination, an additional six inches of soil will be removed and disposed of as PCB waste. Another round of samples will then be collected and analyzed. This process will continue until analytical results verify that all PCB-contaminated soil has been removed. All equipment used in removal of contaminated soil will be decontaminated as described in Section 8.3.4.3. The area excavated will then be backfilled with clean fill material.

8.4.1 Security

A chain-link fence topped with barbed wire surrounds the entire facility. A gate through which all traffic must flow controls access to the operating portion. It is intended during closure, that nonauthorized personnel will use this same type of security device to prevent access.

8.5 SCHEDULE OF CLOSURE

If the facility is to be closed, a period of 180 days will be required to properly close the site. The schedule of closure events and time necessary for completion of these events is as follows:

CLOSURE SCHEDULE

<u>Days</u>	<u>Container Storage Closure Milestones</u>
0	Stop accepting wastes. Begin physical inventory and preparation of shipping documents and approval requests to disposal facilities. Continue removing wastes already scheduled for disposal.
60	Complete preparation of all manifests and approval requests.

90 Complete removal of all wastes from site. Begin physical cleanup and decontamination of facility.

120 Complete disposal information to original generators.

150 Complete physical cleanup and decontamination of facility no later than this date. Perform sampling for confirmation no later than this date. Begin removing equipment when cleanup is complete.

180 Complete removing equipment from facility. Independent engineer inspects facility, reviews sample results, certifies closure plan.

NOTES:

1. Labor costs include two laborers for two days to perform loading, unloading, sampling, decontamination, drumming waste materials and other activities as required.

2. Includes pumps, compressors and any other piece of equipment deemed necessary by management to achieve the closure performance standard.

3. Includes wash/rinse water, rags, spent solvent and coveralls, etc. Costs incinerating the disposable items such as gloves reflect "worst-case scenario" of drummed material.

4. The cost also reflects the "worse case scenario" of having to incinerate the entire inventory.

The owner or operator will adjust the closure cost estimate for inflation within 30 days after the close of the company's fiscal year or within 60 days prior to the anniversary date of the establishment of the financial instrument used to comply with 40 CFR 765.65(f) (2), whichever is later. The inflation factor utilized will be derived from the annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its Survey of Current Business.

During the active life of the facility, the owner or operator will revise the closure cost estimate within 30 days after the Regional Administrator approves a request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised cost estimate will be adjusted for inflation, as specified in 40 CFR 765.61(f)(2).

P. Information Requirements Regarding Potential Releases From Solid Waste Management Units

Facility Name Clean Harbors Florida LLC

EPA/DEP I.D. No. FLD 980 729 610

Facility location Bartow (city) FL (state)

1. Are there any of the following solid waste management units (existing or closed) at your facility? A solid waste management unit (SWMU) is a discernable 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 wastes. 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).

DO NOT INCLUDE HAZARDOUS WASTE UNITS CURRENTLY SHOWN 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
other units not listed above)	☐ Yes	☐ No

(Note: All SWMU's are in the Part B)

2. If there is a "yes" answer to any of the items in 1. above, on separate sheet(s) of paper, provide a description of the wastes that were stored, treated or disposed of in each unit. In particular, focus on whether or not 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. Provide a description of each unit and include capacity, dimensions, and location at the facility. Provide a site plan, if available, and the dates of operation of the unit [40 CFR 270.14(d)(1)].

3. On separate sheet(s) of paper, describe all data available 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, for each unit noted in 1. above and also for each hazardous waste unit in your Part B application [40 CFR 270.14(d)(1)].

   Provide the following information for each SWMU:

   a. Date of release.
   b. Specifications of all wastes managed at the unit, to the extent available.
   c. Quantity or volume of waste released.
   d. Describe the nature of the release (i.e., spill, overflow, ruptured pipe or tank, etc.) e. Location of the unit on the topographic map provided under 40 CFR 270.14(b)(19).
   f. Designate the type of unit.
   g. General dimensions and structural description (supply any available drawings).
   h. Dates of operation.

   (See Section Q)

4. On separate sheet(s) of paper, provide for each unit all analytical data that may be available which would describe the nature and extent of the environmental contamination that exists as a result of the prior releases described in 3. above. Focus on the concentrations of hazardous wastes or constituents present in contaminated soil or groundwater [40 CFR 270. 14(d)(3)].

   (See Section Q)

SECTION Q

SOLID WASTE MANAGEMENT UNITS

1.0 Facility Process Description

Clean Harbors Florida, LLC (CHF) is a hazardous waste treatment, storage, and disposal facility located in Bartow, Florida. The facility accepts a variety of hazardous and non hazardous wastes from industrial and governmental generators. The waste is stored on-site in containers and tanks before being shipped off-site for final disposition.

2.0 Facility Solid Waste Manage Units and Areas of Concern

Handling these hazardous wastes at locations throughout the facility creates the potential for exposure to the environment. Areas of the facility where such exposure may occur are identified as either solid waste management units (SWMUs) or areas of concern (AOCs). A SWMU is defined as any unit which has been used for the treatment, storage, or disposal of solid waste at any time, irrespective of whether the unit is or ever was intended for the management of solid waste. An AOC includes any area having a probable release of a hazardous waste or hazardous constituent which is not from a SWMU and which has been determined to pose a current or potential threat to human health or the environment.

The USEPA conducted a RCRA Facility Assessment (RFA) for this facility in July 1991. SWMUs identified at the CHF Bartow facility as a result of the RFA include the following units:

- SWMU #1: Hazardous Waste Fuel Blending Area
- SWMU #2: Drum Staging/Storage Area
- SWMU #3: Stormwater Collection Tanks
- SWMU #4: Stormwater Retention Ponds
- SWMU #5: Crude Storage Area (South Tank Farm)
- SWMU #6: Intermediate Storage Area
- SWMU #7: Process Area
- SWMU #8: Amnesty Days dumpster
- SWMU #9: Fume Hood Collection tank
- SWMU #10: Laboratory Satellite Accumulation Areas
- SWMU #11: Boot Cover Disposal Drums
- SWMU #12: Former Lab Trailer Drain Containment Pad

As a result of the RFA completed in July 1991, the Freon Wash Water Storage Tank was identified as the only AOC at the CHF Bartow facility (AOC A).

Three additional SWMU's were identified in the 2006 Part B renewal application. They include:

- SWMU # 13: North Container Storage Building sampling area
- SWMU # 14: Petroleum Wastewater Tanks
- SWMU # 15: Roll Off storage in the perimeter road area

These SWMUs and AOC are described in the following sections, along with their respective status under the current HSWA permit issued by EPA. Figure 18-1 shows the location of these SWMUs and AOC.

3.0 Description and Status of Solid Waste Management Units

A description and regulatory status of each SWMU is provided in the following.

3.1 Hazardous Waste Fuel Blending Area (SWMU #1)

The hazardous waste fuel blending area (SWMU #1) is located in the northeast portion of the South Container Storage Building on the south side of the facility. Fuel blending tanks (T-112 and T-114), a can crusher, a drum crusher, a drum scraper, and a drum pumping station currently are located within SWMU #1.

Activities conducted in SWMU #1 include the blending of hazardous wastes that cannot be reclaimed due to high viscosity, high concentrations of contaminants, or low recyclable value. Fuel grade wastes are determined by waste analysis. Containers of mostly liquid wastes are dumped or pumped into tanks T-112 or T-114, blended, and transferred to one of the hazardous waste storage tanks or directly to tanker trucks. Other activities conducted in SWMU #1 include drum and can crushing, drum scraping, and pumping drums directly to the crude storage tanks (T-100's). These activities are conducted within an enclosed building over concrete secondary containment.

Currently, SWMU #1 requires no further action.

3.2 Drum Staging Storage Area (SWMU #2)

The drum staging storage area (SWMU #2) is the South Container Storage Building located on the south side of the facility. SWMU #2 consists of a staging area where samples are collected from incoming drums and a storage area where drums are stacked on pallets. The concrete floor provides secondary containment and is tied to a trench drain that runs the length of the building. The permitted container storage area is designed to store a maximum volume of 106,920 gallons (equivalent to 1,944, 55-gallon drums).
Hazardous waste to be stored in SWMU #2 is unloaded at the dock and placed in the staging area for sampling, labeling, bar coding, and other requested QC functions. After identification the hazardous materials are classified and moved into the storage area.

Currently, SWMU #2 requires no further action.

3.3 Stormwater Collection Tanks (SWMU #3)

The stormwater collection tanks (SWMU #3) are located in the southeast corner of the facility near the main entrance/exit gate. Tank T-604 has a capacity of 5,800 gallons and T-605 has a capacity of 16,000 gallons. These tanks are used for temporary storage of stormwater collected and pumped from the low point of the perimeter road containment area. Stormwater collected in these tanks is tested prior to discharge off-site for treatment and disposal.

Currently, SWMU #3 requires no further action.

3.4 Stormwater Retention Pond (SWMU #4)

Stormwater retention ponds (SWMU#4) are located on the south side of the facility east of the South Container Storage Building and east of the office and laboratory building on the east side of the facility. SWMU #4 ponds normally are dry grassy areas that function as stormwater overflow structures for the perimeter road area and east area of the facility. Stormwater collected in these areas percolates and evaporates from these structures.

Initially, SWMU #4 was identified as requiring no further action. However, CHF conducts routine monitoring of groundwater at the facility outside of any regulatory involvement for internal risk management purposes. Monitoring results (see discussion below) from 1986 to the present showed potential groundwater impacts in the vicinity of the south retention pond and CHF subsequently notified EPA of the monitoring results. This notification triggered the corrective action requirements of the HSWA permit issued by EPA. A RCRA Facility Investigation (RFI) Work Plan was prepared in 1992 and updated in 1995 to identify the investigative activities proposed by CHF to determine the nature and extent of the groundwater impacts around the south retention pond.

In January 2002 the Florida Department of Environmental Protection (FDEP) determined that no further corrective action was required. This determination was reached after FDEP reviewed the facility's RCRA/HSWA permit renewal application that contained sampling data results (1986 – 2000) from the facility's groundwater monitoring network. The findings are incorporated into the facility RCRA/HSWA permit (64247-HO-007) issued by FDEP on January 18, 2002.

SMU # 4 requires no further action

3.5 Crude Storage Area (South Tank Farm) (SWMU #5)

The crude storage area or the South Tank Farm (SWMU #5) is located in the south portion of the facility, north of the South Container Storage Building. SWMU #5 consists of ten steel storage tanks, T-101 through T-110, each with the capacity to hold 6,000 gallons of crude hazardous waste. A reinforced concrete pad and wall around the perimeter of the tanks provides secondary containment volume of 12,258 gallons. Other activities conducted in this area include three tanker truck loading and unloading stations used for crude hazardous waste handling and blended fuel waste handling.

Currently, SWMU #5 requires no further action.

3.6 Intermediate Storage Area (SWMU #6)

The intermediate storage area (SWMU #6) was located near the center of the facility, east of the Boiler Building and perimeter road and west of the Process Area. SWMU #6 consisted of ten steel storage tanks, T-201 through T-210, each with the capacity to hold 6,000 gallons of partially processed product. All tanks have been cleaned and removed. A reinforced concrete pad and wall around the perimeter of the former tanks provided secondary containment for this SWMU.

Currently, SWMU #6 requires no further action.

3.7 Process Area (SWMU #7)

The process area (SWMU #7) was located in the center of the facility, south of the Product Storage Area, north of the Crude Storage Area, and east of the intermediate storage area. SWMU #7 consisted of a vacuum still, thin-film evaporator, solvent, solvent wash tank, a hydrochlorofluorcarbon (HCFC) still, and distillation column. All equipment has been cleaned and removed.

Currently SWMU #7 requires no further action.

3.8 Amnesty Days Dumpster (SWMU #8)

The amnesty days dumpster (SWMU #8) does not currently exist but was located within the Perimeter Road Area. SWMU #8 was a lined and covered 40 cubic yard roll-off box that holds various types of solid or hazardous waste.

Currently SWMU #8 requires no further action.

3.9 Fume Hood Collection Tank (SWMU #9)

The fume hood collection tank (SWMU #9) is located on the north side of the Office and Laboratory Building on the east side of the facility. SWMU #9 was used to collect fluids from fume hoods located in the laboratory areas.

In February 1992, the EPA identified SWMU #9 as requiring confirmatory sampling to address concerns of potential contamination in this area. Confirmatory sampling at SWMU #9 was completed in April 1992. Sampling results were sent to the EPA and subsequently, CHF received notice from the EPA on June 24, 1992 stating that no further action was needed for SWMU #9.

3.10 Laboratory Satellite Accumulation Areas SWMU #10

Laboratory satellite accumulation areas (SWMU #10) are located in the Office and Laboratory Building on the east side of the facility, north of the visitor parking area. Hazardous waste materials are accumulated in this area inside the building.

Currently, SWMU #10 requires no further action.

3.11 Boot Cover Disposal Drums (SWMU #11)

The boot cover disposal drums (SWMU #11) were located in the Maintenance Building on the north side of the facility, east of the North Container Storage Building. These drums were used for collection of used personal protective equipment boot covers. Once these drums are filled, they are shipped off-site to a permitted TSD facility for disposal. These drums are no longer used to support facility operation and have been removed.

Currently, SWMU #11 requires no further action.

3.12 Former Lab Trailer Drain Containment Pad (SWMU #12)

The former lab trailer drain containment pad (SWMU #12) is located on the north side of the facility between the North Container Storage Building and the Maintenance Building. SWMU #12 previously was used as a containment pad area for laboratory drain collection tanks. SWMU #12 is no longer in use and requires no further action.

3.13 North Container Storage Building (NCSB) sampling area (SWMU #13)

The NCSB consists of a staging area, dock loading and unloading area where samples are obtained from incoming drums, and a storage area where drums are stacked on pallets. The staging and storage areas are divided into 17 holding cells for waste. This SMWU also has a containment area for reactive wastes and containment area for polychlorinated biphenyl (PCB) wastes. The concrete floor and cell curbs provide 10-percent secondary containment for the hazardous waste and/or 100% of the largest container stored in each cell.

The permitted container storage area is designed to store a maximum volume of 136,400 gallons (equivalent to 2,480, 55-gallon drums).

Hazardous waste to be stored in the NCSB is unloaded at the dock and placed in the staging area for sampling, labeling, bar coding, and other requested QC functions. After identification, the hazardous waste materials are classified and moved into the appropriate storage cell.

Currently this SWMU requires no further action.

3.14 Petroleum Wastewater Tanks (SWMU # 14)

The two petroleum wastewater tanks are constructed of carbon steel, have a capacity of 5800 gallons with an eight (8) foot diameter and fifteen (15) feet six (6) inch height. The two tanks are in a reinforced concrete containment berm with containment volume of 7200 gallons. The concrete is sealed with an epoxy coating. The tanks are only used for non-RCRA petroleum materials.

Currently this SMU requires no further action.

3.15 Roll Off storage in the perimeter road area (SWMU # 15)

Up to four (4) bulk storage containers (rolloffs, intermodals, etc.) may be stored on the perimeter road. These containers will be kept covered while not in use.

The perimeter road is constructed of reinforced concrete and is diked on all sides, creating containment of 26,098 gallons. The road drains to a blind sump capable of containing 300 gallons.

Currently this SMU requires no further action.

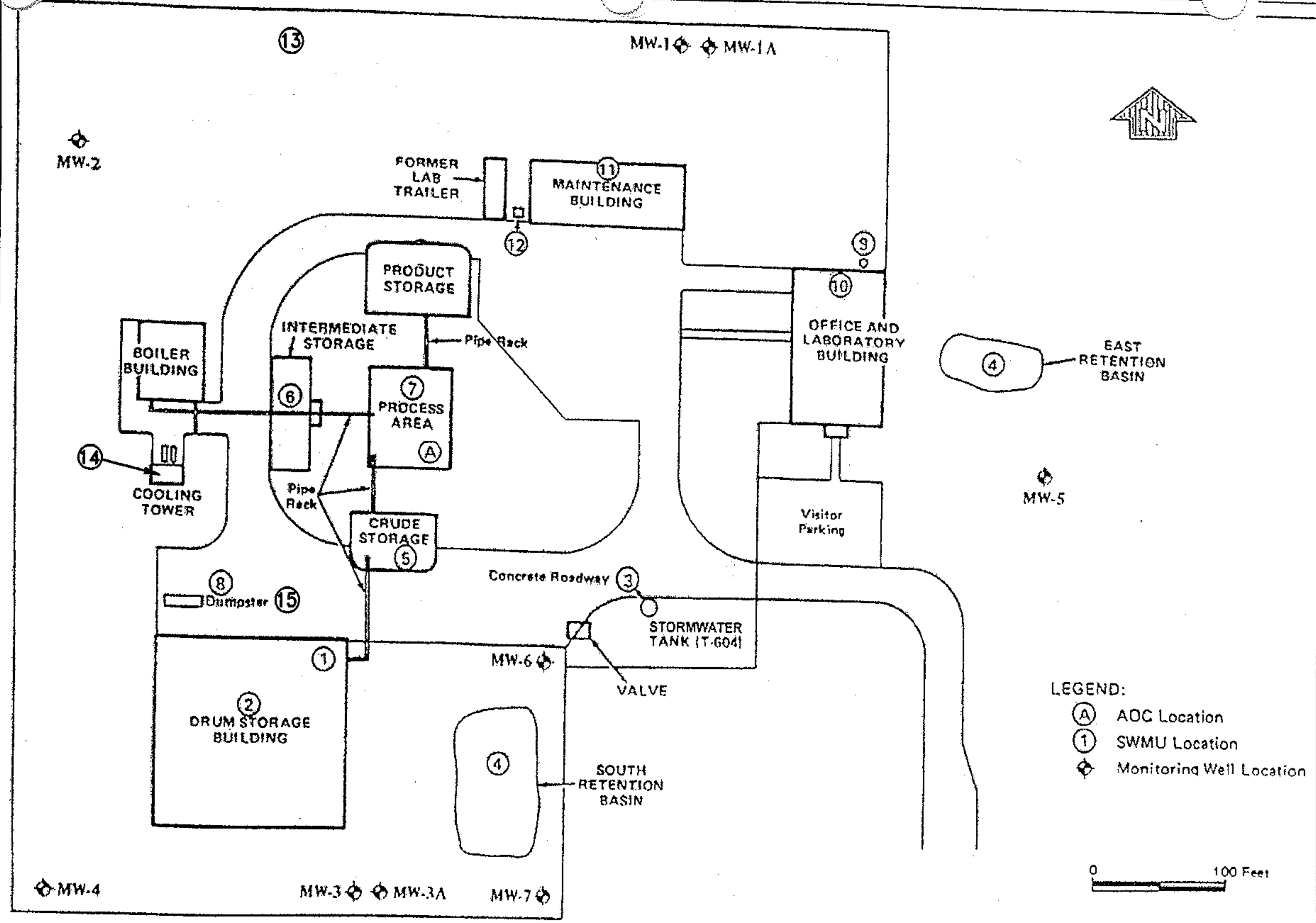
4.0 Description And Status Of Areas Of Concern

The only AOC identified in 1991 was, the Freon Wash Water Storage Tank. The AOC was located close to the southeast corner of Process Area. This AOC was a 3,500 gallon tank used to store freon wash water. This tank does not exist, it was removed and is no longer a concern.

Currently, this AOC requires no further action.

5.0 Identification of New SWMUs

There are not any new SWMU's at the facility.



NOTES:

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
B	ADDED SWMU LOCATIONS 13, 14 & 15	K.M.C.	02/04/11	M.C.
A	FOR APPROVAL	JKM	01/31/06	MJG

CleanHarbors

DRAWN	CHECKED	SCALE	DATE
JKM	MJG	NTS	01/31/06

TITLE

CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
SITE MAP
MONITORING WELL LOCATIONS

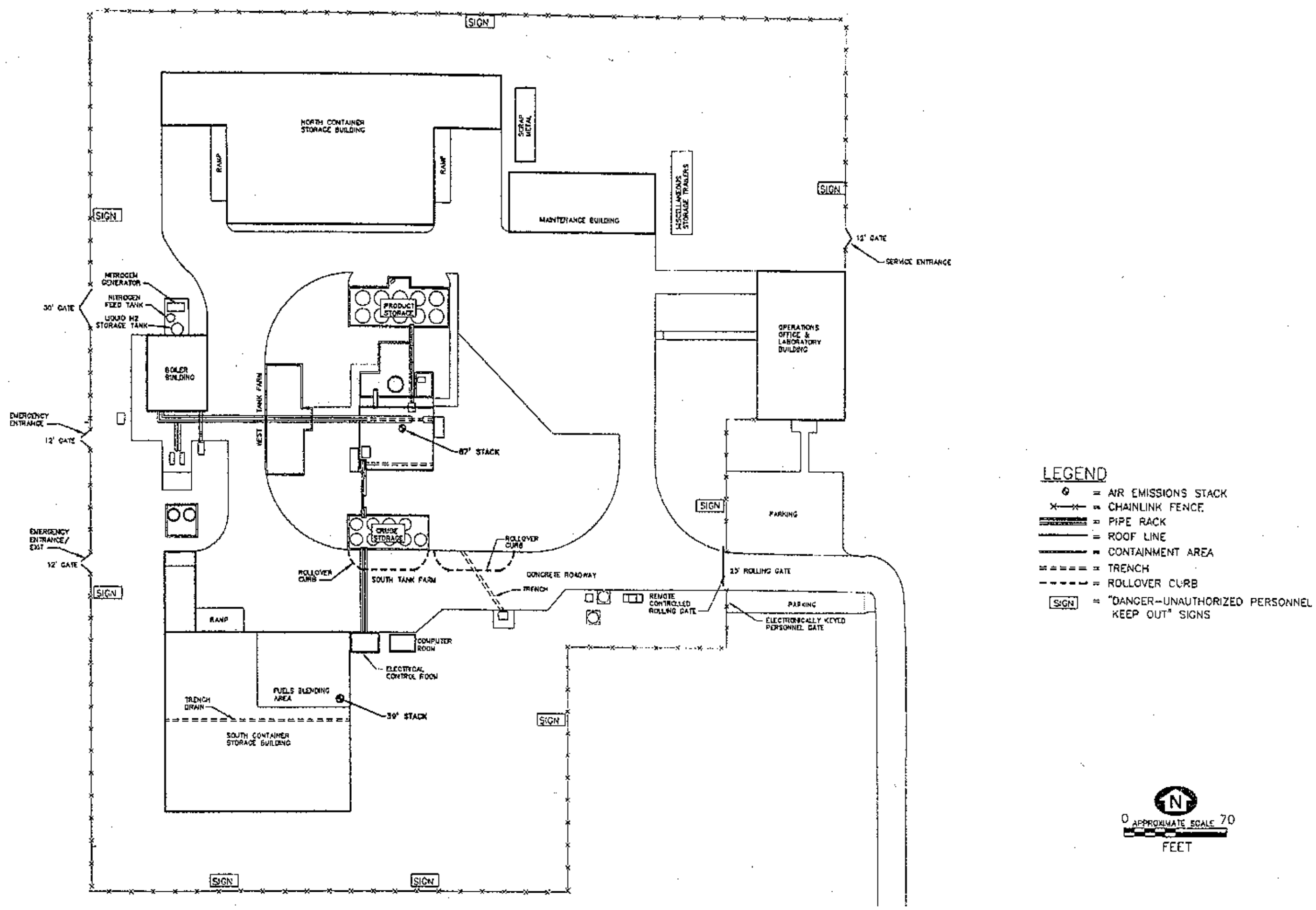
DRAWING NO. FIGURE 1B-1 REV. B

SECTION R

AIR EMISSION STANDARDS FOR PROCESS VENTS

13.1 Applicability

CHF does not have any equipment regulated by 40 CFR Part 264, Subpart AA.



GENERAL NOTES

REFERENCE DRAWINGS

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
C	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE TANK T-106	K.M.C.	05/10/11	M.C.
B	REMOVED TANKS, HCFC STILL, PROCESS AREA AND MISC. VENTS. ADDED 39' STACK	K.M.C.	02/04/11	M.C.
A	FOR APPROVAL	JKM	01/31/08	MJG

CleanHarbors

BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM	MJG	NTS	01/31/08

TITLE Figure 13.1

CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
LOCATIONS OF PROCESS VENTS

DRAWING NO. Figure 13.1 REV. C

SECTION S

AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

1.0 Applicability

All hazardous wastes processed through facility tanks and ancillary equipment are expected to have organic concentrations in excess of 10%.

2.0 Compliance

Compliance with the requirements of 40 CFR 264, Subpart BB will be attained by the measures described in this chapter. This section of the regulations requires facilities to find and remedy leaks in certain pieces of equipment. A leak is detected when: there are indications of liquids dripping from the pump seals or valves, or an instrument reading of 10,000 ppm or greater is measured. For pressure relief devices, an instrument reading of 500 ppm or greater defines a leak.

3.0 Pumps in Light Liquid Service

3.1 Inspections

Each pump will be inspected visually each calendar week for indications of liquids dripping from the pump seal, and monitored monthly to detect leaks, by the method(s) specified in section 10.0.

3.2 Leak Repair

If a leak is detected, it will be repaired as soon as practical, but not later than 15 calendar days after it is detected, unless repairs must be delayed until the unit is shut down, or the pump is isolated from the unit and does not contain or contact hazardous waste.

A first attempt at repair will be made within 5 calendar days after a leak is detected.

3.3 No Detectable Emissions

A pump may be designated for no detectable emissions if the following requirements are met:

1. It has no externally actuated shaft penetrating the pump housing.

2. It operates with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in 264.1063(c).

3. It is tested initially upon designation, annually, and as requested by the Director.

4.0 Compressors

4.1 General

CHF does not operate any compressors subject to 40 CFR 264, Subpart BB.

5.0 Pressure Relief Devices in Gas/Vapor Service

Except during pressure releases, each pressure relief device in gas/vapor service will be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in 264.1063(c).

After each pressure release, the pressure relief device will be returned to a condition of no detectable emissions as soon as practical, but no later than 5 calendar days after each pressure release unless repairs must be delayed until the unit is shut down, or the device is isolated from the unit and does not contain or contact hazardous waste.

No later than 5 calendar days after a pressure release, the pressure relief device will be monitored to confirm the condition of no detectable emissions.

6.0 Sampling Connecting Systems

Each sampling connecting system will be equipped with a closed-purge system or closed-vent system. Each closed-purge system or closed-vent system will:

- Return the purged waste stream directly to the process line with no detectable emissions to the atmosphere, or
- Collect and recycle the purged waste stream with no detectable emissions to atmosphere, or
- Be designed and operated to capture and transport the entire purged waste stream to a control device that complies with the requirements of 264.1060.

In situ (non-extractive or in-line) sampling systems are exempt from the requirements of this section.

7.0 Open-ended Valves or Lines

Each open-ended valve or line will be equipped with a cap, blind flange, plug, or second valve.

The cap, blind flange, plug, or second valve will seal the open end at all times except during use. Each open-ended valve or line equipped with a second valve will be operated in a manner such that the valve on the waste stream end is closed before the second valve is closed.

In double block and bleed systems, the bleed valve or line may remain open during venting of the line between block valves, but will be equipped with a cap, plug, or second valve at all other times.

8.0 Valves in Gas/Vapor Service or in Light Liquid Service

8.1 Leak Detection

Each valve in gas/vapor service or light liquid service will be monitored monthly to detect leaks by the method(s) specified in section 10.0, except that:

- Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter until a leak is detected.
- If a leak is detected, the valve will be monitored monthly until a leak is not detected for two successive months.

An alternative monitoring method described below may be chosen:

- The facility may elect to have all valves within a hazardous waste management unit comply with an alternative standard that allows no greater than two percent of the valves to leak, by: (264.1061).

  1. Notifying the Director of the decision to follow this standard and
  2. Monitoring all valves subject to this requirement within 1 week by the method(s) specified in section 10.0

  The leak percentage will be determined by dividing the number of valves for which leaks are detected, by the total numbers of valves subject to this section within the hazardous waste unit. If it is decided to no longer use this method, the facility will notify the Director in writing.

- The facility may elect to have all valves within a hazardous waste management unit comply with an alternative standard that allows monitoring periods to be skipped by: [264.1062]

  1. Notifying the Director of the decision to follow this standard.

2. After two consecutive quarterly leak detection periods with less than or equal to 2 percent of the valves leaking, one quarterly leak detection period may be skipped.
3. After five consecutive quarterly leak detection periods with less than or equal to 2 percent of the valves leaking, three quarterly leak detection periods may be skipped.
4. If greater than 2 percent of the valves are leaking, the facility will return to monthly monitoring, but may again elect to use this method after meeting the appropriate requirements.

8.2 Leak Repair

When a leak is detected, it will be repaired as soon as practical, but not later than 15 calendar days after it is detected, unless:

- Repairs must be delayed until the unit is shut down; the valve is isolated from the unit and does not contain or contact hazardous waste;
- It is determined that emissions of purged material resulting from immediate repair are greater than emissions likely to result from delay of the repair;
- When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device, or if valve assembly replacement is necessary during the hazardous waste management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before supplies were depleted.

A first attempt at repair will be made no later than 5 calendar days after a leak is detected.

8.3 No Detectable Emissions

A valve may be designated for no detectable emissions if the following requirements are met:

1. It has no external actuating mechanism in contact with hazardous waste.
2. It is operated with emissions less than 500 ppm above background as determined by the method(s) specified in section 10.0.
3. It is tested initially upon designation, annually, and as requested by the Director.

8.4 Unsafe-To-Monitor

A valve may be designated as unsafe-to-monitor if:

1. It is determined to be unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of attempting to conduct monitoring as

specified in 8.1.

2. The facility adheres to a written plan that requires monitoring of the valve as frequently as practical during safe-to-monitor times.

8.5 Difficult-To-Monitor

A valve may be designated as difficult-to-monitor if:

1. It is determined that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.
2. The facility follows a written plan that requires monitoring of the valve at least once per calendar year.

9.0 Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service and Flanges and Other Connectors.

Each pump or valve in heavy liquid service, each pressure relief device in light or heavy liquid services, and each flange or other connector will be monitored within 5 days by the method specified in 264.1063(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

When a leak is detected, it will be repaired as soon as practical, but not later than 15 calendar days after it is detected, unless repairs must be delayed until the unit is shut down, or it is isolated from the unit and does not contain or contact hazardous waste.

A first attempt at repair will be made no later than 5 calendar days after a leak is detected.

10.0 Test Methods and Procedures

Monitoring procedures will comply with Reference Method 21 in 40 CFR Part 60, and detection instruments will meet the performance criteria of Reference Method 21. Monitoring instruments will be calibrated before use on each day of use, using calibration gases of air with less than 10 ppm of hydrocarbon, and methane or n-hexane in air at a concentration of approximately (but less than) 10,000 ppm.

An alternative screening procedure (40 CFR 60, Appendix A, Reference Method 21,4.3.3) based on the formation of bubbles in a soap solution that is sprayed on a potential leak source may be used for those sources which do not have continuously moving parts, which do not have surface temperatures greater than the boiling point or less than the freezing point of the soap solution, that do not have open areas to the atmosphere that the soap solution cannot bridge, and that do not exhibit evidence of liquid leakage. A soap solution will be sprayed over potential leak sources. If no bubbles are formed, the source will be presumed to have no detectable leaks or emissions, as applicable. If any bubbles are observed, the instrument monitoring techniques will be used to determine if a leak exists, or if the source has detectable emissions, as applicable.

11.0 Recordkeeping

The facility operating record will identify each piece of equipment subject to this section by the hazardous waste unit it is associated with, the approximate location of the unit on a facility plot plan, the equipment ID number, the type of equipment, description, monitoring results, monitoring instrument used, calibration date, name of person conducting monitoring (example, Figures 14.1, 14.2). It is assumed that all hazardous waste streams at this facility, which contact these pieces of equipment, contain greater than 10% total organics.

When a leak is detected, a weatherproof tag will be attached to the equipment and marked with the equipment ID number, the date evidence of a potential leak was found, and the date the leak was detected. The tag will be removed only after repair has been successfully completed, except that a tag on a valve will be removed only after it has been monitored for two successive months with no leak being detected.

When a leak is detected the piece of equipment will be noted on a leak repair log (example: Figure 14.3). Also, an inspection log will be maintained as part of the facility operating record (example weekly and monthly inspection logs are located in Chapter 2, Section A, Appendix F). See examples of the log Figures 14.2. The two logs will reflect:

1. Monitoring instrument identification and operator identification
2. Equipment identification number
3. The date evidence of a potential leak was found
4. The date the leak was detected
5. The date of each repair
6. Repair methods used in each repair attempt
7. "Above 10,000" if the maximum instrument reading after each repair attempt is equal to or greater than 10,000 ppm
8. "Repair delayed" and the reason for delay if a leak is not repaired within 15 calendar days after discovery
9. The signature of the person whose decision it was that repair could not be effected without a hazardous waste management unit shutdown, if applicable
10. The expected date of successful repair of the leak if not repaired within 15 calendar days
11. The date of successful repair of the leak

Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required by Subpart BB, if any, will be recorded and kept up-to-date in the facility operating record.

The Director will specify the appropriate recordkeeping requirements for control devices other than thermal vapor incinerators, catalytic vapor incinerators, flares, boilers, process heaters, condensers, or carbon absorption systems.

The following information pertaining to all equipment subject to the requirements of Subpart BB will be recorded in the facility operating record:

1. A list of equipment identification numbers (except welded fittings).
2. A list of identification numbers for equipment that is designated for no detectable emissions.
3. A list of identification numbers for pressure relief devices.
4. The dates of each compliance test, the background level measured, and the maximum instrument reading recorded.
5. A list of identification numbers for equipment in vacuum service.
6. A list of identification numbers for equipment designated as difficult or unsafe to monitor, an annual reading will be done using the detection instrument and visual will be done for the remaining months.
7. For valves designated for skip-period leak detection and repair, a schedule of monitoring and the percent of valves found leaking.
8. For pumps and compressors equipped with barrier fluid system sensors, criteria used to indicate failure of the fluid system or sensor, an explanation of system design criteria, and any changes to these criteria and the reasons for the changes.
9. For exemptions claimed, an up-to-date analysis and the supporting information and data used to determine that the equipment is not subject to the requirements of Subpart BB.

Records of equipment leak information and operating information will be kept a minimum of 3 years.

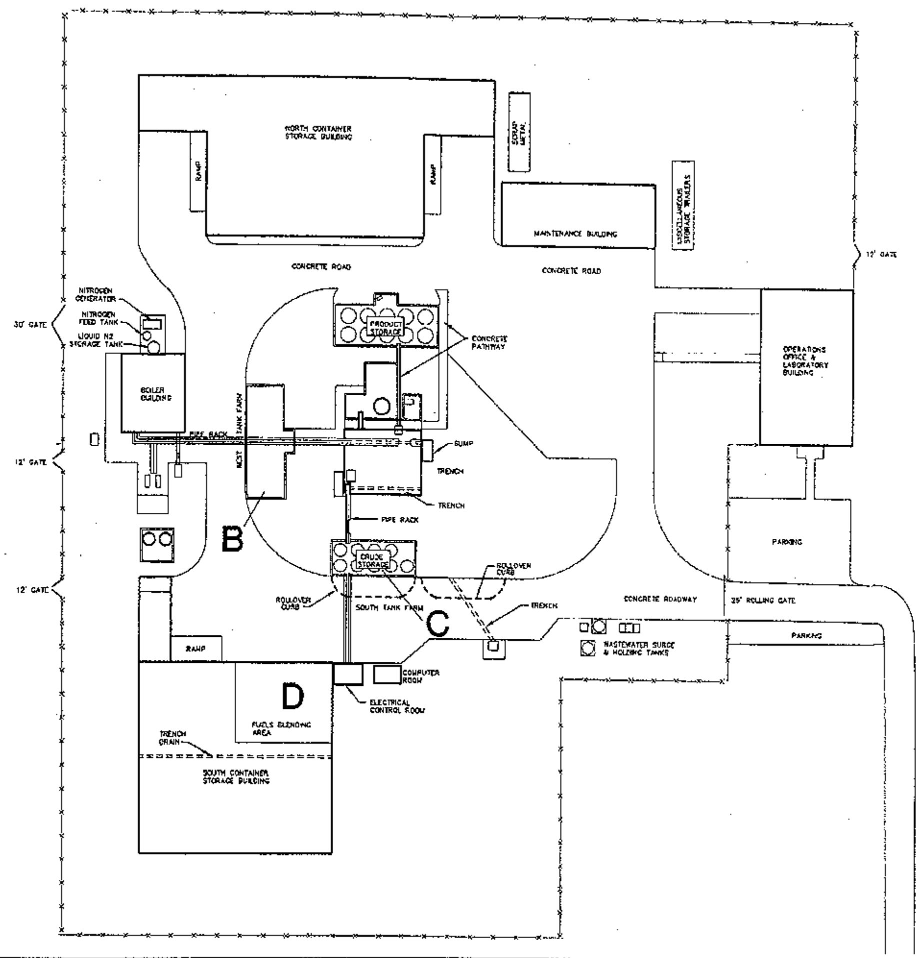
12.0 Reporting

If leaks from valves, pumps, and compressors are repaired as described in this chapter, and control devices do not exceed or operate outside of design specifications for more than 24 hours, a report to the Director is not required.

If required, a semiannual report will be sent to the Director, by the dates specified by the Director, which will include the following information:

1. The EPA ID number, name, and address of the facility.
2. For each month during the reporting period, the ID number of each valve, pump, or compressor for which a leak was not repaired as required by Subpart BB.
3. Dates of hazardous waste unit shutdowns that occurred within the reporting period.
4. For each month during the reporting period, the dates when control devices exceeded or operated outside of the design specifications and were not corrected within 24 hours, the duration and cause of each exceedance, and any corrective measures taken.

LIST OF FIGURES



IDENTIFICATION OF EXISTING HAZARDOUS WASTE UNI

MARK	DESCRIPTION
B	BOTTOMS STORAGE TANKS (REMOVED)
C	CRUDE STORAGE TANKS
D	FUEL BLENDING AREA

NOTE: UNIT "A" (AS DESIGNATED BY SKBI) IS THE PRODUCT STORAGE TANK FARM WHICH IS NOT A HAZARDOUS WASTE UNIT.

LEGEND

- = AIR EMISSIONS STACK
- = CHAINLINK FENCE
- = PIPE RACK
- = ROOF LINE
- = CONTAINMENT AREA
- = TRENCH
- = ROLLOVER CURB

0 APPROXIMATE SCALE 70
FEET

GENERAL NOTES

REFERENCE DRAWINGS

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
C	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE TANK T-106	K.M.C.	05/10/11	M.C.
B	REMOVED TANKS AND REVISED HAZ WASTE UNIT MARKS	K.M.C.	02/04/11	M.C.
A	FOR APPROVAL	JKM	01/31/06	MJG

CleanHarbors
BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM	MJG	NTS	01/31/06

TITLE Figure 14.1
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
LOCATIONS OF HAZARDOUS WASTE UNITS

DRAWING NO. Figure 14.1 REV. C

FIGURE 14.2

SAMPLE

FACILITY AIR EMISSIONS MONITORING / EQUIPMENT LOG

INSPECTOR'S NAME: Mr. Doe MONITORING DATE/TIME: 4/3/2011

MONITORING DEVICE: MSA SIRIUS MULTI GAS PHOTO IONIZATION DETECTOR

CALIBRATION DATE: 4/3/2011

SWMU #5 CRUDE STORAGE AREA "C"

TAG #	AREA	PROCESS EQUIPMENT DESCRIPTION	BKGRD	DETECT
1000	C	TANK FLANGE	0	0
1001	C	FLANGE TEE	0	0
1000.1	C	TANK FLANGE (BOTTOM OF TANK)	0	0
5021	C	FIRST CUTOFF AT BOTTOM OF CONE T-101	0	0
17	C	T-101 MID.CONE CONNECTION, HOSE (90)	0	0
5025	C	MID CONE OUT (VALVE)	0	0
18	C	T-101 MID.CONE CONNECTION, HOSE (NIPPLE)	0	0
9	C	3" FLANGE TO HEADER	0	0
13	C	3" FLANGE ON MAIN HEADER	0	0
12	C	3" FLAGE TO HEADER/W.T.F.S	0	0
5015	C	IN/OUT IN BOT OF CONE TO/FRM TRANS W (VALVE)	0	0
1	C	3" FLANGE TO W.T.F.S/ UPPERCONE	V	V
1010	C	FLANGE	O.O.S	O.O.S
1010.1	C	FLANGE	O.O.S	O.O.S
1010.2	C	FLANGE (BOTTOM OF TANK)	O.O.S	O.O.S
5180	C	BOTTOM CONE OUT TO PMP IN	O.O.S	O.O.S
5182	C	FIRST CUTOFF AT BOTTOM OF CONE ON T-106	O.O.S	O.O.S
184	C	BOTTOM OF T-106 TO HEADER/W.T.F.S.	O.O.S	O.O.S
183	C	BOTTOM OF T-106 TO HEADER/W.T.F.S.	O.O.S	O.O.S
182	C	BOTTOM OF T-106 TO HEADER/W.T.F.S.	O.O.S	O.O.S
185	C	BOTTOM OF T-106 TO HEADER/W.T.F.S.	O.O.S	O.O.S
186	C	BOTTOM OF T-106 TO HEADER/W.T.F.S.	O.O.S	O.O.S
		Top of Tank Farm		
1087	C	VAPOR BALANCE FLANGE BETWEEN T-101 &T-106	0	0
5001	C	TOP OF T-101	0	0
5003	C	VAPOR BALANCE CUTOFF TO TANK T-101	0	0
1020	C	TANK VENT (NITROGEN)	0	0
1021	C	MICROWAVE RADAR LEVEL SENSOR (MRLS)	0	0
1082	C	MRLS (BOTTOM)	0	0
36	C	TOP OF T-101 HIGH LEVEL ALARM INTO TANK	0	0
30	C	TOP OF T-101 SAMPLING PORT	0	0
5002	C	TOP OF TANK SAMPLE VALVE, TANK T-101	0	0
31	C	TOP OF T-101 SAMPLING PORT	0	0
1029	C	4" TANK FLANGE	0	0
1028	C	TANK FILL	0	0
29	C	FILL LINE TO TOP OF T-101 IN UPPER PIPE RACK (90)	0	0
28	C	FILL LINE TO TOP OF T-101 IN UPPER PIPE RACK (90)	0	0
27	C	FILL LINE TO TOP OF T-101 IN UPPER PIPE RACK (UNION)	0	0
26	C	FILL LINE TO TOP OF T-101 IN UPPER PIPE RACK (90)	0	0
25	C	FILL LINE TO TOP OF T-101 IN UPPER PIPE RACK (45)	0	0
24	C	FILL LINE TO TOP OF T-101 IN UPPER PIPE RACK (COUPLING)	V	V
5163	C	VAPOR BALANCE CUTOFF TO T-106	O.O.S.	O.O.S

OOS - OUT OF SERVICE
V - VISUAL INSPECTION
(DIFFICULT OR UNSAFE TO MONITOR)

SAMPLE

TAG #	AREA	PROCESS EQUIPMENT DESCRIPTION	BKGRD	DETECT
		TRUCK LOADING		
57	C	FILL LINE TO TOP OF T-102 (90)	0	0
5030	C	TOP IN LN AT CRUDE TRK LOAD (VALVE)	0	0
56	C	FILL LINE TO TOP OF T-102 (NIPPLE)	0	0
21	C	FILL LINE TO TOP OF T-101 (90)	0	0
5000	C	TOP IN LN AT CRUDE TRK LOAD (VALVE)	0	0
20	C	FILL LINE TO TOP OF T-101 (NIPPLE)	0	0
202	C	FILL LINE TO THE TOP OF T-106	O.O.S	O.O.S
5160	C	TOP IN LN AT CRUDE TRK LOAD	O.O.S	O.O.S
201	C	FILL LINE TO THE TOP OF T-106	O.O.S	O.O.S
238	C	FILL LINE TO TOP OF T-107 (90)	0	0
5190	C	TOP IN LN AT CRUDE TRK LOAD (valve)	0	0
237	C	FILL LINE TO TOP OF T-107 (nipple)	0	0
5536	C	PRESSURE RELIEF VALVE 1	0	0
5535	C	PRESSURE RELIEF VALVE 2	0	0
5537	C	GOULDS PUMP FILTER BASKET	0	0
1025	C	FLANGE BOTTOM FILTER BASKET	0	0
5539	C	PLUG ON FILTER BASKET, UNDER TRAY	0	0
5540	C	FILTER OUTLET DRAIN #1 (W SIDE OF PUMP)	0	0
5545	C	FILTER OUTLET DRAIN #2 (W SIDE OF PUMP)	0	0
5550	C	TRUCK LOADING PUMP/FILTER OUTLET CUTOFF VALVE	0	0
433	C	OUTLET SIDE OF GOULDS PUMP WEST (NIPPLE)	0	0
5800	C	VALVE,NITROGEN VENT JIB CRANE BY T-102	0	0
5801	C	UNION, NITROGEN VENT JIB CRANE BY T-102	0	0
5805	C	VALVE, NITROGEN VENT JIB CRANE EAST OF T-100 TANKS	0	0
5806	C	2" UNION JIB CRANE EAST OF T-100 TANKS	0	0
		3" DOUBLE FEMALE/ INTAKE SIDE		
464	C	FEMALE CAMLOCK	0	0
465	C	FEMALE CAMLOCK	0	0
6221	C	PRESSURE RELIEF VALVE 1	0	0
6222	C	PRESSURE RELIEF VALVE 2	0	0
		3" DOUBLE FEMALE/ DISCHARGE SIDE		
466	C	FEMALE CAMLOCK	0	0
467	C	FEMALE CAMLOCK	0	0
6520	C	PRESSURE RELIEF VALVE 1	0	0
6525	C	PRESSURE RELIEF VALVE 2	0	0
		SWMU # 1 HAZARDOUS WASTE FUEL BLENDING AREA "E"		
486	E	BASKET INTAKE(M.Q.C.)	0	0
487	E	BASKET INTAKE 2" PLUG	0	0
321	E	DRM PMP FILTER PRES RELIEF(VALVE)	0	0
320	E	DRM PMP FILTER PRES RELIEF (TOP N PUMP/VALVE)	0	0
315	E	FILTER BASKET	0	0
325	E	DRM PMP DP INLET CUTOFF (VALVE)	0	0
330	E	PUMP	0	0
496	E	TOP OF PUMP TO OUTLET (UNION)	0	0
		3" PORTABLE YARD PUMP (BLUE PUMP)	100 TANKS	
476	F	NIPPLE INTAKE SIDE	0	0
1680	F	#1 VALVE INTAKE DRN	0	0
1685	F	#2 VALVE INTAKE DRN	0	0
5060	F	3" INTAKE FLANGE	0	0
290	F	FILTER BASKET	0	0

OOS - OUT OF SERVICE
V - VISUAL INSPECTION
(DIFFICULT OR UNSAFE TO MONITOR)

FIGURE 14.3 - EQUIPMENT LEAK REPAIR LOG

Equipment I.D. #	Date Leak Detected	Date Repair 1st Attempt	Reason For Delay	Expected Date of Completion	Date Repair Completed	Repair Method	Maintenance Technician

A. No delay
B. Adjusted
C. Rebuilt
D. Replaced
E. Temporarily removed from service
F. Permanently removed from Service
G. Parts out of stock
H. Shortage of manpower
I. Equipment in use
J. Other (specify)

Equipment leak detection program: When a leak is detected, a first attempt at repair must be made within 5 days. Repair of a leak must be completed within 15 days.

SECTION V

AIR EMISSIONS STANDARDS (SUBPART CC)

1.0 Applicability

CHF operations include tanks that treat and store hazardous waste, and storage operations that include waste in containers larger than 26 gallons. Therefore, the air emissions control requirements of 40 CFR Part 264, Subpart CC for tanks and containers apply to the facility.

2.0 General Standards

The vast majority of the waste managed by CHF will have a volatile organic (VO) concentration of greater than 500 ppmw. In most cases, if the VO concentration is less than 500 ppmw it will be managed as if it does have a VO concentration of greater than 500 ppmw.

CHF does not process waste in a manner in which a reduction of the VO concentration occurs. However, if waste generated by CHF or waste received from customers has a VO concentration below 500 ppmw, CHF may choose to manage it as such. The VO concentration will be determined using the procedures outlined in 40 CFR 264.1082(2) & 264.1083.

3.0 Tanks

CHF has 14 hazardous waste management tanks (12 storage and 2 treatment tanks). The tanks at CHF are of the fixed roof design. The 12 storage tanks are equipped with a vapor balance system with a common header. The header system is equipped with a conservation vent that serves all 12 tanks. Covers, vents, hatches, etc. will be kept closed and sealed except when necessary to add or remove waste from the tanks or sample tank contents, as described in 40 CFR 264.1084(c)(3).

Waste added to or removed from the 12 storage tanks will be done through a system of closed piping. Some wastes added to the two treatment tanks (T-112 and T-114) will be done by pouring or dumping from small containers such as 55-gallon drums and some waste will be added through piping. Wastes removed from the two treatment tanks will be done through the piping system. The only exceptions to waste being removed from the tanks through the piping, is the removal of waste from cleaning activities. Each tank is equipped with a pressure relief device for safety, which vents to the atmosphere in the event of a pressure build-up. The hatch openings on the fuels blend tanks (T-112 and T-114) are equipped with a seal device on the lids to ensure proper seal when they are required to be in the closed position (see Figures 15.1-A through 15.1-E).

4.0 Containers

CHF does not perform stabilization in containers; therefore level 3 controls are not required at CHF. CHF manages waste in three "Subpart CC categories".

One is in containers that have a capacity of less than 26 gallons. These containers are exempt from Subpart CC.

The second category is containers with a volume of greater than 26 gallons but less than 121 gallons and containers greater than 121 gallons that are not in light material service. These containers require level 1 controls. For these containers CHF will comply with the level 1 controls and requirements listed in 40 CFR 264.1086(c).

The third category is containers of a capacity greater than 121 gallons but is in light material service. "In light material service" is defined in 40 CFR 265.1081 as material that is a liquid and has a vapor pressure of greater than 0.3 KPa. For these containers, CHF will comply with the level 2 requirements listed in 40 CFR 264.1086(d).

5.0 Inspection and Monitoring Requirements

In some cases (i.e., tankers which have not been leak tested within 12 months, roll-offs, non-DOT approved containers, etc.), CHF is required to monitor containers for leaks. To monitor them for detectable emissions, CHF will use Method 21 of Appendix A of 40 CFR Part 60. Containers will be inspected for leaks and defective covers within 24 hours of being received at the facility.

If a defect is found in a cover or closure device of a container requiring level 1 or level 2 controls, the first attempt at repair will be made within 24 hours of discovery and the repair will be completed as soon as possible but no later that 5 calendar days after detection. If the defect cannot be repaired within 5 calendar days, the material will be transferred to another container. The defective container will not be used to manage hazardous waste until the defect has been repaired.

As required by 40 CFR 264.1084(c)(4), CHF will inspect the tanks annually. See an example inspection form in Figure 15.2.

When a defect is observed on a tank, it will be repaired as soon as practicable, but not later than 15 calendar days after it is detected, unless repairs must be delayed until the unit is shut down, and the tank is emptied.

A first attempt at repair will be made within 5 calendar days after a leak is detected.

For any tanks that are unsafe to monitor, a written plan will be developed and followed as specified in 40 CFR 264.1084(k).

6.0 Recordkeeping Requirements

The following records will be maintained in the operating record:

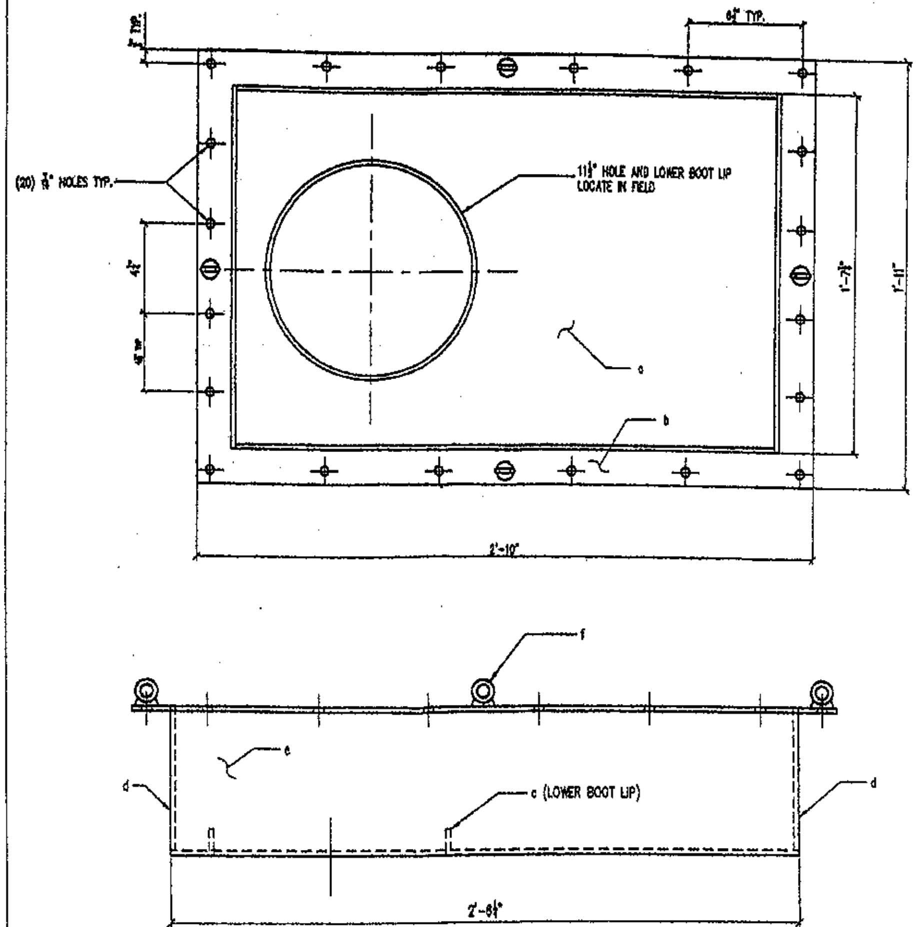
- Vapor pressure of materials stored in the tanks (the analysis CHF uses documents the materials stored in the tanks and the vapor pressures are published for these materials)
- Records of any containers tested in accordance with Method 27 of 40 CFR Part 60, Appendix A;
- Monitoring records for detectable organic emissions;
- Records of each detected leak and the dates the repairs were attempted and completed;
- Inspection records
- Records of unsafe to monitor and difficult to monitor designations

The records will be kept for at least three years.

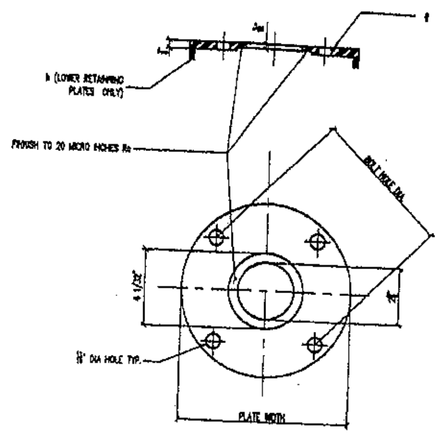
7.0 Reporting Requirements

Since all 14 of CHF's hazardous waste tanks use level 1 controls, the reporting requirements of 40 CFR 264.1090 are not applicable to CHF.

LIST OF FIGURES



SHAFT-WAY COVER
(2 REQUIRED)



SEAL RETAINING
PLATES

RETAINING PLATE DIMENSIONS			
QTY	DESCRIPTION	PLATE WIDTH	BOLT HOLE DIA.
1	UPPER RETAINING PLATE (TANK T-112)	9" DIA.	7 19/32" DIA.
1	LOWER RETAINING PLATE (TANK T-112)	12" DIA.	7 19/32" DIA.
1	UPPER RETAINING PLATE (TANK T-114)	9" DIA.	4 [illegible]" DIA.
1	LOWER RETAINING PLATE (TANK T-114)	12" DIA.	6 [illegible]" DIA.

NOTES:
1. TR TO CUT PLATES TO OD SHOWN.
2. TR TO WELD BOOT LIP TO LOWER RETAINER PLATES PRIOR TO MACHINING.
3. MACHINE SHOP TO MACHINE ALL OTHER DIMENSIONS.

GENERAL NOTES

REFERENCE DRAWINGS

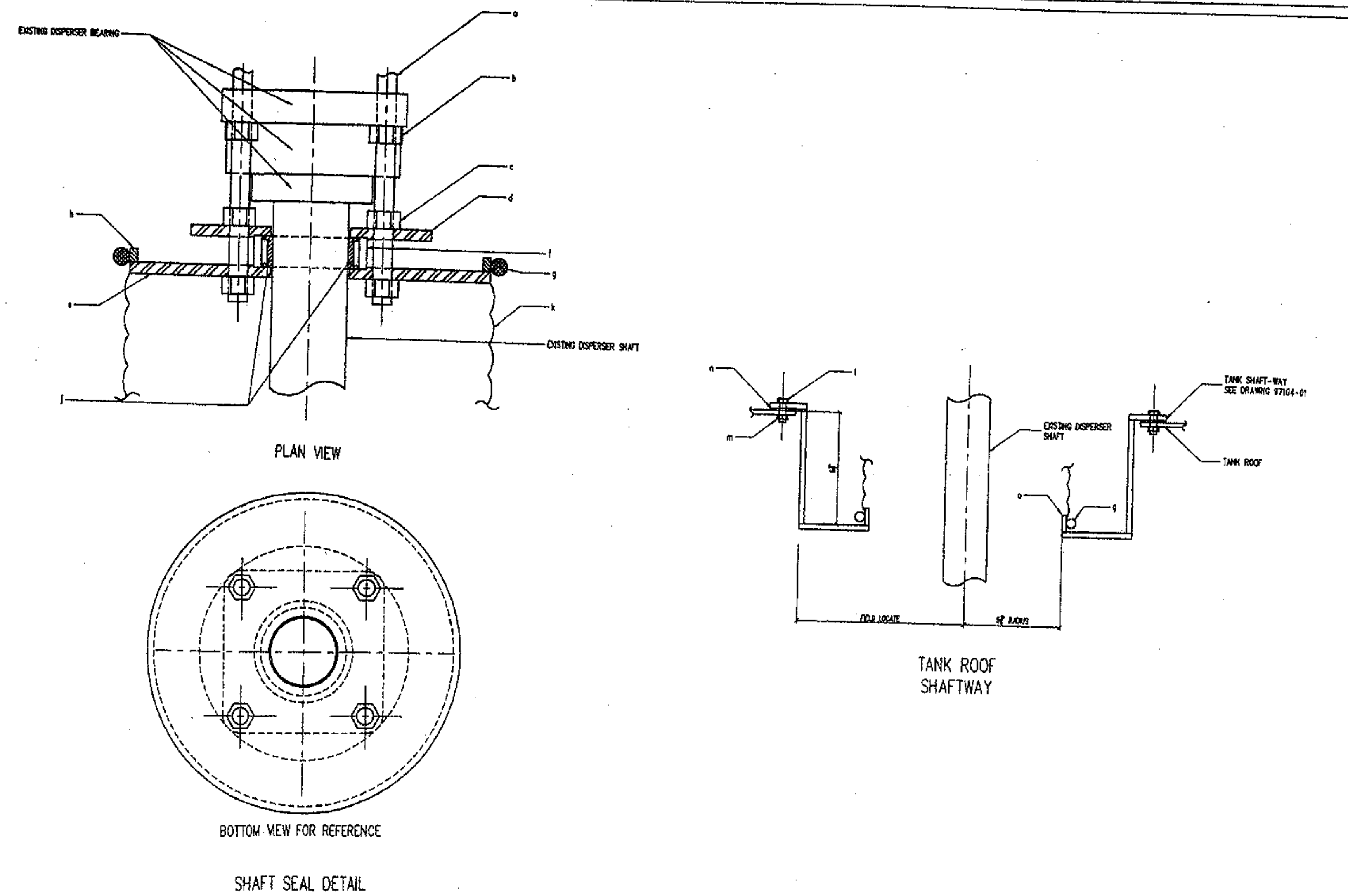
REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/31/08	MJQ

CleanHarbors
BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM	MJQ	NTS	01/31/08

TITLE
Figure 15.1.A
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
FUEL BLEND TANKS HATCH SEAL DESIGN
SHAFT-WAY AND SEAL RETAINER PLATES

DRAWING NO. Figure 15.1.A
REV. A



GENERAL NOTES

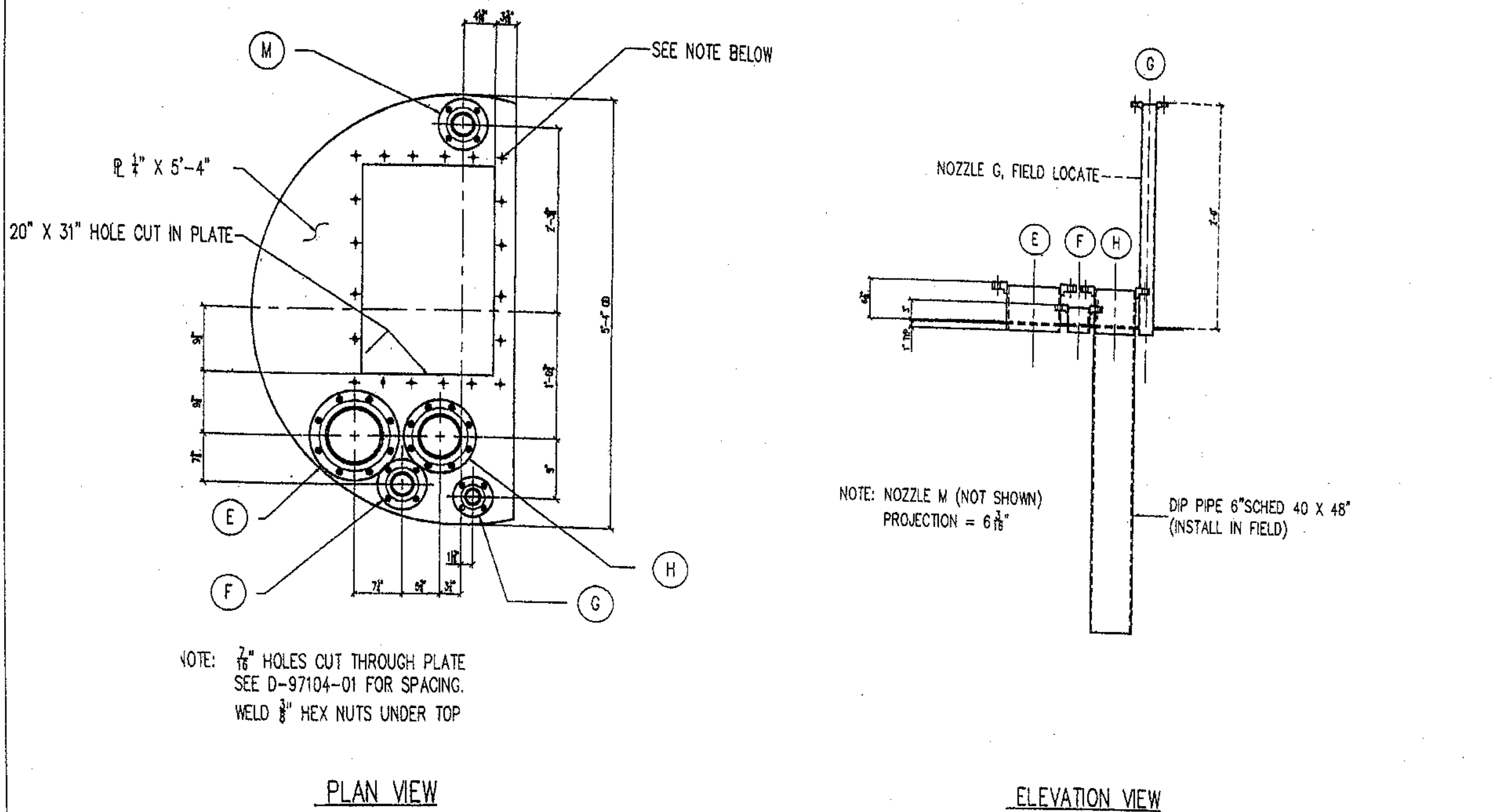
REFERENCE DRAWINGS

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/31/06	MJG

CleanHarbors
BARTOW

TITLE
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
FUEL BLEND TANKS HATCH SEAL DESIGN
SHAFT SEAL ASSEMBLY DETAILS

DRAWN	CHECKED	SCALE	DATE	DRAWING NO.	REV.
JKM	MJG	NTS	01/31/06	Figure 15.1.B	A



GENERAL NOTES

REFERENCE DRAWINGS

REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/31/08	MJG

CleanHarbors

BARTOW

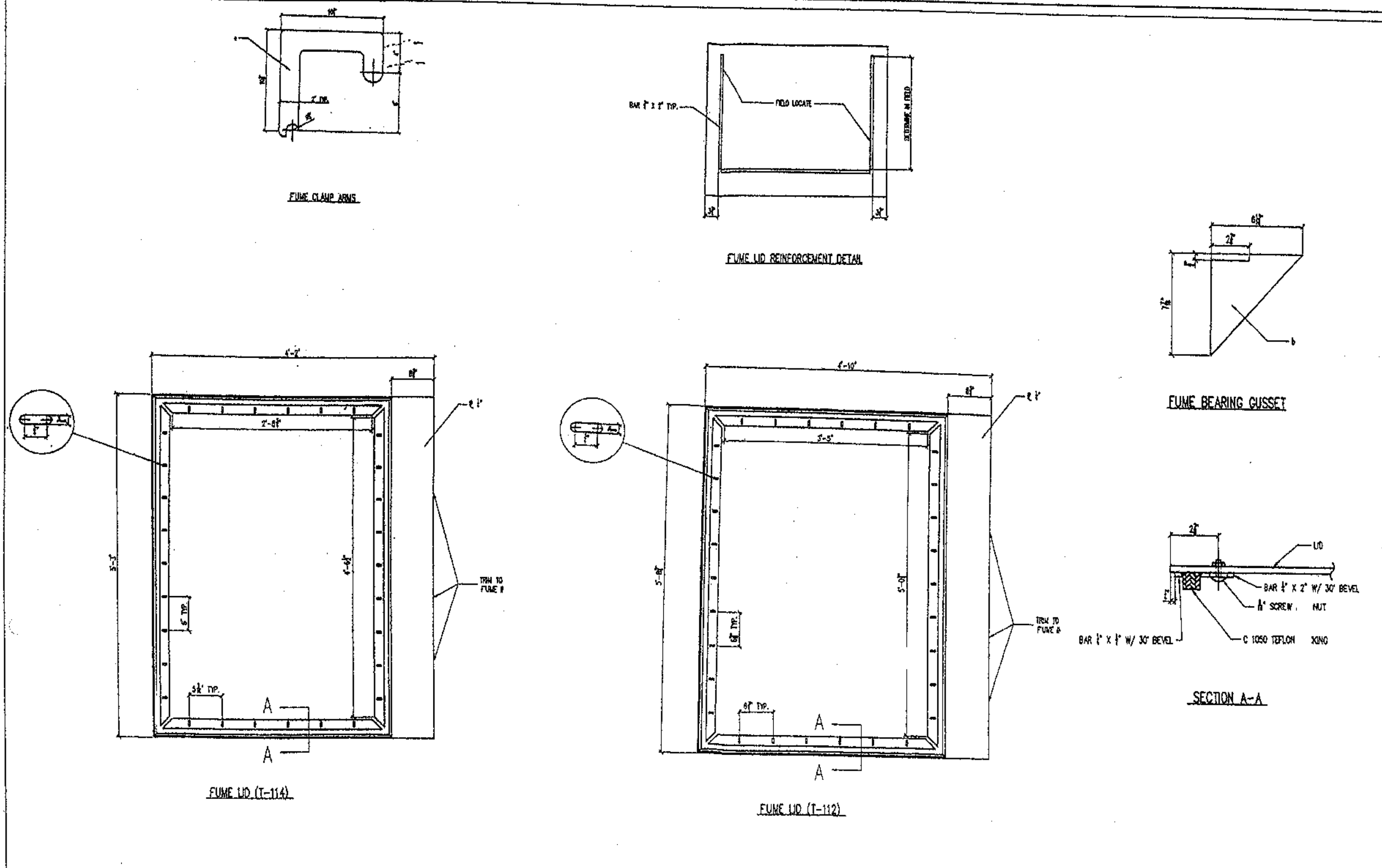
DRAWN	CHECKED	SCALE	DATE
JKM	MJG	NTS	01/31/08

TITLE

CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
FUEL BLEND TANKS HATCH SEAL DESIGN
TANK TOP AND NOZZLE ARRANGEMENT

DRAWING NO. Figure 15.1.C

REV. A



GENERAL NOTES

REFERENCE DRAWINGS

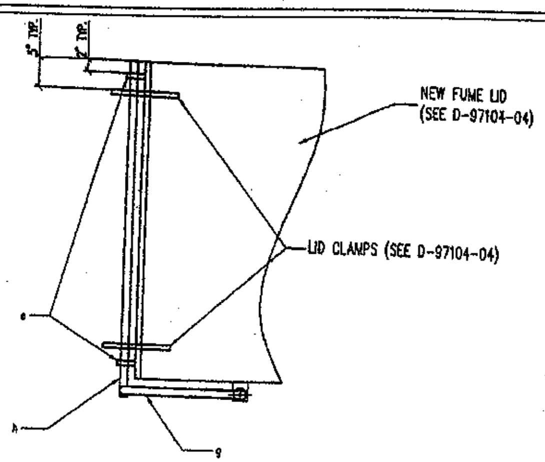
REV.	DESCRIPTION	DRAWN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/31/06	MJG

CleanHarbors
BARTOW

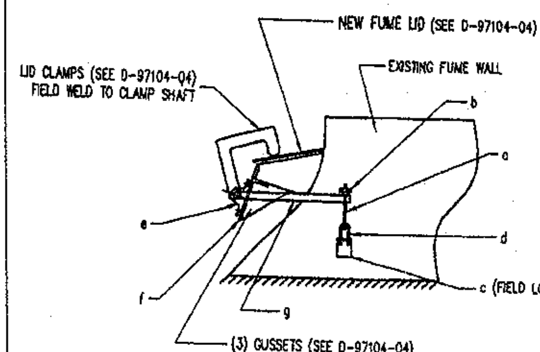
DRAWN	CHECKED	SCALE	DATE
JKM	MJG	NTS	01/31/06

TITLE
Figure 15.1.D
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
FUEL BLEND TANKS HATCH SEAL DESIGN
FUME LID FABRICATION DETAILS

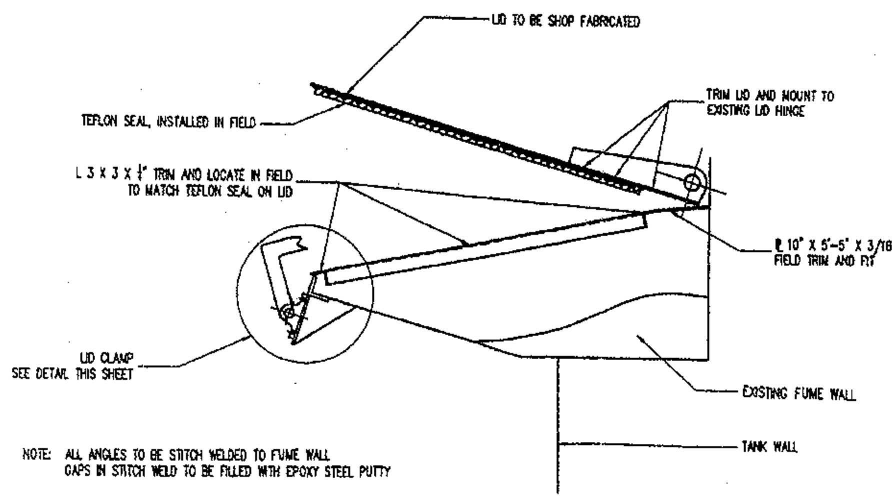
DRAWING NO. Figure 15.1.D REV. A



LID CLAMP
TOP VIEW



LID CLAMP
SIDE VIEW



NOTE: ALL ANGLES TO BE STITCH WELDED TO FUME WALL
GAPS IN STITCH WELD TO BE FILLED WITH EPOXY STEEL PUTTY

FUME LID

GENERAL NOTES

REFERENCE DRAWINGS

REV.	DESCRIPTION	DESIGN BY	DATE	APPR. BY
A	FOR APPROVAL	JKM	01/31/06	MJO

CleanHarbors
BARTOW

DRAWN	CHECKED	SCALE	DATE
JKM	MJO	NTS	01/31/06

TITLE
Figure 15.1.E
CLEAN HARBORS BARTOW, INC.
BARTOW FACILITY
FUEL BLEND TANKS HATCH SEAL DESIGN
FUME LID FIELD ASSEMBLY DETAILS

DRAWING NO. Figure 15.1.E
REV. A

FIGURE 15.2 SUBPART CC ANNUAL INSPECTION SHEET

Year

Date:			
Time:			
Inspector's Initials:			Comments
Tank Number	Acceptable	Not Acceptable Legend #	
T-101			
T-102			
T-103			
T-104			
T-105			
T-106			
T-107			
T-108			
T-109			
T-110			
T-112			
T-114			
R-202			
R-203			

Legend
H = hole   G = gap
T = tear   S = Split
VC = Visible Crack
O = Other
_ = No Problem

CHAPTER THREE
TRANSFER FACILITY

1.0 Applicability

CHF operates a Transfer Facility as described in Chapter 62-730.171 of the Florida Administrative Code (FAC). Containers of hazardous wastes are stored at the facility for 10 days or less but more than 24 hours.

2.0 General Facility Standards

The general facility standards specified in Subpart B of 40 CFR Part 265 are discussed below:

- The facility EPA I.D. Number is FLD 980 729 610
- The required notices are not applicable to CHF for waste in the Transfer Facility portion of the plant. This is because the waste is neither manifested to CHF or from CHF therefore, these notices and arrangements will be made by the generator and/or the designated TSDF.
- CHF does not perform waste analysis on the waste in the Transfer Facility because it is always manifested from a third party generator to another third party TSDF and not to or from CHF.
- The security measures spelled out in Chapter Two Appendix F will be implemented for the Transfer Facility.
- Inspection of the containers in the transfer facility will be performed weekly. An example checklist is provided in Chapter Two Appendix F.
- The personnel training measures spelled out in Chapter Two Appendix F will give adequate training to employees to properly manage containers of waste in the Transfer Facility.
- The general requirements for ignitable, reactive or incompatible wastes are spelled out in Chapter Two Appendix F.
- The location standards, which are applicable to the facility, are listed in Chapter Two Appendix F.

3.0 Preparedness and Prevention

The same procedures specified in the Preparedness and Prevention Plan of Chapter Two Appendix F, apply to the Transfer Facility.

4.0 Contingency Plan and Emergency Procedures

The contingency and emergency procedures which CHF will use, in the event they are needed, are detailed in Chapter Two Appendix F.

5.0 Management of Containers

All transfer waste at the facility will be in DOT approved containers. Secondary containment will be provided as all containers are stored on manmade surfaces which are provided with curbing to prevent spills or releases to the ground. Unless the containers remain in the transport vehicle, there will adequate aisle space provided to inspect each drum for leaks and appropriate labeling and markings. If a container is found to be defective or leaking, remedial action will be promptly taken. Remedial action could be over packing, transfer the contents to another compatible container in good condition, etc.

6.0 Closure Plan

CHF has prepared a written closure plan for the Transfer Facility. The plan was previously submitted to the FDEP.

7.0 Records

CHF will maintain a written record of when all hazardous waste enters and leaves the Transfer Facility. The record will include the generator name, EPA I.D. number, manifest number, and date the waste entered and exited the Transfer Facility. For conditionally exempt small quantity generators that do not have an EPA I.D. number, the record will include the generator's name and address. These records will be kept at the facility for three years from the date the waste exited the Transfer Facility.

8.0 Annual Notification

CHF will submit an annual updated Transfer Facility Notification to the FDEP. The notification will be submitted each year with the Transporter Insurance update.