

Clean Harbors Florida, LLC. 7001 Kilo Avenue Bartow, Florida 33830

863.533.6111 www.cleanharbors.com

June 14, 2021

Sent via eMail & Fed Ex

Michell Mason Smith, Environmental Administrator Florida Department of Environmental Protection Division of Waste Hazardous Waste Program & Permitting (850) 245-8721 Carrie.L.Kruchell@dep.state.fl.us

Re: RCRA Hazardous Waste Facility and Solid Waste Permit Renewal Application Clean Harbors Florida LLC, Bartow, FL EPA ID#: FLD 980 729 610

Dear Ms. Smith,

Enclosed please find the referenced facility's permit renewal application. This application is divided into four (4) parts as noted below:

- Part I for the RCRA Hazardous Waste Facility Permit renewal;
- Part II for the RCRA Hazardous Waste Facility Permit renewal;
- Part III for a description of registered Transfer Facility activities; and
- Part IV for the Solid Waste Permit renewal.

An electronic copy is being submitted to Carrie Kruchell (FLDEP), and hard copies of the application are being sent to your office as well as the FLDEP Southwest Regional Office. Additionally, checks for both the RCRA Hazardous Waste Facility Permit and Solid Waste Permit renewal application fees are being submitted to the appropriate offices/addresses as instructed.

"People and Technology Creating a Better Environment"



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Please contact me at <u>desha.david@cleanharbors.com</u> or (423) 413-1218 with any questions or comments concerning this matter.

Sincerely,

David A. DeSha Director Environmental Compliance Clean Harbors Environmental Services, Inc.

Enclosure

cc:

FLDEP Southwest Regional Office

John Bosek (w/o Encl) Jeff Curtis (w/o Encl) Facility File Clean Harbors Florida, LLC Clean Harbors Environmental Services, Inc.



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Enclosure



CLEAN HARBORS FLORIDA, LLC BARTOW, FL EPA ID#: FLD 980 729 610

RCRA HAZARDOUS WASTE & SOLID WASTE FACILITY OPERATING PERMIT RENEWAL APPLICATION

June 2021

Clean Harbors Florida, LLC Hazardous and Solid Waste Facility Permit Renewal Application

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DEP Form 62-730.900(2)(c) - Information Regarding Potential Releases from Solid Waste Management Units(SWMUs) and Areas of Concern (AOCs)

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Applicability1

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Compressors	
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Sampling Connecting Systems	
Open Ended Valves or Lines	2
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Recordkeeping	6
Reporting	7
Reporting	7

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Applicability	1
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Containers	2
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Recordkeeping Requirements	
Reporting Requirements	

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Applicability	1
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Preparedness and Prevention	
reparedness and revention	•••• 2

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DEP Form 62-701.900(4) - APPLICATION TO CONSTRUCT, OPERATE, OR MODIFY A WASTE PROCESSING FACILITY

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Revision: <u>0</u> **Date**: <u>6/13/2021</u>

Part I

Revision: <u>0</u> **Date**: <u>6/13/2021</u>

DEP Form 62-730.900(2)(a) -APPLICATION FOR A HAZARDOUS WASTE PERMIT PART I – GENERAL

Revisi	on N	Jumb	er 0	
Date 6	/13/2	021		
Page	1	of	4	

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

Please Type or Print

A.	General Information [40 CFR Part 270.13 (a)]						
1.	□ Miscellaneous Unit Type X STORAGE X Tanks □ Pile □ Surface Impoundment □ Containmen □ Miscellaneous Unit Type □ DISPOSAL □ Landfill □ Land Treatment	nt t Building of Unit of Unit es t Building of Unit □ Surface Impoundme	 nt				
2.	 Miscellaneous Units Type of Unit						
3.	Revision Number: <u>0 - RCRA Part B Permit # 64247-</u>	HO-017 Renewal					
4.	Date Current Operation Began, or is expected to be	Date Current Operation Began, or is expected to begin: $3 / 10 / 1987$					
5.	Facility Name [40 CFR Part 270.13 (b)] Clean Ha	rbors Florida, LLC					
6.	EPA/DEP I.D. No. FLD 980 729 610	•					
7.	Facility Location or Street Address [40 CFR Part 270.13 (b)] 7001 Kilo Ave., Bartow, FL 33830						
8.	Facility Mailing Address 7001 Kilo Ave.Bartow,	FL 33830					
	Bartow	Street or P.O. Box	33830				
	City	FLState	Zip				
9.	Contact Person John Bosek	Telephone (<u>863</u>) <u>51</u>					
	Title Facility General Manager						
	Mailing Address 7001 Kilo Ave.						
	Bartow	Street or P.O. Box FL	33830				
	City	State	Zip				

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Revision Number 0					
Date 6	Date 6/13/2021				
Page	2	of 4			

	Contact E-mail <u>bosek.john@cleanharbors.com</u>		
).	Operator Name [40 CFR Part 270.13 (d)] Clean Har	bors Florida, LLC	
	Telephone (<u>863</u>) <u>519-6331</u>		
	Mailing Address 7001 Kilo Ave.		
	Bartow	Street or P.O. Box FL	33830
	City Operator E-mail <u>bosek.john@cleanharbors.com</u>	State	Zip
	Facility owner's name [40 CFR Part 270.13 (e)] <u>Cle</u>	an Harbors Florida,	LLC
	Telephone (<u>863</u>) <u>519-6331</u>		
	Mailing address 7001 Kilo Ave.		
	Bartow	Street or P.O. Box FL	33830
	City	State	Zip
	E-mail address bosek.john@cleanharbors.com		
•	Legal structure [40 CFR Part 270.13 (d)]		
	X Corporation □ Non-profit corporation □ Part □ Local government □ State government □ Fed	nership 🗆 Individua	al
		eral government $\Box O$	ther
•	If an individual, partnership, or business is operating and state where the name is registered.	-	
	If an individual, partnership, or business is operating	under an assumed na	me, specify the county
	If an individual, partnership, or business is operating and state where the name is registered.	under an assumed nam	me, specify the county
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•	If an individual, partnership, or business is operating and state where the name is registered. County <u>N/A</u> State If the legal structure is a corporation, indicate the sta State of Incorporation <u>Delaware</u> If the legal structure is an individual or partnership, I	under an assumed name <u>N/A</u> te of incorporation. ist the owners.	me, specify the county
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3. 4. 5.	If an individual, partnership, or business is operating and state where the name is registered. County <u>N/A</u> State If the legal structure is a corporation, indicate the sta State of Incorporation <u>Delaware</u> If the legal structure is an individual or partnership, I Name <u>N/A</u> AddressStreet or P.O. Box Name	under an assumed nam <u>N/A</u> te of incorporation. ist the owners. City Sta	me, specify the county

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Revision Number 0 Date 6/13/2021 Page **3** of **4**

If leased, indicate land owner's name. City of Bartow Municipal Airport Address P.O. Box 650 33830 **Bartow** FL Street or P.O. Box City State Zip E-mail address john@bartow-airport.com Name of Engineer <u>N.</u> Dennis Eryou, PhD, PE Registration No. _46888 17. Address 5051 Castello Drive, Suite 244 FL Naples 34103 Street or P.O. Box Citv State Zip Associated with: N.D Eryou, PhD, PE Consulting Engineer 18. Is the facility located on Tribal land [40 CFR Part 270.13 (f)]? □ Yes X No

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

NAME OF	AGENCY	PERMIT	DATE	EXPIRATION
PERMIT		NUMBER	ISSUED	DATE

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

1. The facility is located in <u>Polk</u> county.

The nearest community to the facility is <u>Eagle Lake</u>

Latitude ______ Longitude ______ Longitude ______

Method and datum Interpolation, North American Map #24000

- 2. The area of the facility site is <u>10.2</u> acres.
- 3. Attach a scale drawing and photographs of the facility showing the location of all past, present, and future treatment, storage and disposal areas. Include photographs and the locations of all Solid Waste Management Units and Areas of Concern. Also, show the hazardous wastes traffic pattern including estimated volume and control [40 CFR Part 270.13 (h)]. See Appendices I-A & I-B
- 4. Attach a topographic map which shows all the features indicated in the instructions for this part. See Appendix I-C
- 5. Is the facility located in a 100-year flood plain? \Box Yes XNo
- 6. The facility complies with the wellhead protection requirements of Chapter 62-521, F.A.C.

X Yes 🗆 No

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Revision Number 0				
Date 6/13/2	021			
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C. Land Use Information

1.	The present zoning of the site isIndustrial
2.	If a zoning change is needed, what should the new zoning be? <u>N/A</u> .
D.	Operating Information
1.	Is waste generated on-site? X Yes \Box No
2.	List the NAICS codes (5 to 6 digits) [40 CFR Part 270.13 (c)] <u>56221</u>

- 3. Use the codes and units provided in the instructions to complete the following table. Specify [40 CFR Part 270.13 (i and j)]:
 - a. Each process used for treating, storing or disposing of hazardous waste (including design capacities) at the facility, and;
 - b. The hazardous waste(s) listed or designated in 40 CFR Part 261, including the annual quantities, to be treated, stored, or disposed by each process at the facility.

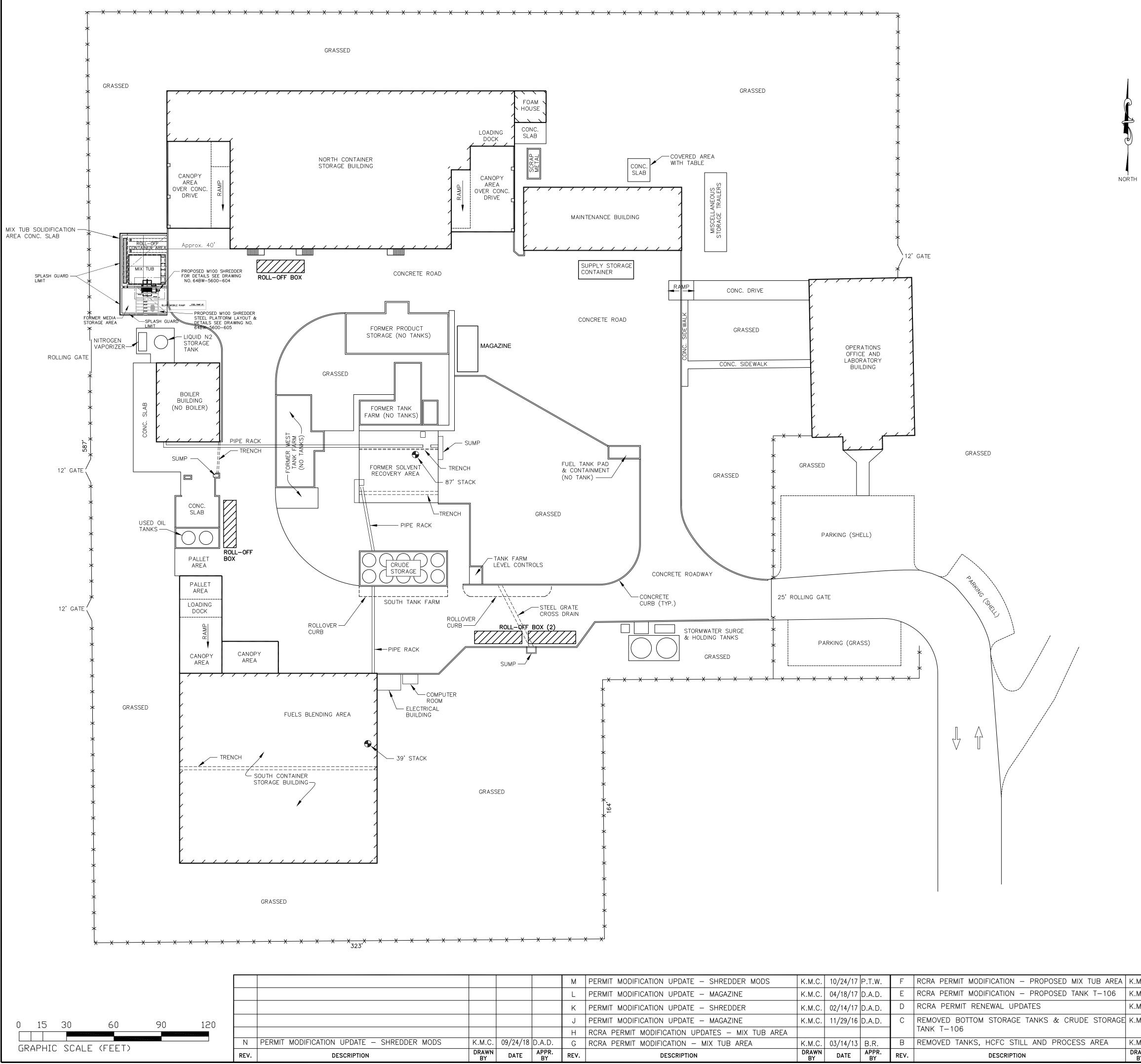
	PROCESS DESIGN	HAZARDOUS	ANNUAL QUANITY
PROCESS CODE	CAPACITY AND	WASTE	OF HAZARDOUS
	UNITS OF MEASURE	CODE	WASTE AND UNITS
			OF MEASURE
S01	275,640 G	Appendix II.G.	Appendix II.G.
S02	72,600 G	Appendix II.G.	Appendix II.G.
T31	20,000 U	Appendix II.G.	Appendix II.G.
T40	20,000 U	Appendix II.G.	Appendix II.G.
T47	32,320 G	Appendix II.G.	Appendix II.G.
T50	12,000 U	Appendix II.G	Appendix II.G

- 4. A brief description of the facility [40 CFR Part 270.13 (m)]: Commercial hazardous and solid waste treatment and storage facility. The facility conducts hazardous waste storage in containers and tanks as well as treatment in tanks (e.g., fuel blending). S01 performed as follows: North Warehouse 136,400 gallons; South Warehouse 106,920 gallons; 3 Roll-off Containers & 1 Low Explosive Magazine 32,320 gallons. S02 performed as follows: South Tank Farm (T101-T110) 60,000 gallons; R202 & R203 12,600 gallons. The facility also conducts solid waste storage in containers and treatment via a shredder for size reduction and a mix tub for solidification. See Appendix I-D for additional facility description information.
- 5. For hazardous debris, a description of the debris category(ies) and contaminant category(ies) to be treated, stored or disposed of at the facility [40 CFR Part 270.13 (n)]: N/A

Clean Harbors Florida, LLC RCRA Permit Renewal Application Part I - DEP Form 62-730.900(2)(a)

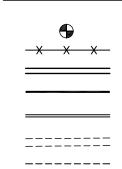
AGENCY NAME OF PERMIT PERMIT NUMBER DATE ISSUED EXPIRATION DATE RCRA Part B Commercial TSDF 10/5/2016 FLDEP 64247-HO-0170 12/10/2021 10/5/2016 Solid Waste Processing Facility FLDEP 64247-SO-019 12/10/2021 Hazardous Waste Transfer Facility FLDEP FLD980729610 Renews Annually Renews Annually Universal Waste Handler FLDEP FLD980729610 Renews Annually Renews Annually Used Oil Transfer Facility FLDEP FLD980729610 Renews Annually Renews Annually Petroleum Storage Tanks 9602192 Renews Annually FLDEP Renews Annually Air Operating Minor Source 8/15/2019 6/16/2024 FLDEP 1050167-015-AO Pharm Reverse Distributor FL Dept. of Business & 2/2021 3/31/3023 5315 Professional Regulation Renews Annually DEA Controlled Substances RD USDOJ RC0482771 Renews Annually FL Dept. of Health Biomedical Waste Storage 53-64-1283960 Renews Annually Renews Annually 6/30/2023 Hazardous Material Transfer USDOT 082317 551 004ZB 7/1/2020 SW FL Water Mgmt. 40001359 001, 003-007 11/27/2006 N/A Wastewater Discharge 6/14/2013 6/14/2023 TSCA Commercial Storage USEPA FLD980729610 APHIS USDA P330-21-00005 1/12/2021 1/12/2024 US Dept. of Treasury 2/18/2011 N/A Industrial Alcohol User SDS-FL-15095

Table A.19



												, ,	
APPR. BY	REV.	DESCRIPTION	DRAWN DAT	E APPR. BY	REV.	DESCRIPTION DRAWN BY	D.	ATE APPR. BY	JKM		1" = 30'	04/21/05	E
.A.D.	G	RCRA PERMIT MODIFICATION – MIX TUB AREA	K.M.C. 03/14	/13 B.R.	В	REMOVED TANKS, HCFC STILL AND PROCESS AREA K.M.C.	. 02/	04/11 M.C.	DRAWN	CHECKED	SCALE	DATE	DRAWING NO.
	Н	RCRA PERMIT MODIFICATION UPDATES – MIX TUB AREA				TANK T-106			THIS DF ANY INI OR	AWING IS THE PR FORMATION CONT USED WITHOUT	OPERTY OF CLEAN HAR AINED HEREON MAY N WRITTEN PERMISSION (BORS BARTOW DT BE COPIED DF OWNER.	
	J	PERMIT MODIFICATION UPDATE – MAGAZINE	K.M.C. 11/29	/16 D.A.D.	С	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE K.M.C.	05/	10/11 M.C.			BARTOW		
	Κ	PERMIT MODIFICATION UPDATE – SHREDDER	K.M.C. 02/14	/17 D.A.D.	D	RCRA PERMIT RENEWAL UPDATES K.M.C.	. 09/	28/11 S.B.					FA
	L	PERMIT MODIFICATION UPDATE – MAGAZINE	K.M.C. 04/18	/17 D.A.D.	E	RCRA PERMIT MODIFICATION - PROPOSED TANK T-106 K.M.C.	02/	12/13 B.R.		ean	Harb	nrc	CLE
	М	PERMIT MODIFICATION UPDATE – SHREDDER MODS	K.M.C. 10/24	/17 P.T.W.	F	RCRA PERMIT MODIFICATION - PROPOSED MIX TUB AREA K.M.C.	. 03/	11/13 B.R.					TITLE

LEGEND



AIR EMISSIONS STACK CHAINLINK FENCE PIPE RACK ROOF LINE CONTAINMENT AREA TRENCH ROLLOVER CURB DESIGNATED HAZARDOUS WASTE ROLL-OFF AREAS





BW100001N CLEAN HARBORS FLORIDA, LLC FACILITY DRAWING/PLOT PLAN APPENDIX A

BW-100-001

REV. Ν

Photo 1 - Clean Harbors Florida, LLC

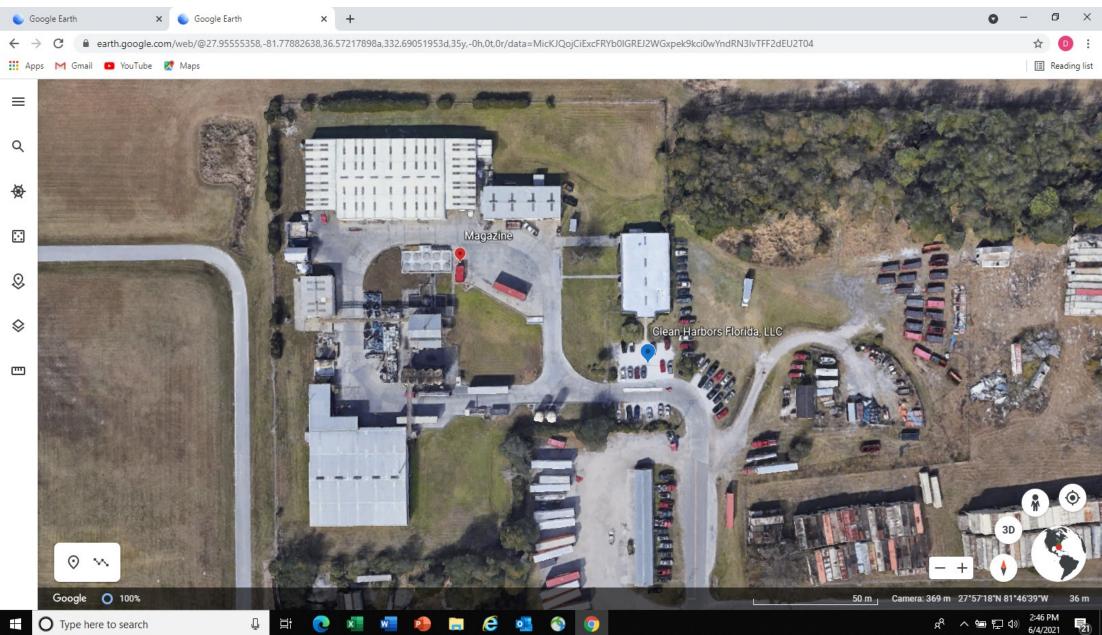


Photo 2 - North Warehouse Container Storage Area



Photo 3 - North Warehouse Container Storage Area (Interior South)



Photo 4 - North Warehouse Container Storage Area (Vault)

Photo 5 - North Warehouse Container Storage Area (Interior North)

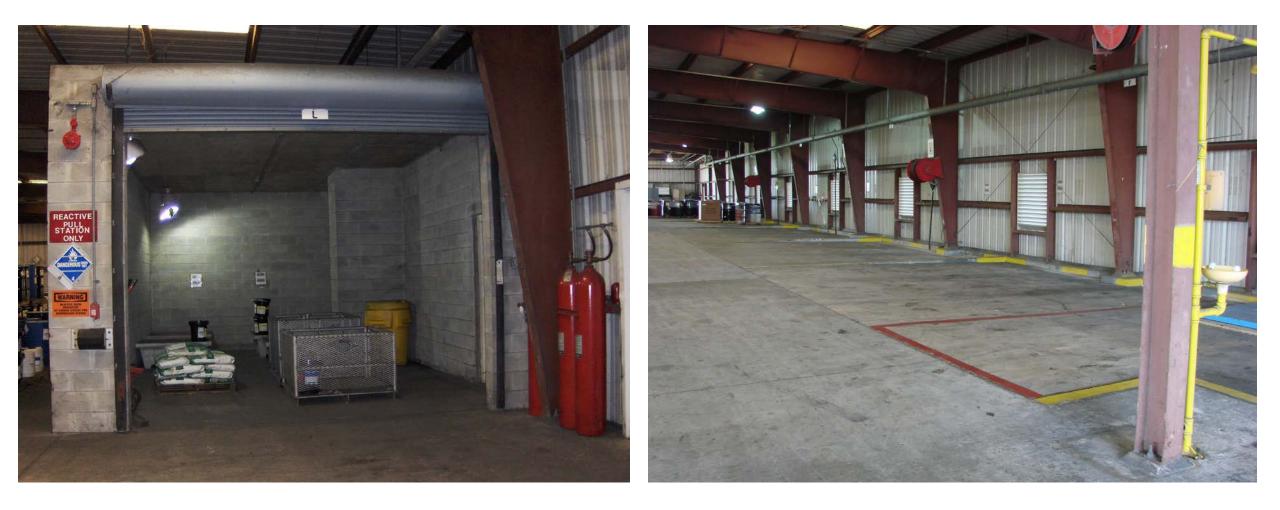


Photo 6 - South Warehouse Container Storage Area (Interior West)

Photo 7 - South Warehouse Container Storage Area (Interior East) with Fuel Blending Tanks)



Photo 8- South Tank Farm (East to West)



Photo 9 - South Tank Farm (West to East)



Photo 10 – West Tank Farm (Vacant)

Photo 11 – Low Explosive Magazine



Photo 12 – Low Explosive Magazine (Interior)

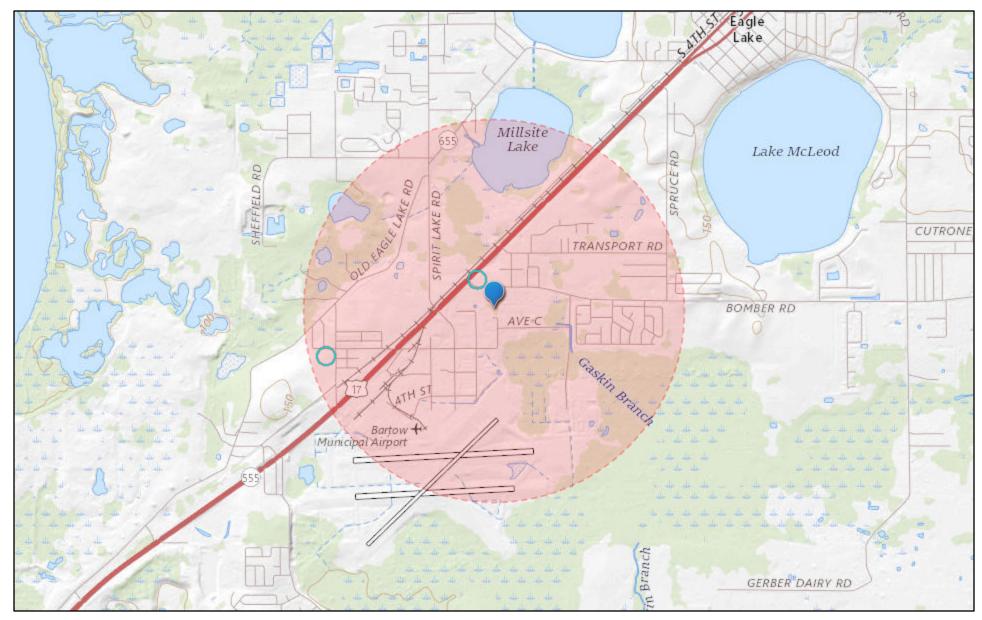
Photo 13 – Example Roll-Off (Total of 3)



Photo 14 – Non-Hazardous Waste Shredder & Mix Tub

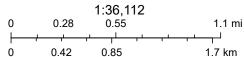


Clean Harbors Florida, LLC - Topographic Map



June 10, 2021

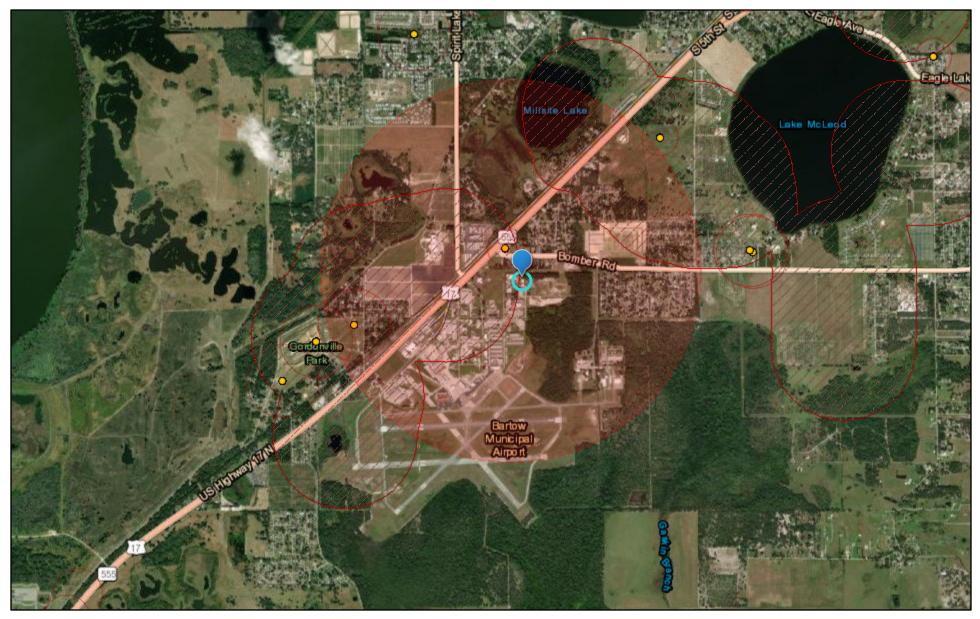
Public Water Supply (PWS) Wells (Non-Federal)



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, DEAR, Esri,

Map created by Map Direct, powered by ESRI.

Clean Harbors Florida, LLC - Water Well Map



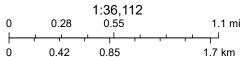
June 7, 2021

C

Ground Water Contamination Areas

Public Water Supply (PWS) Wells (Non-Federal)

Source Water Assessment and Protection Program (SWAPP) Areas



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE,

Map created by Map Direct, powered by ESRI.

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Florida Department of Environmental Protec on



Map Direct AIR (Area of Interest Report) Drinking Water Map

Point of Interest: 27°57'22.2985" x -81°46'42.6396" 27.956194033516486 x -81.77851098672419 Search Radius: 1 mile Report Created on Mon Jun 07 2021 at 17:02:51 *Map Direct v7.210607* Township/Range/Sec on: 29S25E14 , Polk County 33830 FDEP Regulatory District: Southwest District Water Management District: SWFWMD FL House District 41 :: FL Senate District 22 US Congressional District 9 HUC Basin Area: Peace Waterbody ID: 1623N State Land DM ID:



Search Result Summary

Features Found	Data Layer	Metadata	Spreadsheet
2	Ground Water Contamina on Areas	<u>Layer</u> Informa on	<u>Download as</u> <u>Spreadsheet</u>
0	Underground Injec on Control (UIC) Class V Non-ASR Wells	<u>Layer</u> Informa on	
0	Underground Injec on Control (UIC) Class V ASR Wells	<u>Layer</u> Informa_on	
0	Underground Injec on Control (UIC) Class I Wells	<u>Layer</u> Informa_on	
4	Source Water Assessment and Protec on Program (SWAPP) Ground Water Areas (Non Federal)	<u>Layer</u> Informa on	<u>Download as</u> <u>Spreadsheet</u>
0	Private Wells from Generalized Well Informa on System (GWIS)	<u>Layer</u> Informa_on	
0	Public Water Supply (PWS) Tanks (Non-Federal)	<u>Layer</u> Informa on	
2	Public Water Supply (PWS) Wells (Non-Federal)	<u>Layer</u> Informa on	Download as Spreadsheet
1	Public Water Supply (PWS) Plants (Non-Federal)	<u>Layer</u> Informa_on	<u>Download as</u> <u>Spreadsheet</u>

G. 2. ND WETER CENTEMENETEN AREES: 2 FE UND.

[]		ation Areas	#2 Of 2 From Ground W		ation Ai
OBJECTID	112		OBJECTID	110	
ZONE ID	53263413		ZONE ID	53263425	
CONTAMINANT CODES	26		CONTAMINANT CODES	26	
USGS QUADS	3214 3215		USGS QUADS	3215	
COUNTY NAME	POLK		COUNTY NAME	POLK	
FLORIDA WMDS	SWFWMD		FLORIDA WMDS	SWFWMD	
ARSENIC	0		ARSENIC	0	
BARIUM	0		BARIUM	0	
CADMIUM	0		CADMIUM	0	
CHROMIUM	0		CHROMIUM	0	
FLOURIDE	0		FLOURIDE	0	
LEAD	0		LEAD	0	
MERCURY	0		MERCURY	0	
NITRATE AS N	0		NITRATE AS N	0	
	0		SELENIUM	0	
SILVER	0		SILVER	0	
SODIUM	0		SODIUM	0	
ENDRIN	0		ENDRIN	0	
LINDANE	0		LINDANE	0	
METHOXYCHLOR	0		METHOXYCHLOR	0	
TOXAPHENE	0		TOXAPHENE	0	
D 2 4	0		D 2 4	0	
SILVEX	0		SILVEX	0	
TRIHALOMETHANES TOTAL	0		TRIHALOMETHANES TOTAL	0	
TRICHLORETHYLENE	0		TRICHLORETHYLENE	0	
TETRACHLOROETHYLENE	0		TETRACHLOROETHYLENE	0	
CARBON TERACHLORIDE	0		CARBON TERACHLORIDE	0	
VINYL CHLORIDE	0		VINYL CHLORIDE	0	
TRICHLOROETHANE 111	0		TRICHLOROETHANE 111	0	
DICHLOROETHANE 12	0		DICHLOROETHANE 12	0	
BENZENE	0		BENZENE	0	
	-				
ETHYLENE DIBROMIDE	1		ETHYLENE DIBROMIDE	1	
	0		DICHLOROBENZENE PARA	0	
DICHLOROETHYLENE 11	0		DICHLOROETHYLENE 11	0	
TOLUENE	0		TOLUENE	0	
XYLENE TOTAL	0		XYLENE TOTAL	0	
ETHYLBENZENE	0		ETHYLBENZENE	0	
PENTACHLOROPHENOL	0		PENTACHLOROPHENOL	0	
ALACHLOR	0		ALACHLOR	0	
BROMOCIL 2	0		BROMOCIL 2	0	
DICHLOROPROPANE 12	0		DICHLOROPROPANE 12	0	
DIBROMOCHLOROPROPANE	0		DIBROMOCHLOROPROPANE	0	
SIMAZINE	0		SIMAZINE	0	
MTBE 3	0		MTBE 3	0	
BENZO A PYRENE	0		BENZO A PYRENE	0	
NITRITES NITRATES TOTAL	0		NITRITES NITRATES TOTAL	0	
	-			-	
			CIS 1 2 DICHLOROETHYLENE		
	0				
SHAPE.AREA	6495285.043016		SHAPE.AREA	3992659.065234	
SHAPE.LEN	14204.09573		SHAPE.LEN	8168.409678	

SEURCE WEITER ASSESSMENT AND PRETECTERN PREEREM (SWAPP) GREUND WEITER AREES (NEN FEDEREE): 4 FEUND.

	#2 Of 4 From Source Water Assessment And Protection Program (SWAPP) Ground Water Areas			
(Non Federal)	(Non Federal)			
OBJECTID 6402	OBJECTID 6538			

PWS ID	6534609		PWS ID	6535364	
WELL ID	73244		WELL ID	73623	
AQUIFER	Floridan Aquifer		AQUIFER	Floridan Aquifer	
SHAPE.AREA	291736.588438		SHAPE.AREA	72902.462925	
SHAPE.LEN	1914.906657		SHAPE.LEN	957.349344	
	Program (SWA	er Assessment And PP) Ground Water Areas		Program (SWA	er Assessment And PP) Ground Water Areas
OBJECTID	6403		OBJECTID	6361	
PWS ID	6534609		PWS ID	6534442	
WELL ID	73245		WELL ID	17424	
AQUIFER	Floridan Aquifer		AQUIFER	Floridan Aquifer	
SHAPE.AREA	291736.588438		SHAPE.AREA	72902.462925	
SHAPE.LEN	1914.906657		SHAPE.LEN	957.349344	

PUBZE WETER SUPPER (PWS) WEZES (NEN-FEDERER): 2 FE UND.

#1 Of 2 From Public Water (Non-Federal)	· ·	#2 Of 2 From Public Wate (Non-Federal)	er Supply (PWS) Wells
GIS WELL ID	73245	GIS WELL ID	17424
PWS ID	6534609	PWS ID	6534442
PWS STATUS	ACTIVE	PWS STATUS	ACTIVE
WELL STATUS	ACTIVE	WELL STATUS	ACTIVE
PWS NAME	CENTRAL	PWS NAME	STAR FOOD MART
PWS ADDRESS	3010 SHEFFIELD RD.	PWS ADDRESS	4660 HIGHWAY 17 NORTH
PWS CITY	WINTER HAVEN	PWS CITY	BARTOW
PWS ZIP5	33880	PWS ZIP5	33830
PWS PRIMARY PHONE	8634193159	PWS PRIMARY PHONE	8637334805
PWS TYPE CODE	С	PWS TYPE CODE	N
PWS TYPE	COMMUNITY	PWS TYPE	NONCOMMUNITY
PWS SUBPART H	N	PWS SUBPART H	N
PWS OPERATOR		PWS OPERATOR	EDDIE SMITH
PWS POP SERVED	13595	PWS POP SERVED	100
WELL LAT DD	27	WELL LAT DD	27
WELL LAT MM	57	WELL LAT MM	57
WELL LAT SS	8.9001	WELL LAT SS	29.8002
WELL LONG DD	81	WELL LONG DD	81
WELL LONG MM	47	WELL LONG MM	46
WELL LONG SS	34.4998	WELL LONG SS	47.7683
WELL METHOD	DPHO	WELL METHOD	DGPS
WELL DATUM	83	WELL DATUM	83
WELL COORDINATE DATE	12/17/2019	WELL COORDINATE DATE	06/12/2001
FLUWID	DAA1041	FLUWID	AAC3954
WELL PLANT ID	8	WELL PLANT ID	1
WELL ID	3	WELL ID	1
WELL NAME	CENTRAL REGIONAL WELL #3	WELL NAME	CUMBERLAND FARMS WELL #1
WELL YEAR DRILLED	2015	WELL YEAR DRILLED	1981
WELL DEPTH DRILLED	711	WELL DEPTH DRILLED	300
PWS LAST SAN SURVEY	12/08/2019	PWS LAST SAN SURVEY	01/15/2021
PWS DESIGN CAPACITY	5440000	PWS DESIGN CAPACITY	43200
PWS PRIMARY SERVICE AREA	COUNTY WIDE	PWS PRIMARY SERVICE AREA	RETAIL/GENERAL
WELL AVAILABILITY USAGE	PERMANENT		MERCHANT
WELL HEIGHT ABOVE ELIPSOID	0	WELL AVAILABILITY USAGE	PERMANENT
PWS INSPECTOR INITS	MN	WELL HEIGHT ABOVE	42.768
PWS CNP COUNTY ID	53	PWS INSPECTOR INITS	НТ
PWS OC1 OFFICE ID	SWPO	PWS CNP COUNTY ID	53
LOCATIONS PWS LOCATION ID	160709	PWS OC1 OFFICE ID	SWPO
WELL UNDER DIRECT	N	LOCATIONS PWS LOCATION ID	47457
		WELL UNDER DIRECT	
OBJECTID	73245	INFLUENCE	N
AQUIFER	Floridan Aquifer	OBJECTID	17424
		AQUIFER	Floridan Aquifer

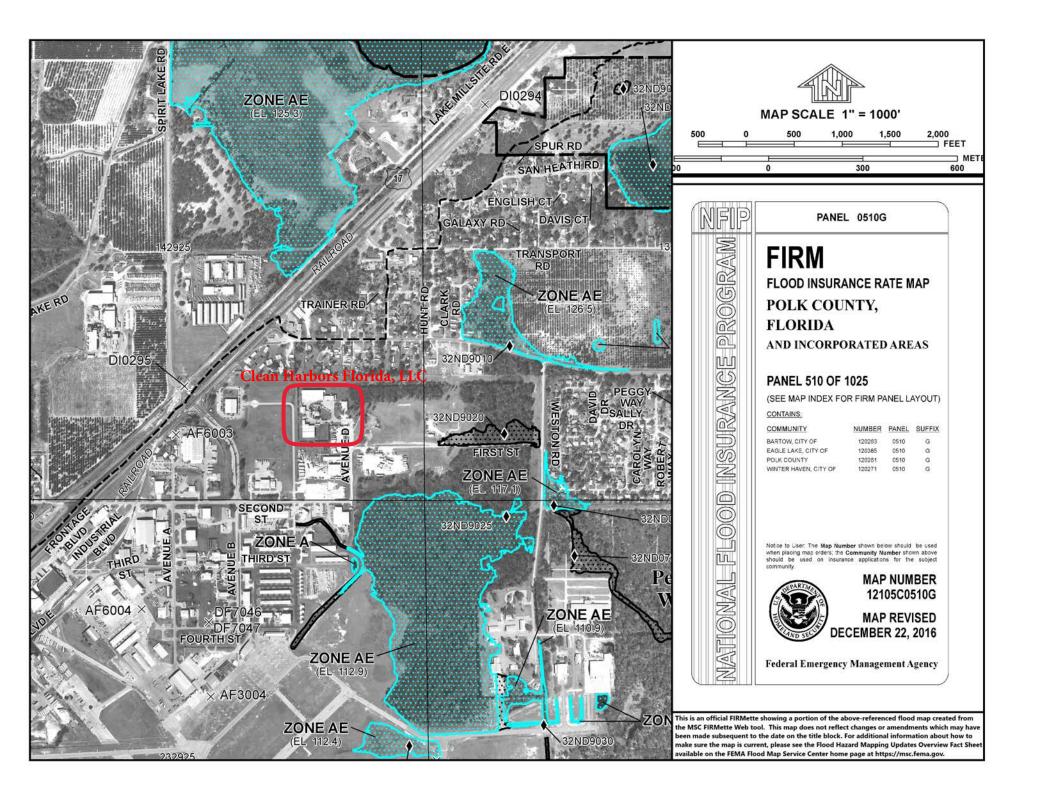
PUBE WETER SUPPE (PWS) PENTS (NEN-FEDEREE): 1 FE UND.

#1 Of 1 From Public Water Supply (PWS) Plants	
(Non-Federal)	
GIS PLANT ID	14047
PWS OC1 OFFICE ID	SWPO
PWS ID	6530677
PWS STATUS	ACTIVE
PWS NAME	CYPRESS ACRES MOBILE HOME PARK
PWS CITY	WINTER HAVEN
PWS TYPE CODE	С
PWS TYPE	COMMUNITY
PWS POP SERVED	78
PWS SUBPART H	N
PWS LAST SAN SURVEY	01/15/2021
PWS LAST 01 INSP	
PWS INSPECTOR INITS	HT
PWS PRIMARY SERVICE AREA	MOBILE HOME PARK
PWS OPERATOR	LARRY SCOTT
PLANT ID	1
PLANT NAME	CYPRESS ACRES MHP WTP
PLANT STATUS	ACTIVE
PLANT FOUR LOG REMOVAL	N
PLANT LAT DD	27
PLANT LAT MM	58
PLANT LAT SS	3
PLANT LONG DD	81
PLANT LONG MM	46
PLANT LONG SS	50
PLANT COORDINATE METHOD	UNVR
PLANT DATUM	27
PLANT COORDINATE DATE	
PLANT DESIGN CAPACITY	49000
PLANT HEIGHT ABOVE ELLIPSOID	
OBJECTID	14047

No Results Found:

Private Wells from Generalized Well Informa on System (GWIS) Public Water Supply (PWS) Tanks (Non-Federal) Underground Injec on Control (UIC) Class I Wells Underground Injec on Control (UIC) Class V ASR Wells Underground Injec on Control (UIC) Class V Non-ASR Wells

*** END OF REPORT ***



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FACILITY DESCRIPTION

I-D-1.1 Introduction

I-D-1.1.1 Process Summary

Clean Harbors Florida LLC (CHF) is in the business of transferring, storing and treating hazardous waste and non-hazardous wastes.

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 flow diagram provided as Figure F-1.5.

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.

CHF performs non-hazardous waste shredding and solidification. This is performed in the SWMU #16, the Mix-tub Area shown on Figure F-1.7a. Operation details can be found in this document at I-D-1.9

I-D-1.1.2 Description of Wastes

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

1) Processable (On site treatment or management – off site disposal; IE: Fuel Blend, Filtration, Bulking, Consolidation, and Repackaging)

2) Non Processable (IE: Storage only, CICO-Container In/ Container Out)

3) 10 Day Transfer while enroute to designated facility. (Material not manifested to this facility)

These wastes are listed by EPA Hazardous Waste Code in Appendix II.G.

I-D-1.2 Waste Receiving

I-D-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 Part 2) prior to acceptance for storage and/or treatment on-site. For waste sampled in accordance with Part 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-D-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 Part 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-D-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 Part 2, Section A, Appendix H). Following verification of the acceptability of the material, the contents of the bulk container will be

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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 (see Part II, Section A, Appendix II, H. Waste Analysis Plan (WAP)). 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-D-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 I-C-1.7).

I-D-1.2.5 In-Processing of Low Explosives at the Retail Facilities, Prior to Transportation to CHF

Prior to CHF approving 1.4 low explosives for shipment to the facility a Material Profile must be completed by the generator and approved by Clean Harbors – see Part II, Section A, Appendix II, H. Waste Analysis Plan (WAP), 3.4 Special Wastes for additional information. At generator locations 1.4 low explosives are properly packaged, labeled and marked for shipment. Consumer fireworks are packaged at the generator's location in containers and submerged under water – see I-C-1.8.1 below. Additionally associated manifests and Land Disposal Restriction (LDR) forms (as required) are completed for each shipment, signed by generators and transporters, and copies of the shipping documents are given to generators for their records at the time wastes are picked-up. Completion of LDR forms include identifying any Underlying Hazardous Constituents (UHCs) as well as whether or not treatment is required prior to land disposal. In most all instances 1.4 low explosive must be treated which is conducted offsite at properly permitted explosive destruction facilities. Therefore all treatment for UHCs occurs offsite at other authorized facilities – i.e., no processing and/or treatment for 1.4 low explosives occurs onsite at the facility.

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I-D-1.3 Fuel Blending

I-D-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-D-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-D-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 Figures 1.2 and 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-D-1.3.4 Tank Truck Shipments

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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-D-1.4 Corrosives and Alkaline

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 Part Two. Once a waste is neutralized, the LDR status of the waste may be affected.

I-D-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-D-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, T112 and T114 (12 tanks) ** 106,920 gallons -- South Container Storage Building 136,400 gallons -- North Container Storage Building 32,320 gallons -- Four 40 yd³ roll-off boxes; a magazine occupies (may occupy) one of the roll-

off container locations. Unit capacity for one (1) roll-off box as a hazardous waste management

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unit shall be used for a Class II magazine (permitted hazardous waste management unit). The magazine is used to store DOT 1.4 consumer products prior to offsite shipment to a destruction facility. These consumer commodities destined for disposal/destruction include consumer fireworks, flares, emergency signals, marine distress devises, small arms ammunition, etc. **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-D-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 EPApermitted 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-D-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.

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A magazine for the storage of consumer fireworks and other products like emergency flares/signals and small arms ammunition prior to transfer offsite for destruction is also located within the concrete driveway area.

I-D-1.8.1 Magazine Container Storage of Low Explosives

1. <u>Magazine Description</u>

a. The magazine occupies one of the existing permitted hazardous waste container storage areas as shown on the Facility Site Plan – See Part 1, Part 1, Appendix A.

b. All subject materials classified under DOT Hazard Class 1.4 are consumer goods stored and sold at retail outlets for use by the general public. All applicable proper DOT classifications, shipping descriptions, markings, placarding, etc., will be followed. Proper hazardous waste markings will also be applied to these materials. Only DOT Hazard Class 1.4 low explosive consumer products will be stored in the magazine.

c. All items are exempt from licensing by the ATF for management in transportation and onsite storage – consumer fireworks are exempt by rule, and the other items (emergency flare gun cartridges, marine distress signal and highway flares) have manufacturer exemptions issued by ATF. Other consumer products like small arms ammunition are also ATF exempt. As per an EPA guidance document small arms ammunition is not reactive (i.e., not EPA Hazardous Waste Code D003). All items will be shipped and stored according to applicable regulations.

d. The storage of these consumer products destined for destruction require an appropriate magazine for onsite storage according to OSHA. The magazine is a Class II version with dimensions of 20' long by 10' wide.

e. The magazine is placed onsite in a permitted location for the storage of hazardous wastes. This location is greater than 50 feet from the facility's property line as required for waste codes D001 and/or D003.

2. <u>Training and Personal Protective Equipment (PPE)</u>

a. All employees involved with the packaging, transportation and storage of these materials are properly trained according to DOT, OSHA and RCRA standards to include:

- 49 CFR, Part 172, Subpart H
- 29 CFR 1910.120
- 40 CFR 264.16

Additionally, employees receive site-specific training for emergency procedures at the facility to include its Contingency Plan. See Part II, Section A, Appendix II, F.5 Personnel Training for additional information concerning employee training.

b. PPE required while operating in the magazine is Level D:

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- Uniform
- Hard Hat
- Safety glasses
- Safety boots/shoes
- Hand protection (optional for managing certain containers)

3. <u>Purpose/Use of Magazine and Packaging for 1.4 Low Explosives</u>

Receipt and storage for items in the magazine is to facilitate transportation to an ultimate destruction site. Destruction for these consumer items involves controlled burn or incineration at properly permitted offsite locations – no treatment, destruction and/or disposal is conducted at the facility.

a. Packaging implemented at the time of 1.4 low explosive pick-up and required for placement of such items in the magazine:

i. Unless otherwise specified, all fireworks and signal flares must be packaged in UN Rated containers meeting the PGII rating level or higher.

ii. All fireworks and signal flares must be packed in combination packaging; no loose fireworks and signal flares may be placed in drums.

A. Fireworks must be packaged under water.

- 1. Pack into inner, liquids rated poly container.
- 2. Fill container with water.
- 3. Seal and pack inner container into outer steel or Poly drum.
- 4. Fill void space between inner and outer container with vermiculite.
- B. Signal flares must be packaged in combination packaging
 - 1. Original manufacturers packaging is acceptable if intact and unopened
 - 2. If Signal Flare is not in original manufacturer's unopened package,

flares must be packed into inner container prior to packaging into outer steel or poly drum.

- iii. Steel, and plastic drums are applicable container types for packaging and transporting 1.4 Consumer Fireworks and signal flares.
- iv. All screw type closures on containers must be secured in place with tape.
- v. No devices with protruding parts that may penetrate a level of packaging material may be utilized.
- vi. All inner packagings must be secured from movement A. Fill containers with packing material so no empty void space exists in each container.
- vii. All articles that contain a means of self-ignition must be secured as to prevent accidental ignition. This includes flare guns, distress signals, and highway and marine flares as well as small arms ammunition. To prevent accidental ignition original manufacturers packaging is acceptable if intact and unopened. If not in original manufacturer's unopened package, items must be packed into inner containers prior to packaging into outer steel or poly drum. See above for additional requirements for non-original/inner

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container packaging requirements.

- xii. All metal packaging types used must contain a rubberized gasket as to prevent sparking.
 - A. Only non-sparking tools may be used with 1.4 low explosives in the magazine.
 B. Proper DOT explosive labels and hazardous waste markings must be affixed to as required to outside of each container.

Smoking, matches, open flames, spark-producing devices, and firearms (except firearms carried by guards) shall not be permitted inside of or within 50 feet of magazines. The land surrounding a magazine shall be kept clear of all combustible materials for a distance of at least 25 feet. Combustible materials shall not be stored within 50 feet of magazines. Vehicles with internal combustion engines except those classified as intrinsically-safe (or explosion proof) shall not be parked within 25 feet of the magazine.

4. <u>Security</u>

a. Only authorized personnel are allowed to enter the facility – see Part II, Section A, Appendix II-F.1 for additional facility security requirements. Additionally, only properly trained employees are allowed to work in the magazine. The magazine is secured with a proper locking device at all times when items are not being placed or removed from it.

b. The magazine shall be in the charge of a competent person at all times who shall be held responsible for the enforcement of all security and safety precautions. Suspicious activities, theft or missing items must be immediately reported to the facility General Manager and/or Emergency Coordinator on call at the time of discovery, as well as law enforcement as deemed necessary.

5. <u>Magazine Maintenance</u>

a. The area around the magazine shall slope away for drainage. The area surrounding the magazine shall be kept clear of brush, dried grass, leaves, and other materials for a distance of at least 25 feet.

b. The magazine floor shall be regularly swept, kept clean, dry, free of grit, paper, empty used packages, and rubbish. Brooms and other cleaning utensils shall not have any spark-producing metal parts. Sweepings from the floor of the magazine shall be properly disposed of. c. If the magazine needs inside repairs, all 1.4 explosives shall be removed and the floors cleaned. In making outside repairs, if there is a possibility of causing sparks or fire the explosives shall be removed from the magazine. Explosives removed from the magazine under repair shall either be shipped offsite or placed a safe distance from the magazine where they shall be properly guarded and protected until repairs have been completed, when they shall be returned to the magazine.

I-D-1.9 Shredder/Mix-Tub area operations

Area layout can be found on Figure 1.7a, Shredder/Mix Tub Area layout. Shredder details are

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provided on Figure 1.7b.

These are the steps for workers to solidify waste materials to meet the regulatory requirements to safely dispose of it in a landfill or a WTE incinerator.

Some terms used include:

Shredder Mix Tub, Roll-off, Can, Vactor, Cusco, Guzzler, Excavator, Backhoe, Fork Truck, Ramps, Tarps, Bows, Can Liners, Dump Liners, Operator, Sawdust, Oil Dry, Swellgel/Diaper Dust.

The areas of responsibility include the General Manager who ensures employees are trained and knowledgeable regarding the operation of the solidification process in the mix-tub area. The Supervisors or lead foreman are responsible for training, monitoring and enforcing procedures with the employees. The employee is responsible for following and adhering to safe work practices and provisions found in the SOP for the work area. Employees must inspect equipment, sump in mix-tub area and report any failures or deficiencies to appropriate Supervisor.

Certain elements must be assessed prior to commencement of the work in this area. Health and safety concerns include:

- Any incidents, including near misses, are to be reported immediately to the supervisor.
- Review the Job Hazard Analysis (Appendix 1) to become familiar with the hazards associated with this process.
- Consult the PPE Hazard Assessments (Appendix 2) to be worn for this job task.
- The buddy system (e.g., visual, audio contact, etc.) must be maintained when this process is being conducted.

Environmental aspects are:

- Ensure all applicable monitoring equipment is available.
- If an incident occurs, report it immediately to your supervisor.
- Facility Air Permit restrictions must be considered prior to this operation.
- Incidental releases are to be cleaned up immediately in the process designated PPE.
- If the incident requires additional assistance or equipment, the Contingency Plan may need to be implemented.

Training will incorporate:

- Hazard Communication for site chemicals and fuels
- OSHA regulated substances, as required (e.g., asbestos, arsenic, lead, etc.)
- SOP and OJT training
- Contingency Plan training
- Equipment training (e.g., haul truck, excavator, backhoe, forklift, front end loader, etc.)

The Shredder/Mix-Tub size reduction and solidification process includes:

- Material restrictions: the following wastes shall NOT be processed: activated carbon, reactive materials, oil or solvent-based paint filters, pesticides, oxidizers, grinding swarf, metal powders, poisons (Hazard Class 6.1), dyes and inks in dry powder form, cyanides, and corrosive solids/sludges.
- RCRA and TSCA wastes must not be solidified using this process.
- Ensure that all preventative maintenance on equipment has been conducted.
- Ensure that all equipment is clean, ready for the next treatment, and operational.
- Ensure that all waste material to be dumped has been sampled, analyzed, compatibility tested, and final coded.
- Ensure that the material is noted on the pick list (e.g., batch list, job sheet) or laboratory treatment recipe.
- Confirm that there is sufficient absorbent to solidify the waste and meet landfill requirements.
- Required equipment: Fork truck, ramps, sawdust, Xsorb, Swellgel/Diaper Dust, tarps, liners, dump trailer, roll-off can, excavator, backhoe, sample jars, collawasa rods, shovel, broom, bungee cords.
- Staffing: 2 equipment operators/laborer.

The actual process is described below:

Receiving (as applicable)

- 1. Receiving personnel reviews paperwork and receives within the WinWeb system.
- 2. Once load/can is received and bulk solids personnel have been contacted, driver enters plant and proceeds to proper location with two copies of the receiving report and one copy of the inbound weight ticket.
- 3. If the load is in a roll off can and the can is being dropped at the plant, the driver must place the printed drum label on the front of the can before dropping in the designated location.

Waste Tracking

1. Once the waste has been received, it will automatically track into Win Web. Win Web is the electronic system used to track every inbound container. Each container is assigned a unique bar code number for tracking purposes. Each inbound shipment to be solidified is tracked to the mix tub. After the waste is solidified and loaded into roll offs for shipment offsite, it is again linked to each outbound shipping document. Waste can be tracked from inbound receipt to outbound shipment .This can be viewed under "Plant Processes", "Viewing",

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"View inventory report." This screen will break the waste down by drum number into the specific low cost location that the waste needs to be tracked.

- 2. Once the waste has been loaded into an outbound roll off/dump trailer, the respective waste tracking drum number can be solid bulked into that container.
- 3. Once the numbers have been solids bulked into the container, the container can be outbound manifested.

Material Processing Operation

Pre-Operational Inspections

- 1. Personnel must perform and document a pre-shift inspection on all equipment to be used. (e.g., fluids, hydraulic hoses, weld joints, etc.)
- 2. Any equipment found to be unsafe or inoperable must be immediately placed out of service and the Operations Supervisor must be notified.

Shredding/Solidification Procedures

- 1. Bulk solids personnel review the paperwork (2 copies: 1 copy with weight ticket to accompany sample to lab (if necessary) and second to remain with Bulk Solids Operations Supervisor) and inspects the load and condition of vehicle (e.g., leaking, faulty/unsafe equipment) If found to be unsafe to unload, vehicle will be placed out of service, Driver will be instructed to call his/her coordinator and Bulk Solids Operations Supervisor (BSOS) will contact maintenance facility or proper individual for repairs prior to unloading.
- 2. A representative sample along with one copy of the receiving report and weight ticket will be brought to the lab.
- 3. Lab will run analytical on the sample (great 8) and test for PCB's in accordance with the Waste Analysis Plan (WAP).
- 4. Lab or qualified individual final codes the sample and enters in WinWeb accordingly.
- 5. Lab contacts Bulk Solids personnel and informs of final code or possible OffC (Off Compliance). If OffC, compliance manager will be notified.
- 6. If material is consistent with receiving report, Vactor, Cusco, Roll off, etc. can then be either dumped into proper solidification tub or shredded in the Shredder before entering the Mix Tub. Ensure all loads received from utility companies (liquid and solids) have been tested for PCB's. For potential dust generating loads, respiratory protection is required. Dust generation can be managed by spraying water on the load while dumping.
- 7. To avoid an accidental release (liquid or solid), BEFORE DUMPING, inspect the containers/load. Inspections can be performed visually or by using the stick. Respiratory protection is required for this procedure. Ensure the lower valve is clear of liquid before opening the rear door and open the door slowly to avoid an uncontrollable surge of material. Always be in visual contact with all personnel involved in the entire operation.
- A. Direct placement of wastes in the Mix Tub
 I. Once material is emptied from vehicle/containers, the vehicle/roll-off/containers will be

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rinsed with a sufficient amount of water to clean. Before standing or walking between the truck body and open rear door, ensure the door is propped open with the safety bar or equivalent means if the safety bar is not available. Washwater generated will be collected in the mixtub and solidified with the waste. Alternatively, it may be collected and pumped into one of the existing RCRA tanks. It will be characterized and shipped offsite for disposal. II. Close the rear door of vehicle/can and properly secure with locking dogs or mechanism. III. Driver pulls onto scale and has an outbound weight stamped below the inbound weight and exits plant.

B. Shredding wastes prior to placement in the Mix Tub

I. Containers of non-hazardous wastes are moved from the North and/or South warehouse with forktrucks, drum dollies, etc., are staged in the containment areas in front and/or adjacent to the shredder before being placed in the shredder feed chute using a forktruck. Forktrucks used are equipped with the proper devices for use with various types of containers such as grapplers used to securely lift and manipulate up/down/sideways waste containers being placed in the shredder feed chute.

II. Secured containers of non-hazardous waste are also moved from the North and/or South warehouse by forktruck, drum dollie, etc., and placed directly in the shredder feed chute.

III. The shredder is actuated by a trained operator and shreds the wastes which then exits the shredder via its dump chute and enters the Mix Tub. Shredder operations can be continuous or in batches depending upon the types and volumes of wastes being shredded prior to solidification. non-hazardous wastes are shredded.

- 9. Solidification reagent is added to the mixtub using a backhoe or front end loader. The waste and solidification reagent will be physically mixed using a backhoe or excavator. The waste is mixed until no free liquid is present.
- 10. Once the waste has been solidified, it is loaded into roll-offs or dump trailers for shipment offsite. The empty roll-off or dump trailer is staged adjacent to the mixtub. The backhoe or excavator is used to transfer the solidified material.
- 11. Examples of solidification materials, blends and uses. These reagents have been confirmed to physically solidify waste. No chemical treatment will occur.
 - 6-oil: Sawdust
 - Manhole sludge: Oil dry and sawdust
 - Non-haz liquid: Swellgel/Diaper Dust and sawdust

Process Interruptions

- 1. Power Loss
 - Dumping of vehicle will be ceased if the loss creates inadequate lighting (e.g., second or third shift operations) or a loss of the fire suppression system. Vehicle needs to be safely secured and dumping operation cannot resume until power is restored and all systems are back on line.

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- 2. If any of the following occur, the shredding/dumping process needs to be immediately ceased and the appropriate individual(s) need to be notified. (e.g., General Manager, Health and Safety Manager, Compliance Manager, Bulk Solids Operations Supervisor) A determination will be made as to whether or not to implement the Contingency Plan based on the locations permit requirements.
 - Fires
 - Reactions (off gassing, excessive dust, odors)
 - Spills
 - Incorrect material dumped into tub or container
 - Worker exhibits signs and symptoms of exposure.
 - Injury

Shut Down or Precipitation Events

All containers must be covered when not actively being processed.

All containers must be covered during rain events.

At end of each shift/day, the area in which the shredding/mix tub operation occurs and the equipment used needs to be properly cleaned and inspected, and accumulated liquids removed from secondary containments.

- Shut-down Shredder.
- Remove excess waste and debris from the excavator/backhoe bucket and any other equipment used, inspect for any cracks or signs of damage, and stage equipment in proper staging area.
- Cover all containers (includes mixtub)
- Clean-up work area and return all equipment to proper storage areas. If any waste spills in the concrete containment area, it must be removed and the area washed with water. Washwater generated will typically be collected in the mixtub and solidified with the waste. Alternatively, it may be collected and pumped into one of the existing RCRA tanks. It will be characterized and shipped offsite for disposal.
- Remove all contaminated PPE and place in approved container.
- Ensure all tracking/receiving reports are turned into lab or supervisor and report any discrepancies or equipment issues.
- Any liquid in mix-tub area and/or shredder secondary containment will be pumped into mix-tub for solidification this would include all liquids in this area. Alternatively, it may be collected and pumped into one of the existing RCRA tanks. Collected accumulated liquids will be characterized as needed prior to being shipped offsite for disposal. Uncontaminated accumulated rainwater may be managed as stormwater using the facility's existing collection and discharge to POTW methods and procedures.
- Secure Shredder to include power disengagement.

Employees will be trained on operation process and the training will be documented. An SOP

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has been developed from which employees will receive training which will include some OJT as well.

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LIST OF FIGURES

- 1. Figure 1.1 North Warehouse Container Storage Area
- 2. Figure 1.2 South Warehouse Container Storage Area & Tanks T112/T114
- 3. Figure 1.3 South Tank Farm (Tanks T101-T110)
- 4. Figure 1.4 West Tank Farm (Vacant)
- 5. Figure 1.5 Fuels' Blending Flow Diagram
- 6. Figure 1.6 Hazard Class 1.4 Low Explosive Magazine
- 7. Figure 1.7a Shredder/Mix Tub Area Layout
- 8. Figure 1.7b Non-Hazardous Waste Shredder

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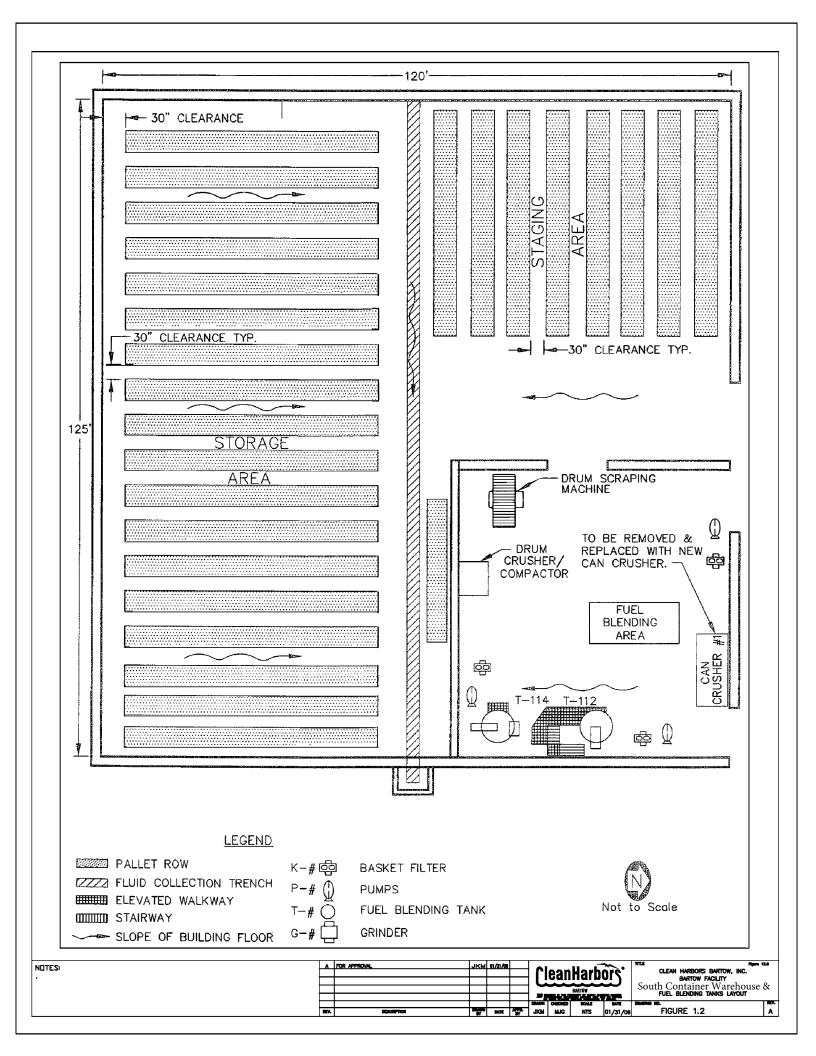
Figure 1.1 – North Warehouse Container Storage Area



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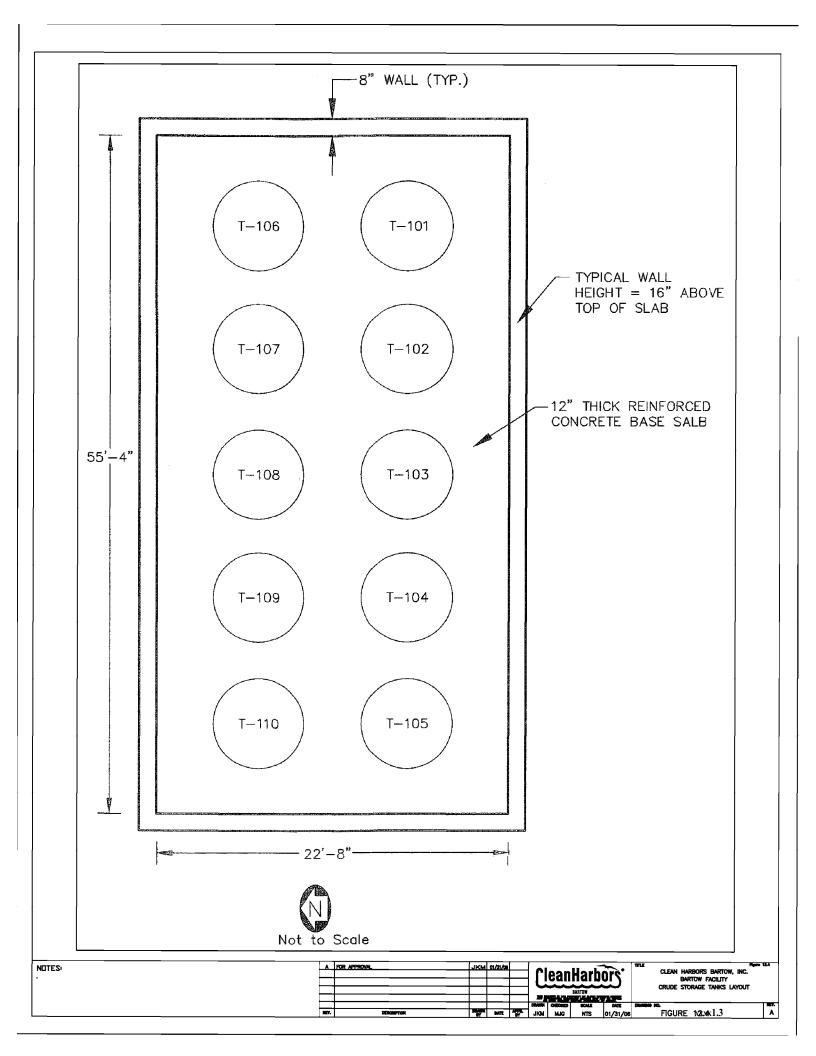
Figure 1.2 – South Warehouse Container Storage Area & Tanks T112/T114



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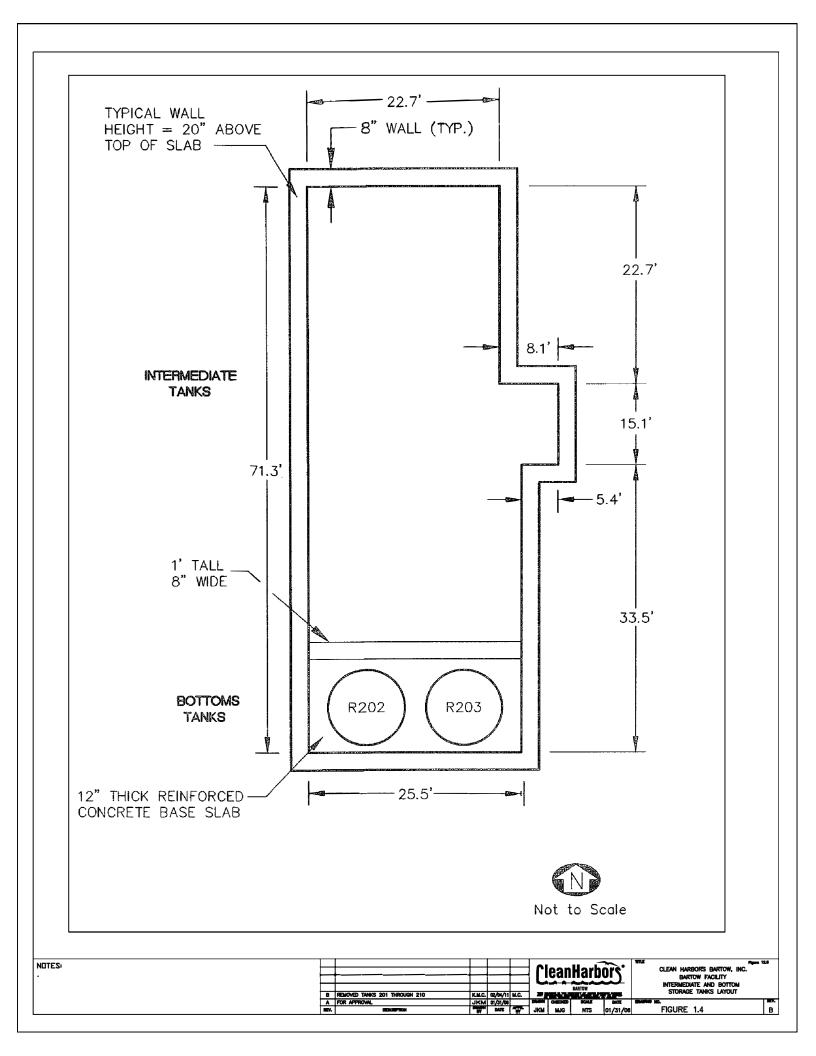
Figure 1.3 – South Tank Farm (Tanks T101-T110)



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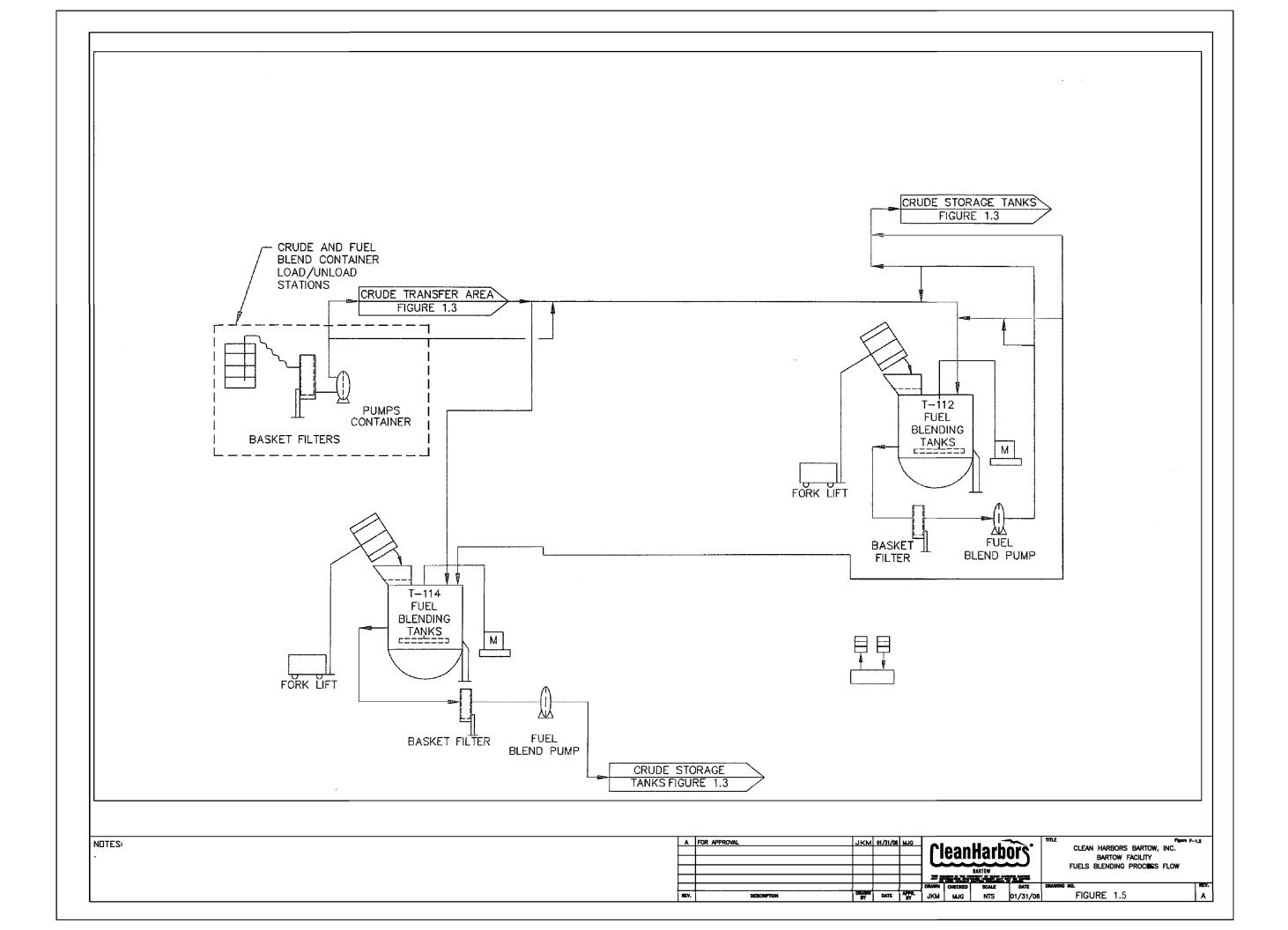
Figure 1.4 – West Tank Farm (Vacant)



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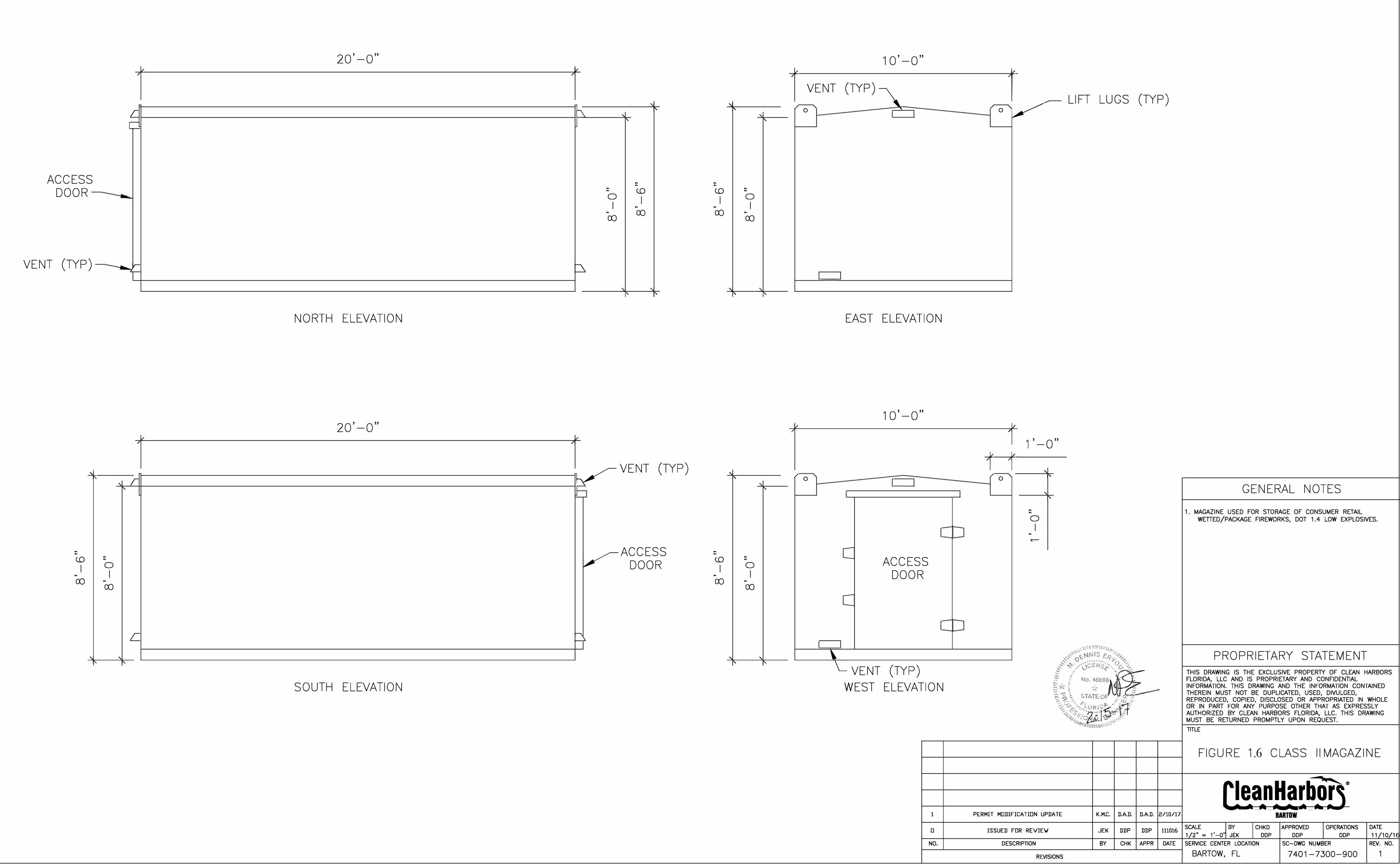
Figure 1.5 – Fuels' Blending Flow Diagram

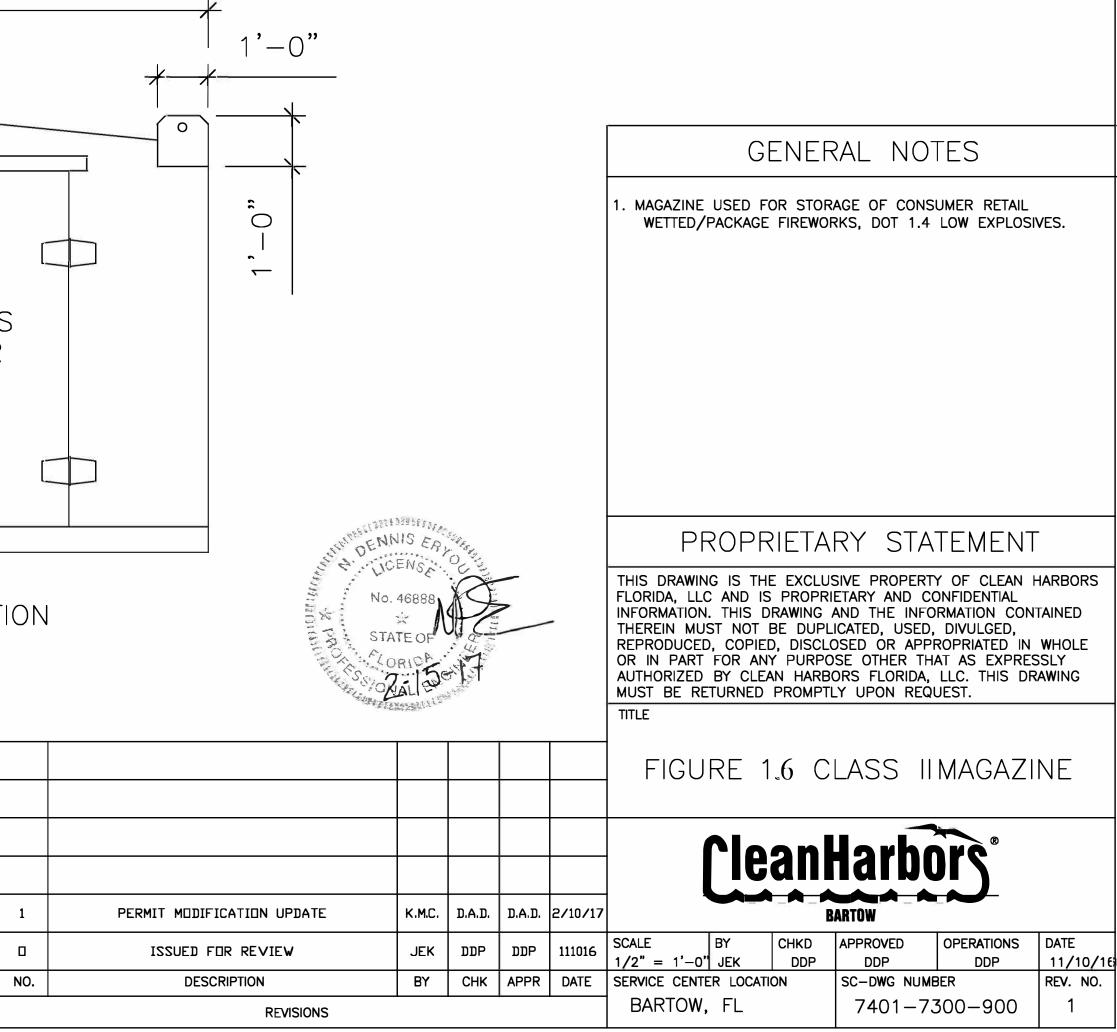


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Figure 1.6 – Hazard Class 1.4 Low Explosive Magazine



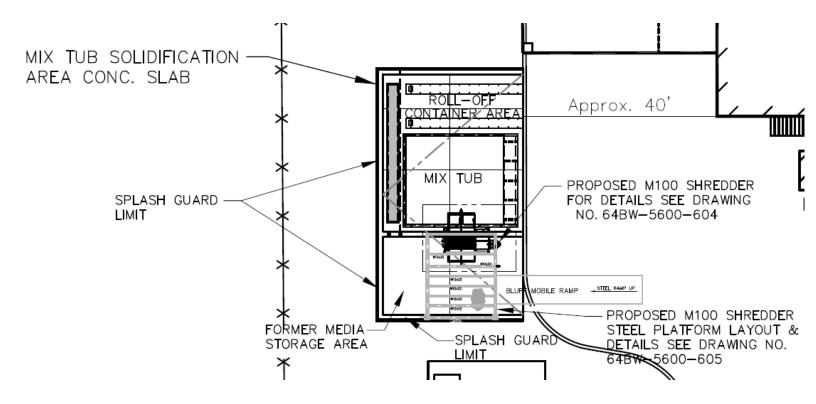


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Figure 1.7a – Shredder/Mix Tub Area Layout

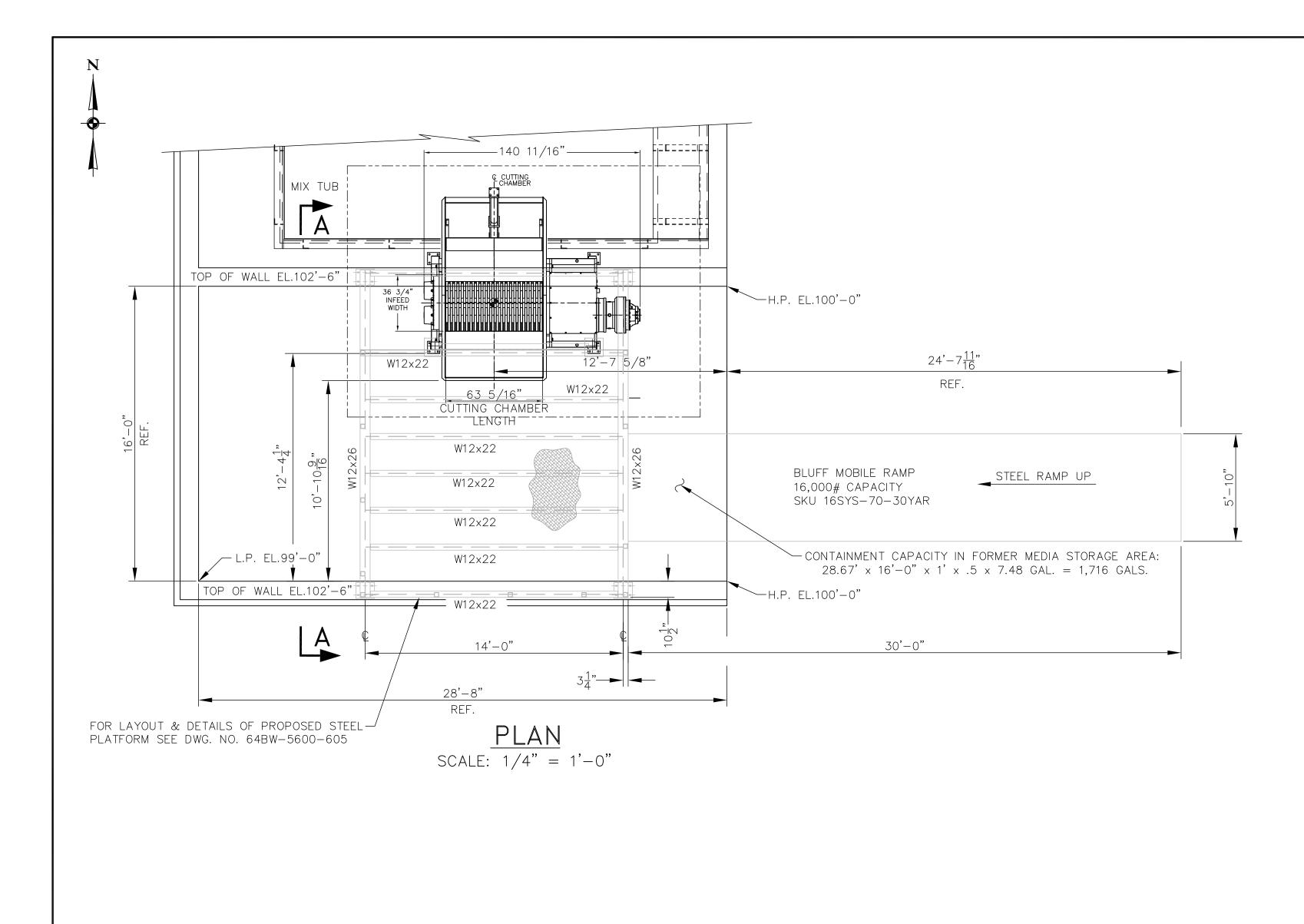
Figure 1.7a Shredder/Mix Tub Area Layout



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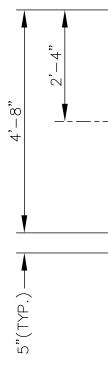
Figure 1.7b – Non-Hazardous Waste Shredder

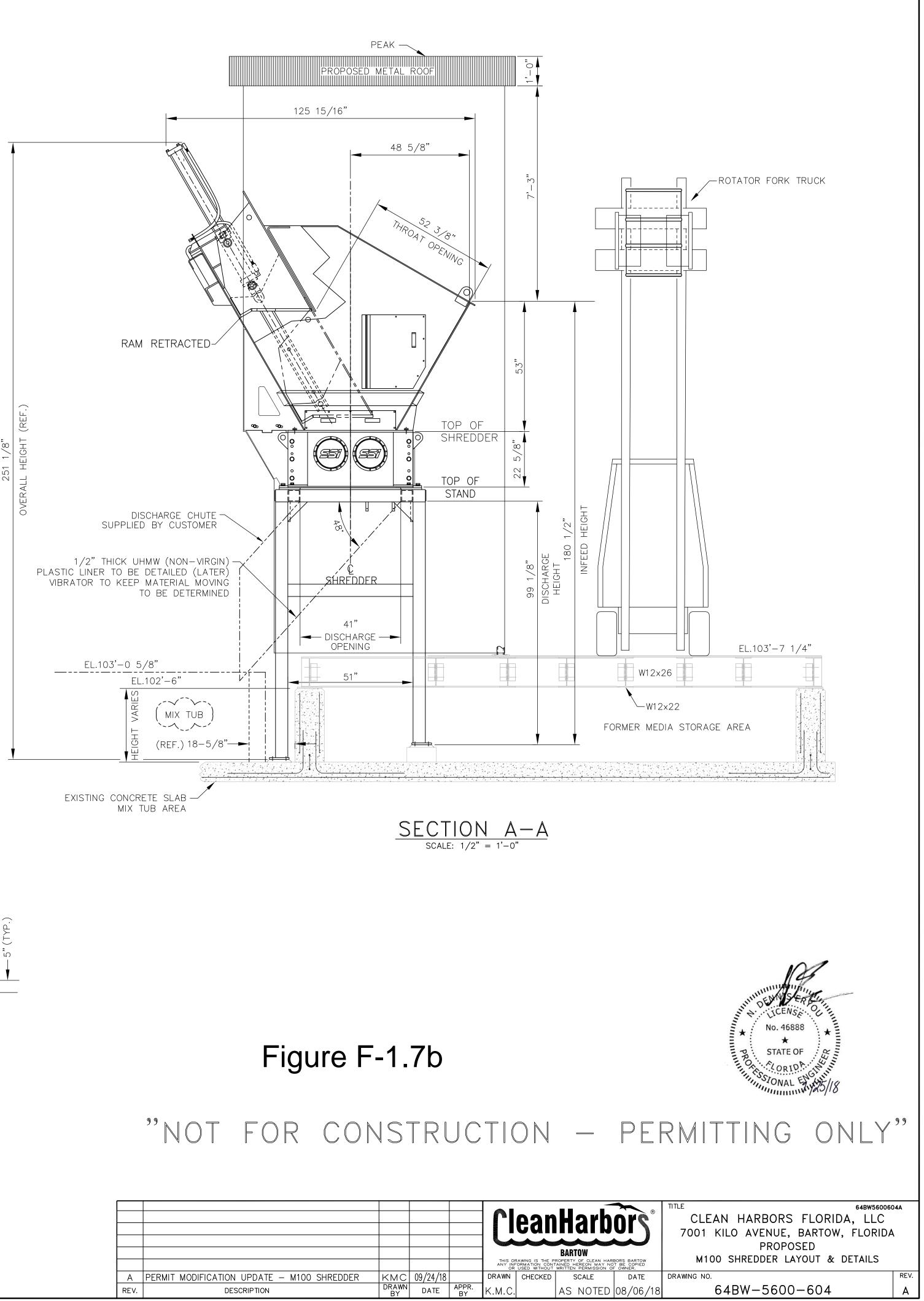


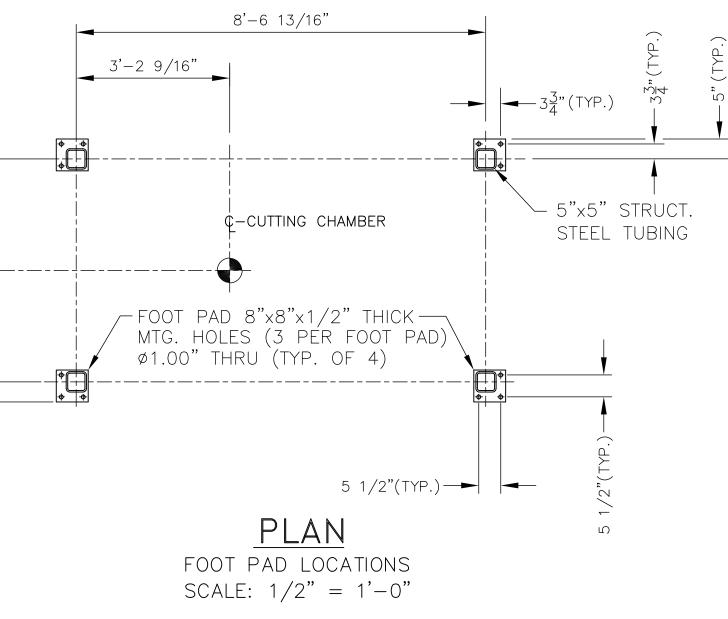
NOTES:

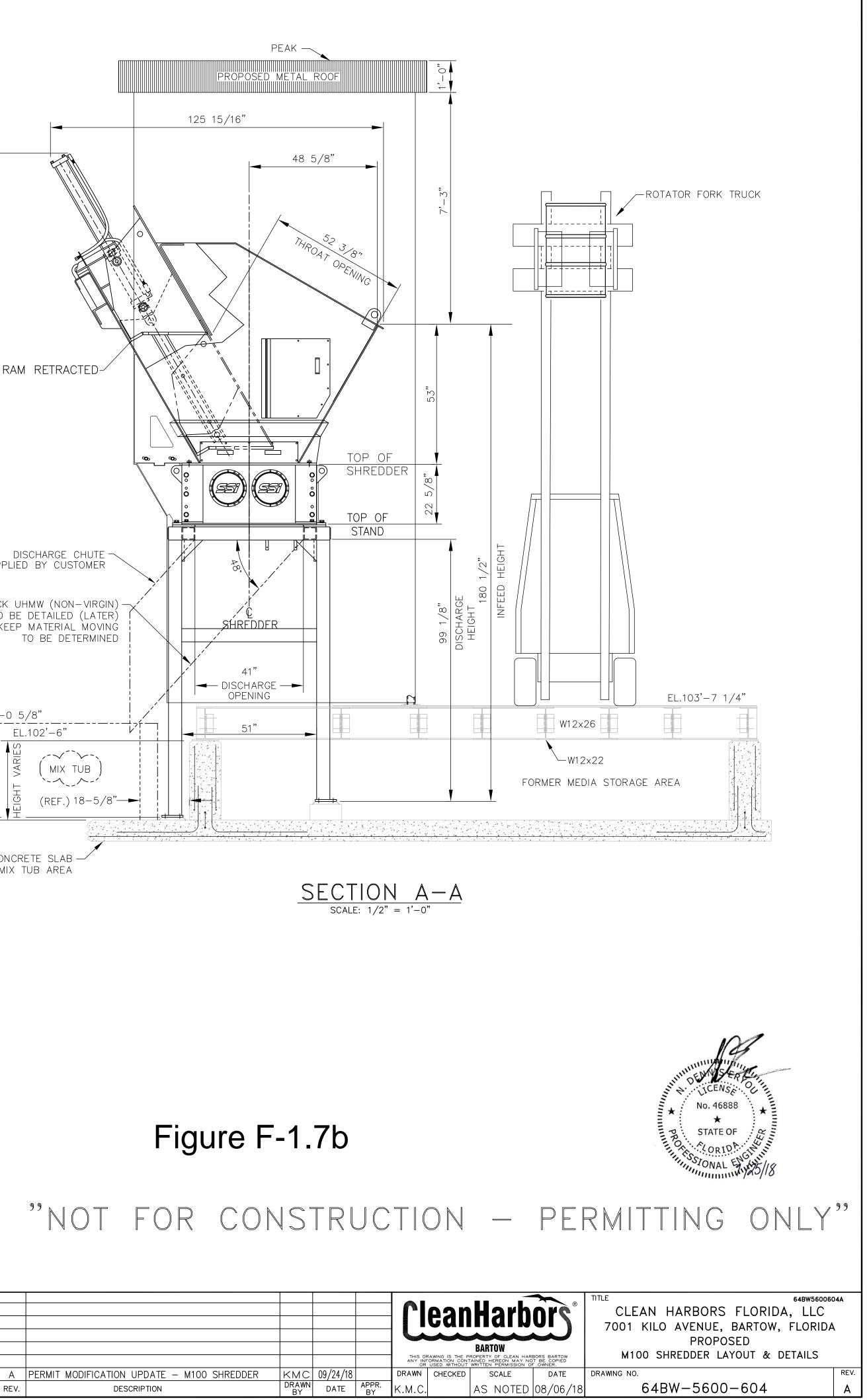
- 1. STRUCTURAL STEEL SHALL BE A-36 GRADE. ALL WELDING DETAILS AS PER AISC CODE. ALL WELDING SHALL BE BY AWS CERTIFIED WELDERS.
- 2. STRUCTURAL STEEL TO BE PRIME COATED AND FINISH COATED TO SUIT OWNERS REQUIREMENTS.
- 3. PLATFORM IS DESIGNED FOR 5,000 POUND RATED FORKLIFT OPERATION WITH MAXIMUM LOAD RATING OF 13,370 POUNDS.
- 4. FOR DESIGN PURPOSES THE MAXIMUM FORKLIFT AXLE LOAD IS 85% OF THE FULLY LOADED MACHINE WEIGHT SO 11,365 POUNDS.
- 5. SHREDDER SHOWN IS MODEL M100H(63).
- 6. ELECTRICAL PANEL NOT SHOWN.
- 7. DRAWING DEPICTS SHREDDER ON STANDARD STAND. HEIGHT OF STAND CAN BE CHANGED TO SUIT CUSTOMER REQUIREMENTS. STAND CROSSMEMBER IS LOCATED AS SHOWN, AT HALF OF STAND HEIGHT. CROSSMEMBER IS DELETED IF STAND HEIGHT IS LESS THAN 24".
- 8. DIMENSIONS MAY DIFFER FROM ROUNDED VALUES ON SPECIFICATIONS.

ACLS,[™] SSP[™] AND THE HOPPER RAM DEVICE ARE PATENTED FEATURES, EXCLUSIVE TO SSI SHREDDING SYSTEMS INC.









DEP Form 62-730.900(2)(d) -APPLICATION FOR A HAZARDOUS WASTE FACILITY PERMIT CERTIFICATION

Revis	ion N	Jumb	er	0	
Date	6/13/	2021			
Page	1	of	4		

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. FLD980729610

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

1. Facility Operator

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

Signature of the Operator or Authorized Representative*

David A. DeSha, Director Environmental Compliance

Name and Title (Please type or print)

E-mail address desha.david@cleanharbors.com

Telephone (423) 413-1218

Date

* Attach a letter of authorization

Page 1 of 4

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

Revis	ion l	lumb	er 0	
Date	6/13/	2021		
Page	2	of	4	

2. Facility Owner

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

Signature of the Facility Owner or Authorized Representative*

David A. DeSha, Director Environmental Compliance

Name and Title (Please type or print)

E-mail address desha.david@cleanharbors.com Date

Telephone (423) 413-1218

* Attach a letter of authorization

3. Land Owner

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

Signature of the Land Owner or Authorized Representative*

Steve Githens, Chairman

Name and Title (Please type or print)

Date

E-mail address sgithens@cityofbartow.net

Telephone (863) 533-1195

* Attach a letter of authorization

Page 2 of 4

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

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Date	6/13/2	2021			
Page	3	of	4		

4. Professional Engineer Registered in Florida

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

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

	ryou, PhD, F	E		
Name (please Florida Regis	stration Numb	ber 46888		
Mailing Add	ress 5051 C	Castello Drive, Suit		
		Street	t or P.O. Box	
		Naples	FL	34103
		City	State	Zip

DENNIS ER L	Digitally signed by N.
* No. 46888 *	Dennis Eryou Date: 2021.06.11
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Date	6/13/	2021		
Page	4	of	4	

5. Professional Geologist Registered in Florida

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

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

Signature			
Name (please type)			
Florida Registration Number			
Mailing Address		or P.O. Box	
	511001	01 F.O. B0x	
	City	State	Zip
Date	E-mail ad	dress	
Telephone ()			

(PLEASE AFFIX SEAL)

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Signature Authority Table for Environmental and Compliance Related Documents

Signature Guidelines

- This Signing Authority Table authorizes the listed individuals to sign documents only on behalf of the entities specified
- For each entity listed below, anyone with the title President, Senior Vice President, Vice President, Director, Manager or Member of the entity, or any of its subsidiaries is authorized to sign and certify any necessary or desirable environmental documents, including:
 - o Permit applications and amendments
 - o Environmental reports
 - Settlement agreements with a penalty amount of up to \$100,000
- To the extent that the Company operates any facility employing more than 250 people or having gross annual sales or expenditures in excess of the \$25,000,000, the General Manager of such facility shall have all of the foregoing authority with respect to the operations of any such facility.
- The President, and any Senior Vice President, Vice President or Secretary or Assistant Secretary of each entity listed below may designate an employee of an affiliated company to sign the forgoing documents.
- Enforcement related settlement documents with a penalty amount in excess of \$100,000 must be signed by an officer of the applicable entity Any questions regarding this Signature Authority Table should be referred to the Law Department

Entities Covered		
Clean Harbors Aragonite, LLC	Clean Harbors Kansas, LLC	Clean Harbors Wichita, LLC
Clean Harbors Arizona, LLC	Clean Harbors LaPorte, LLC	Clean Harbors Wilmington, LLC
Clean Harbors Buttonwillow, LLC	Clean Harbors of Baltimore, Inc.	Cyn Oil Corporation
Clean Harbors Canada, Inc.	Clean Harbors of Braintree, Inc.	Emerald Services, Inc.
Clean Harbors Caribe, Inc.	Clean Harbors of Connecticut, Inc.	Industrial Service Oil Company, Inc.
Clean Harbors Clive, LLC	Clean Harbors Quebec, Inc.	Murphy's Waste Oil Service, Inc.
Clean Harbors Deer Park, LLC	Clean Harbors Recycling Services of Chicago, LLC	Rosemead Oil Products, Inc.
Clean Harbors Disposal Services, Inc.*	Clean Harbors Recycling Services of Ohio, LLC	Safety-Kleen Canada, Inc.
Clean Harbors El Dorado, LLC	Clean Harbors San Jose, LLC	Safety-Kleen of California, Inc.
Clean Harbors Environmental Services, Inc.	Clean Harbors San Leon, Inc.	Safety-Kleen Systems, Inc.
Clean Harbors Grassy Mountain, LLC	Clean Harbors Westmoreland, LLC	Spring Grove Resource Recovery, Inc.

* Note that the following entities, as subsidiaries of Clean Harbors Disposal Services, Inc., are subject to this signing authority table:

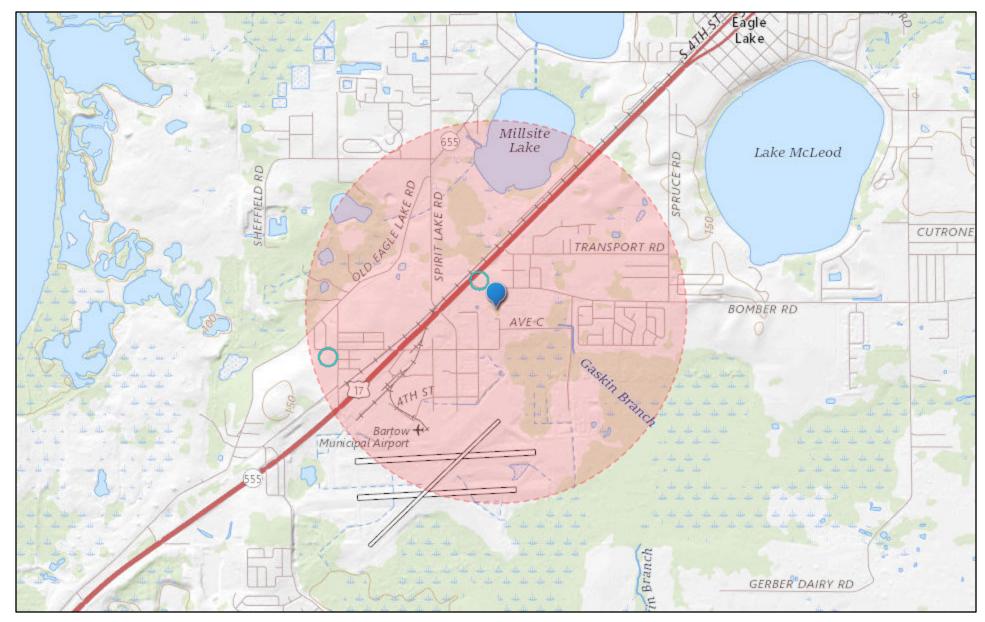
Altair Disposal Services, LLC	Clean Harbors Chattanooga, LLC	Clean Harbors Pecatonica, LLC	GSX Disposal, LLC	Tulsa Disposal, LLC
Baton Rouge Disposal, LLC	Clean Harbors Coffeyville, LLC	Clean Harbors Reidsville, LLC	Hilliard Disposal, LLC	
Bridgeport Disposal, LLC	Clean Harbors Colfax, LLC	Clean Harbors Tennessee, LLC	Plaquemine Remediation Services, LLC	
Clean Harbors Andover, LLC	Clean Harbors Deer Trail, LLC	Clean Harbors White Castle, LLC	Roebuck Disposal, LLC	
Clean harbors Baton Rouge, LLC	Clean Harbors Florida, LLC	Crowley Disposal, LLC	Sawyer Disposal Services, LLC	
Clean Harbors BDT, LLC	Clean Harbors Laurel, LLC	Disposal Properties, LLC	Service Chemical, LLC	

Revision: <u>0</u> **Date**: <u>6/13/2021</u>

Part II

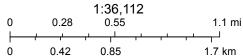
Appendix II-A – Topographic Map

Clean Harbors Florida, LLC - Topographic Map





Public Water Supply (PWS) Wells (Non-Federal)

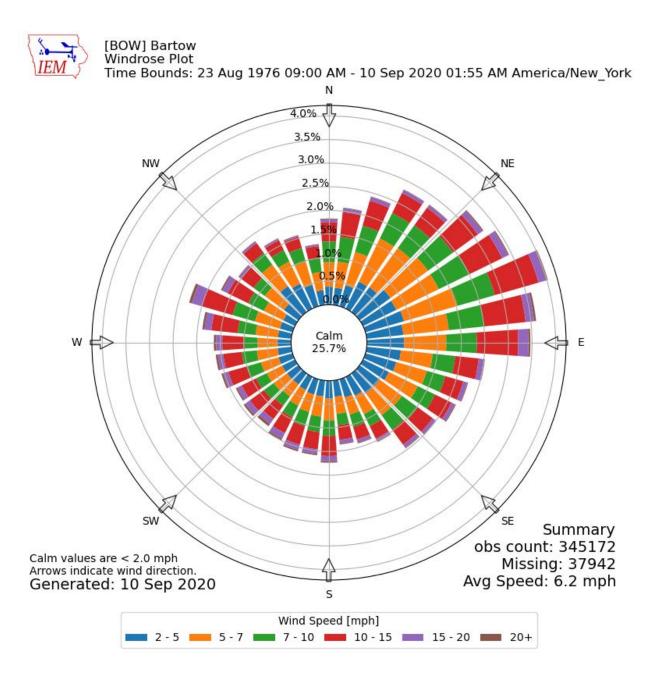


Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, DEAR, Esri,

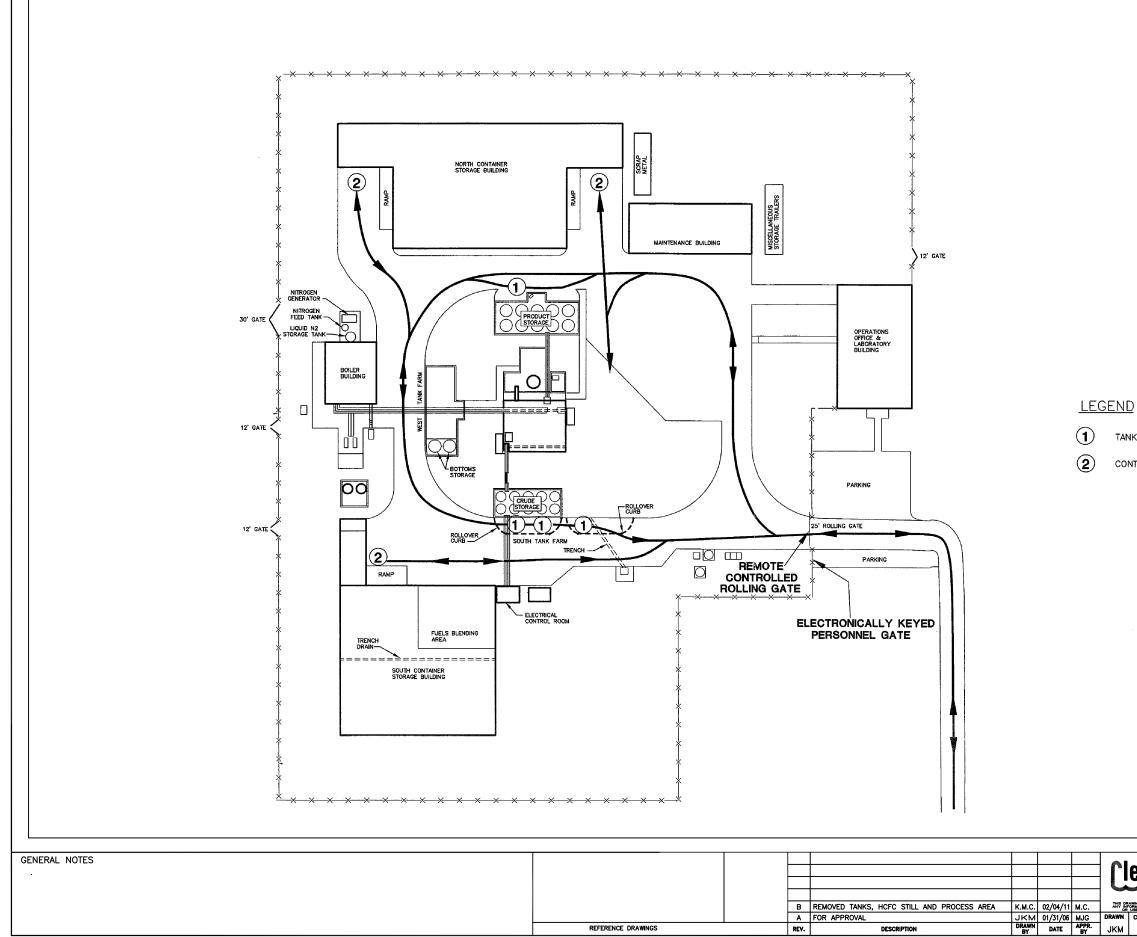
Map created by Map Direct, powered by ESRI.

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Appendix II-B – Wind Rose



Appendix II-C – Traffic Patterns



REFERENCE DRAWINGS



TANKER LOADING/UNLOADING STATION

CONTAINER RECEIVING/LOADING STATION



TITLE Figure C	-1.1
CLEAN HARBORS BARTOW, INC.	
BARTOW FACILITY	
TRAFFIC PATTERNS	
DRAWING NO.	REV.
6 Figure C-1.1	В
	CLEAN HARBORS BARTOW, INC. BARTOW FACILITY TRAFFIC PATTERNS DRAWING NO.

Appendix II-D – Financial Responsibility Information

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 total in rolloffs and in the Class II magazine. 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
1.4 Low Explosives	Controlled Burn	Colfax, LA	Included in disposal cost	\$2.08/gal (\$0.25/lb)	\$0.25/lb

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)*

1.4 Low Explosives	Controlled Burn	1 Class II Magazine*	5,000 gallons (41,500 lbs)*
Total			275,640 gallons

* 5,000 gallon Class II magazine closure cost estimate is based upon differences in cost to disposal of 1.4 low explosives versus hazardous waste solids in a roll-off container but is not an additional capacity. Roll-off box and magazine capacity must not exceed 32,320 gallons in total.

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/yd³
- Roll-offs contain 30 yd³
- 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
Offsite Destruction – Contents of Class II magazine (41,500 lbs) @ \$0.25/lb	\$10,375
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	\$173,695
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	\$16
hours/month)	

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	

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 hours/month)	\$366
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 (STORAGE 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 (STORAGE AREA)	\$35,072

PERIMETER ROAD (NON-STORAGE 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-STORAGE 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
	\$604,332**

** FOR THE PURPOSE OF CROSS CHECKING, AND STANDARDIZATION WE HAVE TAKEN OUR ESTIMATES AND RUN THEM THROUGH THE COST PRO PROGRAM AS REQUESTED BY DEP AND BECAUSE IT IS GENERALLY ACCEPTED AS A USEFUL TOOL TO USE AS SUPPORTING DOCUMENTATION FOR ESTIMATED CLOSURE COSTS.

TOTAL CLOSURE COST ESTIMATE USING COST PRO (2011)	\$839,675
2017 Adjusted Closure Cost Estimate (Approved by DEP on 1/15/2017)	\$907,525
2017 Adjusted Closure Cost Estimate with Magazine Added (Financial Assurance to be adjusted accordingly and Submitted to DEP once moderate permit modification is issued). See Attachment II-D-1 for current closure cost estimate as adjusted annually for inflation.	\$917,900

The estimated cost derived from COST PRO will be used for closure cost estimate and certification upon approval.

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 (prior to approval of the estimate reflected in this submission) financial instrument for closure (Certificate of Insurance) is presented in Attachment 1 and complies with 40 CFR Part 264.143 (d). A new one will be submitted upon approval of new closure cost amount.

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 DEP's receipt and approval of CLHB's liability insurance document submission is enclosed as part of Attachment II-D-1.

Page 14 of 14 Revision: 0 Date: 6/13/2021

Attachment II-D-1

CURRENT FINANCIAL ASSURANCE



Clean Harbors Environmental Services, Inc. 610 131st Place Hammond, IN 46327 219-746-5050 800.282.0058 www.cleanharbors.com

VIA FEDERAL EXPRESS TRK #771295120826

August 18, 2020

Mr. Edgar Echevarria Florida Department of Environmental Protection, Division of Waste Management Financial Assurance Working Group, Permitting & Compliance Assistance Program 2600 Blair Stone Road MS 4548 Tallahassee, Florida 32399-2400

RE: Annual Inflation Increase on New Insurance Policy for Financial Assurance Clean Harbors Florida, LLC 7001 Kilo Drive Bartow, FL 33830 EPA ID No. FLD980729610

Dear Mr. Echevarria:

Enclosed please find an original signed State of Florida Hazardous Waste Facility Insurance Certificate to Demonstrate Financial Assurance issued by Great American Insurance Company for the above referenced Clean Harbors facility. In my last submittal on July 28, 2020 I explained that this is a new policy CPC E601070 00 effective July 31, 2020 through July 31, 2021. The previous Policy Number **PEC004202406**, which expired July 31, 2020, has been replaced.

Please be advised that Clean Harbors is changing their FA insurance provider from Indian Harbor Insurance Company effective July 31, 2020. As such, please provide a written confirmation that Great American Insurance Company is an acceptable replacement for Indian Harbor Insurance Company. Your acceptance can be emailed to me at <u>harvey.pamela@cleanharbors.com</u> or mailed to me at the address above in my letterhead.

Additionally, the amount of closure coverage has been increased for inflation. The inflation increase was calculated by multiplying the 2018 cost estimates by the inflation factor 1.017. This inflation factor was found on the Florida DEP web site at: <u>https://floridadep.gov/waste/permitting-compliance-assistance/content/hazardous-waste-financial-assurance</u>.

Closure: \$956,460 x 1.017 = \$972,720

"People and Technology Creating a Safer, Cleaner Environment"



If you have any questions regarding this submittal, please feel free to contact me by phone at 219-746-5050 or by e-mail at <u>Harvey.Pamela@cleanharbors.com</u>.

Sincerely,

Pamela K. Harney

Pamela K. Harvey, CHMM Environmental Compliance Manager

Enclosure

DEP Form # <u>62-730.900(4)(i)</u> Form Title <u>HW Fac. Insurance Certificate</u> Effective Date <u>January 5, 1995</u> DEP Application No.

STATE OF FLORIDA HAZARDOUS WASTE FACILITY INSURANCE CERTIFICATE TO DEMONSTRATE FINANCIAL ASSURANCE

FOR

Post-Closure Corrective Action

[Check Appropriate Box(es)]

The term "Required Action" as used in this document means closure, post-closure, or corrective action, or any combination of these, which is checked above.

Name and Address of Insurer (herein called the "Insurer"):

Closure

Great American Insurance Company

301 E. 4th Street, Suite 100, Cincinnati, OH 45202

Name and Address of Insured(herein called the "Insured"):

Clean Harbors, Inc.

42 Longwater Drive, Norwell, MA 02061

Facilities Covered: List for each facility: The EPA/DEP Identification Number, name, address, and the amount of insurance for "Required Action". Indicate "Required Action" amounts separately (these amounts for all facilities covered must total the face amount shown below).

EPA/DEP I.D. No.	Name	Address
FLD 980 729 610	Clean Harbors Florida, LLC	7001 Kilo Drive, Bartow, FL 33830
Face Amount: \$ 972,720.00		
Policy Number: CPC E601070 00		
Effective Date: 7/31/20		

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for ______ Rquired Action checked above

Insert the "Required Action"

for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of 40 CFR 264.143(e), 264.145(e), 265.143(d), and 265.145(d), as adopted by reference in Section 62-730.180, Florida Administrative Code (F.A.C.), as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Secretary of the Florida Department of Environmental Protection (FDEP), the Insurer agrees to furnish to the FDEP Secretary a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is substantially identical to the wording specified in 40 CFR 264.151(e), as adopted by reference in Section 62-730.180, F.A.C., as such regulations were constituted on the date shown immediately below.

my Authorized Signature for Insurer

Rick Ringenwald

Name of Person Signing

Divisional Vice President/Executive Underwriter

Title of Person Signing

Signature of Witness Or Notary:

12/2020

Date

COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL Patrick J. Mahoney, Notary Public Uwchlan Twp., Chester County My Commission Expires Sept. 27, 2021 MEMBER, PENNSYLVANIAASSOCIATION OF NOTARIES



Clean Harbors Environmental Services, Inc. 610 131st Place Hammond, IN 46327 219-746-5050 800.282.0058 www.cleanharbors.com

VIA FEDERAL EXPRESS TRK #771940252058

October 29, 2020

Mr. Edgar Echevarria, Financial Assurance Subsection Permitting and Compliance Assistance Program Division of Waste Management Florida Department of Environmental Protection 2600 Blair Stone Road MS 4548 Tallahassee, FL 32399-2400

RE: Hazardous Waste Facility Liability Insurance Clean Harbors Florida, LLC - EPA ID No. FLD980729610 7001 Kilo Drive Bartow, FL 33830

Dear Mr. Echevarria:

Please find enclosed an original signed State of Florida Hazardous Waste Facility Insurance Certificate of Liability Insurance and an original signed State of Florida Storage Tank Insurance Endorsement issued by Great American Insurance Company, under policy number PRE E603235 00 for the Clean Harbors facility referenced above. The policy period is November 1, 2020 – November 1, 2021.

*Please note that we are aware the Storage Tank Endorsement lists the incorrect "insured" name of Safety-Kleen Systems. The company name will be corrected, and a revised Endorsement forwarded as soon as possible.

If you have any questions regarding this submittal, please feel free to contact me at 219-746-5050 or <u>Harvey.Pamela@cleanharbors.com</u>.

Sincerely,

Pamela K. Harvey, CHMM Environmental Compliance Manager

Enclosures

"People and Technology Creating a Safer, Cleaner Environment"

DEP Form <u># 62-730.900(4)(k)</u> Form Title <u>HW Certificate of Liability Insurance</u> Effective Date <u>January 5, 1995</u> DEP Application No.

STATE OF FLORIDA HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

	Great American Insurance Company	,(the "Insurer"),
	Name of Insurer	,(the insurer),
	301 E 4th St, Cincinnati, OH 45202	
areby cartifies that it has issue	Address of Insurer	
ereby certifies that it has issue	d liability insurance covering bodily injury Clean Harbors, Inc.	
	Name of Insured	, (the "Insured"), of
	42 Longwater Drive, Norwell, MA 02061	
	Address of Insured	
65.147, as adopted by reference pplies at	obligation to demonstrate financial response in Section 62-730.180, Florida Administra	tive Code (F.A.C.). The coverage
EPA/DEP I.D. No.	Name	Address
FLD980729610	Clean Harbors Florida, LLC	7001 Kilo Drive, Bartow, FL 3383
)r:		
sudden accidental nonsudden accider sudden and nonsu	ntal occurrences	facility(ies) are insured for sudden ured for both.
sudden accidental nonsudden accident sudden and nonsud lf coverage is for multiple facilities and accidental occurrences, which are insu	ntal occurrences dden accidental occurrences	ured for both.
sudden accidental nonsudden accident sudden and nonsud lf coverage is for multiple facilities and accidental occurrences, which are insu the limits of liability are \$4,000,00 gregate, exclusive of legal defe	tal occurrences dden accidental occurrences the coverage is different for different facilities, indicate which red for nonsudden accidental occurrences, and which are ins 00.00 each occurrence and \$_8,0 ense costs. The coverage is provided under	ured for both. 000,000.00 er policy number
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■ sudden accidental ■ nonsudden accidental ■ sudden and nonsud If coverage is for multiple facilities and accidental occurrences, which are insu ne limits of liability are \$4,000,00 gregate, exclusive of legal defe PRE E603235 00, issued on	atal occurrences adden accidental occurrences the coverage is different for different facilities, indicate which red for nonsudden accidental occurrences, and which are ins 00.00 each occurrence and \$8,0 ense costs. The coverage is provided under 11/1/2020 Date	ured for both. 000,000.00 annual er policy number d policy is <u>11/1/2020</u> . Date
 	Adden accidental occurrences the coverage is different for different facilities, indicate which red for nonsudden accidental occurrences, and which are ins 00.00 each occurrence and \$8,0 ense costs. The coverage is provided under 11/1/2020 . The effective date of sai	ured for both. 000,000.00 annual er policy number id policy is <u>11/1/2020</u> Date nce described in Paragraph 1:

- (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f), as adopted by reference in Section 62-730.180, F.A.C.
- (c) Whenever requested by the Secretary of the Florida Department of Environmental Protection (FDEP), the Insurer agrees to furnish to the Secretary a signed duplicate original of the policy and all endorsements.

- (d) Cancellation of the insurance, whether by the Insurer or the Insured, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Secretary of the FDEP.
- (e) Any other termination of the insurance (e.g., expiration, non-renewal) will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Secretary of the FDEP.

I hereby certify that the wording of this instrument is substantially identical to the wording specified in 40 CFR 264.151(j), as adopted by reference in Section 62-730.180, F.A.C., as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States including Florida.

M Signature of Authorized Representative of Insurer

Rick Ringenwald

Type name

Division Vice President, Enviornmental Division

Authorized Representative of

Great American Insurance Company

Name of Insurer

397 Eagleview Blvd., Suite 100 Exton, PA 19341

Address of Representative

STATE OF FLORIDA STORAGE TANK INSURANCE ENDORSEMENT

Reference: 40 CFR 280.97(b)(1)

[Name of insurance company or risk retention group] 301 E 4th St, Cincinnati, OH 45202 [Business address of Insurer] Insurer is a(n) insurance company [Insert "insurance company" or "risk retention group"] Insured: Safety-Kleen Systems, Inc. [Name of owner or operator] 42 Longwater Drive, Norwell, MA 02061 [Business address of owner or operator] Endorsement Number: N/A [If applicable] Policy Number: 11/1/2020 - 11/1/2021 [Period of Coverage: 11/1/2020 - 11/1/2021 [Current policy period] Policy Effective Date:		Great American Ir	nsurance Company	a transformer and the second	
[Business address of Insurer] Insurer is a(n)	[Name of insurance com				erred to as "Insurer"
[Business address of Insurer] Insurer is a(n)		3	01 E 4th St, Cincinnati, OH 45202		
[Insert "insurance company" or "risk retention group"] Insured: Safety-Kleen Systems, Inc. [Name of owner or operator] 42 Longwater Drive, Norwell, MA 02061 [Business address of owner or operator] Policy Number: PRE E603235 00 Endorsement Number: N/A [If applicable] Period of Coverage: 11/1/2020 - 11/1/2021 [Current policy period] Policy Effective Date: 11/1/2020	[Business address of Ins	urer]			
[Insert "insurance company" or "risk retention group"] Insured: Safety-Kleen Systems, Inc. [Name of owner or operator] 42 Longwater Drive, Norwell, MA 02061 [Business address of owner or operator] Policy Number: PRE E603235 00 Endorsement Number: N/A [If applicable] Period of Coverage: 11/1/2020 - 11/1/2021 [Current policy period] Policy Effective Date: 11/1/2020	Insurer is a(n) in:	surance company			
Safety-Kleen Systems, Inc. [Name of owner or operator] 42 Longwater Drive, Norwell, MA 02061 [Business address of owner or operator] Policy Number: PRE E603235 00 Endorsement Number: N/A [If applicable] Period of Coverage: 11/1/2020 - 11/1/2021 [Current policy period] Policy Effective Date: 11/1/2020		ert "insurance company" or "ris	sk retention group"]		
[Name of owner or operator] 42 Longwater Drive, Norwell, MA 02061 [Business address of owner or operator] Policy Number:PRE E603235 00Endorsement Number:N/A[If applicable] Period of Coverage:11/1/2020 - 11/1/2021Policy Effective Date:11/1/2020 [Current policy period]	Insured:				
42 Longwater Drive, Norwell, MA 02061 [Business address of owner or operator] Policy Number: PRE E603235 00 Endorsement Number: N/A [If applicable] Period of Coverage: 11/1/2020 - 11/1/2021 [Current policy period] Policy Effective Date: 11/1/2020			Safety-Kleen Systems, Inc.		
[Business address of owner or operator] Policy Number:PRE E603235 00Endorsement Number:N/A[If applicable] Period of Coverage:11/1/2020 - 11/1/2021Policy Effective Date:11/1/2020 [Current policy period]	[Name of owner or opera	tor]			
[Business address of owner or operator] Policy Number:PRE E603235 00Endorsement Number:N/A[If applicable] Period of Coverage:11/1/2020 - 11/1/2021Policy Effective Date:11/1/2020 [Current policy period]		42 L	ongwater Drive, Norwell MA 02061		
Period of Coverage:11/1/2020 - 11/1/2021 [If applicable] Period of Coverage:11/1/2020 - 11/1/2021 Policy Effective Date:11/1/2020 [Current policy period]	[Business address of own	ner or operator]	3		
Period of Coverage: 11/1/2020 - 11/1/2021 Policy Effective Date: 11/1/2020 [Current policy period] [Current policy period] 11/1/2020 11/1/2020	Policy Number:	PRE E603235 00	Endorsement Number:	N/A	
[Current policy period]				[If applicable]	
	Period of Coverage		FOIC	Effective Date:	11/1/2020
Covered Locations:	0		policy period]		

[List information for each facility. See Instruction #6 on page i for details. Indicate "See attachment" if required.]

or <u>Tank I.D. Nos.</u> Two (700, 701)

Endorsement:

1. Insurer hereby certifies that it has issued to the Insured the liability insurance identified above to provide financial

assurance for taking corrective action and compensating third parties for bodily injury and property damage caused by

[Insert "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by"]

accidental releases

_ in accordance with and subject to the limits of

[Insert "accidental releases" or "sudden accidental releases" or "nonsudden

accidental releases" or leave blank if only corrective action is covered]

liability, exclusions, conditions, and other terms of the policy arising from operating the facilities/tanks identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of Rule(s) 62-761.420 and/or 62-762.421, Florida Administrative Code (F.A.C.), as applicable, which adopt 40 CFR Part 280 Subpart H by reference, for the above specified financial assurance. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

The limits of liability are:

Each Occurrence: \$ 1,000,000.00

Annual Aggregate: \$ 1,000,000.00

[If the amount of coverage is different for different types of coverage or for different storage tanks or locations, indicate on the facility list above or by separate attachment the amount of coverage for each type of coverage and/or for each storage tank or location.]

exclusive of legal defense costs, which are subject to a separate limit under the policy.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions inconsistent with subsections (a) through (f) of this Paragraph 2 are hereby amended to conform with subsections (a) through (f):

- (a) Bankruptcy or insolvency of the insured shall not relieve Insurer of its obligations under the policy to which this endorsement is attached.
- (b) Insurer is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 40 CFR 280.95 280.102 and 280.104 280.107.
- (c) Whenever requested by the Florida Department of Environmental Protection (FDEP) Secretary or the Secretary's designee ("designee"), Insurer agrees to furnish, to the FDEP Secretary or designee, a signed duplicate original of the policy and all endorsements.
- (d) Cancellation or any other termination of the insurance by Insurer, except for non-payment of premium or misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured. Cancellation for non-payment of premium or misrepresentation by the insured will be effective only upon written notice and only after expiration of a minimum of 10 days after a copy of such written notice is received by the insured.
- (e) Policy does not include choice of law and venue in favor of jurisdictions other than Florida.

[Check here if the following paragraph, for claims-made policies, applies.]

(f) The insurance covers claims otherwise covered by the policy that are reported to Insurer within six months of the effective date of cancellation or non-renewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date. Claims reported during such extended reporting period are subject to the terms, conditions, limits, including limits of liability, and exclusions of the policy.

The person whose signature appears below hereby certifies that the wording of this instrument is identical to the wording as adopted and incorporated by reference in Rule(s) 62-761.420 and/or 62-762.421, F.A.C., and that Insurer is

eligible to provide insurance as an excess or surplus lines	s insurer in Florida
[Insert "licensed to transact the business of insurance" or "eligible to pro	vide insurance as an excess or surplus lines insurer in Florida"] Authority to amend policy, pursuant to paragraph 1.,
[Signature of Authorized Representative of Insurer]	is substantiated by [Select at least one]:
Rick Ringenwald, Division Vice President, Environmental Division [Name and Title]	embossed seal of Insurer
397 Eagleview Blvd., Suite 100 Exton, PA 19341	electronic seal of Insurer signature is of Insurer's President
[Address]	signature matches signature on policy
484-212-7735 [Telephone Number]	accompanying letter from Insurer's President verifies signatory has authority to amend policies
rringenwald@gaig.com	
[Email Address]	
Cati Anta	10/26/2020
[Signature of Witness or Notary]	[Date of Witness or Notary]
[Printed Name of Witness or include Notary Seal]	COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL Patrick J. Mahoney. Notary Public Uwchlan Twp., Chester County Part C page 2 of C
DEP Form 62-761.900(3)	My Commission Expires Sept. 27, 2021

MEMBER. PENNSYLVANIA ASSOCIATION OF NOTARIES

Entire form page 9 of 42



Environmental Division 397 Eagleview Blvd., Ste. 100 Exton, PA 19341 Tel: 1-888-828-4320

STATEMENT OF AUTHORITY

Johnpá

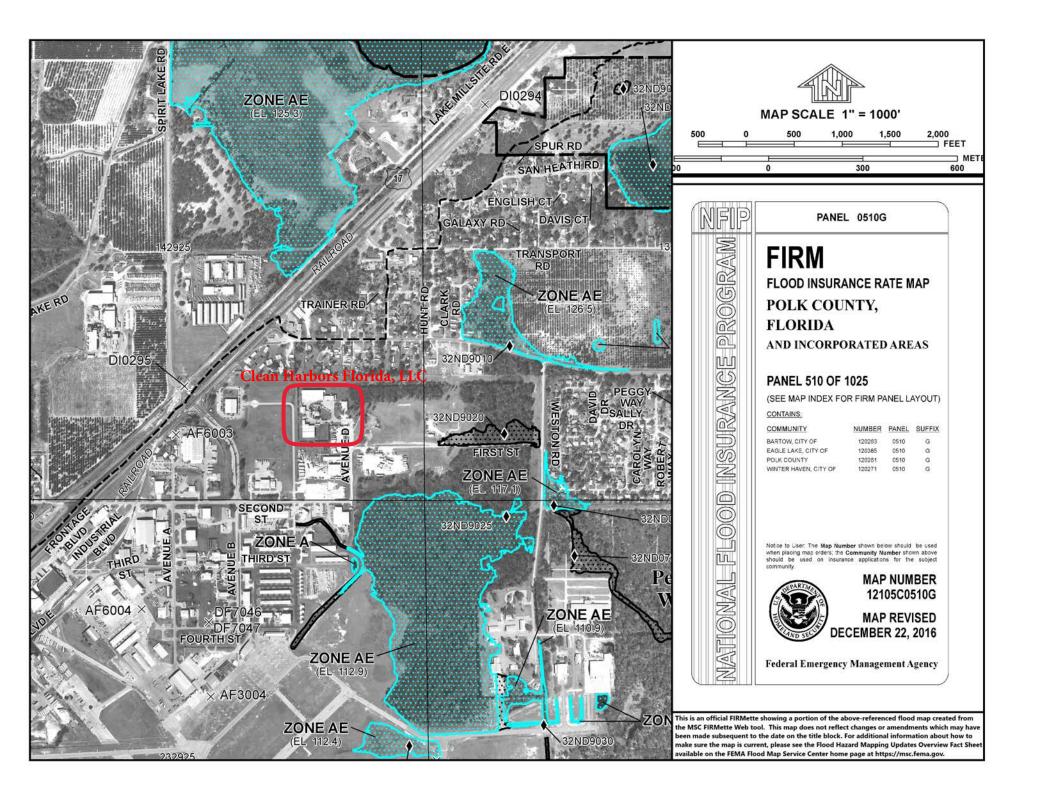
From: Great American Insurance Group Environmental Division 397 Eagleview Blvd, Ste. 100 Exton, PA 19341

Florida Department of Environmental Protection To:

Dear Sir/Madam:

Each Vice President for the Environmental Division of Great American Insurance Group is an authorized signatory of Great American Insurance Group in connection with financial assurance certifications and endorsements. Any

Appendix II-E – 100 Year Flood Plain Map



Appendix II-F - Facility Security Information

II-F.1 Security Procedures

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.

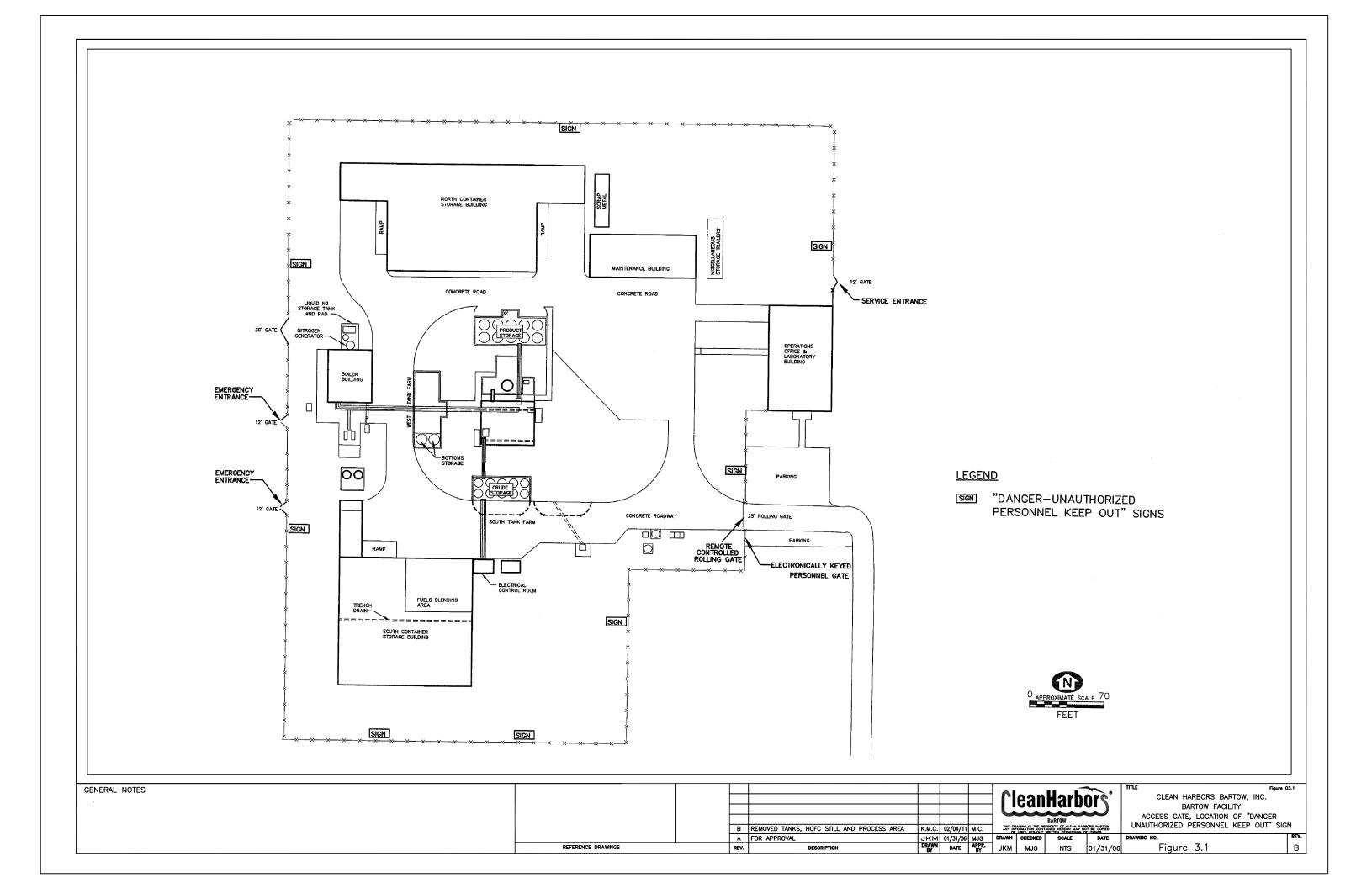
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 Revision:
 0

 Date:
 06/13/2021

LIST OF FIGURES

1. Figure 3.1 Access Gates at Clean Harbors and Location of "Danger-Unauthorized Personnel Keep Out" Signs



II-F.2 Contingency Plan

Clean Harbors Florida, LLC CONTINGENCY PLAN Appendix II-F.2

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CONTINGENCY PLAN QUICK REFERENCE GUIDE

Clean Harbors Florida LLC 7001 Kilo Ave Bartow, FL 33830 Telephone (863) 533-6111

Facility Contacts:

Primary Emergency Coordinator	Wes McDuffie	Mobile Phone (24/7)	863-559-1613
Alternate Emergency Coordinator	John Whyte	Mobile Phone (24/7)	863-559-2144
Alternate Emergency Coordinator	John Bosek	Mobile Phone (24/7)	863-559-1610
Clean Harbors Emergency Response		(24/7)	800-645-8265

Note: This facility typically operates Monday through Friday 7am to 7pm, and if needed weekends and holidays 8am to 5pm.

Type/Common Name of Waste	Associated Hazard	Location in Facility Where Hazard is Accumulated	Maximum Quantity That Could be Present	Response Notes	Special Notes to Hospital/Treatment Personnel
Soils, liquids or sludges	Serious toxicity and death can be	North and South	North CSA	If personnel come	Specific chemical Hazards for
contaminated with		Container Storage	(136,400 gal),	into direct contact	Treatment consideration will be
Hydrocarbons (organic):	through inhalation, ingestion, or	Areas, Tank Farm,	South CSA	with material,	generated by the CH profile
	aspiration. Pulmonary toxicity is most	Roll-off containers	(106,920 gal),	decontamination	Information. Contact Chemtrac
Examples of products that	common, however cardiovascular,		Tank Farm	at the hospital may	for emergency medical treatment
contain dangerous	nervous, and gastrointestinal systems		(60,000 gal), Roll-	be required prior	information at 1-800-424-9300.
hydrocarbons include	can all be affected causing coma,		offs (24,240 gal)	to treatment.	Treat Symptomatically.
some solvents used in	seizures, irregular heart rhythms or		_		
paints and dry cleaning and	damage to the kidneys or liver.				
household cleaning					
chemicals.					

Hazardous Waste Storage Information

Clean Harbors FLD980729610 6/13/2021

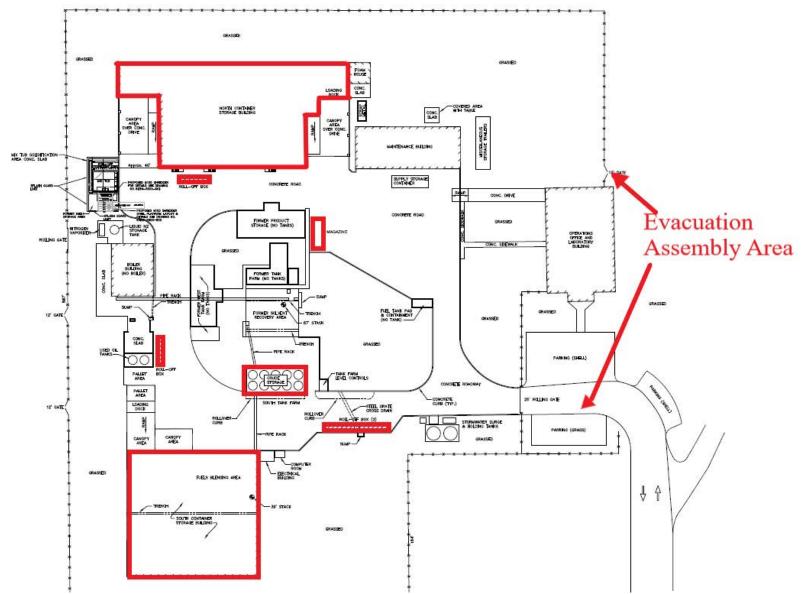
Type/Common Name of Waste	Associated Hazard	Location in Facility Where Hazard is Accumulated	Maximum Quantity That Could be Present	Response Notes	Special Notes to Hospital/Treatment Personnel
Soils, liquids or sludges contaminated with Halogenated / nonhalogenated organic waste: Halogenated Waste (any organic chemical that contains F, Cl, Br, or I) Non-Halogenated Waste (organic solvents that do not contain F, Cl, Br, or I)	Many halogenated hydrocarbons have moderate to high toxicity by inhalation. The brominated materials tend to be particularly toxic. Much of the toxicity is due to the fact that these substances are not metabolized but persist and accumulate in fatty tissues (they tend to be fat-soluble). The combustion of chlorinated organic compounds may produce poisonous phosgene gas (COCl2). Other materials formed by incomplete combustion are classes of chlorinated organic compounds, chlorodibenzodioxins and chlorodibenzofurans. These compounds	North and South Container Storage Areas, Tank Farm	North CSA (136,400 gal), South CSA (106,920 gal), Tank Farm (60,000 gal)	If personnel come into direct contact with material, decontamination at the hospital may be required prior to treatment.	Specific chemical Hazards for Treatment consideration will be generated by the CH profile Information. Contact Chemtrac for emergency medical treatment information at 1-800-424-9300. Treat Symptomatically.
Soils, liquids or sludges contaminated with Corrosive wastes (Acids & Bases)	Corrosives are materials that can attack and chemically destroy exposed body tissues. Corrosives can also damage or even destroy metal. They begin to cause damage as soon as they touch the skin, eyes, respiratory tract, digestive tract. Most corrosives are either acids or bases. Common acids include hydrochloric acid, sulfuric acid, nitric acid, chromic acid, acetic acid and hydrofluoric acid. Common bases are ammonium hydroxide, potassium hydroxide (caustic potash) and sodium hydroxide (caustic soda).	North and South Container Storage Areas, Tank Farm	North CSA (136,400 gal), South CSA (106,920 gal), Tank Farm (60,000 gal)	If personnel come into direct contact with material, decontamination at the hospital may be required prior to treatment.	Specific chemical Hazards for Treatment consideration will be generated by the CH profile Information. Contact Chemtrac for emergency medical treatment information at 1-800-424-9300. Treat Symptomatically.

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Type/Common Name of Waste	Associated Hazard	Location in Facility Where Hazard is Accumulated	Maximum Quantity That Could be Present	Response Notes	Special Notes to Hospital/Treatment Personnel
Reactive and Explosive Wastes Reactive wastes are wastes that readily explode or undergo violent reactions. A waste is considered reactive if it: Explodes or reacts violently when exposed to water or under normal handling conditions. Creates toxic fumes or gases when exposed to water or under common handling conditions.	Because it is difficult to identify the properties and hazards of waste streams being managed, Hazardous waste may be flammable, corrosive, reactive , and/or toxic.	North and South Container Storage Areas, Tank Farm, Low Explosive Magazine	North CSA (136,400 gal), South CSA (106,920 gal), Tank Farm (60,000 gal), Low Explosive Magazine (2,000 gal)	If personnel come into direct contact with material, decontamination at the hospital may be required prior to treatment.	Specific chemical Hazards for Treatment consideration will be generated by the CH profile Information. Contact Chemtrac for emergency medical treatment information at 1-800-424-9300. Treat Symptomatically.
Cyanide and Sulfide Reactive Wastes cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment. reactive cyanide- and sulfide-bearing wastes. These wastes are regulated as characteristically hazardous (waste code D003) at 40 CFR 261.23(a)(5).	Serious toxicity and death can be associated with cyanide or sulfide bearing waste exposure. Moderate to high toxicity by inhalation.	North and South Container Storage Areas, Tank Farm	North CSA (136,400 gal), South CSA (106,920 gal), Tank Farm (60,000 gal)	If personnel come into direct contact with material, decontamination at the hospital may be required prior to treatment.	Specific chemical Hazards for Treatment consideration will be generated by the CH profile Information. Contact Chemtrac for emergency medical treatment information at 1-800-424-9300. Treat Symptomatically.

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Evacuation Assembly Areas and Hazardous Waste Storage Areas

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. See **Figure 6.1**.

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 first responders – see **Figure 6.9**.

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 the agencies noted on **Figure 6.9** of such a situation.

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 (7001 Kilo Ave., Bartow, FL).
- 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 and the Florida Division of Emergency Management – see Figure 6.9.

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 cleanup 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. See Figure 6.6 for emergency equipment locations.

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 are 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 6.7**. The primary evacuation route is the main gate (shown of Figure 6.7) 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 6.8) 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 6.9).

4.0 Amendment of Plan

Plan will be reviewed and changes recorded using Figure 6.8 and amended whenever necessary:

- 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 <u>release</u> 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 Page 8 of 22 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 nonbulk 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 6.7 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.

7.0 Response to Explosions

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, the magazine does store low explosives in the form of consumer wholesale and retail products such as consumer fireworks, emergency flares, signal flares, marine distress flares, highway flares, small arms ammunition, etc., prior to offsite shipment to authorized destruction facilities. The location of the magazine is shown on the Facility Site Plan. If explosions do occur, the Emergency Coordinator will immediately sound the evacuation alarm and call 911. Figure 6.7 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 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 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.

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Figure 6.2 Authorization to Commit CHF Resources

Figure 6.3 Coordination Agreement with Response Agency

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Figure 6.6 Locations of Fire Response Equipment

Figure 6.7 Evacuation Routes

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Figure 6.9 List of Organizations Capable of Providing Emergency Service in the Event of a Release, Fire, or Explosion

FIGURE 6.1 LIST OF EMERGENCY COORDINATOR AND ALTERNATES

PRIMARY EMERGENCY COORDINATOR:	Wes McDuffie/Facility Operations Manager
Address:	510 Little Lake Court Winter Haven, FL 33884
Work Telephone Number: Cell Phone Number:	(863) 533-6111 (863) 559-1613
*****	******
First Alternate:	John Whyte/Facility Maintenance Supervisor
Address:	7385 Bent Grass Drive Winter Haven, FL 33884
Work Telephone Number: Cell Phone Number:	(863) 533-6111 (401) 340-7255
*****	****************
Second Alternate:	John Bosek/Facility General Manager
Address:	145 Alachua Drive Winter Haven, FL 33884
Work Telephone Number: Cell Phone Number:	(863) 533-6111 (863) 559-1610
Clean Harbors 24-hour Em	ergency Response (800) 645-8265

FIGURE 6.2 AUTHORIZATION TO COMMIT CHF RESOURCES

I, <u>David DeSha</u>, 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/Facility Operations Manager
Address:	510 Little Lake Court Winter Haven, FL 33884
Work Telephone Number: Cell Phone Number:	(863) 533-6111 (863) 559-1613
*****	************
First Alternate:	John Whyte/Facility Maintenance Supervisor
Address:	7385 Bent Grass Drive Winter Haven, FL 33884
Work Telephone Number: Cell Phone Number:	(863) 533-6111 (863) 559-2144
*****	******
Second Alternate:	John Bosek/Facility General Manager
Address:	145 Alachua Drive Winter Haven, FL 33884
Work Telephone Number: Cell Phone Number:	(863) 533-6111 (863) 559-1610
*****	*********
Director Environmental Con	npliance: <u>David DeSha</u>

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, scan it and return to me via the email address below.

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,

John Bosek Facility General Manager bosek.john@cleanharbors.com

FIGURE 6.4 LOCAL AGENCY RESPONSE

Date:

Clean Harbors Florida LLC 7001 Kilo Ave. Bartow, Florida 33830-9504 bosek.john@cleanharbors.com

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:		

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)

Figure 6.5 Spill Response Equipment, Uses and Capabilities

* Maintained in each emergency response cabinet.

FIGURE 6.6 LOCATIONS OF FIRE RESPONSE EQUIPMENT

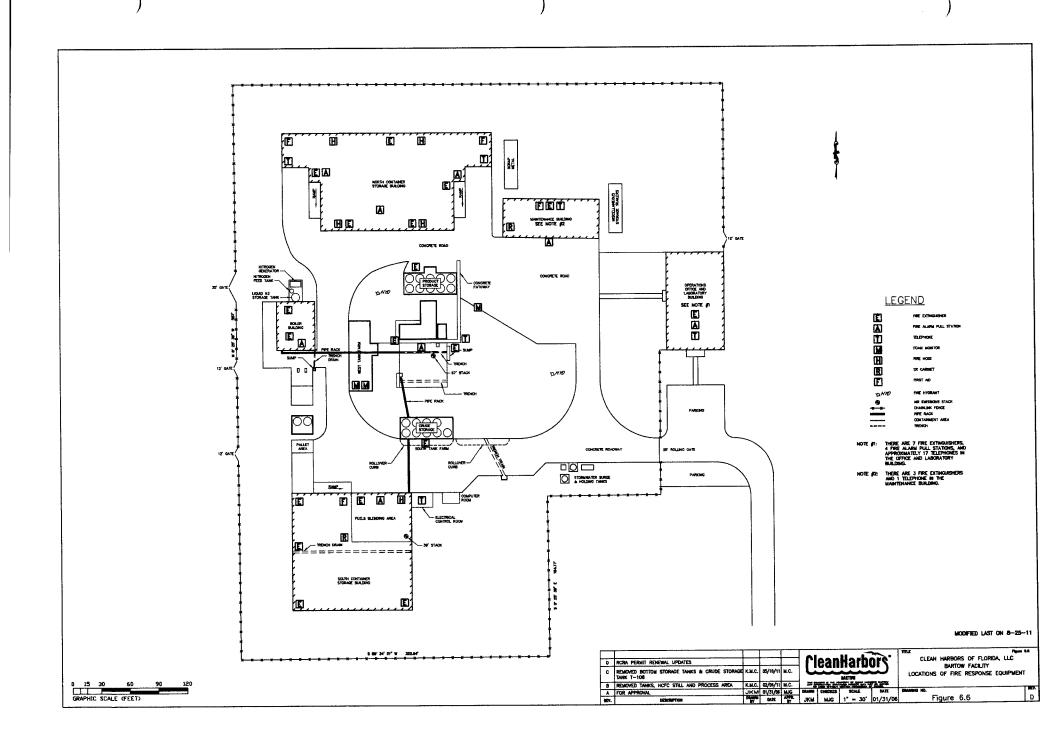


FIGURE 6.7 EVACUATION ROUTES

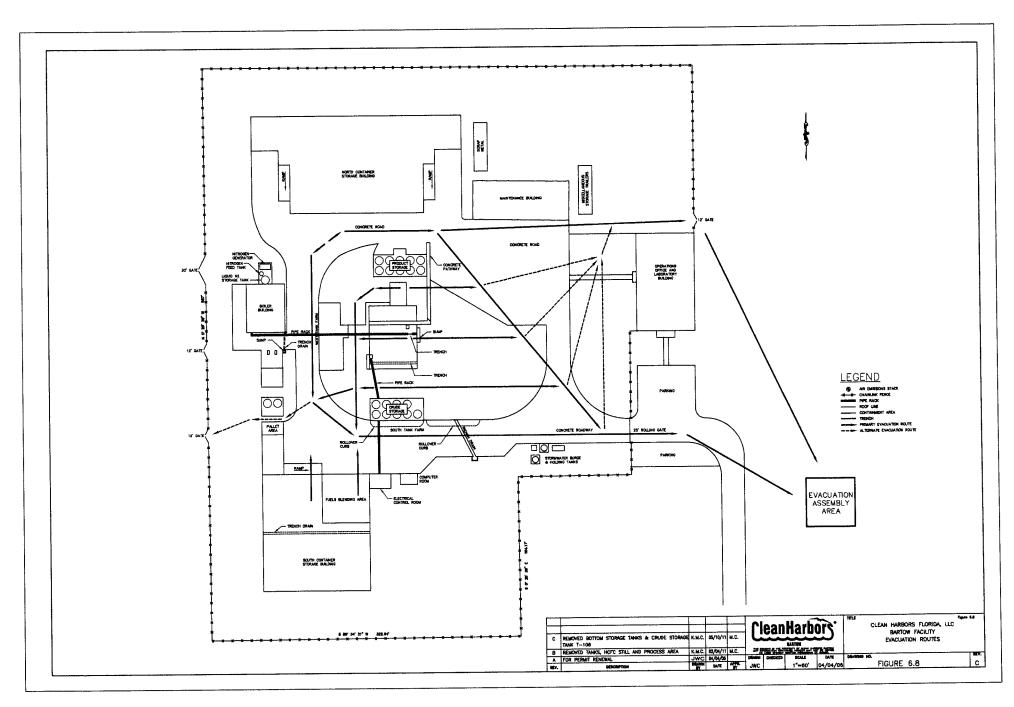


FIGURE 6.8 CONTINGENCY PLAN REVISIONS AND AMENDMENTS

Date of Revision or Amendment	Pages Affected	Name of Person Entering Changes	Comments

FIGURE 6.9 LIST OF ORGANIZATIONS CAPABLE OF PROVIDING EMERGENCY SERVICE IN THE EVENT OF A RELEASE, FIRE, OR EXPLOSION

	Agency & Address	<u>Telephone Number</u>
1.	Polk County Emergency Management 1890 Jim Keene Boulevard Winter Haven, FL 33880	911 /(863) 298-7000
2.	Polk County Sheriff's Department 1891 Jim Keene Blvd Winter Haven, FL 33880	911 /(863) 298-6200
3.	Administrator Bartow Regional Medical Center 2200 Osprey Blvd. Bartow, Florida 33830	(863) 533-8111
	Ambulance	911
4.	Director Florida Division of Emergency Management 2555 Shumard Oak Blvd. Tallahassee, Florida 32399	911 /(850) 815-4000
5.	Polk County Fire & Rescue 1295 Brice Blvd. Bartow, FL 33830	911 /(863) 519-7350
6.	Bartow Fire Department 110 E Church St. Bartow, FL 33830	911 /(863) 534-5044
7.	Bartow Police Department 450 N Broadway Ave. Bartow, FL 33830	911 /(863) 534-5034
8.	The National Response Center	(800) 424-8802
9.	State Watch Office	(800) 320-0519
10.	DEP Tampa Emergency Response Office	(813) 470-5954

II-F.3 Procedures, Structures and Equipment

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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 1.2. 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.

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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 Figure 1.1).

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.

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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 (see Figures 1.3 and 1.4). 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.

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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 7001 Kilo Ave. Bartow, FL 33830 Polk County, Florida

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Owner:Clean Harbors Florida LLC City of 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.

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- 2. Figure 1.2 North Container Storage Building Design
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II-F.4 Preparedness and Prevention Plan

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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 8inch 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.

II-F.5 Training Plan

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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 can be found in Attachment F5-1.

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Attachment F5-1 (Job Descriptions)

Attachment F5-1

Job Descriptions

FACILITY GENERAL MANAGER

SCOPE:

Directs the facility to achieve established goals; participates in establishing goals; responsible for facility performance.

SKILLS:

Experienced manager who can establish through leadership the standards for the facility. Should have BS in Chemical Engineering or Mechanical Engineering or equivalent experience.

RESPONSIBILITIES:

Establish safety attitudes throughout the facility by inspections, reviews, audits and investigations.

Ensure that the facility complies with all regulatory rules and that a commitment of timely training is maintained.

Build a team of people to achieve results showing trends of improvement.

To ensure that processes handle company products in a safe, timely and efficient manner.

Trouble shoot all problem areas.

Make appropriate and timely decisions.

Planning activities to overcome potential problems.

Assign priorities to develop and improve operational processes.

Build good team spirit and a system for discipline.

Communicate plans and needs to avoid union-type activities.

Establish budgets, cost controls and appropriate reviews and action plans.

Communicate with EPA and regulatory bodies, as well as local fire and police departments.

Select, hire, and develop employees. Ensure all required training is performed.

Control plant image, i.e.; communication with outside bodies.

Develop team to improve productivity with short- and long-term goals.

Establish preventive maintenance and excellent housekeeping programs.

Appoint a deputy in any time of absence so that the experience is shared by immediate developing staff.

OPERATIONS MANAGER

SCOPE:

Efficiently coordinate all day-to-day production activities to meet plant and corporate goals while ensuring safe and environmentally sound procedures are strictly adhered to. Is regarded as number two position on site and acts in absence of Facility General Manager.

SKILLS:

Strong, people-oriented manager with ability to plan, decide and act to overcome potential problems in a prudent manner. A B.S. in Chemical Engineering and other technical background is preferred or equivalent experience.

RESPONSIBILITIES:

In charge of day to day facility operations. Develop people/equipment to increase productivity, fostering a sense of urgency in getting things done.

Coordinate shift schedule planning including time off for vacations or sickness in a financially sound and fair manner.

Manage lost time/recordable accidents by directing with safety high in priority.

Ensure EPA/OSHA permit standards are upheld.

Ensure all workers are properly trained on RCRA and their job responsibilities.

Plan production schedule.

Ensures Facility complies with all Regulations and Rules.

Ensure process equipment is kept running and products are within specifications.

Calculate production daily and copy the Facility Manager.

Monitor and record the facility equipment usage and copy the Facility Manager.

Maintain an updated inventory system daily.

MAINTENANCE SUPERVISOR

SCOPE:

Complete facility maintenance activities and housekeeping in a safe and timely manner.

SKILLS:

Experienced, prudent person; usually will have served apprenticeship to develop special mechanical skills. Normally with more than ten years experience.

RESPONSIBILITIES:

Directs and monitors maintenance operations and personnel.

Maintain, clean and repair boilers and process equipment.

Install and repair process piping.

Advise plant personnel on maintenance/equipment related concerns.

Perform miscellaneous maintenance on instrumentation.

Initiate purchase orders for maintenance equipment and supplies through the purchase order program with the facility budget in mind.

Maintains proper spare parts inventory.

Monitor maintenance activities.

Operate all maintenance equipment.

Develop preventive maintenance programs throughout the facility.

always Maintain housekeeping standard during maintenance repairs and in maintenance work areas.

FACILITY OPERATIONS SUPERVIOR/SHIFT SUPERVISOR

SCOPE:

Responsible for the efficient operation of the shift resources available to this position.

SKILLS:

Strong, people-oriented manager with ability to plan, decide and act to overcome potential problems in a prudent manner. A B.S. in a technical background is preferred, equivalent experience is required.

RESPONSIBILITIES:

Direct and monitor the total production activities and correct the operation or process equipment as appropriate.

Direct loading, unloading, inspection, weighing, spotting and sampling inbound and outbound trucks.

Check approve and complete inbound and outbound paperwork.

Direct transferring of materials throughout the plant.

Maintain production records.

Direct operation of forklifts and ensure appropriate maintenance in completed.

Supervise daily inventory recordings and calculations.

Direct activities for the preparation and drumming of materials.

Maintain housekeeping standards.

Training new and present employees

Develop new programs.

Approve/schedule in-bound and out-bound loads.

Supervise and organize a shift team to achieve agreed objectives.

Ensure safety procedures and rules are strictly adhered to.

FACILITY TECHNICIAN/MATERIAL HANDLER

SCOPE:

Responsible for performing in-bound and out-bound bulk and drum warehouse activities and transfer activities of material throughout the facility.

SKILLS:

Trained person knowledgeable in regulatory procedures, preferably High School Diploma.

RESPONSIBILITIES:

Handle all in-bound traffic concerns including loading, unloading, inspection, weighing, spotting and sampling all trucks when needed.

Unload/load waste drums and complete required paperwork.

Receive containers including checking labels, sampling, checking, approving and completing paperwork and updating drum receipt logs.

Sample containers as needed and complete corresponding paperwork.

Store drums in designated areas according to compatibility.

Operate a forklift, safely.

Perform drum pumping operations.

Prepare drums for disposal.

Monitor drum activities.

Obtain drum storage inventory readings.

Maintain an organized warehouse with clearly identified rows.

Maintain a turn around system of drum processing in strict order of receipt as much as possible.

Maintain preventive maintenance checks on warehouse equipment such as the vac truck and drum room forklift.

Maintain housekeeping standards.

Pump contained areas as directed by Shift Supervisor.

Comply with safety rules and regulations.

RECEIVING/SHIPPING COORDINATOR

SCOPE:

Responsible for inspecting and correcting incoming manifest and attached paperwork. Balancing quantities on manifest to inventory order documents. Works with General Manager, Operations Manager and Shift Supervisor on inventory and production records.

SKILLS:

Strong organizational abilities, self-starter, data entry, computer knowledge, able to communicate and mesh with other personnel and company locations.

RESPONSIBILITIES:

Responsible for inspecting manifests and attached paperwork. Balancing quantities on manifests to inventory order documents.

Responsible for incoming inventory order document entries and balancing.

Responsible for balancing warehouse logs to inventory.

Data entry for production of inventory, working with General Manager, Operations Manager, and Operations Supervisor to balance Month-End inventory.

Miscellaneous data entry.

Filing all finished paperwork.

Responsible for coordinating material receipts.

Responsible for maintaining pre-ship and notification files.

Other duties as assigned.

Receiving Chemist

SCOPE:

Responsible for performing in-bound and out-bound bulk and drum warehouse activities and transfer activities of material throughout the facility.

SKILLS:

Trained person knowledgeable in regulatory procedures, preferably High School Diploma.

RESPONSIBILITIES:

Handle all in-bound traffic concerns including loading, unloading, inspection, weighing, spotting and sampling all trucks when needed.

Unload/load waste drums and complete required paperwork.

Receive containers including checking labels, sampling, checking, approving and completing paperwork and updating drum receipt logs.

Sample containers as needed and complete corresponding paperwork.

Store drums in designated areas according to compatibility.

Operate a forklift, safely.

Prepare drums for disposal.

Monitor drum activities.

Obtain drum storage inventory readings.

Maintain an organized warehouse with clearly identified rows.

Maintain a turnaround system of drum processing in strict order of receipt as much as possible.

Maintain preventive maintenance checks on warehouse equipment such as the vac truck and drum room forklift.

Maintain housekeeping standards.

Pump contained areas as directed by Shift Supervisor.

Comply with safety rules and regulations.

II-F.6 Inspections

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 II-F.6-1)

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 II-F.6-2).

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.

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LIST OF FIGURES

 Figure II-F.6-1 Example of Facility Inspection Forms
 Figure II-F.6-2 Example of an Annual Tank Shell Thickness Inspection Log

Figure II-F.6-1 - Example of Facility Inspection Forms



CO CSA Inspection

Compliance Header	
Inspector Name	
Area of Inspection	
Inspection Date and Time	
CO CSA Inspection Instructions	
Note condition of inspection items. If item does refindings must be explained below. Include any reference or performed.	not apply to an area, mark N/A. All unsatisfactory epairs, changes or other remedial actions
CO CSA Inspection Items	
Container Placement and Stacking - Check for evidence of failure (e.g., containers on pallets, pallets too high, unstable, other).	
Sealing of Containers - Check for evidence of failure (e.g., containers not closed or sealed, open).	
Labeling of Containers - Check for evidence of failure (e.g., no label, improper label, content, other).	
Container Integrity - Check for evidence of failure (e.g., condition, bulging, leaks, rust, corrosion, other).	
Pallets - Check for evidence of failure (e.g., broken, loose, condition).	
Doors - Check for evidence of failure (e.g., indoor area, broken or not working as intended).	
Base/ Foundation/ Roof - Check for evidence of failure (e.g., cracked, gaps, other).	
Berms/ Racks - Check for evidence of failure (e.g., cracks, gaps, broken, other).	

Debris and Refuse - Check for evidence of failure (e.g., proper storage, location, container type, other).Exit Signs - Check for evidence of failure (e.g., missing, lamps, battery backup, other).Aisle Space - Check for evidence of failure (e.g., minimum 2 ft required, other).Containment Area - Check for evidence of failure (e.g., scondary containment, curbing, floor, cracks, deterioration, ponding or wet spots, other).Sumps - Check for evidence of failure (e.g., cracks, ponding or wet spots, pitting or deterioration, other).Loading/ Unloading Areas - Check condition of area (e.g., available equipment, spill response, containment, pad condition, valve access box, ponding or wet spots, other).Storage Capacity - Check for acceptable limit (e.g., rear or permit retrictions, type restriction, volume limit, other).Pumps - Check for evidence of failure (e.g., certioration, other).Storage Capacity - Check for acceptable limit (e.g., area or permit retrictions, type restriction, volume limit, other).Pumps - Check for evidence of failure (e.g., certioration, other).Pumps - Check for evidence of failure (e.g., certioration, other).Pumps - Check for acceptable limit (e.g., within area limits, permit restrictions, other).Storage Capacity - Check for acceptable limit (e.g., within area limits, permit restrictions, other).Pumps - Check for evidence of failure (e.g., failure (e.g., check for acceptable limit (e.g., within area limits, permit restrictions, other).Storage Capacity - Check for acceptable limit (e.g., within area limits, permit restrictions, other). </th <th></th> <th></th>		
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	Compliance Footer	
Attach Photo	Inspector Signature	
	Attach Photo	

Inspection Overall Assessment



Compliance Header	
Inspector Name	
Area of Inspection	
Inspection Date and Time	
CO Tank Systems Inspection Instructions	
Note condition of inspection items. If item does n findings must be explained below. Include any re required or performed.	
CO Tank Systems Inspection Items	
Tanks - Check for evidence of failure (e.g., rusty or loose anchoring, distortion, paint failure, other).	
Pipes/Piping Supports - Check for evidence of failure (e.g., distortion, corrosion, paint failure, other).	
Valves - Check for evidence of failure (e.g., disconnected, corrosion, sticking, leaks, other).	
Fittings/Hose Connections - Check for evidence of failure (e.g., loose, disconnected, corrosion, other).	
Liquid Level - Check for acceptable level. (e.g., high level max, permitted volume, other).	
Secondary Containment - Check for evidence of failure (e.g., cracks, ponding or wet spots, pitting or deterioration, other).	
Sumps - Check for evidence of failure (e.g., cracks, ponding or wet spots, pitting or deterioration, other).	
Bonding and Grounding - Check for evidence of failure (e.g., loose, broken, corrosion or deterioration, other).	

Transfer Equipment/Pump and Pump Motors - Check for availability and condition (e.g., pumps, filters, strainers, hoses, leaks, overheating, other).	
Communication and Alarm System - Check for evidence of failure (e.g., test function, siren, strobe, other).	
Satellite Accumulation Containers - Check for condition and appropriate for area (e.g., filter/basket, solids, label and marking, other).	
Manways, Hatches, Other Openings - Check for evidence of failure (e.g., condition, corrosion, closure, other).	
Pressure Relief Valves (PRV)/ Flame Arrestors - Check for evidence of failure (e.g., condition, corrosion, other).	
Tanks marked with the words "Hazardous Waste" - Check for appropriate markings.	
Tanks not used marked as "Out of Service" - Check for appropriate markings.	
Tanks marked as to the contents - Check for appropriate markings (e.g., Non-Haz Only).	
Monitoring Equipment/Level Indicators - Check for evidence of failure (e.g., pressure and temperature gauges, level indicators, sticking, condensation, disconnected, other).	
Loading/ Unloading Areas - Check condition of area (e.g., available equipment, spill response, containment, pad condition, valve access box, ponding or wet spots, other).	
Compliance Footer	
Inspector Signature	
Attach Photo	



Compliance Header
Inspector Name
Inspection Date
Area of Inspection
CO Laboratory Inspection Instructions
Inspections must be conducted daily when the fa area, mark N/A. All unsatisfactory findings must changes or other remedial actions taken or requ
CO Laboratory Inspection Items
Surveillance System - Check for operation (24 hr. guard service)
Alarm System - Check accessibility
Internal (phone & radio) and External (phone) Communications - Check accessibility
Internal (phone & radio) and External (phone) Communications - Check operaton
Container Storage Area: Accumulation & Satellite - Check for damaged containers
Container Storage Area: Accumulation & Satellite - Check for evidence of spilled material
Container Storage Area: Accumulation & Satellite - Check for 90 day accumulation date
Container Storage Area: Accumulation & Satellite - Check for adequate aisle space
Container Storage Area: Accumulation & Satellite - Check for proper labeling
Sample Disposal System: Observe if proper procedures are in use

Sampling Equipment: Check for proper decontamination procedures	
Sampling Equipment: Check for disposal of cleanup materials in proper containment	
Sampling Equipment: Check for improper placement	
Ventilation/Hooding System: Check operability	
Compliance Footer	
Inspector Signature	
Attach Photo	
On Demand Work Ticket	



Compliance Header	
Inspector Name	
Area of Inspection	
Inspection Date and Time	
CO Safety Security Inspection Instructions	
Note condition of inspection items. If item does n findings must be explained below. Include any re required or performed.	
CO Safety Security Inspection Items	
Perimeter Fences - Check for evidence of failure (e.g., broken ties, corrosion, holes, distortion, other).	
Gates/External Warehouse Doors - Check for evidence of failure (e.g., locking mechanism, broken ties, corrosion, holes, distortion, direct access doors working properly, other).	
Warning Signs - Check for evidence of failure (e.g., missing, faded, other).	
Exit Signs - Check for evidence of failure (e.g., missing sign, illumination, lamp bulbs, battery backup, other).	
Exits/Firelanes/Evacuation Routes - Check that all routes are clear or unobstucted.	
Lighting System - Check for evidence of failure (e.g. expired lamps, effectiveness, location, other).	
Emergency Lighting System - Check for evidence of failure (e.g., expired lamps, battery backup, effectiveness, other).	
Accessibility of Safety Equipment/Protective Gear - Check for evidence of availability (e.g.,	

hardhats, faceshields, goggles, safety glasses, boots, gloves, aprons, uniforms, duct tape, absorbents, other).	
Adequate Supply of Safety Equipment/Protective Gear - Check for evidence of availability (e.g., cleanliness, inventory available, other).	
Condition of Safety Equipment - Check for evidence of failure (e.g., review PPE for damage or excessive wear, other).	
Breathing Apparatus Accessibility - Check for evidence of availability (e.g. SCBA respirators, equipment, other).	
Breathing Apparatus Adequate Supply/Full Charge - Check for evidence of availability (e.g., SCBA tanks, charged, other).	
Breathing Apparatus Condition - Check for evidence of failure (e.g., SCBA damage, other).	
First Aid Kits - Check for evidence of availability (e.g., adequate inventory, other).	
Bloodborne Pathogen Kits - Check for evidence of availability (e.g., adequate inventory, other).	
Emergency Eyewashes - Check for evidence of failure (e.g., disconnected or malfunctioning valves, inadequate pressure, inaccessible, malfunctioning drain, leaking, other).	
Emergency Showers - Check for evidence of failure (e.g., disconnected or malfunctioning valves, inadequate pressure, inaccessible, leaking, other).	
Internal/External Communication - Check for evidence of failure (e.g., inadequate supply of phones or radios, malfunctioning intercom, telephones not working properly, emergency alarm does not work, phone moved from proper location, other).	
Fire Extinguishers - Check for evidence of failure (e.g., overdue inspection, not charged,	

inaccessible, other).
Absorbent Supply - Check for evidence of availability (e.g., adequate inventory, other).
Recovery Drum Supply - Check for evidence of availability (e.g., adequate inventory, other).
Respirators and Cartridges - Check for evidence of availability (e.g., adequate APR inventory, other).
Fire Suppression System Accessibility - Check for evidence of failure (e.g., monitors, pull stations, alarms, other).
Fire Suppression System Operable - Check for evidence of failure (e.g., test, other).
Water Lines/Hydrants - Check for evidence of failure (e.g., blocked, broken, other).
Alarm Systems - Check for evidence of failure (e.g., test, other).
Fire Blankets - Check for evidence of availability (e.g., adequate inventory, other).
Strainer on Fire Suppression System - Check for evidence of failure (e.g., functioning as intended, other).
Surveillance System/Guard Service - Check for evidence of failure (e.g., equipment or service provided and functioning properly, other).
Supplied Air Delivery System and Reserve - Check for evidence of failure (e.g., system operational, epuipment functioning, other).
Decontamination Equipment/Spill Clean-up Equipment - Check for evidence of availability (e.g., adequate supply of shovels, mops, cleaning solvents, available inventory, other).
Portable Sump Pumps - Check for evidence of availability (e.g., adequate inventory, functioning properly, other).
Gasoline Pumps - Check for evidence of failure (e.g., broken parts, leaks, other).

Loud Speakers - Check for evidence of failure (e.g., test, other).	
Chocked Wheels on Parked Vehicles - Check for evidence of failure (e.g., chocks not used, missing, deteriorated, other).	
Cylinders Secure - Check for evidence of failure (e.g., properly stored, secured, chained, other).	
Ventilation Operable - Check for evidence of failure (e.g., system working as intended, other).	
Fall Protection - Check for evidence of availability (e.g., adequate inventory, integrity of equipment, other).	
Electrical Boxes - Check for evidence of failure (e.g., closed, not blocked, marked properly, other).	
Emergency Contact Info Posted - Check for evidence of availability (e.g., up-to-date postings, location requirement, other).	
Hearing Protection Available - Check for evidence of availability (e.g., type appropriate per location, other).	
Housekeeping - Check for evidence of failure (e.g., blocked egress, proper storage, procedure followed, other).	
Portable Compressor - Check for evidence of availability (e.g., adequate inventory, functioning properly, other).	
Lime Supply - Check for evidence of availability (e.g., adequate inventory, other).	
QC Lab Hood - Check for evidence of failure (e.g., functioning properly, other).	
Rolloff Parking Area - Check for evidence of failure (e.g., housekeeping, staging, other).	
Dumpster/Outside Containers - Check for evidence of failure (e.g., housekeeping, condition, appropriate use and storage, other)	

Stormwater Collection System - Check for evidence of failure (e.g., functioning properly, damaged equipment, integrity, other).	
Rally Point - Check for evidence of failure (e.g., location identified, communication, other).	
Visitor Log - Check for evidence of failure (e.g., available, communication, proper use, other).	
Contingency Plan - Check for evidence of failure (e.g., available, up-to-date, communication, other).	
Wind Instrument/Wind Sock - Check for evidence of failure (e.g., operational, functioning properly, not broken, other).	
Compliance Footer	
Inspector Signature	
Attach Photo	
Inspection Overall Assessment	



CO Tank High Level Alarm Syste

Form Code: 24

Compliance Header	
Inspector Name	
Area of Inspection	
Inspection Date and Time	

Instructions - Liquid Level Limit Control

Atmospheric tanks having a capacity greater than 500 gallons and which contain hazardous material liquids shall be equipped with a liquid level limit control or other approved means to prevent overfilling the tank.

Instructions - Testing

The following equipment, systems and devices shall be tested in accordance with Sections 2703.2.9 and 2703.2.9.2 of the International Fire Code (IFC): 1. Gas detection systems, alarms and automatic emergency shutoff valves required by Section 3704.2.2.10 for highly toxic and toxic gases. 2. Limit control systems for liquid level, temperature and pressure required by Sections 2703.2.7, 2704.8 and 2705.1.4. 3. Emergency alarm systems and supervision required by Sections 2704.9 and 2705.4.4. 4. Monitoring and supervisory systems required by Sections 2704.10 and 2705.1.6. 5. Manually activated shutdown controls required by Section 4103.1.1.1 for compressed gas systems conveying pyrophoric gases.

The equipment, devices and systems listed above shall be tested at the time of installation and at one of the following intervals as listed below: 1. Not less than annually, 2. In accordance with the approved manufacturer's requirements, 3. In accordance with approved recognized industry standards, 4. In accordance with an approved scheduled (approved by the local fire department).

Written records of all testing must be maintained.

Instructions - Exceptions

Periodic testing shall not be required where approved written documentation is provided stating that testing will damage the equipment, device or system and the equipment, device or system is maintained as specified by the manufacturer.

Periodic testing shall not be required for equipment, devices or systems that fail in a fail safe manner.

Instructions - International Building Code/ International Fire Code

The majority if not all of our plants are in states that have now adopted both the International Building Code and International Fire Codes. These codes require testing of liquid level limit

controls. Some states however have adopted these codes with state specific amendments and addenda. There could therefore be alternative or more stringent requirements depending on location. If a question exists, please contact Facilities Engineering.

Note: Terms in this document are taken from the International Fire Code. That document should be referenced for any definition.

Instructions - Inspection

Inspection must be conducted monthly. Note condition of inspection item. All unsatisfactory findings must be explained below. Include any repairs, changes or other remedial actions required or performed.

Was tank inspected and passed per the requirement listed above?	
On Demand Work Ticket	
Compliance Footer	
Inspector Signature	
Attach Photo	
Inspection Overall Assessment	



Compliance Header	
Inspector Name	
Area of Inspection	
Inspection Date and Time	

CO Tank System BB Equipment Instruction

Note condition of inspection items. Inspect all tagged and non-tagged points per area plan or system drawing specification. All unsatisfactory findings must be explained. Include any repairs, changes or corrective actions.

CO Tank System BB Equipment Inspection Items

Inspect all tagged and non-tagged tank system identified BB equipment points per area plan -Check for evidence of failure. (e.g., all inclusive review of all equipment pumps, valves, flanges, connections, unions, couplings or caps for potential leaks, active leaks, sticking, wear, does not operate smoothly, other).

Each open-ended valve or line is equipped with a cap, blind flange, plug, or a second valve, which seals the open end at all times except when hazardous waste flows through the open ended valve or line. [264.1056/ 265.1056]

Pieces of equipment found to be leaking, usually by visual means, are repaired within 15 calendar days and the first attempt to repair is made within 5 calendar days. [264.1058(c)/ 265.1058(c)]

When a leak is detected, a weatherproof identification tag is attached to the leaking equipment with ID # and the date leak was detected. The identification may be removed after repair. [264.1064(c)/265.1064(c)]

The liquids in use are heavy liquids. It should be assumed that all hazardous liquids managed in storage tanks contain between 80% and 100% organics.

Compliance Footer	
Inspector Signature	
Attach Photo	

Inspection Overall Assessment



CO Subpart CC Visual Tank Inspection

Compliance Header		
Inspector Name		
Area of Inspection		
Inspection Date and Time		

CO - Subpart CC Visual Tank Inspection Instruction

Complete the visual tank inspection to satisfy the annual inspection required under Subpart CC.

CO - Subpart CC Visual Tank Inspection Items

Condition of tank (fixed roof and closure devices): (Check "Pass" if the condition of the tank is acceptable; Check "Fail" if the condition of the tank is not acceptable.) If "Fail", select appropriate reason: not closed under normal operation, other.

These tanks are designed so that all cover openings can be closed with no visible gaps, holes, cracks, or other open spaces into the interior of the tank. The cover and all cover openings operate with no detectable emissions when in a closed position. Cover openings are maintained in a closed position at all times except when waste is being added to or removed from the tank, or when necessary sampling or repair/maintenance is performed on the tanks.

Compliance Footer	
Inspector Signature	
Attach Photo	
Inpsection Overall Assessment	

Figure II-F.6-2 - Example of an Annual Tank Shell Thickness Inspection Log

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*	Тор	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 Code List

	S01	S02	T31	Т50	T40	T47
	Container Storage	Tank Storage	Neutralization	Blending	Filtration	Other
D001	5000	5000	N/A	3100	3100	3100
D002	500	5	500	1	1	1
D003	100	5	N/A	0	0	0
D004	100	100	\downarrow	10	10	10
D005	100	100		10	10	10
D006	100	100		10	10	10
D007	100	100		10	10	10
D008	100	100		10	10	10
D009	100	100		10	10	10
D010	100	100		10	10	10
D011	100	100		10	10	10
D012	50	50		1	1	1
D013	50	50		1	1	1
D014	50	50		1	1	1
D015	50	50		1	1	1
D016	50	50		1	1	1
D017	50	50		1	1	1
D018	1000	1000		500	500	500
D019	1000	1000		500	500	500
D020	50	50		1	1	1
D021	1000	1000		500	500	500

WASTE ACCEPTED, STORED AND PROCESSED BY CHF **Amounts reflected are estimated Tons per year for all RCRA waste codes permitted.

					Dat
D022	1000	1000	500	500	500
D023	1000	1000	500	500	500
D024	1000	1000	500	500	500
D025	1000	1000	500	500	500
D026	1000	1000	500	500	500
D027	1000	1000	500	500	500
D028	1000	1000	500	500	500
D029	1000	1000	500	500	500
D030	1000	1000	500	500	500
D031	50	50	1	1	1
D032	1000	1000	500	500	500
D033	1000	1000	500	500	500
D034	1000	1000	500	500	500
D035	1000	1000	500	500	500
D036	1000	1000	500	500	500
D037	50	50	1	1	1
D038	1000	1000	500	500	500
D039	1000	1000	500	500	500
D040	1000	1000	500	500	500
D041	1000	1000	500	500	500
D042	1000	1000	500	500	500
D043	1000	1000	500	500	500
F001	5000	5000	500	500	500
F002	5000	5000	500	500	500
F003	5000	5000	3100	3100	3100
F004	1000	1000	500	500	500
F005	5000	5000	3100	3100	3100
F006	1000	1000	10	10	10
F007	100	100	5	5	5
F008	100	100	5	5	5

					Dat
F009	100	100	5	5	5
F010	100	100	5	5	5
F011	100	100	5	5	5
F012	100	100	5	5	5
F019	100	100	5	5	5
F020	10	10	1	1	1
F021	10	10	1	1	1
F022	10	10	1	1	1
F023	10	10	1	1	1
F024	100	100	10	10	10
F025	100	100	10	10	10
F026	100	100	10	10	10
F027	100	100	10	10	10
F028	100	100	10	10	10
F032	100	100	10	10	10
F034	100	100	10	10	10
F035	100	100	10	10	10
F037	100	100	10	10	10
F038	100	100	10	10	10
F039	100	100	10	10	10
K001	100	100	10	10	10
K002	100	100	10	10	10
K003	100	100	10	10	10
K004	100	100	10	10	10
K005	100	100	10	10	10
K006	100	100	10	10	10
K007	10	10	1	1	1
K008	100	100	10	10	10
K009	100	100	10	10	10
K010	100	100	10	10	10

K0111010111K01310101111K014101010101010K01510010010101010K01610010010101010K01710010010101010K01810010010101010K01910010010101010K02010010010101010K02110010010101010K02210010010101010K02310010010101010K02410010010101010K02510010010101010K02610010010101010K02710010010101010K02810010010101010K03110010010101010K03210010010101010K03310010010101010K03410010010101010K03510010010101010K03410010010101010 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th>Dat</th>						Dat
K014 10 10 1 1 1 K015 100 100 10 10 10 10 K016 100 100 10 10 10 10 K016 100 100 10 10 10 10 K017 100 100 10 10 10 10 K018 100 100 10 10 10 10 K019 100 100 10 10 10 10 K019 100 100 10 10 10 10 K020 100 100 10 10 10 10 K021 100 100 10 10 10 10 K021 100 100 10 10 10 10 K022 100 100 10 10 10 10 K025 100 100 10 10	K011	10	10	1	1	1
K015 100 100 10 10 10 K016 100 100 10 10 10 10 K017 100 100 10 10 10 10 K017 100 100 10 10 10 10 K018 100 100 10 10 10 10 K019 100 100 10 10 10 10 K020 100 100 10 10 10 10 K021 100 100 10 10 10 10 K022 100 100 10 10 10 10 K023 100 100 10 10 10 10 K024 100 100 10 10 10 10 K025 100 100 10 10 10 10 K025 100 100 10 10<	K013	10	10	1	1	1
K016 100 100 10 10 10 K017 100 100 10 10 10 10 K018 100 100 10 10 10 10 K019 100 100 10 10 10 10 K019 100 100 10 10 10 10 K020 100 100 10 10 10 10 K021 100 100 10 10 10 10 K022 100 100 10 10 10 10 K022 100 100 10 10 10 10 K024 100 100 10 10 10 10 K025 100 100 10 10 10 10 K026 100 100 10 10 10 10 K026 100 100 10 10<	K014	10	10	1	1	1
K017 100 100 10 10 10 K018 100 100 10 10 10 10 K019 100 100 10 10 10 10 K020 100 100 10 10 10 10 K021 100 100 10 10 10 10 K021 100 100 10 10 10 10 K022 100 100 10 10 10 10 K023 100 100 10 10 10 10 K024 100 100 10 10 10 10 K025 100 100 10 10 10 10 K025 100 100 10 10 10 10 K028 100 100 10 10 10 10 K030 100 100 10 10<	K015	100	100	10	10	10
K018 100 100 10 10 10 K019 100 100 10 10 10 10 K020 100 100 10 10 10 10 K021 100 100 10 10 10 10 K021 100 100 10 10 10 10 K022 100 100 10 10 10 10 K023 100 100 10 10 10 10 K024 100 100 10 10 10 10 K025 100 100 10 10 10 10 K025 100 100 10 10 10 10 K026 100 100 10 10 10 10 K028 100 100 10 10 10 10 K031 100 100 10 10<	K016	100	100	10	10	10
K019 100 100 10 10 10 10 K020 100 100 10 10 10 10 K021 100 100 10 10 10 10 K021 100 100 10 10 10 10 K022 100 100 10 10 10 10 K023 100 100 10 10 10 10 K024 100 100 10 10 10 10 K024 100 100 10 10 10 10 K025 100 100 10 10 10 10 K025 100 100 10 10 10 10 K026 100 100 10 10 10 10 K027 100 100 10 10 10 10 K032 100 100 10<	K017	100	100	10	10	10
K020 100 100 10 10 10 K021 100 100 10 10 10 10 K021 100 100 10 10 10 10 K022 100 100 10 10 10 10 K023 100 100 10 10 10 10 K024 100 100 10 10 10 10 K024 100 100 10 10 10 10 K025 100 100 10 10 10 10 K026 100 100 10 10 10 10 K028 100 100 10 10 10 10 K029 100 100 10 10 10 10 K031 100 100 10 10 10 10 K033 100 100 10 10<	K018	100	100	10	10	10
K021 100 100 10 10 10 K022 100 100 10 10 10 10 K023 100 100 10 10 10 10 K024 100 100 10 10 10 10 K024 100 100 10 10 10 10 K025 100 100 10 10 10 10 K025 100 100 10 10 10 10 K026 100 100 10 10 10 10 K027 100 100 10 10 10 10 K028 100 100 10 10 10 10 K030 100 100 10 10 10 10 K031 100 100 10 10 10 10 K033 100 100 10 10<	K019	100	100	10	10	10
K022 100 100 10 10 10 10 K023 100 100 10 10 10 10 K024 100 100 10 10 10 10 K024 100 100 10 10 10 10 K025 100 100 10 10 10 10 K026 100 100 10 10 10 10 K026 100 100 10 10 10 10 K027 100 100 10 10 10 10 K028 100 100 10 10 10 10 K030 100 100 10 10 10 10 K031 100 100 10 10 10 10 K033 100 100 10 10 10 10 K033 100 100 10<	K020	100	100	10	10	10
K023 100 100 10 10 10 K024 100 100 10 10 10 10 K025 100 100 10 10 10 10 K025 100 100 10 10 10 10 K026 100 100 10 10 10 10 K027 100 100 10 10 10 10 K028 100 100 10 10 10 10 K029 100 100 10 10 10 10 K030 100 100 10 10 10 10 K031 100 100 10 10 10 10 K032 100 100 10 10 10 10 K033 100 100 10 10 10 10 K034 100 100 10 10<	K021	100	100	10	10	10
K024 100 100 10 10 10 K025 100 100 10 10 10 10 K026 100 100 10 10 10 10 K026 100 100 10 10 10 10 K027 100 100 10 10 10 10 K028 100 100 10 10 10 10 K029 100 100 10 10 10 10 K030 100 100 10 10 10 10 K031 100 100 10 10 10 10 K032 100 100 10 10 10 10 K033 100 100 10 10 10 10 K034 100 100 10 10 10 10 K036 100 100 10 10<	K022	100	100	10	10	10
K025 100 100 10 10 10 K026 100 100 10 10 10 10 K027 100 100 10 10 10 10 K028 100 100 10 10 10 10 K029 100 100 10 10 10 10 K030 100 100 10 10 10 10 K031 100 100 10 10 10 10 K032 100 100 10 10 10 10 K033 100 100 10 10 10 10 K034 100 100 10 10 10 10 K036 100 100 10 10 10 10 K036 100 100 10 10 10 10 K038 100 100 10 10<	K023	100	100	10	10	10
K026 100 100 10 10 10 K027 100 100 10 10 10 10 K028 100 100 10 10 10 10 K029 100 100 10 10 10 10 K030 100 100 10 10 10 10 K031 100 100 10 10 10 10 K031 100 100 10 10 10 10 K032 100 100 10 10 10 10 K033 100 100 10 10 10 10 K034 100 100 10 10 10 10 K035 100 100 10 10 10 10 K036 100 100 10 10 10 10 K038 100 100 10 10<	K024	100	100	10	10	10
K027 100 100 10 10 10 K028 100 100 10 10 10 10 K029 100 100 10 10 10 10 K030 100 100 10 10 10 10 K030 100 100 10 10 10 10 K031 100 100 10 10 10 10 K031 100 100 10 10 10 10 K032 100 100 10 10 10 10 K033 100 100 10 10 10 10 K034 100 100 10 10 10 10 K035 100 100 10 10 10 10 K037 100 100 10 10 10 10 K038 100 100 10 10<	K025	100	100	10	10	10
K028100100101010K029100100100101010K03010010010101010K03110010010101010K03210010010101010K03310010010101010K03410010010101010K03510010010101010K03610010010101010K03810010010101010K03910010010101010K04010010010101010	K026	100	100	10	10	10
K02910010010101010K03010010010101010K03110010010101010K03210010010101010K03310010010101010K03410010010101010K03510010010101010K03610010010101010K03710010010101010K03810010010101010K03910010010101010K04010010010101010	K027	100	100	10	10	10
K030100100101010K03110010010101010K03210010010101010K03310010010101010K03410010010101010K03510010010101010K03610010010101010K03710010010101010K03810010010101010K03910010010101010K04010010010101010	K028	100	100	10	10	10
K031100100101010K03210010010101010K03310010010101010K03410010010101010K03510010010101010K03610010010101010K03710010010101010K03810010010101010K03910010010101010	K029	100	100	10	10	10
K032100100101010K03310010010101010K03410010010101010K03510010010101010K03610010010101010K03710010010101010K03810010010101010K03910010010101010	K030	100	100	10	10	10
K033100100101010K03410010010101010K03510010010101010K03610010010101010K03710010010101010K03810010010101010K03910010010101010K04010010010101010	K031	100	100	10	10	10
K034100100101010K03510010010101010K03610010010101010K03710010010101010K03810010010101010K03910010010101010K04010010010101010	K032	100	100	10	10	10
K035100100101010K03610010010101010K03710010010101010K03810010010101010K03910010010101010K04010010010101010	K033	100	100	10	10	10
K036100100101010K037100100101010K038100100101010K039100100101010K040100100101010	K034	100	100	10	10	10
K037 100 100 10 10 10 K038 100 100 10 10 10 K039 100 100 10 10 10 K040 100 100 10 10 10	K035	100	100	10	10	10
K038 100 100 10 10 10 K039 100 100 10 10 10 K040 100 100 10 10 10	K036	100	100	10	10	10
K039 100 100 10 10 10 K040 100 100 10 10 10 10	K037	100	100	10	10	10
K040 100 100 10 10	K038	100	100	10	10	10
	K039	100	100	10	10	10
K041 100 100 10 10 10 10	K040	100	100	10	10	10
	K041	100	100	10	10	10

-	-		-	-	Dat
K042	100	100	10	10	10
K043	100	100	10	10	10
K044	100	100	10	10	10
K045	100	100	10	10	10
K046	100	100	10	10	10
K047	100	100	10	10	10
K048	100	100	10	10	10
K049	100	100	10	10	10
K050	100	100	10	10	10
K051	100	100	10	10	10
K052	100	100	10	10	10
K060	100	10	1	1	1
K061	100	100	10	10	10
K062	100	100	10	10	10
K069	100	100	10	10	10
K071	100	100	10	10	10
K073	100	100	10	10	10
K083	100	100	10	10	10
K084	100	100	10	10	10
K085	100	100	10	10	10
K086	100	100	10	10	10
K087	100	100	10	10	10
K088	100	10	1	1	1
K093	100	100	10	10	10
K094	100	100	10	10	10
K095	100	100	10	10	10
K096	100	100	10	10	10
K097	100	100	10	10	10
K098	100	100	10	10	10
K099	100	100	10	10	10

					Dat
K100	100	100	10	10	10
K101	100	100	10	10	10
K102	100	100	10	10	10
K103	100	100	10	10	10
K104	100	100	10	10	10
K105	100	100	10	10	10
K106	100	100	10	10	10
K107	100	100	10	10	10
K108	100	100	10	10	10
K109	100	100	10	10	10
K110	100	100	10	10	10
K111	10	10	1	1	1
K112	100	100	10	10	10
K113	100	100	10	10	10
K114	100	100	10	10	10
K115	100	100	10	10	10
K116	10	10	1	1	1
K117	100	100	10	10	10
K118	100	100	10	10	10
K123	100	100	10	10	10
K124	10	10	1	1	1
K125	100	100	10	10	10
K126	100	100	10	10	10
K131	10	10	1	1	1
K132	100	100	10	10	10
K136	100	100	10	10	10
K141	100	100	10	10	10
K142	100	100	10	10	10
K143	100	100	10	10	10
K144	100	100	10	10	10

					Dat
K145	100	100	10	10	10
K147	100	100	10	10	10
K148	100	100	10	10	10
K149	100	100	10	10	10
K150	100	100	10	10	10
K151	100	100	10	10	10
K156	100	100	10	10	10
K157	100	100	10	10	10
K158	100	100	10	10	10
K159	100	100	10	10	10
K161	100	100	10	10	10
K169	100	100	10	10	10
K170	100	100	10	10	10
K171	100	100	10	10	10
K172	100	100	10	10	10
K174	100	100	10	10	10
K175	100	100	10	10	10
K176	100	100	10	10	10
K177	100	100	10	10	10
K178	100	100	10	10	10
K181	100	100	10	10	10
P001	10	1	1	1	1
P002	10	1	1	1	1
P003	10	1	1	1	1
P004	10	1	1	1	1
P005	10	1	1	1	1
P006	10	1	1	1	1
P007	10	1	1	1	1
P008	10	1	1	1	1
P009	10	1	1	1	1

					Dat
P010	10	1	1	1	1
P011	10	1	1	1	1
P012	10	1	1	1	1
P013	10	1	1	1	1
P014	10	1	1	1	1
P015	10	1	1	1	1
P016	10	1	1	1	1
P017	10	1	1	1	1
P018	10	1	1	1	1
P020	10	1	1	1	1
P021	10	1	1	1	1
P022	10	1	1	1	1
P023	10	1	1	1	1
P024	10	1	1	1	1
P026	10	1	1	1	1
P027	10	1	1	1	1
P028	10	1	1	1	1
P029	10	1	1	1	1
P030	10	1	1	1	1
P031	10	1	1	1	1
P033	10	1	1	1	1
P034	10	1	1	1	1
P036	10	1	1	1	1
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P040	10	1	1	1	1
P041	10	1	1	1	1
P042	10	1	1	1	1
P043	10	1	1	1	1

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P044	10	1	1	1	1
P045	10	1	1	1	1
P046	10	1	1	1	1
P047	10	1	1	1	1
P048	10	1	1	1	1
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P074	10	1	1	1	1
P075	10	1	1	1	1
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P077	10	1	1	1	1

					Dat
P078	10	1	1	1	1
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P112	10	1	1	1	1
P113	10	1	1	1	1
P114	10	1	1	1	1
P115	10	1	1	1	1

					Dat
P116	10	1	1	1	1
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P120	10	1	1	1	1
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P123	10	1	1	1	1
P127	10	1	1	1	1
P128	10	1	1	1	1
P185	10	1	1	1	1
P188	10	1	1	1	1
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P205	10	1	1	1	1
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U003	10	10	1	1	1
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		-	-	-	-

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U069	100	100	10	10	10

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U096	10	10	1	1	1
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U220	500	500	500	500	500
U221	10	10	10	10	10
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U226	100	100	10	10	10
U227	100	100	10	10	10
U228	100	100	10	10	10

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U389	100	100	10	10	10
U394	100	100	10	10	10
U395	100	100	10	10	10
U404	100	100	10	10	10
U409	100	100	10	10	10

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U410	100	100	10	10	10
U411	100	100	10	10	10

Appendix II-H – Waste Analysis Plan

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.;
- 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;
- 10. Low Explosives stored in onsite magazine expired and/or discarded consumer products that are DOT Hazard Class 1.4 low explosives like consumer fireworks, flare guns, highway and marine flares, distress signals and small arms ammunition.

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.

1.4 low explosives are profiled as to the type of consumer product, waste codes and associated hazards for expired and/or discarded items destined for destruction at offsite facilities prior to transport to CHF. Upon arrival at the facility packages/containers of 1.4 low explosives will be visually inspected for proper packaging, container integrity, labeling, markings, secure closure, etc., and must be placed in the Class II magazine for storage prior to shipment offsite for destruction/disposal. Packages/containers of 1.4 low explosives will not be opened for sampling and or testing due to the product-like nature of the materials and hazards associated with conducting sampling and testing on such materials that are generally reactive with the exception of small arms ammunition.

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.

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4.0 Waste Verification Methods, and Rationale

4.1 Waste Verification

Verification of materials is accomplished using fingerprinting procedures for containers that are opened and/or processed onsite. These procedures are:

- Visual inspection
- pH screen
- Ignitability 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 not be conducted on containers that are not opened and/or processed onsite – i.e., storage only prior to offsite shipment for final disposition (EPA Method Management Code H141).

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. If determined to be hazardous waste material will be properly managed per this WAP.

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/if 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.

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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 that will be opened and/or processed onsite that will 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/Bulk 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.

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LIST OF FIGURES

- 1. Figure 2.1 Example of a Generator's Waste Material Profile Sheet
- 2. Figure 2.2 Example of a Waste Receiving Report

Figure 2.1- Example Material Profile Form

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Clean Harbore WASTE MATERIAL PROFILE SHEET

TeanHa	hors 🖣	WASTE MATERIAL PROFILE SHEET								
		Clean Harbors P	rofile	No. CH48	0725					
A. GENERAL INFORMATIC GENERATOR EPA ID #/RE GENERATOR CODE (Assig ADDRESS 1501 Washi n	GISTRATION # ned by Clean Harbors)	MAD999999999 ECOMT1	GENER CITY	ATOR NAME: Braintree		merce Test A Province	MA	ZIP/POST	AL CODE	02184
CUSTOMER CODE (Assign ADDRESS 1501 Washin	ECOMT1	CUSTO CITY			PHONE: (803) 691-3525 Commerce Test Account 1 TATE/PROVINCE MA ZIP/POST		TAL CODE 02184			
B. WASTE DESCRIPTION VASTE DESCRIPTION:										
PROCESS GENERATING V	ASTE:									
S THIS WASTE CONTAINE	D IN SMALL PACKAG	ING CONTAINED WITHIN A LA	RGER S	HIPPING CONTAINE	R?					
C. PHYSICAL PROPERTIES	S (at 25C or 77F)									
PHYSICAL STATE SOLID WITHOUT FREE POWDER MONOLITHIC SOLID LIQUID WITH NO SOLII LIQUID/SOLID MIXTUR	NUMBER OF PHASES/LA 1 2 3 % BY VOLUME (Approx.)	tof Mid	о 0.00 DLE 0.00 ГТОМ 0.00		1 - 100 (e.g. Water) 101 - 500 (e.g. Motor Oil) 501 - 10,000 (e.g. Molasses)		OLOR			
% FREE LIQUID % SETTLED SOLID % TOTAL SUSPENDED SOLID SLUDGE GAS/AEROSOL		ODOR NONE MILD STRONG Describe:		BOILING POINT of <= 95 (<= 95 - 100 101 - 129 >= 130 (2	=35) (35-38)) (38-54)	140-		-93)		RGANIC <= 1% 1-9% >= 10%
FLASH POINT °F (°C) < 73 (<23) 73 - 100 (23-38) 101 -140 (38-60) 141 -200 (60-93) > 200 (>93)	pH <= 2 2.1 - 6.9 7 (Neutral) 7.1 - 12.4 >= 12.5	SPECIFIC GRAVITY < 0.8 (e.g. Gasoline) 0.8-1.0 (e.g. Ethanol) 1.0 (e.g. Water) 1.0-1.2 (e.g. Antifreeze) > 1.2 (e.g. Methylene C		ASH < 0.1 0.1 - 1.0 1.1 - 5.0 5.1 - 20.0		> 20 Unknown	BTU/	5,000-10,0 > 10,000 (i	0 (4.6-11.6) 00 (11.6-23	

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 LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, C 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 FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR F POTENTIALLY INFECTIOUS MATERIAL?		YES	NO	
I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a th based on my knowledge of the material. Select the answer below that applies:	reat to human health. This certification is			
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 REQUIREMEN	TS.	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 FO	RM CODE ASSOCIATED WITH THE WAS	TE.		



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					
D018	VOLATILE COMPOUNDS BENZENE	0.5		OTHER CONSTITUENTS	s	MAX UOM	NOT APPLICABLE
D019	CARBON TETRACHLORIDE	0.5		BROMINE			
				CHLORINE			
D021	CHLOROBENZENE	100.0					
D022	CHLOROFORM	6.0		FLUORINE			
D028	1,2-DICHLOROETHANE	0.5		IODINE			
D029	1,1-DICHLOROETHYLENE	0.7		SULFUR			
D035	METHYL ETHYL KETONE	200.0		POTASSIUM			
D039	TETRACHLOROETHYLENE	0.7		SODIUM			
D040	TRICHLOROETHYLENE	0.5		AMMONIA			
D043	VINYL CHLORIDE	0.2		CYANIDE AMENABLE			
0040				CYANIDE REACTIVE			
	SEMI-VOLATILE COMPOUNDS						
D023	0-CRESOL	200.0		CYANIDE TOTAL			
D024	m-CRESOL	200.0		SULFIDE REACTIVE			
D025	p-CRESOL	200.0		HOCs		PCBs	
D026	CRESOL (TOTAL)	200.0					
D027	1,4-DICHLOROBENZENE	7.5		NONE		NONE	
D030	2,4-DINITROTOLUENE	0.13		< 1000 PPM		< 50 PPM	
D032	HEXACHLOROBENZENE	0.13		>= 1000 PPM		>=50 PPM	
D032	HEXACHLOROBUTADIENE	0.13				IF PCBS ARE PRESE	ENT, IS THE
						WASTE REGULATED CFR 761?	D BY TSCA 40
D034	HEXACHLOROETHANE	3.0					
D036	NITROBENZENE	2.0		I		YES	NO
D037	PENTACHLOROPHENOL	100.0					
D038	PYRIDINE	5.0					
D041	2,4,5-TRICHLOROPHENOL	400.0					
D042	2,4,6-TRICHLOROPHENOL	2.0					
	PESTICIDES AND HERBICIDE	s					
D012	ENDRIN	0.02					
D013	LINDANE	0.4					
D014	METHOXYCHLOR	10.0					
D015	TOXAPHENE	0.5					
D016	2,4-D	10.0					
D017		1.0					
	2,4,5-TP (SILVEX)						
D020	CHLORDANE	0.03					
D031	HEPTACHLOR (AND ITS EPOXIDE) 0.008					
	L HAZARDS WASTE HAVE ANY UNDISCLOSED F	AZARDS OR PRIOR IN	NCIDENTS ASS	OCIATED WITH IT, WHICH C	OULD AFFECT	THE WAY IT SHOULD B	E HANDLED?
YES	NO (If yes, explain)						
	L THAT APPLY						
	EGULATED SUBSTANCE	EXPLOSIVE		FUMING		OSHA REGULA	TED CARCINOGENS



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?
TL3	NO	
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	
YES		IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?
	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 YES	NO NO	DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?
		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 th	TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)
	The basis	or this determination is: Knowledge of the Waste Or Test Data Knowledge Testing
	Describe t	e knowledge :

H. TRANSPORTATION REQUIREMENTS ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER BULK SOLID CONTAINERIZED BULK LIQUID 0-0 CONTAINERS/SHIPMENT GALLONS/SHIPMENT: 0 Min -0 Max SHIPMENT UOM: TON YARD GAL. STORAGE CAPACITY: TONS/YARDS/SHIPMENT: 0 Min - 0 Max CONTAINER TYPE: CUBIC YARD BOX PALLET TOTE TANK DRUM OTHER: DRUM SIZE:

. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

Thereby 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

Expected H Code H141 Page 1 of 6 Pre-Note 9.0 6.0 3.0 2.0 9.0 6.0 3.0 2.0 Comments RD-012 Profile Number DIPROPYLENE GLYCOL MONOMET Weight LBS BS GRAPHITE NATURAL ISOPROPYLACETATE 276 276 Scnd Weight State EPA ID: D0060 Pre Code Naphtalene CHL (+/-) ETHANOL FB5 SAMPLE 806 806 Cnt: 2 Unit Wgt/vol CC CC Products LLC Products LLC ۵ (-/+) 50.0 7.0 3.0 1.0 1.0 1/20101401000 **FIR**00000 8102 Special Instructions 530 Total Quantity (+/-) 7.0 3.0 3.0 1.0 20.0 PCB Value GLOVES/RAGS/SCREENS/PLASTIC 4-HYDROXY-4-METHYL-PENTAN-2-CN (+/-) Sulfide (+/-) Gentr EPA ID: Cont. No Type Level C 2 DM Generator: Customer: Manifest: POLYPROPYLENE GLYCOL 1-METHOXY-2-PROPANOL 5 PPE Waste Safety Data Sheet: T-1 CanHarbors Waste Receiving Report RQ, UN3175, WASTE SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (CYCLOHEXANONE, PETROLEUM NAPHTA), 4.1, PG II (D001) (-/+) ußj Carbon black PH (Value) Waste Receiving H20 Mix (+/-) Max 50.0 9.0 3.0 Bartow, FL Facility (BW) 455117-8 DOT Name / TDG 4/5/2011 1:27 PM Cont. Type Min 50.0 9.0 3.0 MO MO 2201 Safety. Handling. or Special Instructions: 55DM Profile Constuents (Ordered by Max %) Cont. Size 55DM Report Printed on: 4/5/2011 1:59 PM GLOVES/RAGS/SCREENS/PLASTIC Final Code Plant Received Date: D001 Receiving Facility: AMORPHUS SILICA Billing Requirements: Work Order #: Cyclohexanone ner Y/N Waste Codes: 23537855 23537856 Equipment: BUTANONE Total Weight Surcharges isophorone Drum No. Line

FIGURE 2.2 – Example Waste-Receiving Report

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Appendix II-I – Manifest System, Recordkeeping

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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

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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 1.2 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 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 1.2 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:

 $\frac{1}{2}bhl = \frac{1}{2}(40')(.4167')(125') = 1041 \text{ ft}^{3}$ 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 = $2(1041 \text{ ft}^3) + 171 \text{ ft}^3$ = 2253 ft^3 = 16,852 gal (@ 7.48 gal/ft³)

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 amount, 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 ft³ (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 1.2 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 1.1 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 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 (4) hazardous waste roll-off containers or a combination of roll-off containers and one (1) Class II magazine are stored at the facility. Unit capacity for one (1) roll-off box as a hazardous waste management unit shall be used for the Class 2 magazine (permitted hazardous waste management unit) when it is in use. 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.

The one (1) Class II low explosive magazine is also located in the curbed driveway which provides secondary containment – see site plan (Chapter 1, Appendix A). This magazine is used to store consumer fireworks, flare guns, highway and marine flares, distress signals and small arms ammunition only prior to shipment offsite to authorized destruction/disposal facilities.

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 <u>Segregation Table for Hazardous Materials</u> 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.

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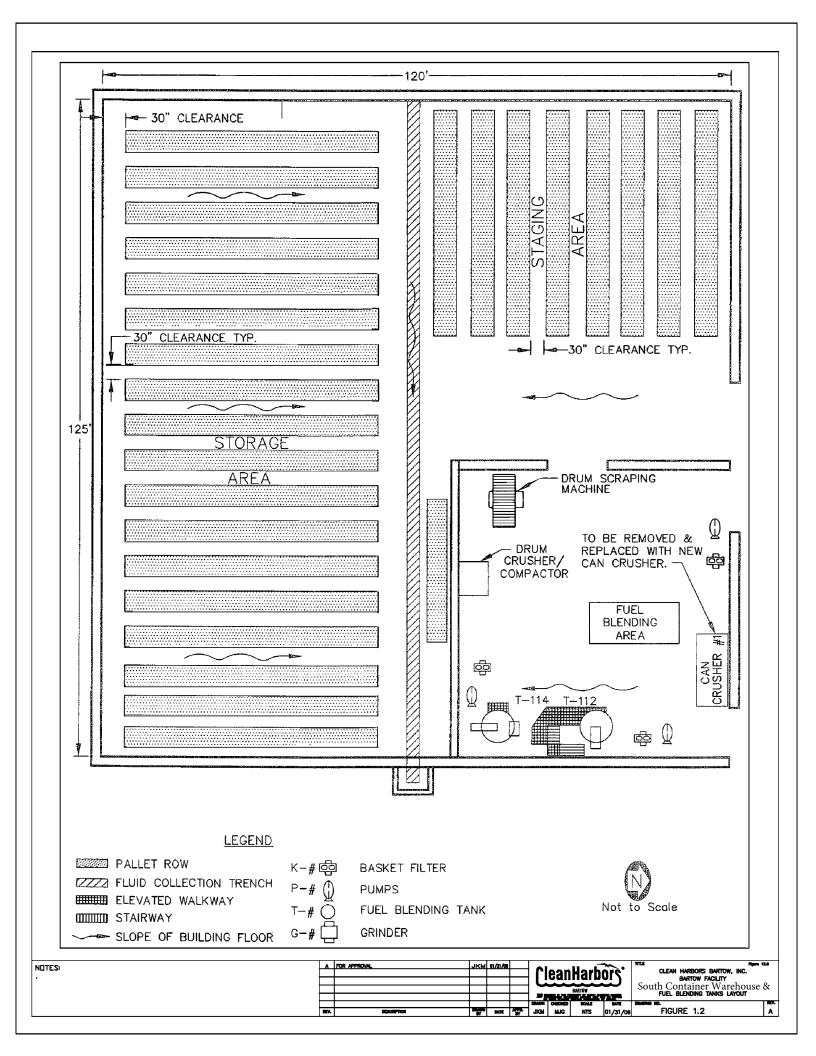
LIST OF FIGURES

1.	Figure 1.1 -	Floor Plan and Typical Arrangement of Pallets within the North Container Storage Building
2.	Figure 1.2 -	Floor Plan and Typical Arrangement of Pallets in the South Container Storage Building
3.	Figure 11.3 -	Containment Calculations of the North Container Storage Buildings
4.	Appendix I-A	 Facility Site Plan with Hazardous Waste Roll-off and Magazine Storage Locations

Figure 1.1 - Floor Plan and Typical Arrangement of Pallets within the North Container Storage Building



Figure 1.2 - Floor Plan and Typical Arrangement of Pallets in the South Container Storage Building



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Figure 11.3 - Containment Calculations of the North and South Container Storage Buildings

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Figure 11.3 SECONDARY CONTAINMENT CALCULATIONS

NORTH CONTAINER STORAGE BUILDING

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

<u>NOTE</u>: the cross-sectional areas of these containment cells are triangles. Therefore the volume of each cell (except Cell Q) is calculated using the crosssectional 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' 1=39.43' Volume = 0.5 X 19.25' X 0.457' X 39.43' = 178.0 ft³ Volume occupied by support columns: $1.33' \times 1.33' \times 0.469' = 0.83 \text{ ft}^3$ $1.33' \times 0.25' \times 0.69' = 0.16 \text{ ft}^3$ Volume occupied by emergency shower area: $5.0' \times 4.5' \times 0.05' = 1.13 \text{ ft}^3$ Available containment volume is: $178.0 \text{ ft}^3 - 0.83 \text{ ft}^3 - 0.16 \text{ ft}^3 - 1.13 \text{ ft}^3 = 175.9 \text{ ft}^3$ 175.9 ft³ X 7.48 gallons/ft³ = 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 ft³ Volume occupied by support columns: 1.25' X 1.33' X 0.5' = 0.83 ft³ $1.33' \times 2.0' \times 0.5' = 1.33 \text{ ft}^3$ Volume occupied by emergency shower area: 5.0' X 4.5' X 0.05' = 0.96 ft³ Available containment volume is: 155.4 ft³ - 0.83 ft³ - 1.33 ft³ - 0.96 ft³ = 152.3 ft³ 152.3 ft³ X 7.48 gallons/ft³ = **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' 1=22.31' Volume = 0.5 X 19.25' X 0.5' X 22.31' = 102.9 ft³ Volume occupied by support column: 1.33' X 2.0' X 0.5' = 1.33 ft³ Available containment volume is: 102.9 ft³ - 1.33 ft³ = 101.5 ft³ $101.5 \text{ ft}^3 \text{ X } 7.48 \text{ gallons/ft}^3 =$ **759.4 \text{ 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

<u>CELL D</u>: Containment Volume:

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b=19.25' h=0.484' 1=28.47' Volume = 0.5 X 19.25' X 0.484' X 28.47' = 132.6 ft³ Volume occupied by support columns: $1.33' \times 2.0' \times 0.5' = 1.33 \text{ ft}^3$ 1.33' X 2.0' X 0.5' = 1.33 ft³ Available containment volume is: 132.6 ft³ - 1.33 ft³ - 1.33 ft³ = 130.0 ft³ 130.0 ft³ X 7.48 gallons/ft³ = **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' 1=22.04' Volume = 0.5 X 19.27' X 0.464' X 22.04' = 98.5 ft³ Volume occupied by support columns: 1.33' X 2.0' X 0.5' = 1.33 ft³ Available containment volume is: 98.5 ft^3 - 1.33 ft^3 = 97.2 ft^3 97.2 ft³ X 7.48 gallons/ft³ = **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'

1=32.27'

Volume = 0.5 X 19.25' X 0.443' X 32.27' = 137.6 ft³

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Volume occupied by support columns: 1.33' X 2.0' X 0.443' = 1.18 ft³ 1.33' X 1.33' X 0.443' = 0.78 ft³ Volume occupied by emergency shower area: 4.75' X 4.75' X 0.08' = 1.81 ft³ Available containment volume is: 137.6 ft³ - 1.18 ft³ - 0.78 ft³ - 1.81 ft³ = 133.8 ft³ 133.8 ft³ X 7.48 gallons/ft³ = 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 ft³ Volume occupied by support columns: $1.33' \times 0.21' \times 0.443' = 0.12 \text{ ft}^3$ 1.33' X 1.33' X 0.443' = 0.78 ft³ Volume occupied by emergency shower area: 4.5' X 4.75' X 0.08' = 1.71 ft³ Available containment volume is: 169.1 ft³ - 0.12 ft³ - 0.78 ft³ - 1.71 ft³ = 166.5 ft³ $166.5 \text{ ft}^3 \text{ X } 7.48 \text{ gallons/ft}^3 = 1245.1 \text{ gallons}$ 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

<u>CELL H:</u> Containment Volume: b=27.43' h=0.490' 1=35.08'

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Volume = 0.5 X 27.43' X 0.490' X 35.08' = 235.7.0 ft³ Volume occupied by support columns: $1.33' \times 2.0' \times 0.490' = 1.30 \text{ ft}^3$ 1.33' X 2.0' X 0.490' = 1.30 ft³ 1.43' X 1.5' X 0.490' = 1.05 ft³ Available containment volume is: 235.7 ft³ - 1.30 ft³ - 1.30 ft³ - 1.05 ft³ = 232.1 ft³ 232.1 ft³ X 7.48 gallons/ft³ = **1736.0 gallons** 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 CELL I: **Containment Volume:** b=27.43' h=0.495' 1=28.43' Volume = 0.5 X 27.43' X 0.495' X 28.43' = 193.0 ft³ Volume occupied by support columns: 1.33' X 2.0' X 0.495' = 1.32 ft³ $1.33' \times 1.33' \times 0.495' = 0.88 \text{ ft}^3$ $1.33' \times 2.0' \times 0.25' = 0.67 \text{ ft}^3$ Available containment volume is:

 $193.0 \text{ ft}^3 - 1.32 \text{ ft}^3 - 0.88 \text{ ft}^3 - 0.67 \text{ ft}^3 = 190.2 \text{ ft}^3$

- 190.2 ft³ X 7.48 gallons/ft³ = <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

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Containment OK
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<u>CELL J:</u> Containment Volume: b=27.83' h=0.468' l=23.52' Volume = 0.5 X 27.83' X 0.468' X 23.52' = 153.2 ft³

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153.2 ft³ X 7.48 gallons/ft³ = <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 ft³ 162.6 ft³ X 7.48 gallons/ft³ = <u>1216.3 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 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 ft³ Volume occupied by support column: $2.0' \times 4.0' \times 0.5' = 4.0 \text{ ft}^3$ Available containment volume is: 113.3 ft^3 - 4.0 ft^3 = 109.3 ft^3 $109.3 \text{ ft}^3 \text{ X } 7.48 \text{ gallons/ft}^3 = 817.9 \text{ gallons}$ 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:

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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 ft³ 161.7 ft³ X 7.48 gallons/ft³ = **1209.3 gallons** 36 pallets (18 double stacked) 4 drums per pallet x 36 pallets = 144 drums 144 drums x 55 gallons/drum = 7,920 gallons 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 ft³ 163.3 ft³ X 7.48 gallons/ft³ = <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

CELL O:

[<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 ft³ Volume occupied by ramp:

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0.5 X 4' X 0.526' X 15.89' = 16.72 ft³ Volume occupied by support column: 1.33' X 2.0' X 0.5' = 1.33 ft³ Available containment volume is: 227.4 ft³ - 16.72 ft³ - 1.33 ft³ = 209.35 ft³ 209.35 ft³ X 7.48 gallons/ft³ = 1565.9 gallons 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

CELL P:

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 ft³ Volume occupied by support columns: $1.47' \times 1.33' \times 0.531' = 1.04 \text{ ft}^3$ $1.33' \times 2.0' \times 0.531' = 1.41 \text{ ft}^3$ 1.33' X 2.0' X 0.531' = 1.41 ft³ Available containment volume is: 255.3 ft³ - 1.04 ft³ - 1.41 ft³ - 1.41 ft³ = 251.4 ft³ $251.4 \text{ ft}^3 \text{ X } 7.48 \text{ gallons/ft}^3 = 1880.4 \text{ gallons}$ 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

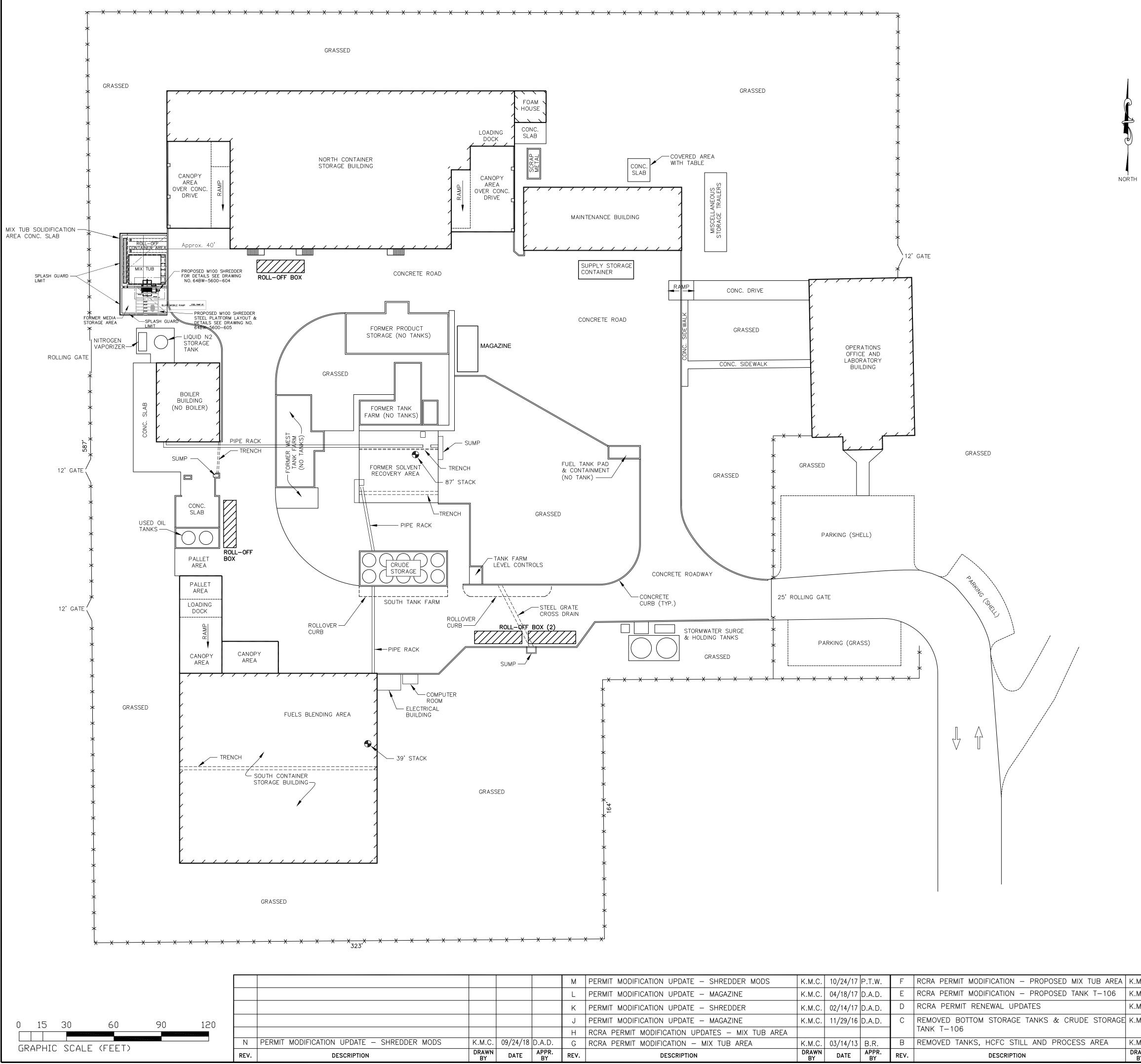
CELL Q: Containment Volume: b=27.43' h=0.521' 1=28.45' Volume = 0.5 X 27.43' X 0.521' X 28.43' = 203.3 ft³ Volume occupied by support columns: 1.33' X 2.0' X 0.521' = 1.39 ft³

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 $\begin{array}{l} 1.33' \ X \ 1.33' \ X \ 0.521' = 0.92 \ ft^3 \\ 1.33' \ X \ 2.0' \ X \ 0.521' = 1.39 \ ft^3 \\ \end{array}$ Available containment volume is: $\begin{array}{l} 203.3 \ ft^3 - 1.39 \ ft^3 - 0.92 \ ft^3 - 1.39 \ ft^3 = 199.6 \ ft^3 \\ 199.6 \ ft^3 \ X \ 7.48 \ gallons/ft^3 = \underline{1493.0 \ gallons} \\ 48 \ pallets \ (24 \ double \ stacked) \\ 4 \ drums \ per \ pallet \ x \ 48 \ pallets = 192 \ drums \\ 192 \ drums \ x \ 55 \ gallons/drum = 10,560 \ gallons \\ 1493.0 \ gallons > 10 \ \% \ of \ 10,560 \ gallons \\ 1493.0 \ gallons > 1,056 \ gallons \\ \end{array}$

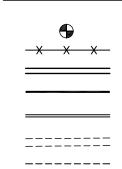
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Appendix I-A – Facility Site Plan with Hazardous Waste Roll-off and Magazine Storage Locations



APPR. BY	REV.	DESCRIPTION	DRAWN DAT	E APPR. BY	REV.	DESCRIPTION DRAWN BY	DA	TE APPR. BY	JKM		1" = 30'	04/21/05	E
.A.D.	G	RCRA PERMIT MODIFICATION - MIX TUB AREA	K.M.C. 03/14	/13 B.R.	В	REMOVED TANKS, HCFC STILL AND PROCESS AREA K.M.C.	02/04	4/11 M.C.	DRAWN C	HECKED	SCALE	DATE	DRAWING NO.
	Н	RCRA PERMIT MODIFICATION UPDATES - MIX TUB AREA				TANK T-106			THIS DRAWIN ANY INFORM OR USE	NG IS THE PROPE MATION CONTAIN ED WITHOUT WRI	ERTY OF CLEAN HARE ED HEREON MAY NO TTEN PERMISSION O	JORS BARTOW DT BE COPIED F OWNER.	
	J	PERMIT MODIFICATION UPDATE – MAGAZINE	K.M.C. 11/29	/16 D.A.D.	С	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE K.M.C.	05/1	0/11 M.C.		B	ARTOW		
	Κ	PERMIT MODIFICATION UPDATE – SHREDDER	K.M.C. 02/14	/17 D.A.D.	D	RCRA PERMIT RENEWAL UPDATES K.M.C.	09/2	8/11 S.B.					FA
	L	PERMIT MODIFICATION UPDATE - MAGAZINE	K.M.C. 04/18	/17 D.A.D.	Е	RCRA PERMIT MODIFICATION - PROPOSED TANK T-106 K.M.C.	02/12	2/13 B.R.		eant each and each an	larb	nrç	CLE
	М	PERMIT MODIFICATION UPDATE - SHREDDER MODS	K.M.C. 10/24	/17 P.T.W.	F	RCRA PERMIT MODIFICATION - PROPOSED MIX TUB AREA K.M.C.	03/1	1/13 B.R.					TITLE

LEGEND



AIR EMISSIONS STACK CHAINLINK FENCE PIPE RACK ROOF LINE CONTAINMENT AREA TRENCH ROLLOVER CURB DESIGNATED HAZARDOUS WASTE ROLL-OFF AREAS





BW100001N CLEAN HARBORS FLORIDA, LLC FACILITY DRAWING/PLOT PLAN APPENDIX A

BW-100-001

REV. Ν

Revision: <u>0</u> **Date**: <u>6/13/2021</u>

Section C – Tanks

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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 are replaced in kind when needed as part of our O&M, and notification to FLDEP is performed as needed.

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 = $314,000 \text{ ft}^3/\text{hr}$ Minimum Vent Size = 8 inches

SPECIFICATIONS FOR CHF TANKS

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- Normal Vent Opening 3 inches
 Emergency Vent Opening 20 inches
 Relief-pressure setting on manhole 0.5 oz/in²
- · Venting Capacity > $314,000 \text{ ft}^3/\text{hr}.$

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:

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	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 proposed as two (2), 7,000-gallon, carbon steel tanks. The bottoms tanks are to be located in the west tank farm which is vacant at the time of this permit renewal. The working volume of these tanks is 6,300 gallons with a liquid level of 12 feet from the bottom.

These tanks typically will contain waste blended in the fuels blend tanks or waste received from customers if installed and modification notification performed.

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 nonfuel 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

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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; or4) 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

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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-inchthick reinforced concrete slab measuring 55.3' by 22.7'. The slab is surrounded by a 16-inchhigh, 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 ft² (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.

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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 sixinch 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.

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- 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

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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:

fuels;
 reclaimable solvents; and
 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.

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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.

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LIST OF FIGURES

1. Figure 12.1 -	Crude Storage Tanks Dimensions, Piping, and Instrumentation
2. Figure 12.2 -	Bottoms Storage Tanks Dimensions, Piping, and Instrumentation
3. Figure 12.3 -	Fuel Blending Tanks Dimensions, Piping, and Instrumentation
4. Figure 1.3 -	South Tank Farm Layout
5. Figure 1.4 -	West Tank Farm Layout (Vacant)
6. Figure 1.2 -	Fuel Blending Tanks Layout in South Container Storage Building

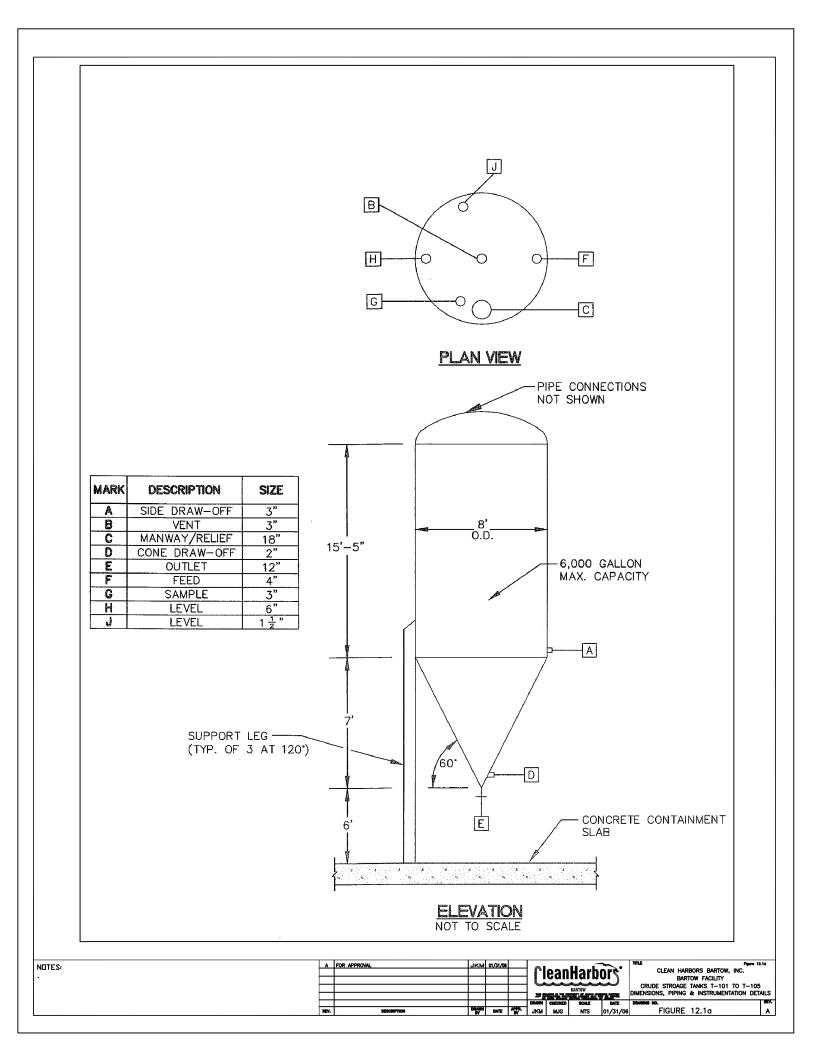
LIST OF ATTACHMENTS

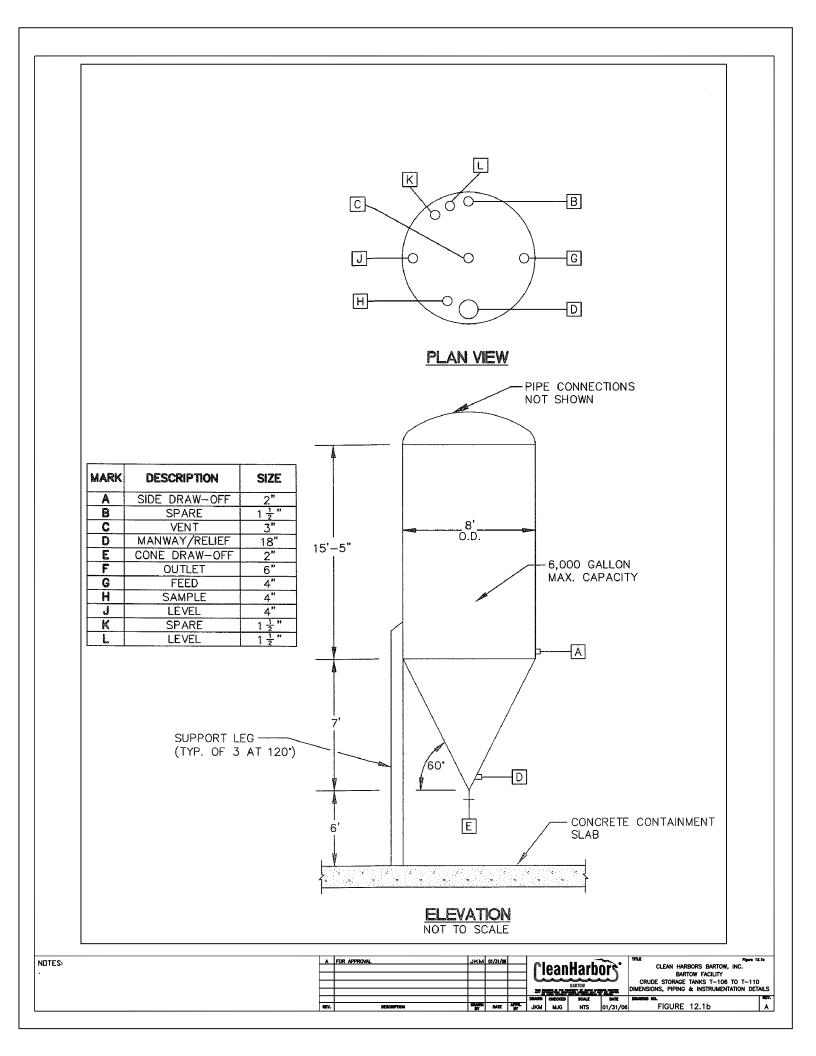
1. Attachment 12.2 - Secondary Containment Calculations

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Figure 12.1 - Crude Storage Tanks Dimensions, Piping, and Instrumentation

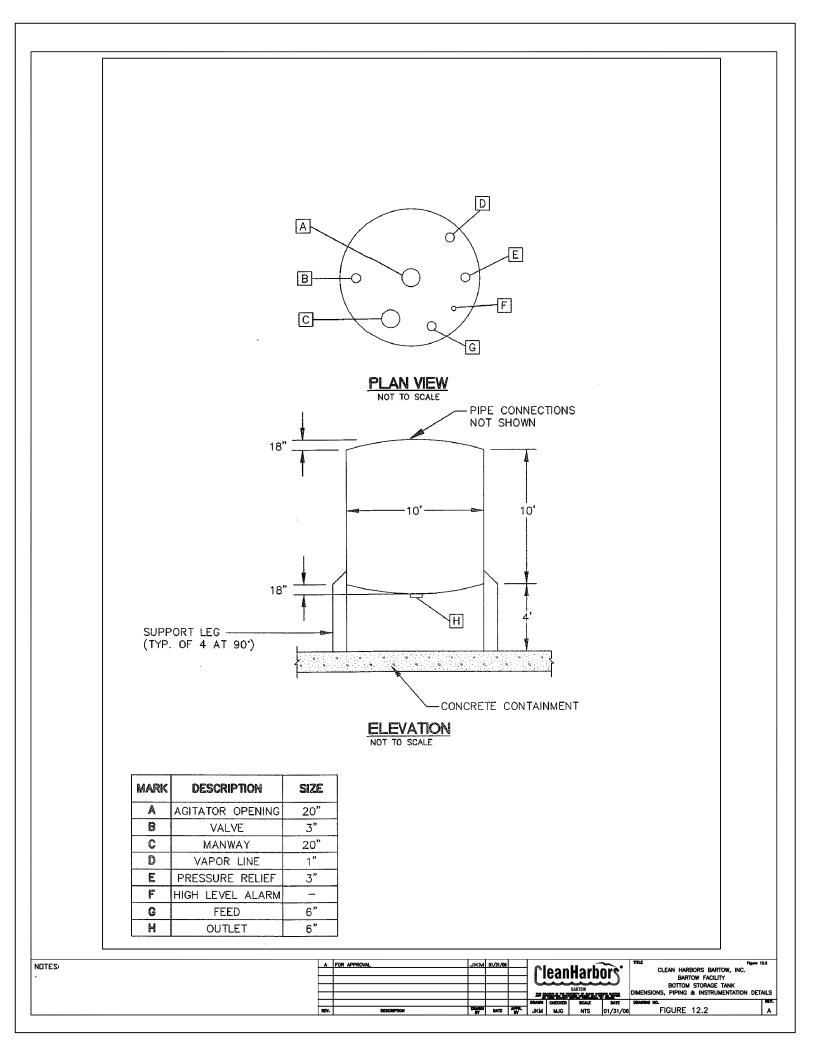




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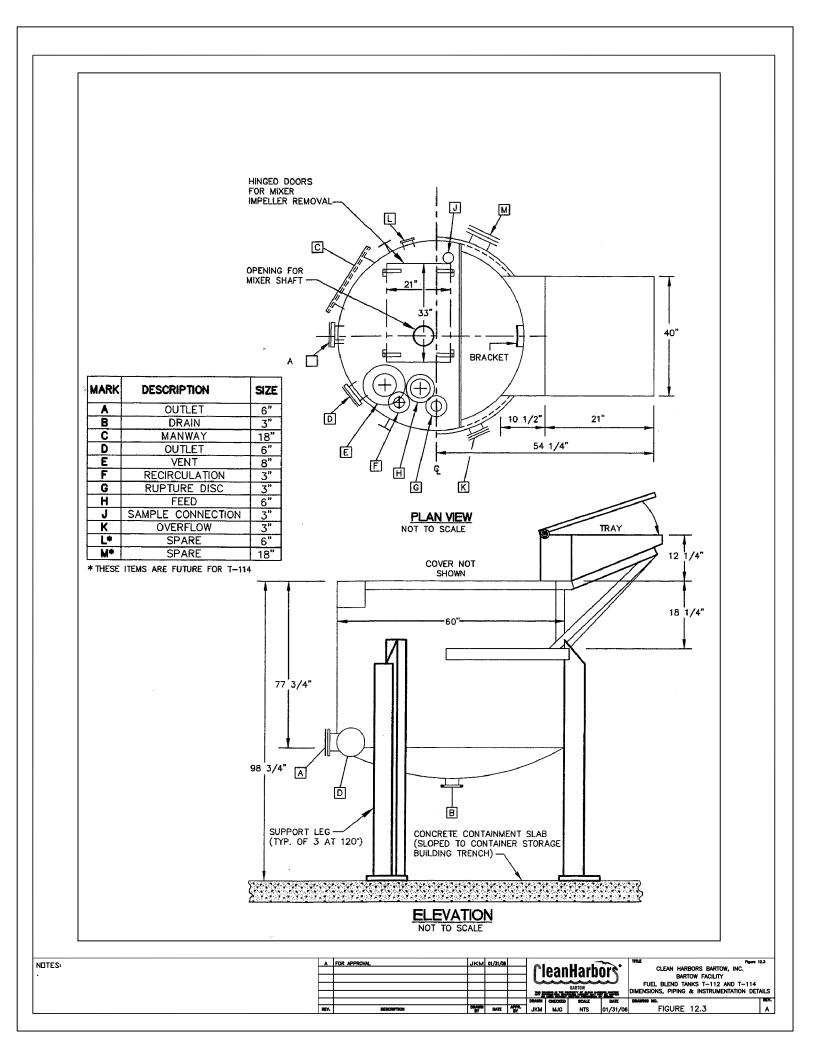
Figure 12.2 - Bottoms Storage Tanks Dimensions, Piping, and Instrumentation



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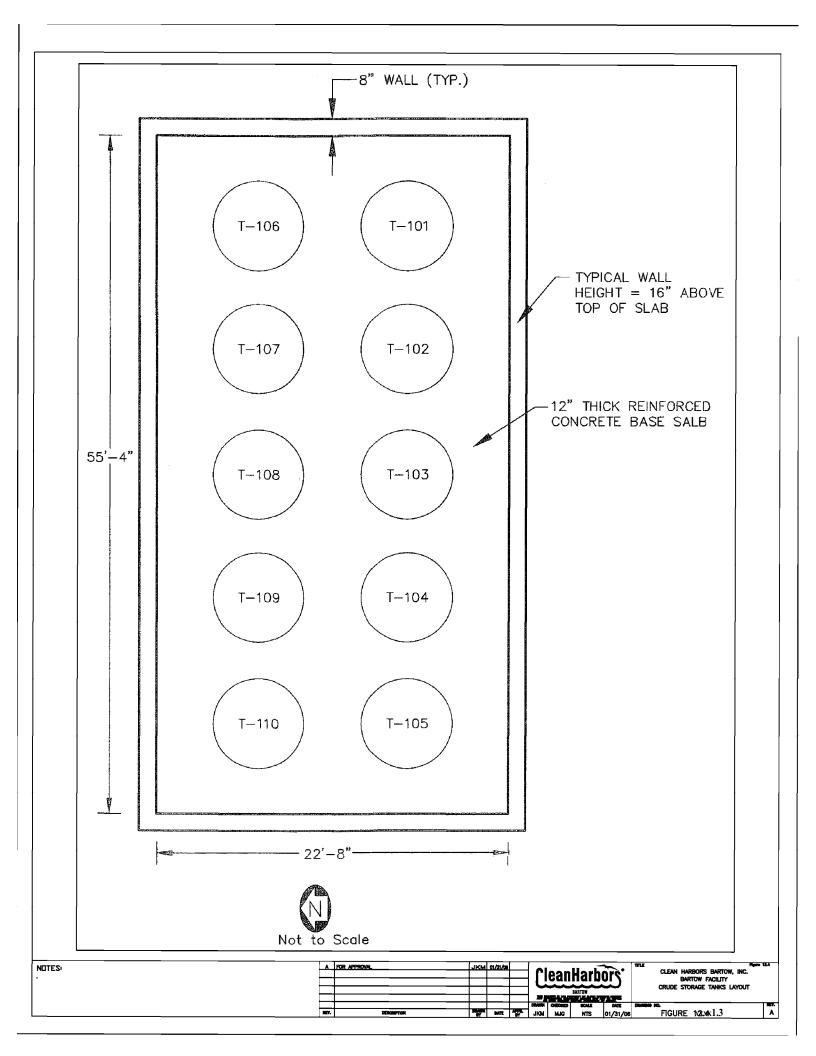
Figure 12.3 - Fuel Blending Tanks Dimensions, Piping, and Instrumentation



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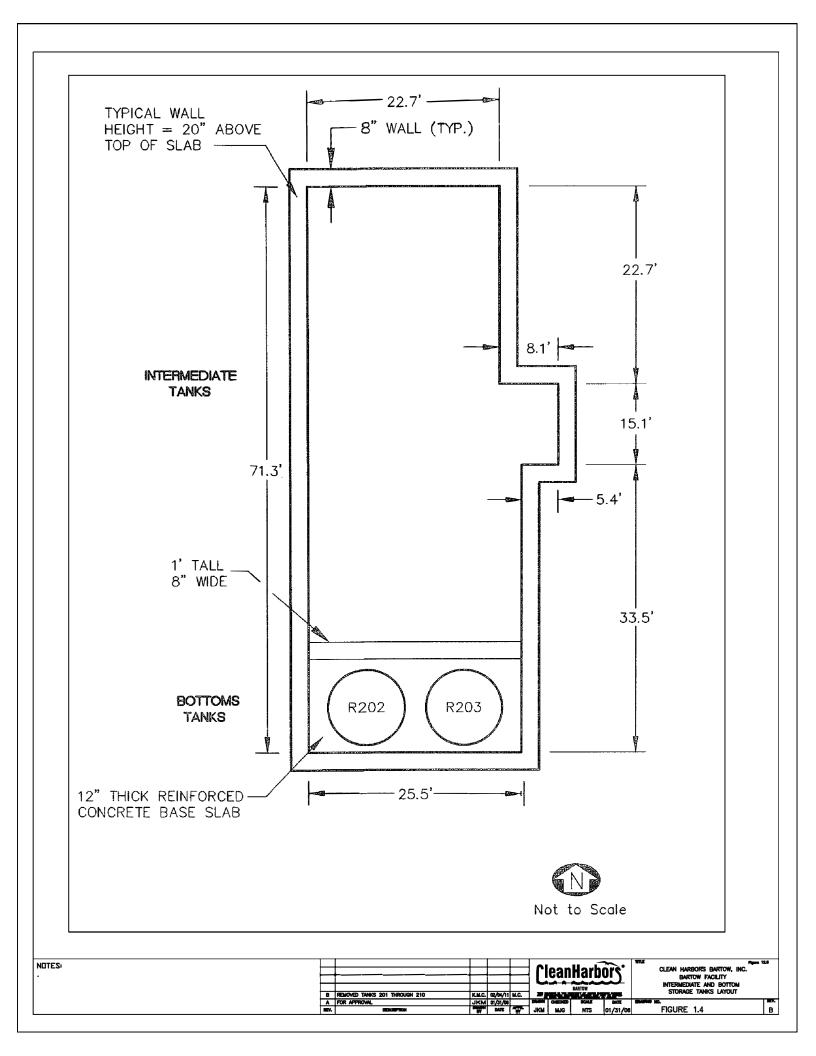
Figure 1.3 - South Tank Farm Layout



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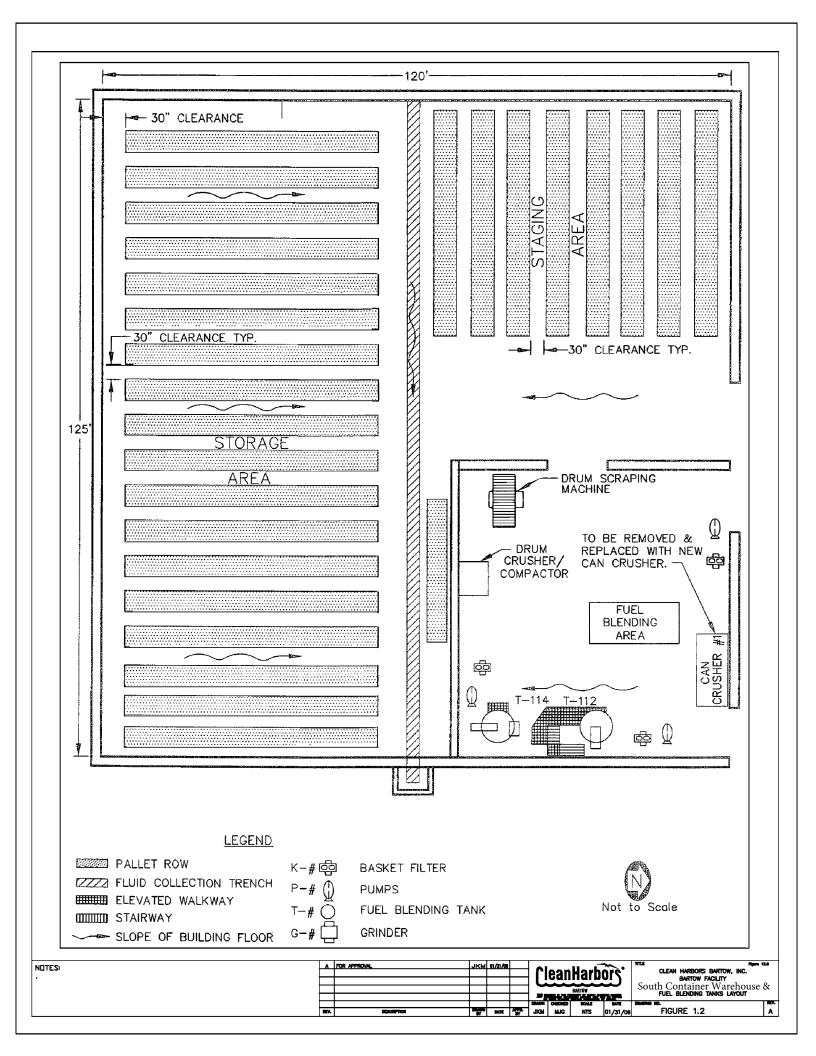
Figure 1.4 - West Tank Farm Layout (Vacant)



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Figure 1.2 - Fuel Blending Tanks Layout in South Container Storage Building



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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

 $V_{\tau} = L \times W \times H$ $V_{\tau} = 55.33' \times 22.67' \times 1.33'$ $V_{\tau} = 1668.26 \text{ ft}^3$

 $V_{LEG} = (W) (W) (H)$ $V_{LEG} = (11^{n}) (1.33')$ $V_{LEG} = 1.12 \text{ ft}^{3}$ $V_{LEGS} = 1.12 \text{ ft}^{3} \times 30 \text{ legs}$

Each tank is supported by 3 square 11" legs

30 legs in containment

 $V_{LEQS} = 33.5 \, \text{ft}^3$

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.

 $V_{TANE} = 0$

$$V_c = V_r - V_{LEGS} - V_{TANK}$$

 $V_c = 1668.26 \text{ ft}^3 - 33.5 \text{ ft}^3 - 0$
 $V_c = 1634.76 \text{ ft}^3$

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_{LTARK} - V_{NAIN}

 $V_{LTANK} = Volume of largest tank$

VFAIN = Volume of rainfall from 25-year, 24-hour rainfall event

Largest tank contained: 6,000 gallons

 $V_{LTANK} = 6000 \text{ gallons x (1 ft^3/7.48 gallons)} = 802.12 \text{ ft}^3$

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_{RAIM} = 0.58' x 55.33' x 22.67' = 727.51 ft³

Surplus containment ⇒ 1634.79 ft³ ~ 802.12 ft³ ~ 727.51 ft³

Surplus containment = 105.16 ft'

Secondary containment volume for crude storage tanks is sufficient.

VTANK

BOTTOM TANKS - WEST TANK FARM

West Tank Farm: two 7,000-gallon tanks ten 6,000-gallon tanks

 $V_c = V_{\tilde{T}} - V_{PADS} - V_{TANK} - V_{PIPS} - V_{LEGS} - V_{WALL}$

 V_c = Volume of containment

 $V_{\rm T}$ = 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.

 $V_{T} = \text{containment} \text{ area } \mathbf{x} H$

 $V_{PAD} = \Pi (d/2)^{2} (H)$

contianment area = $(71.3' \times 22.7') + (5.4' \times 15.1') + ((33.5' + 15.1') \times (8.1' - 5.4'))$

containment area = 1618.51 ft² + 81.54 ft² + 131.22 ft²

containment area = 1831.27 ft²

 $V_{T} = 1831.27 \text{ ft}^{2} \times 1.67' = 3052.12 \text{ ft}^{3}$

6,000-gallon tanks supported by tank pads approximately 9' in diameter and 10" thick.

 $V_{PAD} = \Pi (9^{\circ}/2)^2 (10^{\circ})$ $V_{PAD} = 53.01 \text{ ft}^3$ $V_{PADS} = 53.01 \text{ ft}^3 \times 10$ 10 tank pads in containment $V_{PADS} = 530.1 \text{ ft}^2$

The tank pad is 10" thick. The height of the containment wall is 20". Therefore, the volume VTANK 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) $V_{TANK} = 41.89 \text{ ft}^3$ $V_{TANKS} = 418.9 \text{ ft}^3 10 \text{ non-RCRA tanks}$ 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} $V_{PIPB} = \Pi (0.33'/2)^2 (L)$ $V_{PIPE} = 51.32 \text{ ft}^3$ There are 8 support legs for the two bottoms tanks VLEGS which are one foot in diamter. $V_{LRG} = \Pi (1'/2)^2$ (H) $V_{LEG} = 1.31 \text{ ft}^3$ $V_{LECS} = 10.49 \, ft^3$ 8 legs V_{WALL} = L x W x H = 25.5⁴ x 0.67' x 1' = 17.09 ft³ $V_{c} = V_{t} - V_{PADS} - V_{TANKS} - V_{PIPE} - V_{LECS} - V_{HALL}$ $V_c = 3052.12 \text{ ft}^3 - 530.1 \text{ ft}^3 - 418.9 \text{ ft}^3 - 51.32 \text{ ft}^3$ - 10.49 ft³ - 17.09 ft³ $V_{c} = 2024.22 \text{ ft}^{3}$

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.

Attachment 12.2-5

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Surplus containment = $V_c - V_{LTANK} - V_{RAIN}$

V_{LTANE} - Volume of largest tank

V_{BAIN} « Volume of rainfall from 25-year, 24-hour rainfall event

Largest tank contained: 7,000 gallons

 $V_{LTANK} = 7000 \text{ gallons x (1 ft^3/7.48 gallons)} = 935.83 \text{ ft}^3$

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.

 $V_R = 0.58' \times 1831.27 \text{ ft}^2$ $V_B = 1062.14 \text{ ft}^3$

Surplus containment = 2024.22 ft³ - 935.83 ft³ - 1062.14 ft³ Surplus containment = 26.25 ft³

. 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

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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 264.111, 264.178 and 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 (defined as closing a hazardous unit before final 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.

If site assessment, interim measures or corrective action is required, these actions will be done in accordance with Chapter 62-780, F.A.C. and permit requirements.

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 or a combination of roll-offs and the Class II magazine 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. If contaminants in the rinseate, concrete or debris are known to be from a listed hazardous waste, then TCLP would not be required to be performed for the purposes of hazardous waste determination. The waste would be hazardous by the mixture rule. 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 assurance will be addressed per Chapter 62-160. Laboratory analyses will be performed by a NELAC certified laboratory.
- 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, quality assurance will be addressed per Chapter 62-160. Laboratory analyses will be performed by a NELAC certified laboratory.
- 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. If concentrations are above the leachability based on SCTL's, groundwater monitoring may be required. If commercial/ industrial SCTL's are selected, institutional controls will be required and clean closure will not be an option.
- 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 assurance will be addressed per Chapter 62-160. Laboratory analyses will be performed by a NELAC certified laboratory.
- 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, quality assurance will be addressed per Chapter 62-160. Laboratory analyses will be performed by a NELAC certified laboratory.
- 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. If concentrations are above the leachability based on SCTL's, groundwater monitoring may be required. If commercial/ industrial SCTL's are selected, institutional controls will be required and clean closure will not be an option.
- 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 assurance will be addressed per Chapter 62-160. Laboratory analyses will be performed by a NELAC certified laboratory.
- 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, quality assurance will be addressed per Chapter 62-160. Laboratory analyses will be performed by a NELAC certified laboratory.
- 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. If concentrations are above the leachability based on SCTL's, groundwater monitoring may be required. If commercial/ industrial SCTL's are selected, institutional controls will be required and clean closure will not be an option.
- 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 assurance will be addressed per Chapter 62-160. Laboratory analyses will be performed by a NELAC certified laboratory.

- 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, quality assurance will be addressed per Chapter 62-160. Laboratory analyses will be performed by a NELAC certified laboratory.
- 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 62-777

FAC. If concentrations are above the leachability based on SCTL's, groundwater monitoring may be required. If commercial/industrial SCTL's are selected, institutional controls will be required and clean closure will not be an option.

- 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 non-hazardous waste/solid waste shredder (proposed, pending permitting) and 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)

Drawing BW-100-001 found in Chapter 1 identifies the staging and non-staging 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. The four (4) hazardous waste roll-off containers will be shipped offsite where they will be emptied of their contents and decontaminated at authorized storage/treatment/disposal facilities.
- 4. The Class II magazine will be emptied of its contents which will be shipped offsite to authorized storage/treatment/destruction/disposal facilities. The magazine will then be shipped offsite to another permitted location for possible use there.
- 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 assurance will be addressed per Chapter 62-160. Laboratory analyses will be performed by a NELAC certified laboratory.
- 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, quality assurance will be addressed per Chapter 62-160. Laboratory analyses will be performed by a NELAC certified laboratory.
- 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 62-777 FAC. If concentrations are above the leachability based on SCTL's, groundwater monitoring may be required. If commercial/ industrial SCTL's are selected, institutional controls will be required and clean closure will not be an option.
- 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, this area would be subject to HSWA corrective action and/or Chapter 62-780 F.A.C.
- 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 assurance will be addressed per Chapter 62-160. Laboratory analyses will be performed by a NELAC certified laboratory.

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 onsite. 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.

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LIST OF FIGURES

1. Figure 9.1 - Maximum Waste Inventory At Closure

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/SOLID WASTE MIXBOX & MAGAZINE

MAXIMUM STORAGE CAPACITY OF WASTE AT CHF = 348,240 gallons

Section P – Potential Releases from Solid Waste Management Units

Revision Number 0						
Date 6/13/2021						
Page	1	of 2				

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

Facility Name Clean Harbors Florida, LLC								
EPA/DEP I.D. No. FLD980729610								
Facility location _	Bartow	FL	_					
	City	State						

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

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

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

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

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

Page 1 of 2

- 2. For each "yes" answer in one (1.) above, on separate sheet(s) of paper: N/A
 - a. Describe the wastes that were stored, treated or disposed of in each unit, and whether the wastes would be considered hazardous wastes or hazardous constituents under RCRA. (Hazardous wastes are those identified in 40 CFR Part 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.) Include any available data on quantities or volumes of wastes disposed of and the dates of disposal.
 - b. Describe each unit, type of unit including construction details, capacity, dimensions (supply any available drawings), and location at the facility on the topographic map provided under 40 CFR 270.14(b)(19). Provide a site plan, if available, and the dates of operation of the unit [40 CFR 270.14(d)(1)]. If the information has previously been submitted formally to the Department, references to the documents and or summary tables may be submitted to meet this requirement.
 - c. Include a copy of federal, state and local permits or authorizations for SWMUs that may be permitted under other environmental programs.
- 3. For each unit described in two (2.) above, and for each hazardous waste unit in your Part B application [40 CFR 270.14(d)(2)], on separate sheet(s) of paper, provide available data on all prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or may still be occurring. If the data has previously been submitted formally to the Department, references to the documents and or summary tables may be submitted to meet this requirement. Provide the following information for each SWMU/AOC: N/A
 - a. Date of release
 - b. Estimated or known quantity or volume of waste released
 - c. Location of the release
 - d. Describe the nature of the release (i.e., spill, overflow, ruptured pipe or tank, etc.).
- 4. Provide, for each unit, all available analytical data that describes the nature and extent of the environmental contamination due to the releases described in three (3.) above, on separate sheet(s) of paper. Focus on the concentrations of hazardous wastes or constituents present in contaminated media (e.g., soil, sediment, surface water and groundwater) [40 CFR 270.14(d)(3)]. If the information has previously been submitted formally to the Department, references to the documents and or summary tables may be submitted to meet this requirement. N/A

Section Q – Requirements for Solid Waste Management Units

Page 1 of 8 Revision: 0 Date: 6/13/2021

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 Part B renewal application. They include:

- SWMU #13: North Container Storage Building sampling area
- SWMU #14: Petroleum Wastewater Tanks
- SWMU #15: Roll Off and Magazine storage in the perimeter road area
- SWMU #16: Solid Waste Shredder and Mix Tub Area
- SWMU #17: Low Explosive Magazine

These SWMUs and AOC are described in the following sections, along with their respective status under the current HSWA permit issued by EPA. Appendix I-A 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 and low explosive storage in the perimeter road area (SWMU # 15 and #17)

Up to four (4) bulk storage containers (rolloffs, intermodals, etc.) or three (3) bulk storage containers and one (1) low explosive magazine 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.

3.16 Solid Waste Shredder and Mix Tub Area (SWMU # 16)

One (1) non-hazardous waste shredder for material size reduction, mix tub container for solidification of liquids and a roll-off container to hold and transport the processed solid waste offsite for final disposition. This area has secondary containment with blind sumps.

Currently this SMU requires no further action.

4.0 Description And Status Of Areas Of Concern

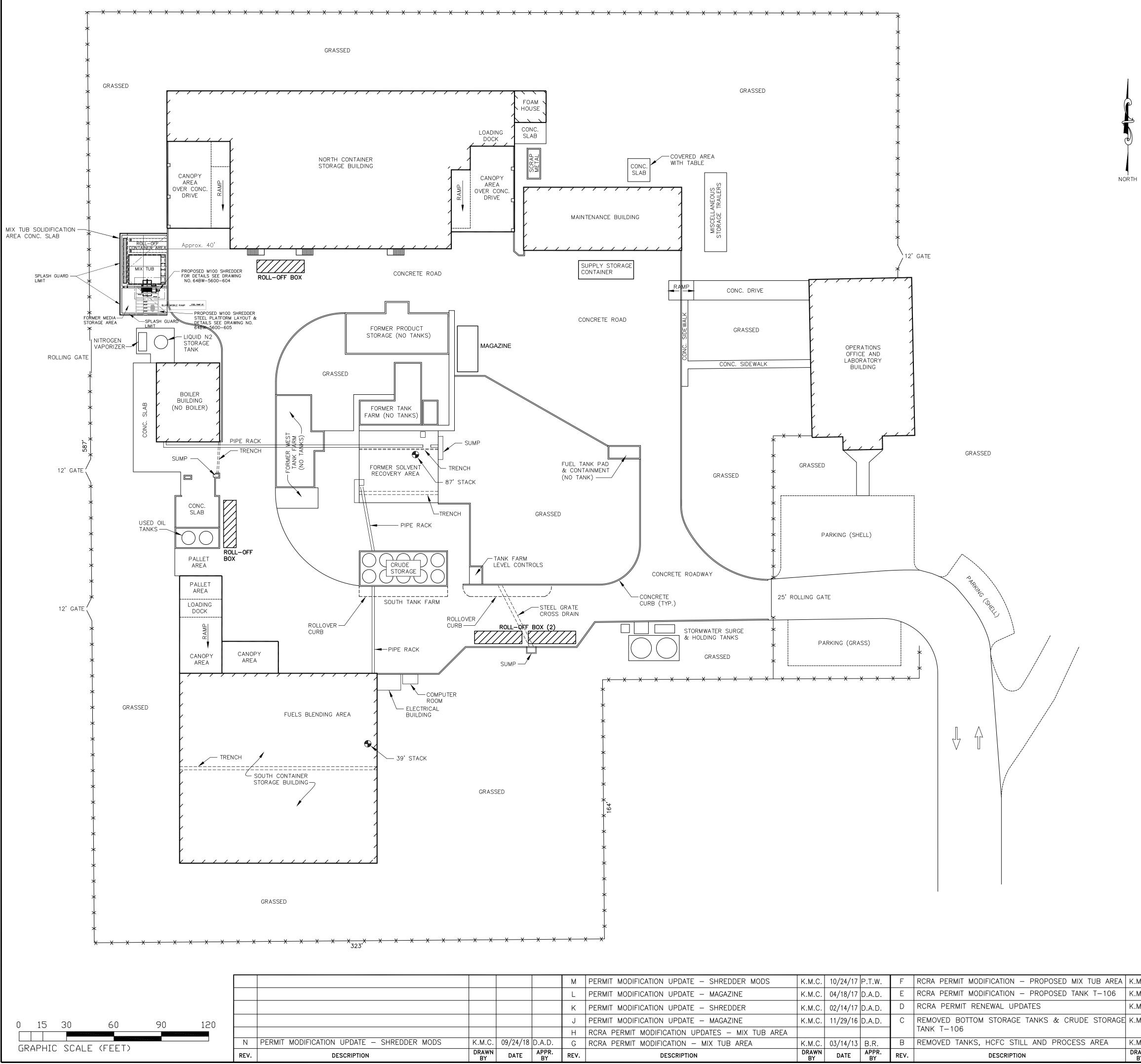
The only AOC identified in 1991 was, the Freon Wash Water Storage Tank (AOC-A). AOC-A was located close to the southeast corner of Process Area. This AOC was a 3,500 gallon tank used to store freon wash water. This tank does not exist, it was removed and is no longer a concern.

Currently, this AOC requires no further action.

5.0 Identification of New SWMUs

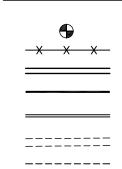
There are not any new SWMU's at the facility.

Locations of SWMUs - Appendix I-A



APPR. BY	REV.	DESCRIPTION	DRAWN DAT	E APPR. BY	REV.	DESCRIPTION DRAWN BY	DA	TE APPR. BY	JKM		1" = 30'	04/21/05	E
.A.D.	G	RCRA PERMIT MODIFICATION - MIX TUB AREA	K.M.C. 03/14	/13 B.R.	В	REMOVED TANKS, HCFC STILL AND PROCESS AREA K.M.C.	02/04	4/11 M.C.	DRAWN C	HECKED	SCALE	DATE	DRAWING NO.
	Н	RCRA PERMIT MODIFICATION UPDATES - MIX TUB AREA				TANK T-106			THIS DRAWIN ANY INFORM OR USE	NG IS THE PROPE MATION CONTAIN ED WITHOUT WRI	ERTY OF CLEAN HARE ED HEREON MAY NO TTEN PERMISSION O	JORS BARTOW DT BE COPIED F OWNER.	
	J	PERMIT MODIFICATION UPDATE – MAGAZINE	K.M.C. 11/29	/16 D.A.D.	С	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE K.M.C.	05/1	0/11 M.C.		B	ARTOW		
	Κ	PERMIT MODIFICATION UPDATE – SHREDDER	K.M.C. 02/14	/17 D.A.D.	D	RCRA PERMIT RENEWAL UPDATES K.M.C.	09/2	8/11 S.B.					FA
	L	PERMIT MODIFICATION UPDATE - MAGAZINE	K.M.C. 04/18	/17 D.A.D.	E	RCRA PERMIT MODIFICATION - PROPOSED TANK T-106 K.M.C.	02/12	2/13 B.R.		eant each and each an	larb	nrç	CLE
	М	PERMIT MODIFICATION UPDATE - SHREDDER MODS	K.M.C. 10/24	/17 P.T.W.	F	RCRA PERMIT MODIFICATION - PROPOSED MIX TUB AREA K.M.C.	03/1	1/13 B.R.					TITLE

LEGEND



AIR EMISSIONS STACK CHAINLINK FENCE PIPE RACK ROOF LINE CONTAINMENT AREA TRENCH ROLLOVER CURB DESIGNATED HAZARDOUS WASTE ROLL-OFF AREAS





BW100001N CLEAN HARBORS FLORIDA, LLC FACILITY DRAWING/PLOT PLAN APPENDIX A

BW-100-001

REV. Ν

Section R – Process Vents

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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.

Section S – Standards for Equipment Leaks

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Revision: <u>0</u> **Date**: <u>6/13/2021</u>

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).

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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.

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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.

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- 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

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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

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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

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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:

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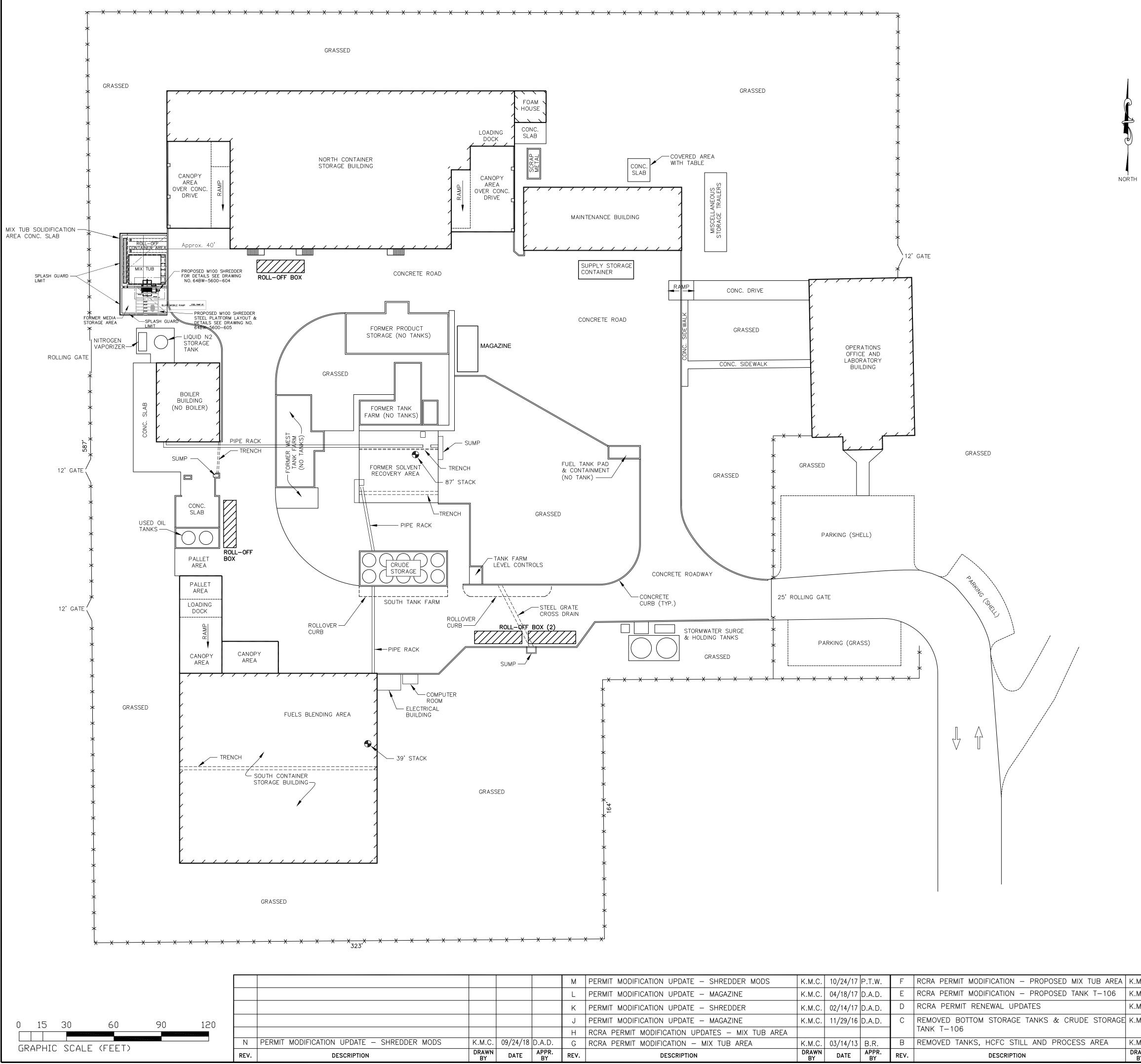
- 1. The EPA ID number, name, and address of the facility.
- 2. For each month during the reporting period, the ID number of each valve, pump, or compressor for which a leak was not repaired as required by Subpart BB.
- 3. Dates of hazardous waste unit shutdowns that occurred within the reporting period.
- 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.

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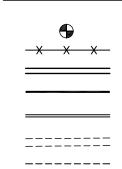
LIST OF FIGURES

- 1. Appendix I-A Facility Plot Plan and Location of Hazardous Waste Units
- 2. Figure 14.2 Example of an Equipment Monitoring & Identification Log
- 3. Figure 14.3 Example of an Equipment Leak Repair Log



												, ,	
APPR. BY	REV.	DESCRIPTION	DRAWN DAT	E APPR. BY	REV.	DESCRIPTION DRAWN BY	D.	ATE APPR. BY	JKM		1" = 30'	04/21/05	E
.A.D.	G	RCRA PERMIT MODIFICATION - MIX TUB AREA	K.M.C. 03/14	/13 B.R.	В	REMOVED TANKS, HCFC STILL AND PROCESS AREA K.M.C.	. 02/	04/11 M.C.	DRAWN	CHECKED	SCALE	DATE	DRAWING NO.
	Н	RCRA PERMIT MODIFICATION UPDATES - MIX TUB AREA				TANK T-106			THIS DR ANY INI OR	AWING IS THE PR FORMATION CONT USED WITHOUT	OPERTY OF CLEAN HAR AINED HEREON MAY N WRITTEN PERMISSION (BORS BARTOW OT BE COPIED DF OWNER.	
	J	PERMIT MODIFICATION UPDATE – MAGAZINE	K.M.C. 11/29	/16 D.A.D.	С	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE K.M.C.	05/	10/11 M.C.			BARTOW		
	Κ	PERMIT MODIFICATION UPDATE – SHREDDER	K.M.C. 02/14	/17 D.A.D.	D	RCRA PERMIT RENEWAL UPDATES K.M.C.	. 09/	28/11 S.B.					FA
	L	PERMIT MODIFICATION UPDATE - MAGAZINE	K.M.C. 04/18	/17 D.A.D.	E	RCRA PERMIT MODIFICATION - PROPOSED TANK T-106 K.M.C.	02/	12/13 B.R.		ean	Harb	nrç İ	CLE
	М	PERMIT MODIFICATION UPDATE - SHREDDER MODS	K.M.C. 10/24	/17 P.T.W.	F	RCRA PERMIT MODIFICATION - PROPOSED MIX TUB AREA K.M.C.	. 03/	11/13 B.R.					TITLE

LEGEND



AIR EMISSIONS STACK CHAINLINK FENCE PIPE RACK ROOF LINE CONTAINMENT AREA TRENCH ROLLOVER CURB DESIGNATED HAZARDOUS WASTE ROLL-OFF AREAS





BW100001N CLEAN HARBORS FLORIDA, LLC FACILITY DRAWING/PLOT PLAN APPENDIX A

BW-100-001

REV. Ν

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FIGURE 14.2

SAMPLE

IGORE	14.2	SAMPLE		
FAC	CILITY	AIR EMISSIONS MONITORING / EQU	JIPMENT	LOG
NSPECT	OR'S NAM	IE: Mr. Doe MONITORING DATE/TI	ME: 4/3/2011	_
MONITOR	RING DE\	/ICE: MSA SIRIUS MULTI GAS PHOTO IONIZATION DETEC	TOR	
CALIBRA		TE: 4/3/2011		
		SWMU #5 CRUDE STORAGE AREA "C"		
TAG #	AREA		BKODD	DETECT
1000	C	PROCESS EQUIPMENT DESCRIPTION	BKGRD	DETECT
1001	c	FLANGE TEE	- ŏ	1 õ
1000.1	c	TANK FLANGE (BOTTOM OF TANK)	0	1 õ
5021	č	FIRST CUTOFF AT BOTTOM OF CONE T-101	ŏ	ŏ
17	č	T-101 MID.CONE CONNECTION, HOSE (90)	0	ŏ
5025	c	MID CONE OUT (VALVE)	ŏ	l õ
18	č	T-101 MID.CONE CONNECTION, HOSE (NIPPLE)	ŏ	ŏ
9	c	3" FLANGE TO HEADER	0	1 õ
13	č	3" FLANGE IO HEADER	- ŏ	1 õ
12	č	3" FLAGE TO HEADER/W.T.F.S	Ť	ŏ
5015	č	IN/OUT IN BOT OF CONE TO/FRM TRANS W (VALVE)	ŏ	ŏ
1	č	3" FLANGE TO W.T.F.S/ UPPERCONE	- v	1 v
1010	č	FLANGE	0.0.5	0.0.5
1010.1	c	FLANGE	0.0.5	0.0.5
1010.2	č	FLANGE (BOTTOM OF TANK)	0.0.5	0.0.5
5180	č	BOTTOM CONE OUT TO PMP IN	0.0.5	0.0.5
5182	č	FIRST CUTOFF AT BOTTOM OF CONE ON T-106	0.0.5	0.0.5
184	c	BOTTOM OF T-106 TO HEADER/W.T.F.S.	0.0.5	0.0.5
183	č	BOTTOM OF T-106 TO HEADER/W.T.F.S.	0.0.5	0.0.5
182	c	BOTTOM OF T-106 TO HEADER/W.T.F.S.	0.0.5	0.0.5
185	č	BOTTOM OF T-106 TO HEADER/W.T.F.S.	0.0.5	0.0.5
186	c	BOTTOM OF T-106 TO HEADER/W.T.F.S.	0.0.5	0.0.8
100		Top of Tank Farm	0.0.3	0.0.0
1007	-		_	-
1087	C C	VAPOR BALANCE FLANGE BETWEEN T-101 &T-106	0	0
5001 5003		TOP OF T-101	0	
	00	VAPOR BALANCE CUTOFF TO TANK T-101	-	0
1020	υu	TANK VENT (NITROGEN)	0	0
1021	100	MICROWAVE RADAR LEVEL SENSOR (MRLS)	0	0
1082	c o	MRLS (BOTTOM)	0	0
36	0	TOP OF T-101 HIGH LEVEL ALARM INTO TANK	0	0
30	00	TOP OF T-101 SAMPLING PORT	0	0
5002	00	TOP OF TANK SAMPLE VALVE, TANK T-101	0	0
31	00	TOP OF T-101 SAMPLING PORT	0	0
1029	00	4" TANK FLANGE	0	0
1028	00	TANK FILL	0	0
29	00	FILL LINE TO TOP OF T-101 IN UPPER PIPE RACK (90)	0	0
28	00	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 c	FILL LINE TO TOP OF T-101 IN UPPER PIPE RACK (90)	0	0
25	c 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	С	VAPOR BALANCE CUTOFF TO T-106	0.0.S.	0.0.5

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		SAMPLE		
TAG #	AREA	PROCESS EQUIPMENT DESCRIPTION	BKGRD	DETECT
		TRUCK LOADING		
57	С	FILL LINE TO TOP OF T-102 (90)	0	0
5030	С	TOP IN LN AT CRUDE TRK LOAD (VALVE)	0	0
56	С	FILL LINE TO TOP OF T-102 (NIPPLE)	0	0
21	C	FILL LINE TO TOP OF T-101 (90)	0	0
5000	С	TOP IN LN AT CRUDE TRK LOAD (VALVE)	0	0
20	С	FILL LINE TO TOP OF T-101 (NIPPLE)	0	0
202	C	FILL LINE TO THE TOP OF T-106	0.0.S	0.0.S
5160	С	TOP IN LN AT CRUDE TRK LOAD	0.0.S	0.0.S
201	C	FILL LINE TO THE TOP OF T-106	0.0.S	0.0.S
238	С	FILL LINE TO TOP OF T-107 (90)	0	0
5190	С	TOP IN LN AT CRUDE TRK LOAD (valve)	0	0
237	С	FILL LINE TO TOP OF T-107 (nipple)	0	0
5536	С	PRESSURE RELIEF VALVE 1	0	0
5535	С	PRESSURE RELIEF VALVE 2	0	0
5537	C	GOULDS PUMP FILTER BASKET	0	0
1025	c	FLANGE BOTTOM FILTER BASKET	Ō	0
5539	c	PLUG ON FILTER BASKET, UNDER TRAY	0	0
5540	c	FILTER OUTLET DRAIN #1 (W SIDE OF PUMP)	ō	ō
5545	c	FILTER OUTLET DRAIN #2 (W SIDE OF PUMP)	ŏ	0
5550	c	TRUCK LOADING PUMP/FILTER OUTLET CUTOFF VALVE	0	0
433	č	OUTLET SIDE OF GOULDS PUMP WEST (NIPPLE)	0	0
5800	č	VALVE,NITROGEN VENT JIB CRANE BY T-102	ŏ	ŏ
5801	č	UNION, NITROGEN VENT JIB CRANE BY 1-102	0	0
5805	č		0	0
5806	c	VALVE, NITROGEN VENT JIB CRANE EAST OF T-100 TANKS	0	0
9000	U.	2" UNION JIB CRANE EAST OF T-100 TANKS		0
464	-	3" DOUBLE FEMALE/ INTAKE SIDE	0	-
	C	FEMALE CAMLOCK		0
465	c	FEMALE CAMLOCK	0	0
6221	c	PRESSURE RELIEF VALVE 1	0	0
6222	c	PRESSURE RELIEF VALVE 2	0	0
100	-	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
10.0		VMU # 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)

4/6/2011

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FIGURE 14.3 – EXAMPLE 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.

Standards for Tanks and Containers (40 CFR 264, Subpart CC)

40 CFR 264, SUBPART CC – Tank and Container Air Emissions' Standards

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.

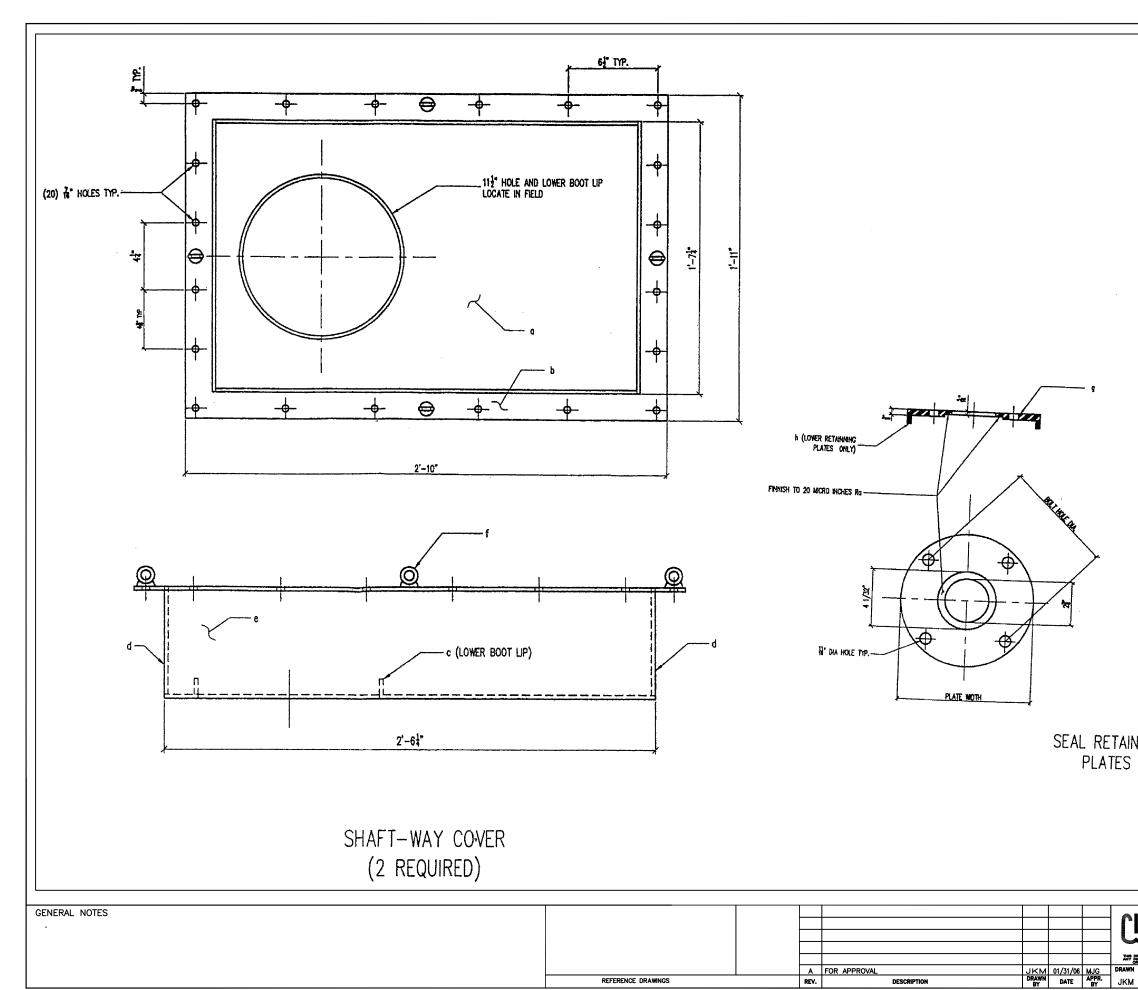
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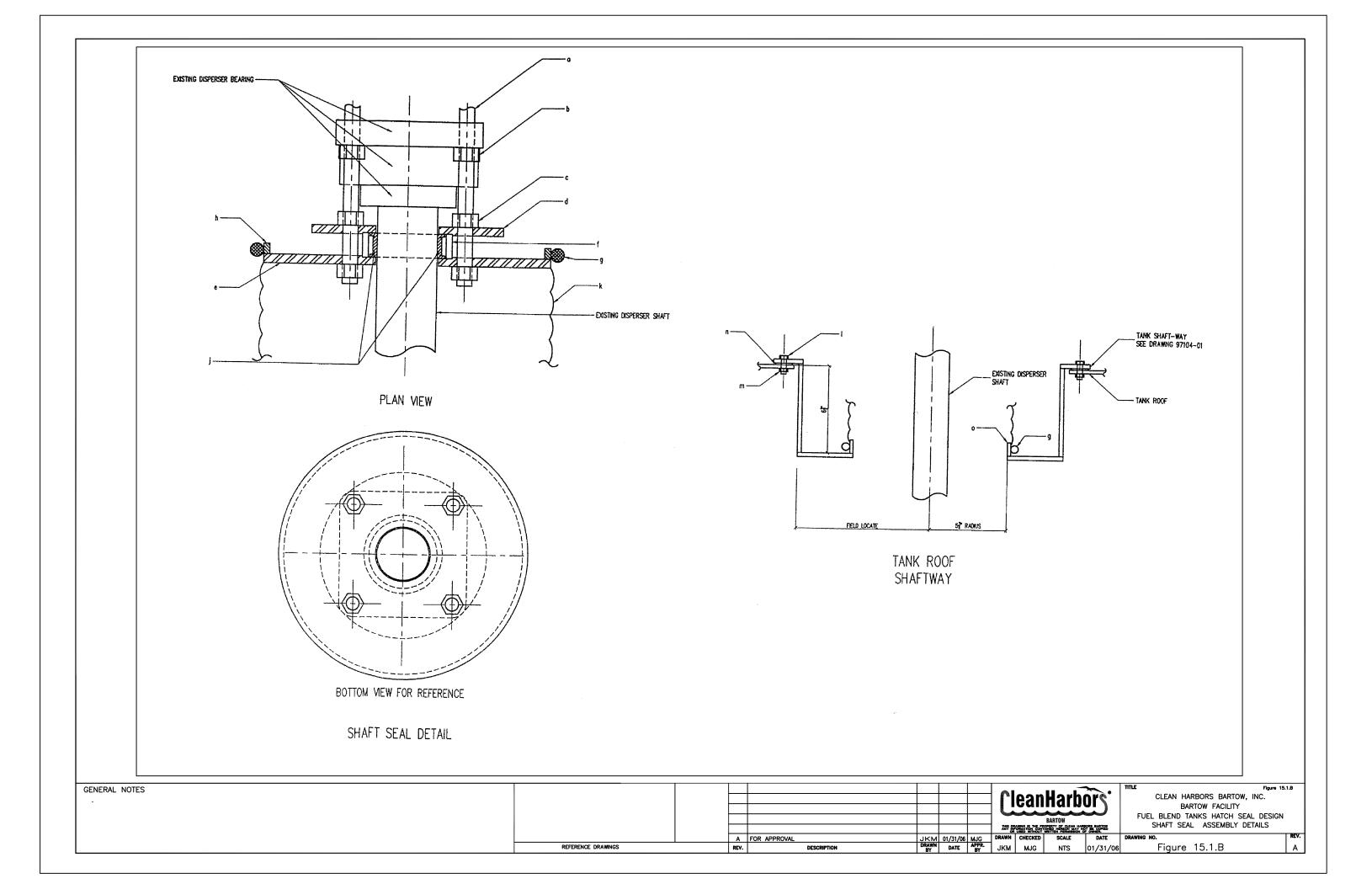
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 6/13/2021

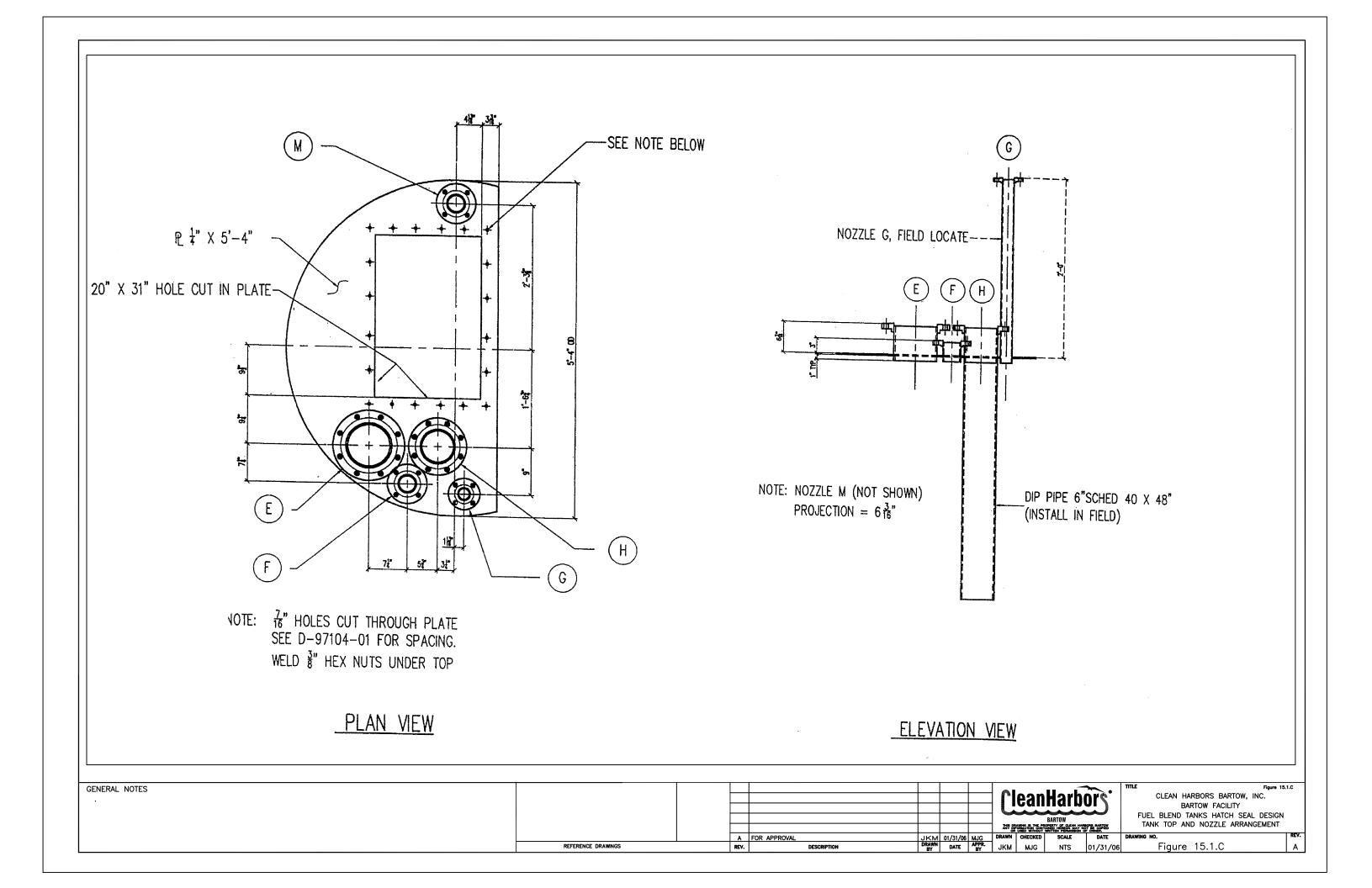
LIST OF FIGURES

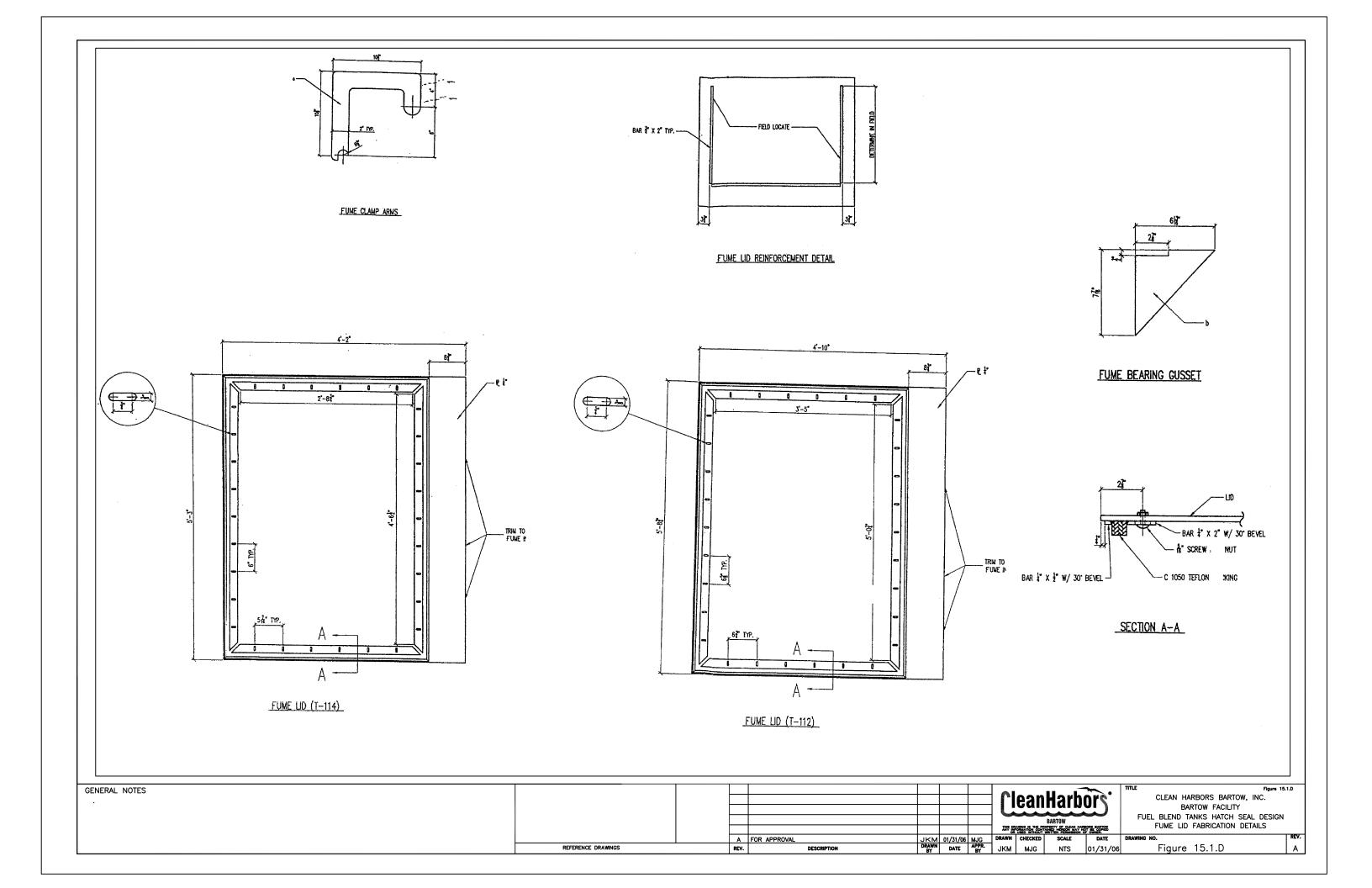
- 1. Figures 15.1.A,B,C,D,E Fuel Blend Tanks Hatch Seal Design
- 2. Figure 15.2 Example of a Subpart CC Annual Inspection Sheet



Ī	DESCRIPTION		ATE DIMENSIONS Plate width	BOLT HOLE DIA.	
ŧ	UPPER RETAINING PLATE (TANK 1 LOWER RETAINING PLATE (TANK 1	T-112) T-112)	9" DIA. 12" DIA.	7 19/32° DIA. 7 19/32° DIA.	
ł	UPPER RETAINING PLATE (TANK T	-[14]	9" DIA.	6 P DIA	
	LOWER RETAINING PLATE (TANK T	-114			
			12" DIA.	6 P DA	
TTI TTI Mac	TO CUT PLATES TO GO SHOWL TO NGL BOOT UP TO LONGR RETAN CHINE SHOP TO MACHINE ALL OTHER			6 P DA	
		NER PLA DIMENSA THE FUE	TES PROR TO MACHINAG XIS. CLEAN HARBOR BARTOW CL BLEND TANKS AFT-WAY AND SE	6 P DA	N







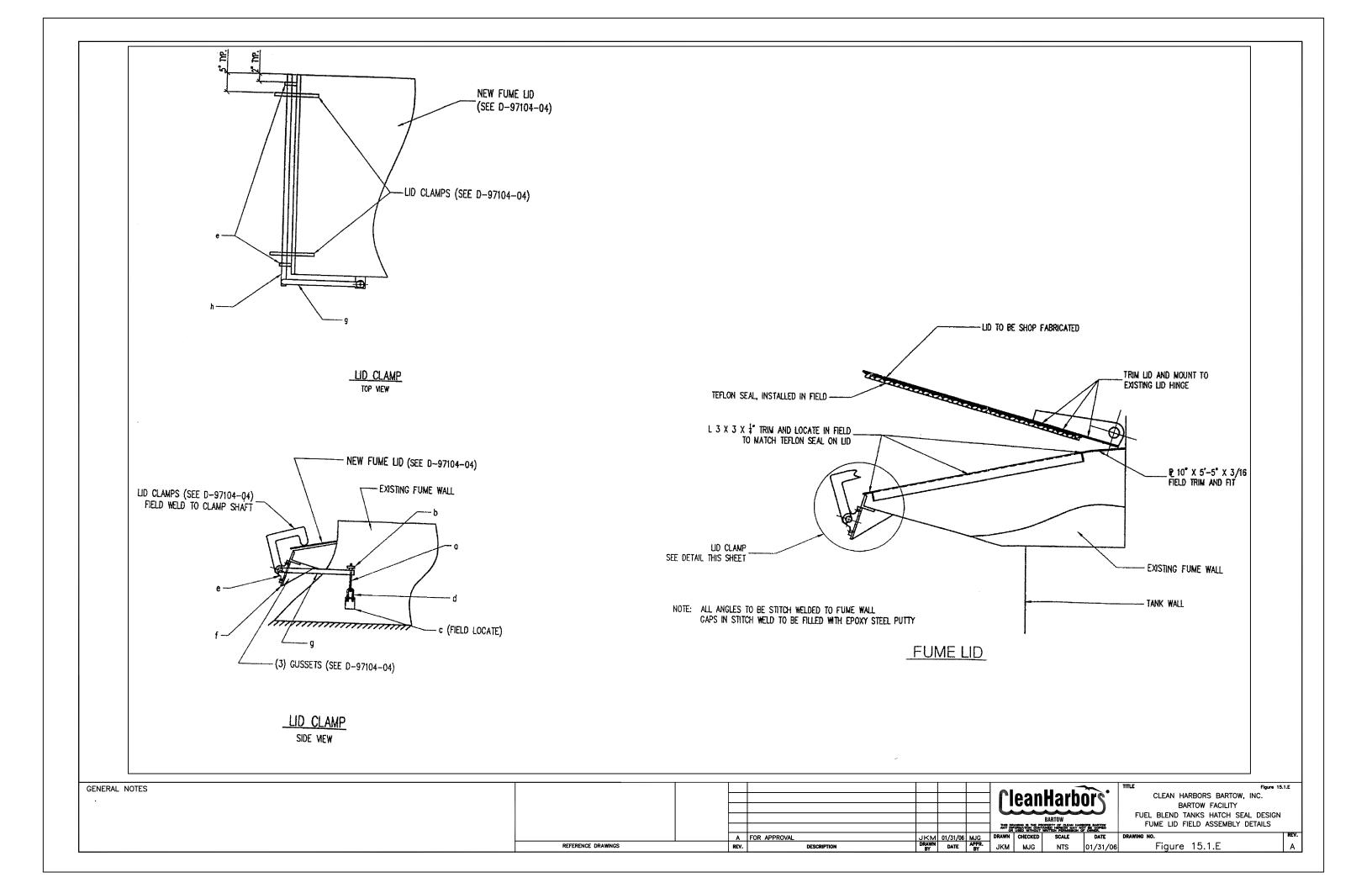


Figure 15.2 - Example of a Subpart CC Annual Tank Inspection Sheet



CO Subpart CC Visual Tank Inspection

Compliance Header							
Inspector Name							
Area of Inspection							
Inspection Date and Time							

CO - Subpart CC Visual Tank Inspection Instruction

Complete the visual tank inspection to satisfy the annual inspection required under Subpart CC.

CO - Subpart CC Visual Tank Inspection Items

Condition of tank (fixed roof and closure devices): (Check "Pass" if the condition of the tank is acceptable; Check "Fail" if the condition of the tank is not acceptable.) If "Fail", select appropriate reason: not closed under normal operation, other.

These tanks are designed so that all cover openings can be closed with no visible gaps, holes, cracks, or other open spaces into the interior of the tank. The cover and all cover openings operate with no detectable emissions when in a closed position. Cover openings are maintained in a closed position at all times except when waste is being added to or removed from the tank, or when necessary sampling or repair/maintenance is performed on the tanks.

Compliance Footer	
Inspector Signature	
Attach Photo	
Inpsection Overall Assessment	

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Part III

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PART III

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 <u>not</u> to or from CHF.
- The security measures spelled out in Part II, 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 as Attachment III-1.
- The personnel training measures spelled out in Part II, 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 Part II, Appendix F.
- The location standards, which are applicable to the facility, are listed in Part II, Appendix F.

3.0 Preparedness and Prevention

The same procedures specified in the Preparedness and Prevention Plan of Part III, 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 Part II, 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 Facility. That plan can be found in Part II, Appendix K.

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.

Page 3 of 3 Revision: 0 Date: 6/13/2021

Attachment III-1



Compliance Header	
Inspector Name	
Inspection Date	
Area of Inspection	
CO Daily In Transit Instructions	
Instructions: Inspection must be conducted daily findings must be explained below. Include any re required or performed.	
CO Daily In Transit Inspection Items	
All shipments on site within permitted time limit?	
Containers free of leaks/damage?	
All incompatible materials properly stored and segregated?	
All trucks and trailers properly placarded?	
All manifests easily accessible?	
All trucks and trailers locked and secured?	
Storage area secured against unauthorized access?	
Area free of evidence of suspicious activities, tampering, or vandalism?	
All security devices (cameras, lighting, alarm, etc) functional?	
Compliance Footer	
Inspector Signature	
Attach Photo	
On Demand Work Ticket	

Revision: <u>0</u> **Date**: <u>6/13/2021</u>

Part IV



Florida Department of **Environmental Protection**

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 DEP Form #: 62-701.900(4), F.A.C.

Form Title: Application to Construct, Operate, or Modify a Waste Processing Facility

561-681-6600

Effective Date: February 15, 2015

Incorporated in Rule: 62-701.710(2), F.A.C.

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

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

Please Type or Print in Ink

850-595-8300

904-256-1700

GENERAL INFORMATION Α.

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

	□ C&D	□ Class III	□ Class I						
	□ Other Describe:								
	☐ Materials Recovery Facility:								
	□ C&D Recycling	□ Class III MRF	□ Class I MRF						
	□ Other Describe:								
	\Box Other Facility That Processes	But Does Not Dispose Of So	lid Waste On-Site:						
	□ Storage, Processing o	r Disposal for Combustion F	acilities (not addressed in another permit)						
	Other Describe:								
	NOTE: C&D Disposal facilities that	at also recycle C&D, shall ap	ply on DEP FORM 62-701.900(6), F.A.C.						
2.	Type of application:								
	Construction/Operation								
	Operation without Add	itional Construction							
3.	Classification of application:								
	□ New	Substantial Modi	fication						
	□ Renewal	Intermediate Mo	dification						
		Minor Modification	on						
4.	Facility name:								
5.	DEP ID number:	County:							
	Facility location (main entrance):								
5.	r dointy looddorr (main orritarioo):								

407-897-4100

813-470-5700

239-344-5600

7.	Location coordinates:								
	Section:	Township:	Range:	<u></u>					
	Latitude:°	" Lon	gitude:°						
	Datum:	Coordinate Method:							
	Collected by:	Com	pany/Affiliation:						
8.	Applicant name (operating	authority):							
	Mailing address:	Street or P.O. Box	City State	Zip					
			Telephone: ()						
			E-Mail address (if available	e)					
9.	Authorized agent/Consulta	ant:							
	Mailing address:								
		Street or P.O. Box	City State	Zip					
	Contact person:		Telephone: ()						
	Title:		E-Mail address (if available	e)					
10.	Landowner (if different than applicant):								
	Mailing address:								
		Street or P.O. Box	City State	Zip					
	Contact person:		Telephone: ()						
			E-Mail address (if available	e)					
11.	Cities, towns and areas to	be served:							
12.	Date site will be ready to b	e inspected for completion:							
13.	Estimated costs:								
	Total Construction: \$		Closing Costs: \$						
14.	Anticipated construction st	arting and completion dates:							
	From:		-o:						
15.			yds³/day						

B. ADDITIONAL INFORMATION

Please attach the following reports or documentation as required.

- 1. Provide a description of the operation of the facility that shall include (62-701.710(2)(a), F.A.C.):
 - a. The types of materials, i.e., wastes, recyclable materials or recovered materials, to be managed or processed;
 - b. The expected daily average and maximum weights or volumes of materials to be managed or processed;
 - c. How the materials will be managed or processed;
 - d. How the materials will flow through the facility including locations of the loading, unloading, sorting, processing and storage areas;
 - e. The types of equipment that will be used;
 - f. The maximum time materials will be stored at the facility;
 - g. The maximum amounts of wastes, recyclable materials, and recovered materials that will be stored at the facility at any one time; and
 - h. The expected disposition of materials after leaving the facility.
- 2. Attach a site plan, signed and sealed by a professional engineer registered under Chapter 471, F.S., with a scale not greater than 200 feet to the inch, which shows the facility location, total acreage of the site, and any other relevant features such as water bodies or wetlands on or within 200 feet of the site, potable water wells on or within 500 feet of the site (62-701.710(2)(b), F.A.C.).
- 3. Provide a boundary survey and legal description of the property (62-701.710(2)(c), F.A.C.).
- 4. Provide a construction plan, including engineering calculations, that describes how the applicant will comply with the design requirements of subsection 62-701.710(3), F.A.C. (62-701.710(2)(d), F.A.C.).
- 5. Provide an operation plan that describes how the applicant will comply with subsection 62-701.710(4), F.A.C. and the recordkeeping requirements of subsection 62-701.710(8), F.A.C. (62-701.710(2)(e), F.A.C.).
- 6. Provide a closure plan that describes how the applicant will comply with subsection 62-701.710(6), F.A.C. (62-701.710(2)(f), F.A.C.).
- 7. Provide a contingency plan that describes how the applicant will comply with subsection 62-701.320(16), F.A.C. (62-701.710(2)(g), F.A.C.).
- 8. Unless exempted by subparagraph 62-701.710(1)(d)1., F.A.C., provide the financial assurance documentation required by subsection 62-701.710(7), F.A.C. (62-701.710(2)(h), F.A.C.).
- 9. Provide a history and description of any enforcement actions by the applicant described in subsection 62-701.320(3), F.A.C. relating to solid waste management facilities in Florida. (62-701.710(2), F.A.C. and 62-701.320(7)(i), F.A.C.)
- 10. Provide documentation that the applicant either owns the property or has legal authorization from the property owner to use the site for a waste processing facility (62-701.710(2), F.A.C. and 62-701.320(7)(g), F.A.C.)

C. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

1. Applicant:

2.

The undersigned applicant or authorized representative of _

Clean Harbors Florida, LLC

is aware that statements made in this form and attached information are an application for a Solid Waste

Renewal

Permit from the Florida Department of Environmental Protection and certifies that the information in this application is true, correct and complete to the best of his/her knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

Signature of Applicant or Agent

David A. DeSha, Director Environmental Compliance

Name and Title (please type)

desha.david@cleanharbors.com

E-Mail address (if available)

-	Mailing Address
Barto	ow, FL 33830
	City, State, Zip Code
863	519-6331
/	Telephone Number
	10/11/2021
-	Date

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

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

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

Signature

N. Dennis Eryou, PhD, PE - Consulting Engineer

Name and Title (please type)

46888

Florida Registration (please affix se	
DENNIS ERL	Digitally signed
No. 46888	by N. Dennis
	Eryou
STATE OF	Date:
CORIDA IN	2021.06.09
B STATE OF B	Date: 2021.06.09 14:21:54 -04'00'

5051 Castello Drive, #244 Mailing Address Naples, FL 34103

City, State, Zip Code

dennis@eryouengineering.com

E-Mail address (if available)

863, (516) 449 5814

Telephone Number

06/09/2021

Date

Page 4 of 4

Signature Authority Table for Environmental and Compliance Related Documents

Signature Guidelines

- This Signing Authority Table authorizes the listed individuals to sign documents only on behalf of the entities specified
- For each entity listed below, anyone with the title President, Senior Vice President, Vice President, Director, Manager or Member of the entity, or any of its subsidiaries is authorized to sign and certify any necessary or desirable environmental documents, including:
 - o Permit applications and amendments
 - o Environmental reports
 - Settlement agreements with a penalty amount of up to \$100,000
- To the extent that the Company operates any facility employing more than 250 people or having gross annual sales or expenditures in excess of the \$25,000,000, the General Manager of such facility shall have all of the foregoing authority with respect to the operations of any such facility.
- The President, and any Senior Vice President, Vice President or Secretary or Assistant Secretary of each entity listed below may designate an employee of an affiliated company to sign the forgoing documents.
- Enforcement related settlement documents with a penalty amount in excess of \$100,000 must be signed by an officer of the applicable entity Any questions regarding this Signature Authority Table should be referred to the Law Department

Entities Covered		
Clean Harbors Aragonite, LLC	Clean Harbors Kansas, LLC	Clean Harbors Wichita, LLC
Clean Harbors Arizona, LLC	Clean Harbors LaPorte, LLC	Clean Harbors Wilmington, LLC
Clean Harbors Buttonwillow, LLC	Clean Harbors of Baltimore, Inc.	Cyn Oil Corporation
Clean Harbors Canada, Inc.	Clean Harbors of Braintree, Inc.	Emerald Services, Inc.
Clean Harbors Caribe, Inc.	Clean Harbors of Connecticut, Inc.	Industrial Service Oil Company, Inc.
Clean Harbors Clive, LLC	Clean Harbors Quebec, Inc.	Murphy's Waste Oil Service, Inc.
Clean Harbors Deer Park, LLC	Clean Harbors Recycling Services of Chicago, LLC	Rosemead Oil Products, Inc.
Clean Harbors Disposal Services, Inc.*	Clean Harbors Recycling Services of Ohio, LLC	Safety-Kleen Canada, Inc.
Clean Harbors El Dorado, LLC	Clean Harbors San Jose, LLC	Safety-Kleen of California, Inc.
Clean Harbors Environmental Services, Inc.	Clean Harbors San Leon, Inc.	Safety-Kleen Systems, Inc.
Clean Harbors Grassy Mountain, LLC	Clean Harbors Westmoreland, LLC	Spring Grove Resource Recovery, Inc.

* Note that the following entities, as subsidiaries of Clean Harbors Disposal Services, Inc., are subject to this signing authority table:

Altair Disposal Services, LLC	Clean Harbors Chattanooga, LLC	Clean Harbors Pecatonica, LLC	GSX Disposal, LLC	Tulsa Disposal, LLC
Baton Rouge Disposal, LLC	Clean Harbors Coffeyville, LLC	Clean Harbors Reidsville, LLC	Hilliard Disposal, LLC	
Bridgeport Disposal, LLC	Clean Harbors Colfax, LLC	Clean Harbors Tennessee, LLC	Plaquemine Remediation Services, LLC	
Clean Harbors Andover, LLC	Clean Harbors Deer Trail, LLC	Clean Harbors White Castle, LLC	Roebuck Disposal, LLC	
Clean harbors Baton Rouge, LLC	Clean Harbors Florida, LLC	Crowley Disposal, LLC	Sawyer Disposal Services, LLC	
Clean Harbors BDT, LLC	Clean Harbors Laurel, LLC	Disposal Properties, LLC	Service Chemical, LLC	

Appendix IV-1

Clean Harbors Florida, LLC – Solid Waste Processing Facility Permit Renewal

B. ADDITIONAL INFORMATION

1. Provide a description of the operation of the facility that shall include (62-701.710(2)(a), F.A.C.):

a. The types of materials, i.e., wastes, recyclable materials or recovered materials, to be managed or processed;

Non-hazardous liquids and semi-solids will be shredded and solidified using sawdust (or other similar products) to absorb free liquids and create a solid waste in the mix tub. Typical examples include manhole cleanout sludge, oily sludges and non-hazardous sludge from industrial processes, off spec and expired non-hazardous consumer commodities/products, and other nonhazardous wastes suitable for landfills after being shredded and/or solidified in the mix tub. Solidified material will be shipped off-site for disposal, destruction and/or energy recovery.

b. The expected daily average and maximum weights or volumes of materials to be managed or processed;

Because management of these wastes is typically event driven, volumes will vary. It is expected the average amount to be 5 tons per day and the maximum amount to be 100 tons per day.

c. How the materials will be managed or processed;

Waste will be placed in a steel container (e.g., mix tub) located on concrete with secondary containment. Absorbent such as sawdust, paper pulp or a similar product will be added and mixed with a backhoe or similar mechanical device. Once solidified, the waste will be transferred to a roll off box or dump trailer for shipment off site to the final disposal facility. Also, containerized non-hazardous wastes will be shredded prior to placement in the mix tub. The shredder will be located in a secondary containment area as shown on the site plan and shredder drawings enclosed herein this permit modification request. Containerized wastes are placed in the shredder manually or using equipment like fork trucks with the proper devices attached such as grapplers, hoists, etc. Shredder containers/materials then mechanically and gravity flow into the mix tub via a chute. Please refer to the mix tub and shredder Standard Operating Procedures (SOPs) for additional details - **Attachment A**.

d. How the materials will flow through the facility including locations of the loading, unloading, sorting, processing and storage areas;

All wastes accepted for processing will be profiled and managed per the Waste Analysis Plan found in Appendix II-H of the RCRA permit. This includes a prequalification process of the information submitted on the waste profile, including a review of the analysis or generator knowledge used to confirm the waste is non-hazardous. Once waste arrives on site, a representative sample is collected and verified to match the waste profile using the following fingerprint procedures as discussed in the Waste Analysis Plan:

- Visual inspection
- Water miscibility
- pH screen
- ignitability screen

Additional analytical tests may be performed as supplemental analysis if necessary. Once the waste is accepted for management, it will be stored in an existing container storage area as described in Chapter 1, Appendix C of the RCRA permit.

The steel mix tub is placed in secondary containment situated southwest of the North Container Storage Building. This concrete pad is approximately 60' x 46' and constructed with secondary containment. All waste transfer and mixing will be performed on this concrete pad. The mix tub and roll off boxes are designed to be covered with tarps should it rain, so precipitation will not impact the process. The shredder is provided with secondary containment to hold its contents and any possible accumulated rainwater as well as a roof and siding/splash guards to prevent outward splashing from occurring and minimize stormwater infiltration. Once solidified waste is placed in roll off boxes staged on concrete surfaces that provide secondary containment prior to shipment offsite. Accumulated liquids in secondary containment areas at the mix tub and shredder will be removed and solidified onsite, or collected for shipment offsite for treatment/disposal at authorized facilities.

e. The types of equipment that will be used;

A steel container approximately 20' by 20' by 3' high with a backhoe or similar device is used to contain and mechanically mix non-hazardous wastes with solidification reagents, then transfer the solidified wastes into a roll off box or dump trailer for shipment offsite. The container shredder is used for size reduction for containers/wastes being shredded prior to solidification in the mix tub and shipment offsite to authorized disposal, destruction and/or energy recovery facilities. See **Attachment B** for mix tub and shredder information as well as Part I, Appendix C, Section 1.9 of this application.

f. The maximum time materials will be stored at the facility;

Once accepted at the facility, per the existing RCRA permit waste maybe stored for up to one year before processing, but will typically be stored for less than 30 days.

g. The maximum amounts of wastes, recyclable materials, and recovered materials that will be stored at the facility at any one time; and

Non-hazardous waste amounts to be solidified will vary depending on when generators ship waste to Clean Harbors Florida. It is expected that waste will be accumulated until approximately a minimum of 20 yd³ of non-hazardous waste is ready to be processed. At no time

will the waste inventory (RCRA and non-RCRA) exceed the RCRA permitted limit of 275,640 gallons in containers.

h. The expected disposition of materials after leaving the facility.

Solidified waste will be shipped off site for disposal. Waste will typically be landfilled or burned for energy recovery.

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

The site plan is enclosed herein this application – See Attachment C.

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

The survey and legal description were previously provided to the Department and have not changed.

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

Because this is an existing RCRA permitted facility, the infrastructure exists and complies with RCRA requirements. The existing concrete structure where the mix tub and shredder are located provides adequate secondary containment that is integrated into the facility-wide secondary containment design. See **Attachment D** for the shredder location and layout design.

62-707-710(3), Design requirements. Minimum design requirements for waste processing facilities are as follows:

(a) Tipping, processing, sorting, storage and compaction areas that are not enclosed shall be equipped with litter control devices.

Wastes accepted for shredding and/or solidification are kept in containers that are covered except when adding or removing waste. These wastes are not typical household trash that would blow and create litter. Wastes will be managed to ensure contents are kept in containers and any spill promptly cleaned per the facility contingency plan.

(b) The facility shall be designed with a leachate control system to prevent discharge of leachate and avoid mixing of leachate with stormwater, and to minimize the presence of standing water.

The facility does not provide disposal on site and does not generate leachate. All stormwater that falls onto containment areas is collected and discharged to the local POTW. Any standing water is removed within 24 hours.

(c) Provisions shall be made for evaluating the quantity of all incoming solid waste and recovered materials. Storage areas shall be designed to hold the expected volume of materials until they are transferred for disposal or recycling.

All waste is scheduled and received per the RCRA and Solid Waste permits and waste volumes will not exceed permitted limits to ensure sufficient storage for the non-hazardous wastes.

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

62-701.710(4) Operational requirements.

(a) All operations shall be conducted in accordance with the approved Operation Plan. The Department shall be notified before any substantial changes or revisions to the approved Operation Plan are implemented in order to determine whether a permit modification is required.

Any potential substantial change or revision will be approved by FDEP before implementing.

(b) Stored putrescible wastes shall not be allowed to remain unprocessed for more than 48 hours; however, if the operation plan includes provisions to control vectors and odors, putrescible wastes may be stored for up to seven days. Any other unauthorized waste received by the facility shall be segregated and transported to an authorized disposal or recycling facility within 30 days of receipt.

Putrescible waste will not be accepted for management in the shredder or solidification unit.

- (c) Operators and spotters shall be trained in accordance with subsection 62-701.320(15), F.A.C.
- 1. A trained operator shall be on duty whenever the facility is operating. Operating hours shall be posted at the facility.

All waste to be solidified will be accepted and managed only by Clean Harbors Florida employees who are trained per the RCRA and Solid Waste permits, as well as that required by OSHA. Waste is not accepted by the general public and can only be delivered if scheduled. As such, operating hours are not posted. Shredder operators will receive training on the Shredder SOP prior to being allowed to operate it.

2. At least one trained spotter shall be on duty at all times that waste is received at the site to inspect the incoming waste. All incoming waste shall be inspected, and any unauthorized waste shall be removed from the waste stream and placed into appropriate containers for disposal at a permitted facility in accordance with a schedule submitted as part of the operation plan.

Waste will be accepted per the Waste Analysis Plan in the RCRA permit. Trained personnel will be on site at all times. Any waste deemed non conforming after sampling and analysis will be managed compliant with the facility RCRA and Solid Waste permits.

(d) The facility shall be operated to control objectionable odors in accordance with subsection 62-296.320(2), F.A.C.

No waste with objectionable odors will be managed in the solidification unit.

(e) Adequate fire protection shall be available at all times.

The facility is equipped with fixed and portable fire extinguishers compliant with NFPA.

(f) Access to the facility shall be controlled during the design period of the facility by fencing or other effective barriers to prevent disposal of unauthorized solid waste.

The facility is surrounded by a chain link fence topped with barb wire. Controlled site access is through a gate that is only opened for approved personnel and is monitored by cameras and closed circuit TV with recording devices. Visitors must check-in at the administrative office and receive an appropriate visitor badge and escort if required for their level of facility training and association.

(g) All drains and leachate conveyances shall be maintained so that leachate flow is not impeded.

The site does not generate leachate. All stormwater that falls onto containment areas is collected and discharged to the local POTW, solidified in the mix tub or shipped offsite for proper disposal.

(h) If any regulated hazardous wastes are discovered to be improperly deposited at the facility, the facility operator shall promptly notify the Department, the person responsible for shipping the wastes to the facility, and the generator of the wastes, if known. The area where the wastes are deposited shall immediately be cordoned off from public access. If the generator or hauler cannot be identified, the facility operator shall assure the cleanup, transportation, and disposal of the waste at a permitted hazardous waste management facility.

Clean Harbors Florida is uniquely qualified to manage any hazardous wastes shipped to the facility. All wastes are sampled and analyzed per the existing Waste Analysis Plan. If any non-hazardous waste is discovered to be hazardous, it will be managed compliant with the RCRA permit and appropriate notifications made to FDEP.

(i) If the facility has reached its permitted capacity for storage of wastes or recyclable materials, the permittee shall not accept additional waste for processing until sufficient capacity has been restored.

At no time will the RCRA permitted limits be exceeded.

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

The RCRA closure plan describes closing the facility in compliance with this requirement.) Shredder/Solidification unit closure is included in Section 9.8.1, Perimeter Road.

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

The RCRA contingency plan describes how the facility will respond to potential scenarios in compliance with this requirement.

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

Clean Harbors Florida has financial assurance in place to cover costs associated with closing the facility. The facility closure cost estimate is updated annually as well as the associated financial assurance mechanism. This information is submitted to the Department annually.

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

There were two (2) enforcement action associated with Clean Harbors Florida during the last 5 years.

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

FDEP form 62-730.900(2) for the permit contains the landowner certification.

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Attachment A



Non-RCRA Solidification Standard Operating Procedure

Clean Harbors Florida Bartow, FL

Table of Contents

SECTION 1.0
SECTION 2.0
SECTION 3.0
SECTION 4.0
SECTION 5.0
SECTION 6.0
SECTION 7.0



TITLE: Non-Hazardous Waste Solidificatio	n		
Facility: Clean Harbors Florida	Prepared by: Mike Crisenbery	SOP Number: 64BW-MXTB-01	Page 3 of 5
Reviewed By:	Title: Health and Safety Manager Environmental Compliance Manager Operations Manager	Issue Date: 11/6/2012	
Approved By: John Bosek	Title: General Manager	Next Review Date:	

1.0 Objective

This SOP is to provide the guidance and necessary steps for workers to solidify waste materials to meet the regulatory requirements to safely dispose of it in a landfill or a WTE incinerator. The procedure below will provide the steps to meet this objective.

2.0 Site Specific Terms

Mixtub, Roll-off, Can, Vactor, Cusco, Guzzler, Excavator, Backhoe, Fork Truck, Ramps, Tarps, Bows, Can Liners, Dump Liners, Operator, Sawdust, Oil Dry, Swellgel.

3.0 Responsibilities

General Manager

The General Manager will ensure that all employees are trained and knowledgeable regarding the proper operating procedures used during Solidification.

Supervisors

The supervisor and/or lead foreman for this process is responsible for training, monitoring, and enforcing this procedure with the employees.

Employees

Employees are responsible for following and adhering to safe work practices and all provisions found in this procedure. Employees must inspect equipment and report any failures or deficiencies to the appropriate Supervisor.

4.0 Prerequisites

Health and Safety

- Any incidents, including near misses, are to be reported immediately to the supervisor.
- Review the Job Hazard Analysis (Appendix 1) to become familiar with the hazards associated with this process.
- Consult the PPE Hazard Assessments (Appendix 2) to be worn for this job task.
- The buddy system (e.g., visual, audio contact, etc.) must be maintained when this process is being conducted.

Environmental

- Ensure all applicable monitoring equipment is available.
- If an incident occurs, report it immediately to your supervisor.
- Facility Air Permit restrictions must be considered prior to this operation.
- Incidental releases are to be cleaned up immediately in the process designated PPE.
- If the incident requires additional assistance or equipment, the Contingency Plan may need to be implemented.

TITLE:	SOP No.:	Page 4 of 6
Non-Hazardous Waste Solidification	64BW-MXTB-01	•

Documented Training

- Hazard Communication for site chemicals and fuels
- OSHA regulated substances, as required (e.g., asbestos, arsenic, lead, etc.)
- SOP and OJT training
- Contingency Plan training
- Equipment training (e.g., haul truck, excavator, backhoe, forklift, front end loader, etc.)

Operations

- Material restrictions: the following wastes shall **NOT** be processed: activated carbon, reactive materials, oil or solvent-based paint filters, pesticides, oxidizers, grinding swarf, metal powders, poisons (Hazard Class 6.1), dyes, inks in dry powder form, cyanides, pharmaceutical compounds, and corrosive solids/sludges.
- RCRA and TSCA wastes must not be solidified using this process.
- <u>All of our waste class codes have specific / defined parameters that are uniform across our system.</u> <u>The determination of routing path to final disposal / recycle facility is also based on this classification code.</u>
- As it pertains specifically to the materials we expect to route through Bartow's shredder for disposal at Covanta, here are the following waste class codes that would be applied for non-haz material suitable for waste to energy.
 - CCRN
 - CCRNE
 - LCCRN
- Our internal specs for this category is as follows:
 - Non-hazardous Material for Waste to Energy Incineration:

Must be non-hazardous No pesticides, herbicides, pharmaceuticals or FIFRA regulated material Other specifications to be individually quoted PRIMARY DISPOSAL METHOD: WASTE TO ENERGY INCINERATION

Profiles that consist of specific products, or include specific products in the composition of the profile, would require SDSs. Analysis would be required as needed, based on assessment of generator's ability to apply their own process knowledge. Unused material in consumer packaging – likely relying on SDS and not analysis. Remediation project at a chemical manufacturer...analysis would certainly be required. Our technical group would request any additional information, documentation, and / or analysis if they determined it was necessary to properly classify the material – after starting review of our own profile form.

- Ensure that all preventative maintenance on equipment has been conducted.
- Ensure that all equipment is clean, ready for the next treatment, and operational.
- Ensure that all waste material to be dumped has been sampled, analyzed, compatibility tested, and final coded.
- Ensure that the material is noted on the pick list (e.g., batch list, job sheet) or laboratory treatment recipe.
- Confirm that there is sufficient absorbent to solidify the waste and meet landfill requirements.
- Required equipment: Fork truck, ramps, sawdust, Xsorb, Swellgel, disposable diapers, tarps, liners, dump trailer, roll-off can, excavator, backhoe, sample jars, collawasa rods, shovel, broom, bungee cords.
- Staffing: 2 equipment operators/laborer.

5.0 Procedure

Receiving (as applicable)

- 1. Receiving personnel reviews paperwork and receives within the WinWeb system.
- 2. Once load/can is received and bulk solids personnel have been contacted, driver enters plant and proceeds to proper location with two copies of the receiving report and one copy of the inbound weight ticket.

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3. If the load is in a roll off can and the can is being dropped at the plant, the driver must place the printed drum label on the front of the can before dropping in the designated location.

Waste Tracking

- 1. Once the waste has been received, it will automatically track into Win Web. Win Web is the electronic system used to track every inbound container. Each container is assigned a unique bar code number for tracking purposes. Each inbound shipment to be solidified is tracked to the mix tub. After the waste is solidified and loaded into roll offs for shipment offsite, it is again linked to each outbound shipping document. Waste can br tracked from inbound receipt to outbound shipment .This can be viewed under "Plant Processes", "Viewing", "View inventory report." This screen will break the waste down by drum number into the specific low cost location that the waste needs to be tracked.
- 2. Once the waste has been loaded into an outbound roll off/dump trailer, the respective waste tracking drum number can be solid bulked into that container.
- 3. Once the numbers have been solids bulked into the container, the container can be outbound manifested.

Material Processing Operation

Pre-Operational Inspections

- 1. Personnel must perform and document a pre-shift inspection on all equipment to be used. (e.g., fluids, hydraulic hoses, weld joints, etc.)
- 2. Any equipment found to be unsafe or inoperable must be immediately placed out of service and the Operations Supervisor must be notified.

Solidification Procedures

- Bulk solids personnel review the paperwork (2 copies: 1 copy with weight ticket to accompany sample to lab (if necessary) and second to remain with Bulk Solids Operations Supervisor) and inspects the load and condition of vehicle (e.g., leaking, faulty/unsafe equipment) If found to be unsafe to unload, vehicle will be placed out of service, Driver will be instructed to call his/her coordinator and Bulk Solids Operations Supervisor (BSOS) will contact maintenance facility or proper individual for repairs prior to unloading.
- 2. A representative sample along with one copy of the receiving report and weight ticket will be brought to the lab.
- 3. Lab will run analytical on the sample (great 8) and test for PCB's in accordance with the Waste Analysis Plan (WAP).
- 4. Lab or qualified individual final codes the sample and enters in WinWeb accordingly.
- 5. Lab contacts Bulk Solids personnel and informs of final code or possible OffC. If OffC, compliance manager will be notified.
- 6. If material is consistent with receiving report, Vactor, Cusco, Roll off, etc. can then be dumped into proper solidification tub. Ensure all loads received from utility companies (liquid and solids) have been tested for PCB's. For potential dust generating loads, respiratory protection is required. Dust generation can be managed by spraying water on the load while dumping.
- 7. To avoid an accidental release (liquid or solid), BEFORE DUMPING, inspect the load. Inspections can be performed visually or by using the stick. Respiratory protection is required for this procedure. Ensure the lower valve is clear of liquid before opening the rear door and open the door slowly to avoid an uncontrollable surge of material. Always be in visual contact with all personnel involved in the entire operation.
- 8. Once material is emptied from vehicle, the vehicle/roll-off will be rinsed with a sufficient amount of water to clean. Before standing or walking between the truck body and open rear door, ensure the door is propped open with the safety bar or equivalent means if the safety bar is not available. Washwater generated will typically be collected in the mixtub and solidified with the waste. Alternatively, it may be collected and pumped into one of the existing RCRA tanks. It will be characterized and shipped offsite for disposal.
- 9. Close the rear door of vehicle/can and properly secure with locking dogs or mechanism.
- 10. Driver pulls onto scale and has an outbound weight stamped below the inbound weight and exits plant.
- 11. Solidification reagent is added to the mixtub using a backhoe or front end loader. The waste and solidification reagent will be physically mixed using a backhoe or excavator. The waste is mixed until no free liquid is present.
- 12. Once the waste has been solidified, it is loaded into roll-offs or dump trailers for shipment offsite. The empty roll-off or dump trailer is staged adjacent to the mixtub. The backhoe or excavator is used to transfer the solidified material.
- 13. Examples of solidification materials, blends and uses. MSDS's are included as an Appendix. These reagents have been confirmed to physically solidify waste. No chemical treatment will occur.
 - 6-oil: Sawdust
 - Manhole sludge: Oil dry and sawdust
 - Non-haz liquid: Swell-jell and sawdust

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Process Interruptions

- 1. Power Loss
 - Dumping of vehicle will be ceased if the loss creates inadequate lighting (e.g., second or third shift operations) or a loss of the fire suppression system. Vehicle needs to be safely secured and dumping operation cannot resume until power is restored and all systems are back on line.
- 2. If any of the following occur, the dumping process needs to be immediately ceased and the appropriate individual(s) need to be notified. (e.g., Health and Safety Manager, Compliance Manager, Bulk Solids Operations Supervisor) A determination will be made as to whether or not to implement the Contingency Plan based on the locations permit requirements.
 - Fires
 - Reactions (off gassing, excessive dust, odors)
 - Spills
 - Incorrect material dumped into tub or container
 - Worker exhibits signs and symptoms of exposure.

Shut Down or Precipitation Events

All containers must be covered when not actively being processed.

All containers must be covered during rain events.

At end of each shift/day, the area in which the dumping operation occurs and the equipment used needs to be properly cleaned and inspected.

- Remove excess waste and debris from the excavator/backhoe bucket and any other equipment used, inspect for any cracks or signs of damage, and stage equipment in proper staging area.
- Cover all containers (includes mixtub)
- Clean-up work area and return all equipment to proper storage areas. If any waste spills in the concrete
 containment area, it must be removed and the area washed with water. Washwater generated will typically
 be collected in the mixtub and solidified with the waste. Alternatively, it may be collected and pumped into
 one of the existing RCRA tanks. It will be characterized and shipped offsite for disposal.
- Remove all contaminated PPE and place in approved container.
- Ensure all tracking/receiving reports are turned into lab or supervisor and report any discrepancies or equipment issues.

6.0 Consequences of Deviations

In addition to the process interruptions which can occur, the following additional consequences of deviations could result:

- Injuries and/or fatalities
- Property damage
- Regulatory violations and/or fines
- Damaged public relations and/or customer relations
- Disciplinary actions up to and including termination

7.0 Appendices

- Site-specific Process Checklist
- SOP Quiz and Performance Evaluation Checklist to be conducted initially and for incidents
- Job Hazard Analysis
- PPE Hazard Assessment
- Solidification reagent MSDS's

SDS Revision Date: September 9, 2014

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	Diaper Dust
SYNONYMS:	Paper Dust with super absorbent polymer
DISTRIBUTER:	Harvest Technologies, Inc.

ADDRESS: 36 Featherfoiil Way Malta, NY 12020

EMERGENCY PHONE: 800-424-9300 (Chemtrec)

Notes: This byproduct of diaper and other personal disposable hygiene cutting and converting operations consists of reclaimed fluff pulp dust with non-hazardous superabsorbant polymers (hydrogels).

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

May cause mild eye and skin irritation. Inhalation of dust from dried product may cause mucous membrane and upper respiratory irritation. Dust may cause mild eye irritation. High concentrations of dust in air may present a dust explosion hazard.

Avoid creating dust when handling, using or storage. Use with adequate ventilation to keep exposure below recommended exposure limits. Keep away from flames, sparks and all other sources of ignition.

PRODUCT DESCRIPTION:

This material is a clumpy gray/white paper dust.

US OSHA Classification (29CFR1910.1200): Hazardous - Target organ effect

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS:

CAS NO.	<u>% VOL</u>	<u>Component</u>
Mixture	65-80	Cellulose
Proprietary	0-10	Non-Hazardous Polymers
1332-58-7	0-10	Kaolin
Mixture	0-5	Propenoic acid with homopolymers and sodium salt
7732-18-5	5-9-%	Water

SECTION 3 NOTES: These ingredients are typical of recycled paper products.

SECTION 4: FIRST AID MEASURES

EYES: Flush eyes thoroughly with water. If eye contact occurs , seek prompt medical attention.

SKIN: Wash with soap and water. Remove and launder contaminated clothing. Seek medical attention if irritation develops and persists. This product contains viable bacterial cultures. Thoroughly clean and disinfect all cuts and scrapes.

INGESTION: If large amount is swallowed, seek medical attention.

INHALATION: Move person to fresh air. Seek medical attention if irritation or other symptoms persist.

OSHA HAZARD COMMUNICATION SAFETY DATA SHEET

SDS Revision Date: September 9, 2014

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT: Not applicable

Explosive Limits: Not applicable

AUTOIGNITION TEMPERATURE: Not Applicable

EXTINGUISHING MEDIA: Water is the most effective agent for fighting fires involving paper products. Not incompatible with any extinguishing agent.

SPECIAL FIRE FIGHTING PROCEDURES: Wear positive pressure self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product is an ordinary combustible and will burn under fire conditions after the water has evaporated. High concentrations of suspended dust may present a dust explosion hazard.

HAZARDOUS COMBUSTION PRODUCTS: Combustion products include carbon dioxide, carbon monoxide, various organic compounds and smoke.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Eliminate flames and other sources of ignition. Clean-up spill while product is still wet if possible to avoid creating dust. Wear appropriate protective clothing to avoid eye and skin contact. Contain and collect spilled material and place in a container for use or disposal. Avoid contamination of water supplies and environmental releases. Report spills as required to authorities.

Refer to Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

HANDLING: Avoid eye contact and prolonged/repeated contact with skin. Avoid breathing dusts or mists. Minimize the generation and accumulation of dust. Use with adequate ventilation. Keep product away from excessive heat and all sources of ignition. Wash thoroughly with soap and water after handling.

STORAGE: Store in cool, dry and well ventilated location away from excessive heat and incompatible materials.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	EXPOSURE LIMIT	SOURCE	
Cellulose	15 mg/m3 PEL-TWA (total dust)	OSHA	
	5mg/m3 PEL-TWA (respirable dust)	OSHA	
	10 mg/m3 TLV-TWA (total dust)	ACGIH	
Non-Hazardous Polymers	None Established		
Kaolin	15 mg/m3 PEL-TWA (total dust)	OSHA	
	5mg/m3 PEL-TWA (respirable dust)	OSHA	
	2 mg/m3 TLV-TWA (respirable dust)	ACGIH	
Propenoic acid with associated	Non Established		
homopolymers and sodium salt			

OSHA HAZARD COMMUNICATION SAFETY DATA SHEET

SDS Revision Date: September 9, 2014

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE and ODOR: This material is a clumpy gray/white paper dust.

Solubility in Water: Dispersible	Boiling Point: Not Applicable
pH: Neutral (7-7.5)	Melting Point: Not Applicable
Specific Gravity: Approximately 1	Vapor Density: Same as Water
Evaporation Rate: Not Applicable	Vapor Pressure: Same as Water
Partition Coefficient: Not Applicable	Flash Point: Not Applicable
VOC Content: 0%	

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: Avoid excessive heat and strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Products of combustion include carbon dioxide, carbon monoxide, various organic compounds and smoke.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Health Hazards:

Inhalation: Inhalation of dust from dried product may cause mucous membrane and upper respiratory irritation. Prolonged inhalation of respirable kaolin above the occupational exposure limit may cause lung damage.

Skin Contact: May cause mild irritation. Prolonged or repeated contact may cause dryness and cracking.

Eye Contact: May cause mild irritation. Dust particles may cause abrasive irritation.

Ingestion: Not expected to be acutely toxic based on animal studies.

Carcinogenicity: None of the components is listed as a potential carcinogen by IARC, NTP or OSHA.

Mutagenicity: This product is not expected to present a risk of genetic damage.

Reproductive Toxicity: This product is not expected to present a risk of adverse reproductive or developmental toxicity.

SECTION 12: ECOLOGICAL INFORMATION

This product is not expected to be toxic to aquatic organisms.

SECTION 13: DISPOSAL CONSIDERATIONS

This product does not meet the definition of a hazardous waste under RCRA. Dispose in accordance with all local, state and federal regulations.

SDS Revision Date: September 9, 2014

SECTION 14: TRANSPORT INFORMATION

Transportation Classification: Not regulated as a hazardous material for transportation.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

OSHA Status: Hazardous - Target organ effect (lung).

EPA SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT) Regulations:

SARA 311/312 Hazard Categories:

- N Fire Hazard
- N Sudden Release of Pressure
- N Reactivity
- N Acute Health
- Y Chronic Health

CERCLA Section 103: Not Applicable

RCRA Status: This product, as sold, is not regulated under RCRA as a hazardous waste.

TSCA Status: This product is an article and not subject to TSCA.

California Proposition 65: This product may contain trace amounts of chemicals known to the State of California to cause cancer or reproductive harm.

EPA SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT) Regulations: This does not contain chemicals above deminimus concentrations subject to the notification or reporting requirements of SARA 311, 312 or 313.

SECTION 16: OTHER INFORMATION

NRPA RATING (NFPA 704)	FIRE: 0	HEALTH: 0	REACTIVITY: 0
HMIS RATING	FIRE: 0	HEALTH: 0	REACTIVITY: 0

Date of SDS Revision: September 9, 2014

Western Clay	
Western Clay	

SWELLGEL

Premium Sodium Bentonite / Viscosifier / Filtrate Reducer

SWELLGEL is a 200 mesh high swelling sodium bentonite used as a viscosifier and Description thickening agent in the manufacturing of Asphalt Emulsions and Asphalt Seal Coats. Application Asphalt Emulsions and Seal Coats **Typical Properties Product Specification Typical SWELLGEL-130** Color tan to beige Density 66 PCF Compact 8.5 to 9.0 pН Viscometer 600 rpm 55 YP/PV Ratio 1.5 13.7 cm³ Filtrate Volume Residue > 75 Micrometers 3.0 wt.% Moisture 7-12 wt.% Mixes quickly and easily with make up water Advantages Small addition rate to achieve required viscosity Excellent hard water performance Packaging SWELLGEL-130 viscosifier is available in 80 lb. multi-wall paper bags, and super sacks and bulk shipments. To order SWELLGEL-130 please contact us at: Availability REDMOND

1-800-367-7258



Granular Absorbent (#1003000)

((312)321-1515, Information (800)424-9300, Emergency

1. PRODUCT IDENTIFICATION

MSDS Number: 1003000

Identity: Granular Absorbent

Issued: July 5, 2011

Chemical Name Fullers Earth and/or bentonite or amorphous opaline silica

2. COMPOSITION

Component	CAS Number	Amount
Silica Hydrated (Amorphous Opaline Silica)	7631-86-9	90-100%
Fullers Earth	8031-18-3	90-100%
Bentonite	1302-78-9	90-100%
Quartz (respirable <1%)	14808-60-7	<10% bulk

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This product is a non-combustible, chemically inert mineral. This mineral sample contains naturally-occurring crystalline silica as quartz. Prolonged overexposure to respirable crystalline silica may cause lung disease (silicosis). IARC, in Monograph 68, has concluded that crystalline silica inhaled in the form of quartz from occupational sources is carcinogenic to humans (Group 1); however, carcinogenicity was not detected in all industrial circumstances studied. The company is not aware of any scientific or medical data available indicating that exposure to dust from this product under conditions of normal use will cause silicosis or cancer. Adverse effects would not be expected from normal use of this product.

HEALTH HAZARDS

INGESTION:	No adverse effects expected with unused material.
INHALATION:	Inhalation of excessive concentrations of dust may cause irritation of mucous membranes and upper respiratory tract.
EYE:	Contact may cause mechanical irritation and possible injury.
SKIN:	No adverse effects expected.
SENSITIZATION:	No adverse effects expected.

CHRONIC/CARCINOGENICITY:

Inhalation of excessive concentrations of any dust, including this material, may lead to lung injury. This product contains crystalline silica. Excessive inhalation of respirable crystalline silica may cause silicosis, a progressive, disabling and fatal disease of the lung. Symptoms may include cough, shortness of breath, wheezing and reduced pulmonary function. The International Agency for Research on Cancer (IARC), in Monograph 68 has concluded that crystalline silica inhaled in the form of quartz or cristobalite, from occupational sources is carcinogenic to humans (Group 1). However, in making the overall evaluation, the Working Group noted that carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its



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biological activity or distribution of its polymorphs. The National Toxicology Program (NTP) classifies crystalline silica as a known carcinogen. The company is not aware of any scientific or medical data available indicating that exposure to dust from this product under conditions of normal use will cause silicosis or cancer. Adverse effects would not be expected from normal use of this product.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None currently known.

4. FIRST AID MEASURES

EYE:Immediately flush eyes with cool running water, lifting upper and lower lids. If irritation
persists or for foreign body in the eye, get immediate medical attention.SKIN:None needed for normal use.INGESTION:If used material is ingested, get medical attention due to possibility of chemical
contamination. If large amount of unused material is swallowed, get immediate medical
attention.INHALATION:Remove to fresh air.

5. FIREFIGHTING MEASURES

FLASH POINT: This product is not combustible.

FLAMMABLE LIMITS Not applicable

EXTINGUISHING MEDIA:

Use media that is appropriate for surrounding fire.

UNUSUAL FIRE OR EXPLOSION HAZARDS:

None

SPECIAL FIREFIGHTING INSTRUCTIONS

None required.

HAZARDOUS COMBUSTION PRODUCTS:

None



Granular Absorbent (#1003000)

((312)321-1515, Information (800)424-9300, Emergency

6. ACCIDENTAL RELEASE MEASURES

Sweep up and collect for re-use or disposal

7. HANDLING AND STORAGE

HANDLING:

Avoid breathing dust. If clothing becomes dusty, launder before re-use.

STORAGE: Store in a dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Component	Exposure Limit
Silica Hydrated (Amorphous Opaline Silica)	PEL - 80 mg/m ³ / % SiO2
Fullers Earth	PEL - 15 mg/m ³ TWA (total dust) PEL - 5 mg/m ³ TWA (respirable fraction)
Bentonite	PEL - 15 mg/m ³ TWA (total dust) PEL - 5 mg/m ³ TWA (respirable fraction)
Quartz (respirable <1%)	PEL - 10 mg/m ³ /% Si02+2 TWA TLV - 0.025 mg/m ³ TWA

PEL- OSHA Permissable Exposure Limit. TLV- American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value. TWA- 8 hour Weighted Average. STEL-Short Term Exposure Limit.

ENGINEERING CONTROLS:

For operations where the exposure limit may be exceeded, local exhaust ventilation is recommended.

RESPIRATORY PROTECTION:

For operations where the exposure limit may be exceeded, a NIOSH/MSHA approved high efficiency particulate respirator is recommended.

SKIN PROTECTION: None required for normal use.

EYE PROTECTION: Safety glasses or goggles recommended.

OTHER: None required for normal use.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:

Gray to tan (or red) granules, no odor

PHYSICAL STATE: Solid

BOILING POINT: Not applicable

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

SOLUBILITY IN WATER:

Insoluble



Granular Absorbent (#1003000)

((312)321-1515, Information (800)424-9300, Emergency

SPECIFIC GRAVITY:

pH:

Not applicable

MELTING POINT: Not applicable

OCTANOL/WATER COEFFICIENT:

Not available

10. STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: Physical contact between this material and turpentine, hydrofluoric acid, vegetable oil or other unsaturated organic compounds (such as fish oil) may generate heat and/or fire. Do not use this material with these compounds.

HAZARDOUS DECOMPOSITION PRODUCTS:

None

HAZARDOUS POLYMERIZATION:

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental regulations. Unused material is suitable for disposal in sanitary landfill. Used material may be subject to regulation, depending on the nature of the material absorbed. Check with appropriate regulatory authority for used material containing hazardous waste.

14. TRANSPORT INFORMATION

PROPER SHIPPING NAME:

Not regulated

UN NUMBER: Not applicable

HAZARD CLASS/PACKING GROUP:

Not applicable

LABELS REQUIRED: None



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15. REGULATORY INFORMATION

CERCLA/SUPERFUND None

SARA HAZARD CATEGORY (311/312):

Chronic Health

SARA 313:	None
TSCA:	All of the components of this product are listed on the EPA TSCA Inventory or exempt from notification requirements.
EINECS:	All of the components of this product are listed on the EINECS Inventory or exempt from notification requirements
EEC R&S Phrases:	Xn Harmful, R48/20 Harmful: Danger of serious damage to health by prolonged exposure by inhalation; S22 Do not breath dust; S38 In case of insufficient ventilation, wear suitable respiratory equipment.
JAPAN MITI:	All of the components of this product are existing chemical substances as defined in the Chemical Substances Control Law.
AICS:	All of the components of this product are listed on the AICS Inventory or exempt from notification requirements
CANADIAN DSL:	All of the components of this product are listed on the Canadian Domestic Substance List or exempt from notification requirements.
CA PROPOSITION 65	: This product contains respirable crystalline silica which is known to the State of California to cause cancer.
16 OTHED INE	<u>ΣΡΜΑΤΙΩΝ</u>

16. OTHER INFORMATION

NFPA RATING: Health=1 Fire=0 Reactivity=0

HMIS RATING: Health=1* Fire=0 Reactivity=0

The information in this data sheet is believed to be accurate. However, each purchaser should make its own test to determine the suitability of the product for its purposes. OIL-DRI CORPORATION OF AMERICA MAKES NO WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO THE PRODUCT and assumes no responsibility for any risk or liability arising from the use of the information or the product. Statements about the product should not be construed as recommendations to use the product in infringement of any patent.



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((312)321-1515, Information (800)424-9300, Emergency

APPENDIX. ASSOCIATED PRODUCTS

This MSDS applies to the following products. Products are listed alphabetically across then down.

Absorbs It All Purpose 18/40 2426# Calcine 5/18 Red **Concept Absorbent** Dryden Generic Flor Dri GA Generic Ga Generic Ground Clay 4/20 GW **Industrial Quick Sorb** Instant Dri Red **OD** Premium Absorb **O-D Sams Premium Poly** Oil Dri 12/24 LVM Oil Dri Allpurpose 33 1/3 Oil Dri Industrial Absorbent Oil Dri Regular Absorbent Plain Oil Zorb Oil-Dri Automotive Premium 4/10 Pvl Heavy Duty Generic SND Standard GB White Absorbent

All Purpose 18/40 Associates Premium Concentrate **DOC** Private Exclusiva GA A.P. Private Label Grey Calcined 5/30 Ground Clay 6/30 GB Instant Dri Blue Japanese Floor Abs. **OD** Premium Absorbent Off Shore Generic Oil Dri Allpurpose Oil Dri Industrial Oil Dri Premium Poly Abs Oil Dri U.S. Special Oil Zorb Premium Abs **Oil-Dri Premium Poly Abs Quick Sorb Pail** Super Clean A.P. 18/40 White Absorbent-Pvl



Sawdust

I. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sawdust Date Revised: 7/2010 Generic Description: Solid particles, dust and chips consisting primarily of kiln dried softwood Synonyms: Pine Sawdust

Supplier: NOV FluidControl

4310 N Sam Houston Parkway East Houston, Texas 77032 USA Office: (713) 482-0500 Fax: (713) 482-0695 Company website: <u>www.nov.com</u>

Emergency Telephone Number: CHEMTREC: 1-800-424-9300 or International +1-703-527-3887

II. COMPOSITION			
Material or Component	Percentage %	CAS Number	Exposure Limits (mg/m3)
Wood Dust (Total) Softwoods and hardwoods except western red cedar	100%	N⁄A	ACGIH-TWA ¹ WCB of BC-TWA ¹ AB OHS OEL ² 1.0 2.5 (non-allergenic ³) 5.0

ACGIH - American Conference of Governmental Industrial Hygienists, 2007 Threshold Limit Values for Chemical and Physical Agents

¹ TWA - time-weighted average for a normal 8-hour workday and a 40-hour workweek

² OEL - Alberta Occupational Health and Safety Code 2006 – Schedule 1, Table 2 – Occupational exposure limits for chemical substances within an 8-hour workday

³ Pine softwoods are NOT considered allergenic as per Chan-Yeung, M, Malo, J-L, "Aetological Agents in Occupational Asthma," European Respiratory Journal, Volume 7, 1994 (pp. 346-371).

III. FIRST AID MEASURES

Eye Contact:

In case of eye contact, flush with water for at least 15 minutes. Get medical attention if required. **Skin Contact:** Wash thoroughly with soap and water. Get medical attention if required. **Inhalation:** Remove the person from the area. Keep at rest. Call for medical attention if required. **Ingestion:** Seek medical attention if required.



Sawdust

Material Safety Data Sheet

IV. FIRE AND EXPLOSION DATA

Fire Hazards: Flash Point: Firefighting: Hazardous Combustion Products:		Product contains wood by-products; combustible.			
		Mixing with perchloric acid may cause product to self-ignite. N/AP Water, foam, CO ² , or dry chemical. Firefighters must wear appropriate breathing apparatus and clothing. Combustion or thermal decomposition may generate oxides of carbon (e.g., CO, CO ²), oxides of sulphur, and/or hydrogen chloride gas (HCI).			
			Upper Flammable Limit: Lower Flammable Limit:		WAP NAP
			V. PREVENTATIVE	MEASUR	ES
Engineering Controls:	N/AP				
Respirator:	Occupat	IIOSH-approved respirator when ional Exposure Limits are exceeded and ring controls are not practicable.			
Eyewear:	Safety goggles are recommended.				
Clothing:	Wear long sleeves and gloves to avoid skin contact.				
Other Handling Precaution					
		e stirring/turbulence of dust. noroughly after handling.			
	Do not s	smoke when handling this product.			
	Keep away from open flames, sparks, pilot lights, perchloric acid and other sources of ignition.				
Storage Requirements:					
	Keep aw and othe	a cool, dry place. vay from open flames, sparks, pilot lights, er sources of ignition. ite from incompatible materials (see Reactivity Data).			
VI. PHYSICAL AND	CHEMICAI	L PROPERTIES			
Physical state 8	Appeara				
	n Daint.	solid, finely divided material.			

	solid, finely divided m
Freezing/Melting Point:	N/AP
Evaporation Rate:	N/AV
Density:	N/AV
Odor:	Pine
pH:	N/AV
Odor Threshold:	N/AV
Solubility:	Insoluble in water
Boiling Point:	N/AP
Viscosity:	N/AV
-	

<u>NOTES:</u> N/AV = Not Available N/AP = Not Applicable



Sawdust

Material Safety Data Sheet

VII. STABILITY AND REACTIVITY

REACTIVITY DATA Chemical Stability:	Stable
Incompatible Substances & Condit	tions to Avoid: Keep away from oxidizers, drying oils and ignition sources; mixing with perchloric acid may cause product to self-ignite. A severe explosion hazard may exist if a wood dust cloud comes into contact with a source of ignition. Partially burned or scorched wood dust is especially hazardous if dispersed in air because of its explosivity. ³
Decomposition Products: Hazardous Polymerization:	Thermal decomposition may generate oxides of carbon (e.g., CO, CO2), oxides of sulphur, and/or hydrogen chloride gas (HCI). Will not occur.

VIII. TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY:

Skin:	Yes
Eye:	Yes
Inhalation:	Yes
Ingestion:	Yes

EFFECTS OF ACUTE EXPOSURE:

INHALATION: Airborne treated or untreated wood dust may cause nose, throat or lung irritation. Various species of untreated wood dust can elicit allergic respiratory response in sensitized persons, hypersensitivity, asthma, suberosis, granulomatous pneumonitis, or acute airway obstruction. ³

INGESTION: Not anticipated to occur. A single ingestion of a very large dose of wood dust may require immediate medical attention.

SKIN CONTACT: Skin contact may cause erythema, blistering, erosion and secondary infections of the skin, redness, scaling, itching, and vesicular dermatitis.³

EYE IRRITATION: May cause redness and irritation of the eye.³

EFFECTS OF CHRONIC EXPOSURE:

Chronic exposure to wood dusts can result in dermatitis reactions, asthma, pneumonitis, and coughing, wheezing, fever and the other signs and symptoms associated with chronic bronchitis.³

SKIN SENSITIZER: Pinenes that contain delta-caratene are classified as sensitizers. Such substances may produce an allergic reaction after initial exposure allergic dermatitis typically results in redness, scaling, and itching, which may become vesicular dermatitis if exposures are repeated. This type of dermatitis often occurs on the hands, face, forearms, eyelids, neck, and genitals, and will sometimes not appear until several years have passed following the exposure, although frequently the signs are apparent within a few days or weeks. ⁴



Sawdust

Material Safety Data Sheet

CARCINOGEN: The International Agency for Research on Cancer (IARC) has classified "wood dust" as Group 1, Carcinogenic to Humans. This is a generic classification for all woods, even though certain individual wood species may not be carcinogenic. IARC has also indicated that hardwoods may be more hazardous than softwoods.⁵

1 CIS Chemical Information (ILO/CIS) - Country Exposure Limits. - American Conference of Governmental Industrial Hygienists. Retrieved from WORLD WIDE WEB on October 9, 2003: http://www.inchem.org/documents/ilodb/explimit/acgih.htm

2 Chemical and Biological Substances - ITEM: R5.48-, Exposure Limits and Designations, Appendix D. The Workers' Compensation Board of British Columbia Resolution of the Board of Directors. Retrieved from the WORLD WIDE WEB on October 9, 2003:

http://www.worksafebc.com/law_and_policy/policy_decision/board_decisions/2003/july/assets/pdf/oel/resolution_2 003-07-15-01.pdf

3 Occupational Safety and Health Guideline for Wood Dust, All Soft and Hardwoods, Except Western Red Cedar. Occupational Safety and Health Administration, U.S. Department of Labor. Retrieved from the WORLD WIDE WEB on October 9, 2003.

http://www.osha.gov/SLTC/healthguidelines/wooddustallsoftandhardwoodsexceptwesternredcedar/recognition.html

4 Hathaway GJ, Proctor NH, Hughes JP, and Fischman ML [1991]. Proctor and Hughes' chemical hazards of the workplace. 3rd ed. New York, NY: Van Nostrand Reinhold.

5 IARC. International Agency for Research on Cancer. Wood Dust. IARC Monographs on the Evaluation of Carcinogenic Risk of Chemicals to Humans. Vol. 62. Lyon, France: IARC, 1995, pp. 35-215.

DISCLAIMER:

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, NOV FluidControl, makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the person receiving this MSDS will make own determination as to its suitability for their intended purpose prior to use. Since the product is within the exclusive control of the user, it is the user's obligation to determine the conditions of safe use of this product. Such conditions should comply with all Federal Regulations concerning the Product. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER NATURE ARE MADE HERUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

For further information contact:

NOV FluidControl

4310 N Sam Houston Parkway East Houston, Texas 77032 USA Office: (713) 482-0500 Fax: (713) 482-0695 Company website: www.nov.com



Shredder Operations Standard Operating Procedure

7001 Kilo Ave. Bartow, FL 33830

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7.0 Appendices
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SOP Quiz and Performance Evaluation Checklist
Job Hazard Analysis
PPE Hazard Assessment
Lock Out / Tag Out
Confined Space Entry

Facility: Bartow	Prepared by:	SOP Number: 64BW-SHRDR-01	
Reviewed By:	Title:	Issue Date: 2017	
John Bosek	Facility General Manager		
James Wes McDuffie	Operations Manager		
Freddie Culyer	Facility Technician I		
Jeremey Harper	Facility Technician II		
Floyd Williams	Health and Safety Manager		
David DeSha	Compliance Manager		
Approved By:	Title:	Next Review Date:	
John Bosek	Facility General Manager	2018	

1.0 Objective

The purpose of this SOP is to provide instruction and guidance on the process and techniques of shredding Non -Hazardous Wastes that are to be bulked for either Incineration or Landfill. This procedure will apply to all those personnel involved with either shredding material or operating equipment necessary for the process.

2.0 Site Specific Terms

Specific equipment involved in shredder operations includes: Forklift, backhoe, roll-off frame, mix tub, hydraulic unit, shredder, main control panel, Intermodal, Hopper, Consolidation area.

3.0 Responsibilities

General Manager

The General Manager will ensure that all employees are trained and knowledgeable regarding the proper operating procedures used during shredding operations, and to enforce compliance with the SOP by personnel involved with the shredding process.

Supervisors

The supervisor and/or lead foreman for this process is responsible for training, monitoring, and enforcing this procedure with the employees, and for ensuring all equipment and required PPE are available to the employees.

Employees

Employees are responsible for adhering to safe work practices and all provisions found in this procedure. Employees must inspect equipment and report any failures or deficiencies to the appropriate Supervisor.

4.0 Prerequisites

Health and Safety

- Any incidents, including injuries and near misses, are to be reported immediately to the supervisor.
- Employees must review the Job Hazard Analysis to become familiar with the hazards associated with this process.
- Consult the PPE Hazard Assessments to determine what protective equipment must be worn to perform this job task.
- Employees are not to conduct the process by themselves. The buddy system (e.g., visual, audio contact, etc.) must be maintained when this process is being conducted.

Environmental

- Only Non Hazardous material may be processed through the shredding process. These include filters, pharmaceutical products, PPE, etc. **NO RCRA or TSCA** waste is permitted to be processed. Monolithic drums are acceptable for the shredder.
- If an incident occurs, report it immediately to your supervisor.

- Incidental releases are to be cleaned up immediately in the process designated PPE.
- If the incident requires additional assistance or equipment, the Contingency Plan may need to be implemented.

Required and Documented Training

- HazWoper training
- OSHA regulated substances, as required (e.g., benzene, methylene chloride, vinyl chloride, asbestos, arsenic, etc.)
- RCRA training
- DOT training for container closure
- SOP training
- Equipment training (e.g., forklift, excavator, roll-off truck, etc.)

Operations

- Material restrictions: the following wastes <u>shall not</u> be shredded/bulked unless reviewed and authorized by the General Manager, Compliance Manager, and Health and Safety Manager:
 - Aerosols
 - Lighters (ex. Butane)
 - Batteries (all types)
 - Fireworks (any type)
 - Activated carbon
 - Reactive materials
 - Oil or solvent-based paint filters
 - Pesticides
 - Oxidizers
 - Grinding swarf
 - Metal powders (i.e. aluminum, magnesium)
 - Metal Debris such as bolts, wires, metal fines
 - Flammable liquids, debris, or rags from which flammable liquid can be squeezed
 - Poisons (Hazard Class 6.1)
 - Dyes
 - Inks in dry powder form
 - Cyanides
 - Monomers
 - Odiferous materials
 - Acids and acid sludge.
 - Large metal equipment or items (examples: stainless steel piping, valves, pumps, motors)
 - Powdery material
 - Corrosive materials having a pH <2.0 or >12.5
 - Others based on the facility's permit.

NOTE: IF THE OPERATOR HAS ANY QUESTIONS OR CONCERNS REGARDING THE PROCESSING OF WASTE PRIOR TO SHREDDING THE EMPLOYEE SHOULD PLACE THE DRUM/CONTAINER OFF TO THE SIDE AND IMMEDIATELY CONTACT THEIR SUPERVISOR OR GENERAL MANAGER VIA RADIO OR PHONE FOR GUIDANCE.

- No waste materials with a flash point less than 140 F, (61 degrees C) are to be shredded unless the shredder is equipped with a nitrogen blanketing system, the shredder is equipped with an appropriate fire suppression system, and the waste is authorized by the facility's permit to be shredded.
- Ensure that all material to be transferred is compatible with the equipment construction, other material to be processed (e.g. in a batch/job) as well as any residue through the use of bucket testing or other compatibility testing, as appropriate
- Ensure that all preventative maintenance on equipment has been conducted and the equipment is operating
 properly

- Ensure that all equipment is clean, and operational.
- Ensure that all waste to be shredded has been approved referencing a picklist or waste receiving report.

Required equipment:

- Samples for bucket test (if applicable)
- Scanner for tracking purposes

5.0 Procedure

Receiving

- Materials properly profiled into the facility will be received and sampled in accordance with the waste analysis plan. The sample is to be placed in a sample container and marked appropriately (i.e. drum #). Chemist will ensure that the material to be bulked has been sampled/analyzed in accordance with the plant's Great 8 testing protocol.
- The chemist will evaluate samples, and if it meets the criteria for a non-hazardous process code, the material will be designated for the shredder or direct dump.

Preparation Prior to Bulking

- **Open 100 percent of containers for either the shredding and/or dumping process**. Visually inspect each drum to ensure the waste does not have any restricted items as described in this SOP.
- Perform a Bucket Test by retrieving a sample from the drum (if possible). Place it in a 5-gallon bucket and continue to sample additional drums from the batch process adding the sample to the bucket and mixing it. Observe the mixed material for any reactions including heat, smoke, bubbling, or signs of congealing. If reactions are observed, contact your supervisor and/or the General Manager to determine what should be done.
- Empty drums are acceptable for shredding provided that the manager or operator conducts a Physical and Visual test on every drum, including RCRA empty drums (therefore ensuring that the drums are empty). Ensure that 5 gallons of water is added to each Empty container(s) last containing flammable liquids prior to shredding. Water is to reduce potential for spark/flash.

Waste Tracking

- Operations personnel shall use the scanner or pick list to determine which drums are to be processed.
- If a container is designated in some way not to be processed, or it is decided that the container is not to be shredded, it shall be immediately moved from Consolidation area in order to avoid being shredded by mistake and returned to the receiving floor for correct coding and disposal routing. OFFC or DIDO (Drum in – Drum out) are examples of non-shred.

Pre-Operational Inspections

Ensure all requirement and other resources have been inspected prior to Start-Up:

- Perform a daily inspection of the forklift
- Perform a daily inspection of the Backhoe
- Roll off containers and dump trailers shall be inspected prior to being filled for: damage, holes, missing or damaged gaskets around lid, and structural integrity. If any of these are present, do not use the roll-off container. Notify the supervisor or manager so it can be fixed.
- Grease and spread a bag of oil dry across the interior door seal. Line the roll-off container or dump trailer with a poly liner.
- Insure that (2) class ABC type fire extinguishers, (1) class D type extinguisher, and (1) AFFF rolling type (33 gal) extinguishers are immediately available for emergency use.

- Ensure the emergency phones are in working order
- The equipment operator and shredder operator must both have radios.
- Ensure that access to safety showers and fire fighting equipment are free of obstructions.
- Review emergency contingencies with all personnel in the area in case of a fire.

Operation

START UP (Shredder)

- The main control panel location.
- Emergency E-stop is mounted on the control panel, Top center Red button over "cold oil light".
- Start Hydraulic Power Unit (HPU) by turning main power switch ON and press the HPU "START/RUN" button on control panel.
- Start shredder by pressing the SHREDDER "START/RUN" button. If the ambient temperature is 35 degrees F or below, turn on system an let run until warm oil light turns on before processing. Recommend the shredding of light debris/broken skids and/or empty labpack supplies to warm up the teeth (15 –20) to prevent cracking a tooth or cutter.
- Load drums into hopper using fork truck. Only fork truck trained personnel may operate fork truck. Ensure that personnel are not under suspended loads at any time during operations, or walk within 15 feet of hopper while shredding material in case waste, skids, etc. fall out of the hopper.
- For shredding totes, first position the tote feed conveyor by the opening of the shredder hopper. Use the tote feed system for all totes determined to be shredded.
- Continue to feed drums into shredder chamber until mix tub is full. NOTE: The mix tub is considered full when the fluid level reaches 12" from the top of the tub. All personnel involved in the operation should be aware of the volume in the mix tub to ensure that it is not overfilled.
- When shredding household waste material (paints, cans), turn on the water misting system located at the shredder dock. Additional use of the water misting system may be utilized upon approval of facility management.

RAM OPERATION

- 1. Ram can be operated manually by selecting "HAND" on the ram selector switch. Manually lower the ram by pressing and holding the "EXTEND" button. The ram will retract as the lid on the hopper opens. The ram will travel to either the upper or lower extent of its stroke, or until it encounters an object in the hopper with enough force to cause the ram pressure relief valve to operate.
- 2. Ram can be operated in Auto mode by switching selector switch to "Auto". Allowing the ram to raise and lower continuously.

Process Interruptions

<u>Jam Shutdown</u>

 If shredder becomes overloaded with metal or encounters non-shredable material, it will go into autoreverse mode and then will return to forward motion. If reversals become frequent, stop feeding shredder and check hopper, cutters, cleaning fingers, etc. DO NOT USE ANOTHER DRUM OR ANY OTHER DEVICE TO PUSH JAMMED MATERIAL THROUGH THE TEETH OF THE SHREDDER. NOTE: ALL LOCKOUT/TAGOUT GUIDELINES AND CONFINED SPACE GUIDELINES MUST BE FOLLOWED FOR ANY SERVICING OPERATIONS. (Including the precautions specified in LOCKOUT / TAGOUT and CONFINED SPACE GUIDELINES).

- If shutdown automatically occurs, check "SHREDDER JAM" light. The flash "CODES" and causes are listed as follows:
 - 1. One "Flash" Hydraulic problem. Possible closed main suction valve, low reservoir level, or hot fluid temperature. Notify Maintenance
 - 2. Two "Flashes" Motor overload. Motor may be above operating temperature. Notify Maintenance.
 - 3. Solid Light Jam shutdown. Determine cause before proceeding. Observe interior of hopper using the convex mirror checking for the cause (ensure fall protection procedures are followed).
- Remove non-shred able object using mechanical equipment which may include forklift, chains, or other appropriate lifting procedures. Ensure fall protection is utilized for elevated work, aka: Full body harness and lanyard. LOCKOUT / TAGOUT MUST BE FOLLOWED FOR ANY WORK ON OR WITHIN THE SHREDDER CHAMBER (INCLUDING HYDRAULICS) ENTRY INTO SHREDDING CHAMBER IS CONSIDERED A CONFINED SPACE. ALL CONFINED SPACE PROCEDURES MUST BE FOLLOWED. Operations are to identify and train personnel regarding the location and procedures needed to perform these tasks.

WARNING: Authorize entry by personnel after front of shredder has been removed requires approval by the H&S Manager. If jam can be cleared by mechanical means without personnel entering the shredder hopper, then a Confined Space Entry permit is not required.

 Once jam is cleared, reset shredder jam by pressing "SHREDDER JAM " light / button or turn control power OFF and then ON again with key switch. Press HPU MOTOR START / RUN button then the SHREDDER START / RUN button to start shredder.

Normal Shut Down

- Ensure discharge chute is clear
- Press SHREDDER STOP button and then the HPU STOP button
- Turn key switch to OFF position and remove key. Store key in designated area.
- Clean up work area and return all equipment to proper storage areas
- Keep forklift inside plant during cold weather
- Remove all contaminated PPE and place in mix tub
- Turn in all tracking sheets and report any discrepancies or equipment issues. (This should be done in the morning with your daily checklist. If equipment is unsafe or not working properly, it should be placed out of service immediately.

6.0 Consequences of Deviations

In addition to the process interruptions which can occur, the following additional consequences of deviations could result:

- Injuries and/or fatalities
- Property damage
- Regulatory violations and/or fines
- Damaged public relations and/or customer relations
- Disciplinary actions up to and including termination

7.0 Appendices

LOCKOUT / TAGOUT – See H&S online FALL PROTECTION – See H&S online CONFINED SPACE ENTRY – See H&S online

• FOLLOW ALL CLEAN HARBORS CORPORATE AND SITE SPECIFIC LOCKOUT PROCEDURES

- Main electrical power switch is located on main electrical panel, and must be switched to the OFF position and lock(s) and tag(s) applied before any servicing of the portion of the shredder which moves or contains pressure: (This includes blades, motors, entry into shredder chamber, hydraulics, etc.)
- Check effectiveness of lockout before proceeding with servicing work by pressing all start buttons. NONE SHOULD OPERATE

EMERGENCY ACTION AND SHUTDOWN

- ACTION IMPLEMENTED IN ACCORDANCE WITH CLEAN HARBORS REIDSVILLE SITE CONTINGENCY AND CORPORATE EMERGENCY RESPONSE GUIDELINES
- In the event of a fire in the mix tub, Notify supervisor immediately, the Deluge system will be activated manually by the push button on the shredder control panel.
- In case of fire in the shredder or chute, notify supervisor immediately, activate dry chemical system from one of the following areas:
 - Pull station to right of the control panel
 - Control head to the left of the shredder Pull the pin and turning the lever clockwise if the thermal sensors should fail activate the dry chem system.
- Remotely evaluate the effectiveness of the suppression system.
- Once the fire or reaction ceases, the emergency stop button located on the control panel should be pressed.
- In case of incipient fire in the mix tub, utilize rolling extinguisher (AFFF 33gal) and hand held extinguishers.
- Fires larger than incipient stage require contingency plan notification.
- To drain the area deluge line, use a 2 inch ball valve beside of rolloff containment.

THE FOLLOWING ITEMS REQUIRE EMERGENCY ACTION AND SHUTDOWN

- Fires
- Reactions
- Any employee or individual showing signs or symptoms of exposure
- Incorrect material dumped into the container (Requires shutdown and supervisor notification)

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Attachment **B**

Reset Form

Print Form

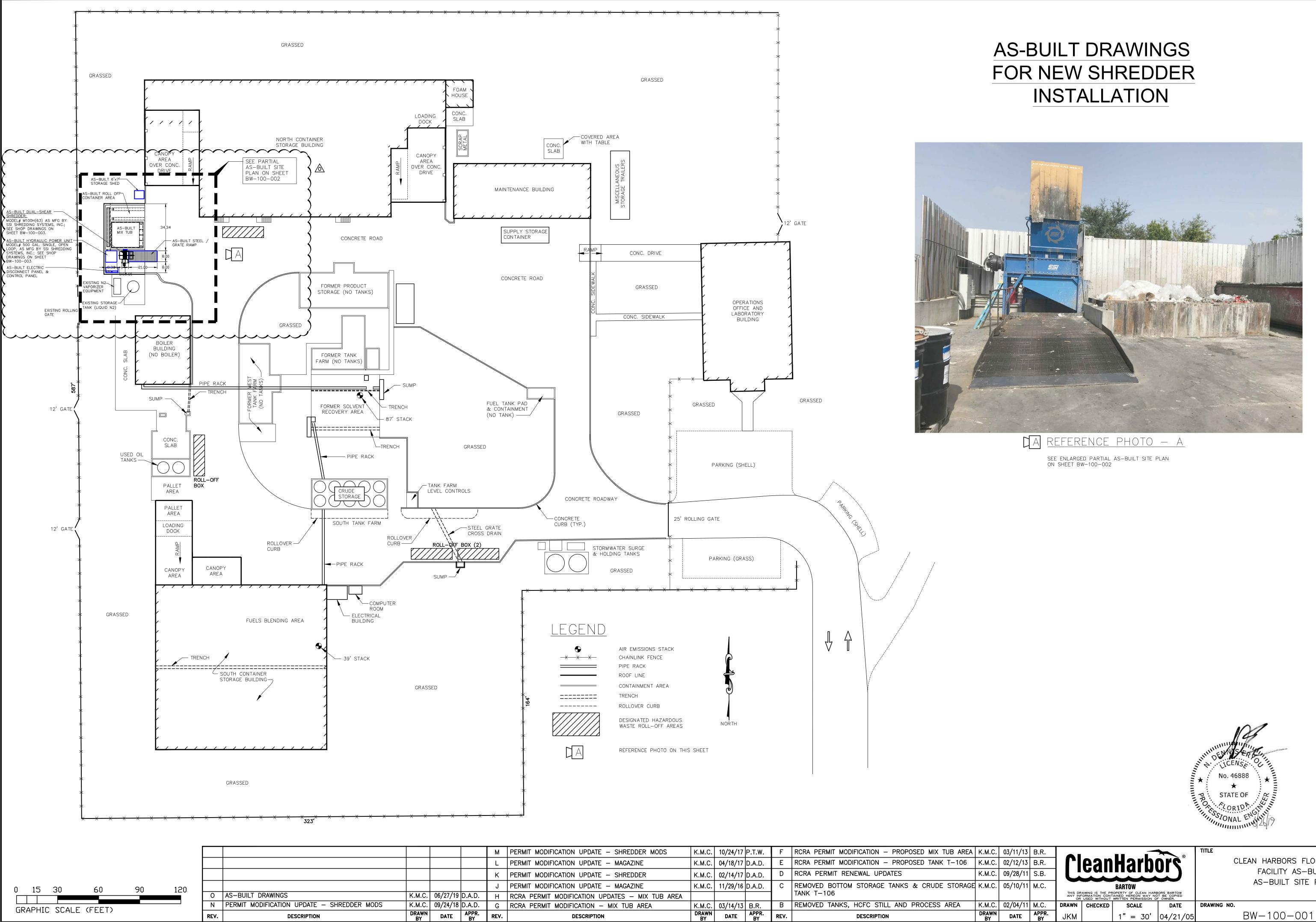


Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 DEP Form # 62-701.900(2) Form Title Certification of Construction Completion of a Solid Waste Management Facility Effective Date May 19, 1994

Certification of Construction Completion of a Solid Waste Management Facility

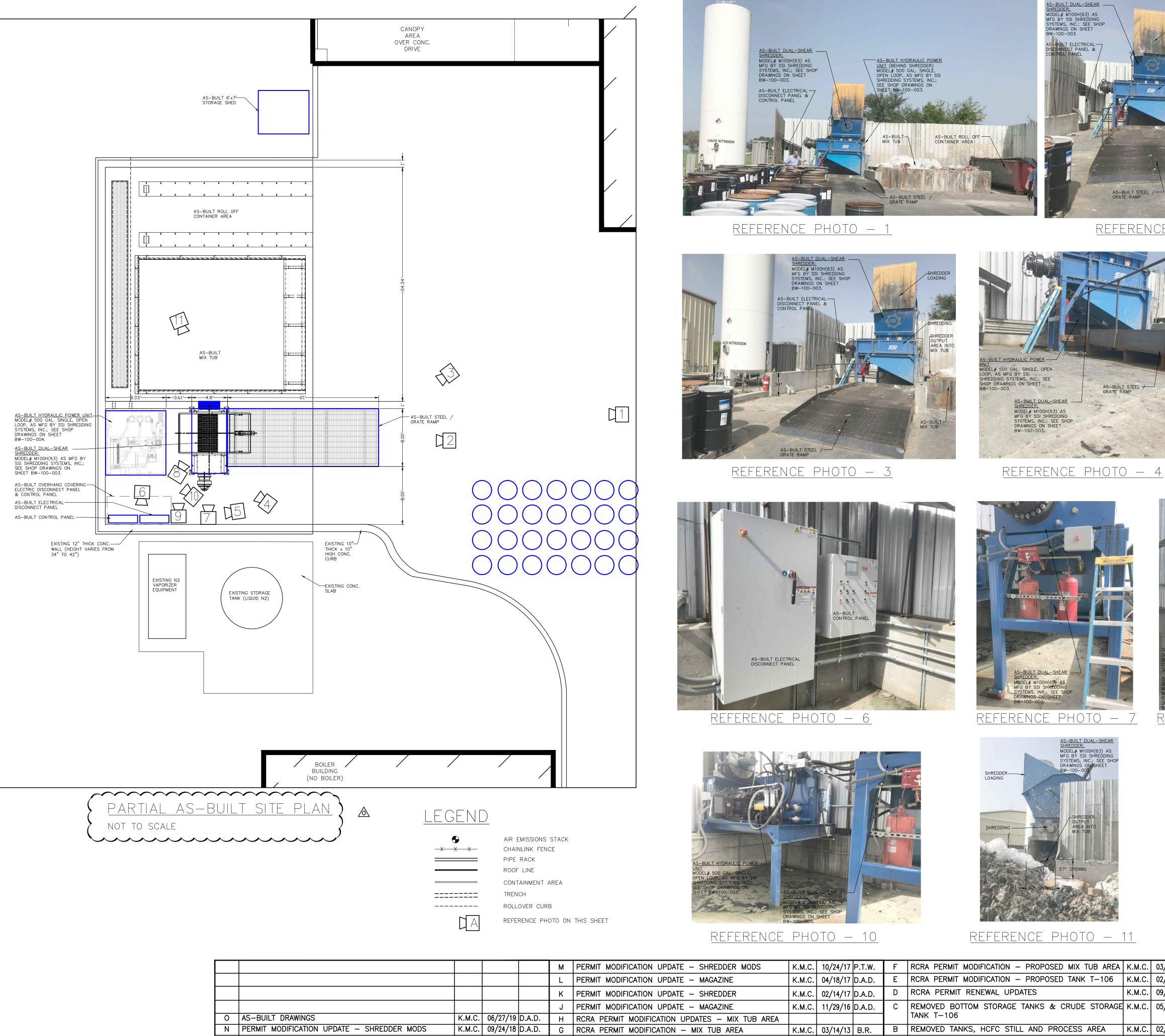
DEP Co	nstruction Permit No:	64247-019-SO	County	Polk							
	of Project: Shredder Con		Reconfiguration	Certification/As-Built	Drawing						
	Name of Owner: Clean Harbors Florida, LLC										
Name o	Name of Engineer: <u>N.D. Eryou</u> , PhD, PE										
Type of	of Project: Shredder Construction and Mix Tub Reconfiguration Certification/As-Built Drawing										
Cost: E	stimate \$ <u>385,000</u>		Actual \$ 390,000								
	Site Design Quantity: $40-80$ ton/day Site Acreage: ~ 7 Acres										
Deviati	Deviations from Plans and Application Approved by DEP (attach additional pages as needed):										
Orient	ation change from a	side inlet w/ramp t	o a front (straig	ht forward) inlet w	v/ramp.						
Date Si This is t project	Name(s) of Site Supervisor: John Bosek Date Site inspection is requested: On or about 7/16/2019 This is to certify that, with the exception of any deviation noted above, the construction of the project has been completed in substantial accordance with the plans authorized by Construction										
Permit	No.: 64247-019-SO	Da	ted: November	29, 2018							
Date: _	lune 26, 2019	NDEg									
			Signature of Pro	ofessional Engineer							
hwest District ernmental Center la, FL 32501-5794 0-595-8360	Northeast District 7825 Baymeadows Way, Ste. B200 Jacksonville, FL 32256-7590 904-448-4300	Central District 3319 Maguire Blvd., Ste. 232 Orlando, FL 32803-3767 407-894-7555	Southwest District 3804 Coconut Palm Dr. Tampa, FL 33619 813-744-6100	South District 2295 Victoria Ave., Ste. 364 Fort Myers, FL 33901-3881 941-332-6975	Southeast District 400 North Congress Ave. West Palm Beach, FL 33401 561-681-6600						

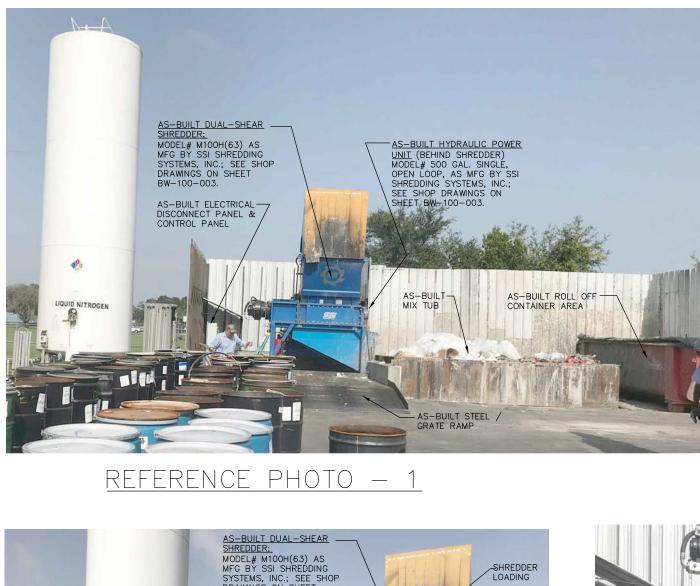


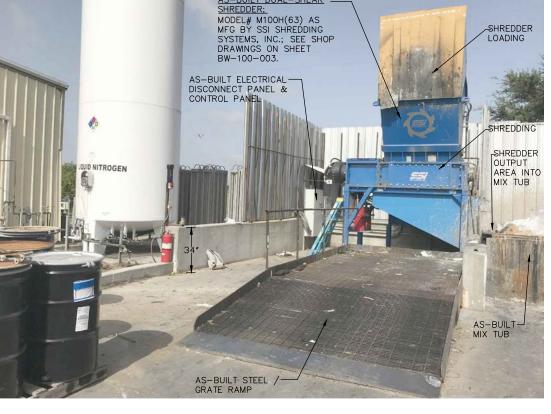
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	К	PERMIT MODIFICATION UPDATE - SHREDDER	K.M.C.	02/14/17	D.A.D.	D	RCRA PERMIT RENEWAL UPDATES	K.M.C.	09/28/11	S.B.					l
	L	PERMIT MODIFICATION UPDATE – MAGAZINE	K.M.C.	04/18/17	D.A.D.	Е	RCRA PERMIT MODIFICATION - PROPOSED TANK T-106	K.M.C.	02/12/13	B.R.		ean	Harb	nr¢	l
	М	PERMIT MODIFICATION UPDATE - SHREDDER MODS	K.M.C.	10/24/17	P.T.W.	F	RCRA PERMIT MODIFICATION - PROPOSED MIX TUB AREA	K.M.C.	03/11/13	B.R.					ТІТІ

BW100001N CLEAN HARBORS FLORIDA, LLC FACILITY AS-BUILT AS-BUILT SITE PLAN

> REV. \cap













DESCRIPTION

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DESCRIPTION

DESCRIPTION



<u>REFERENCE PHOTO - 2</u>







REFERENCE PHOTO



<u>REFERENCE PHOTO – 9</u>



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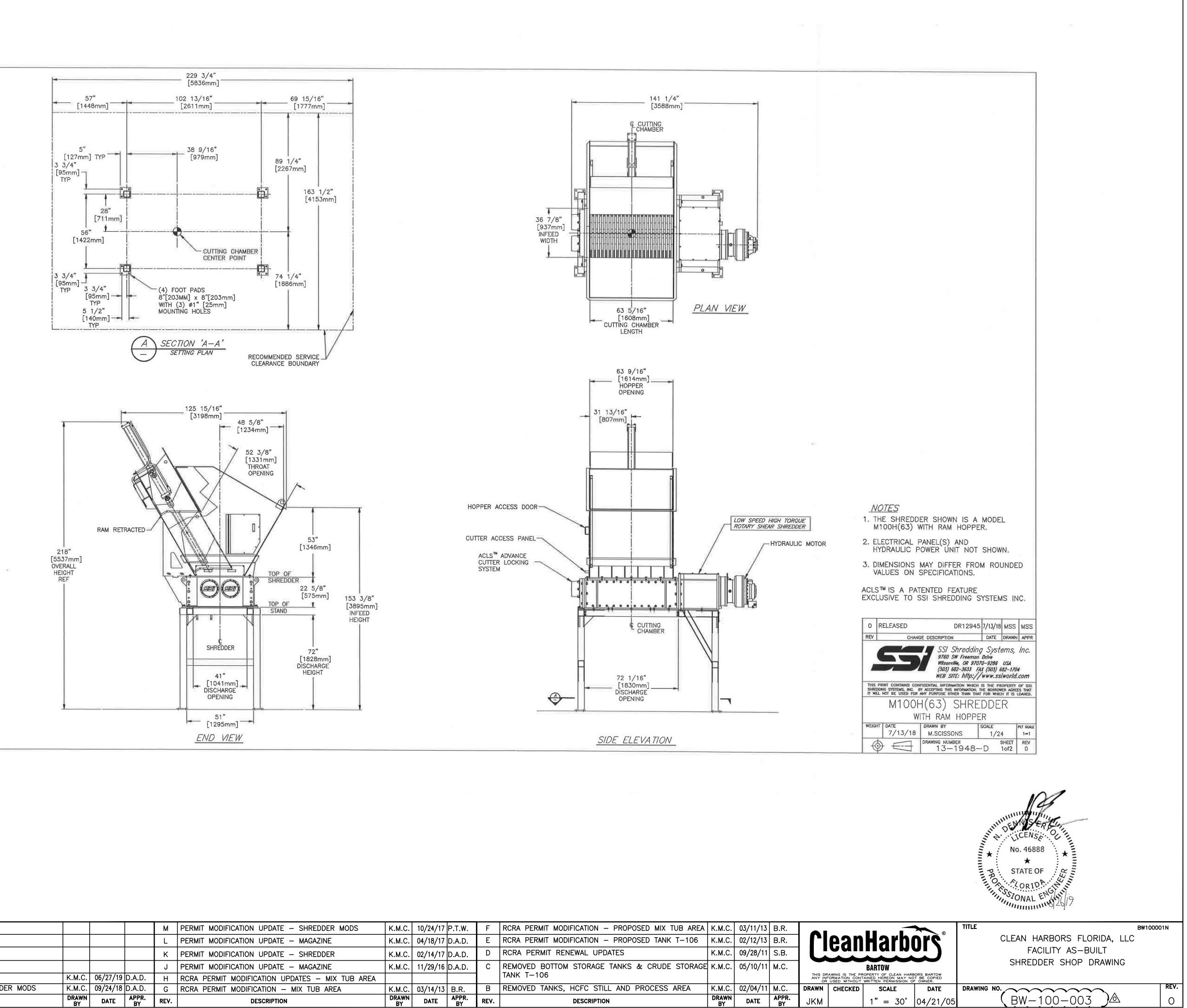
CLEAN HARBORS FLORIDA, LLC FACILITY AS-BUILT PARTIAL AS–BUILT SITE PLAN & REFERENCE PHOTOS

RAWING NO. BW-100-002

BW100001N



EQUIPMENT ID TAG ON INSTALLED SHREDDER



0

1" = 30' 04/21/05

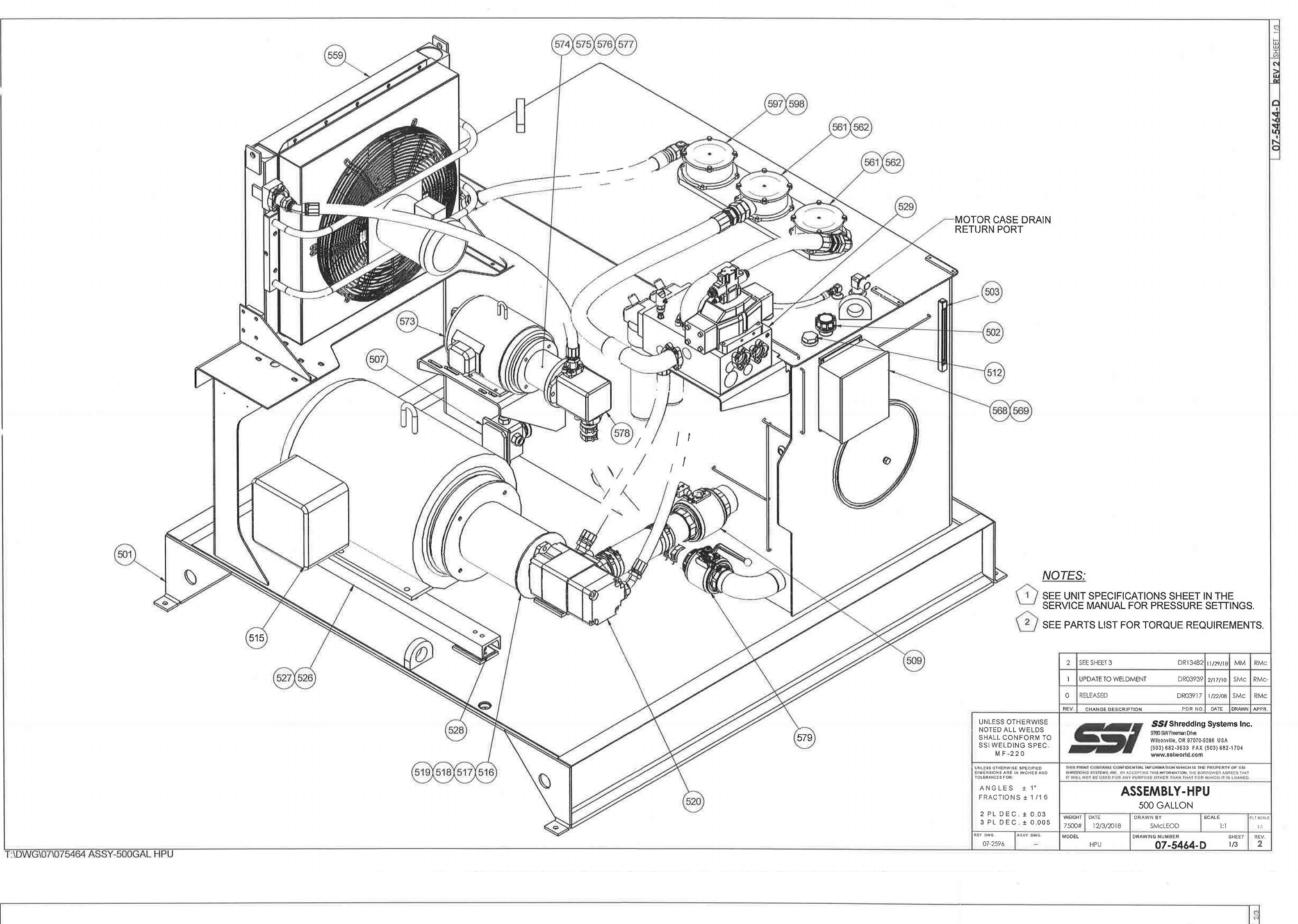
JKM

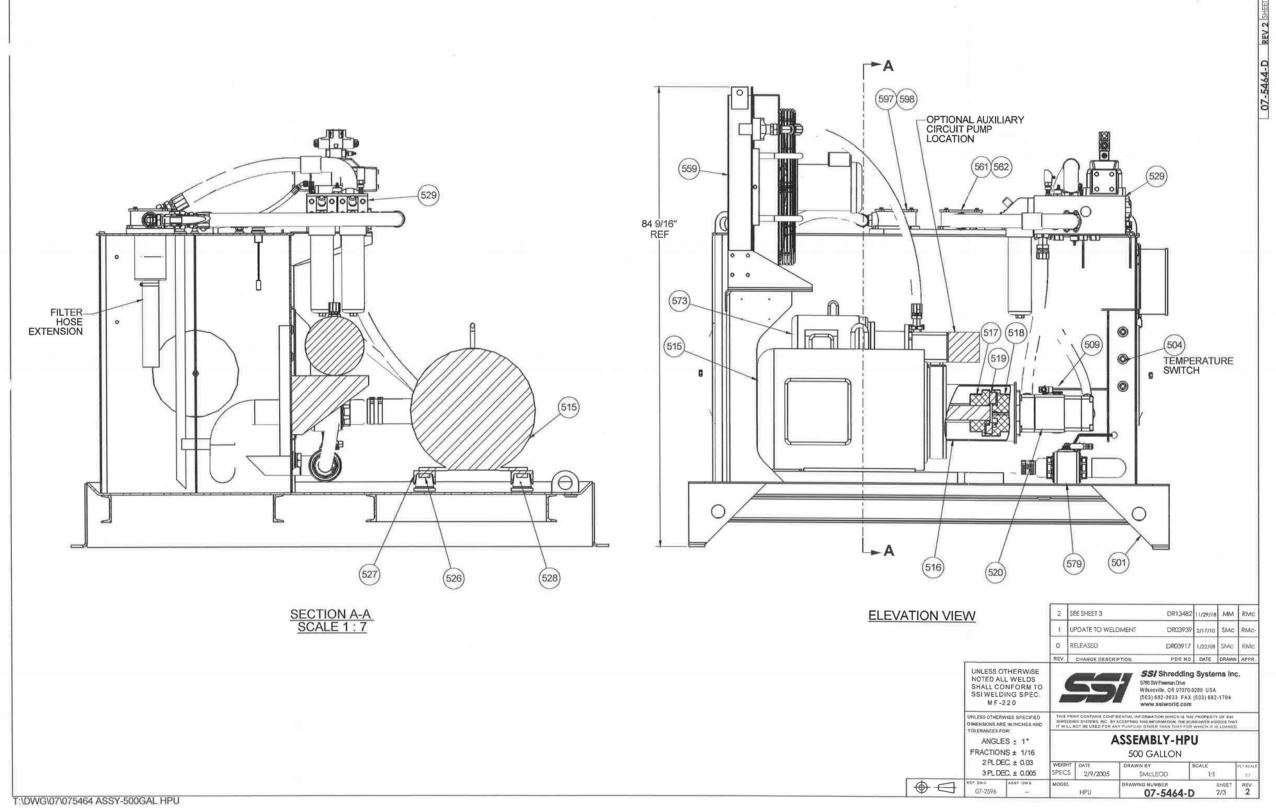
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Ν	PERMIT MODIFICATION UPDATE – SHREDDER MODS	K.M.C.	09/24/18	D.A.
0	AS-BUILT DRAWINGS	K.M.C.	06/27/19	D.A.

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L PERMIT MODIFICATION UPDATE – MAGAZINE K.M.C. 04/18/17 D.A.	.D. E	RCRA PERMIT MODIFICATION - PROPOSED TANK T-106	К.М.
M PERMIT MODIFICATION UPDATE – SHREDDER MODS K.M.C. 10/24/17 P.T.	.W. F	RCRA PERMIT MODIFICATION - PROPOSED MIX TUB AREA	К.М.

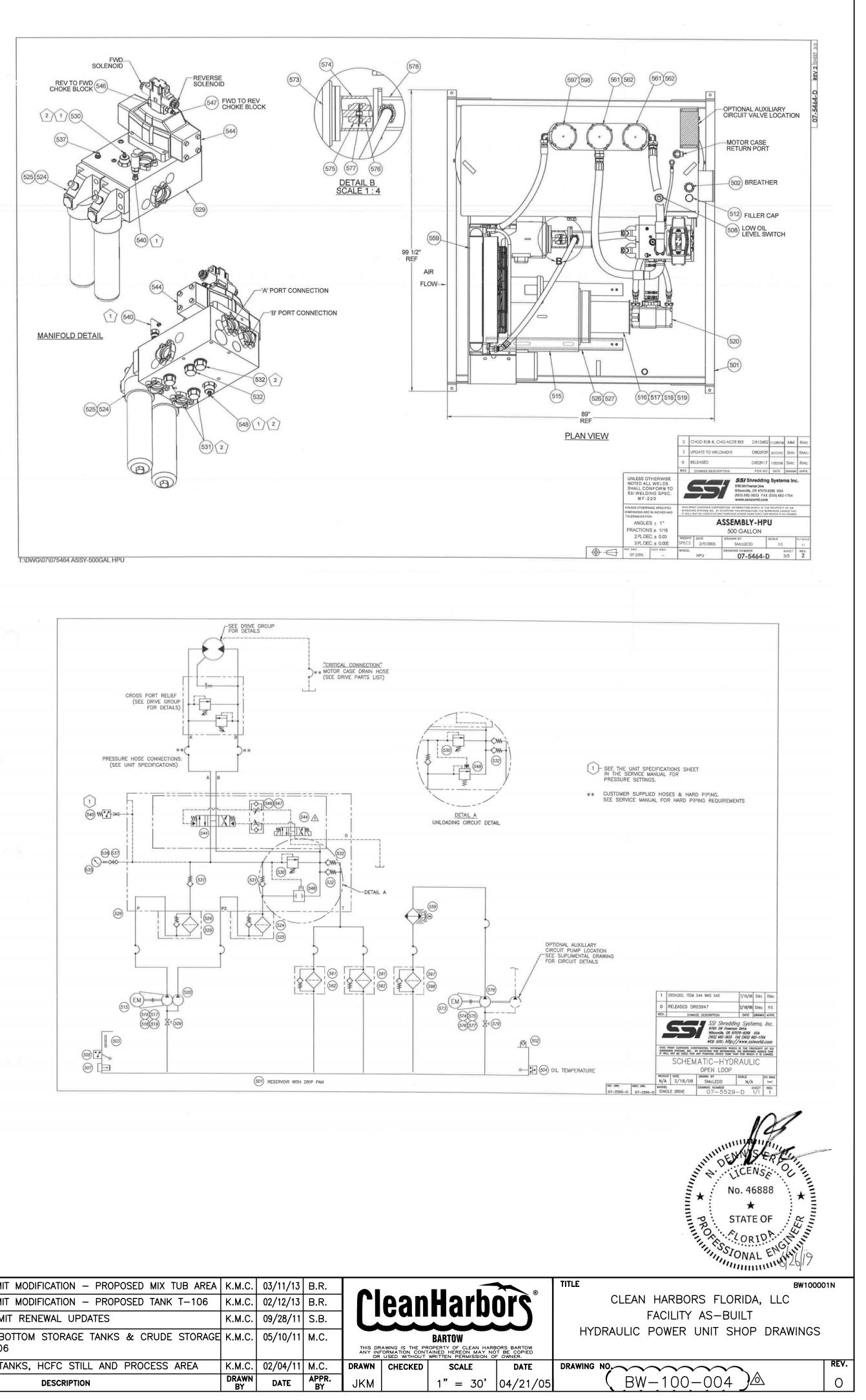


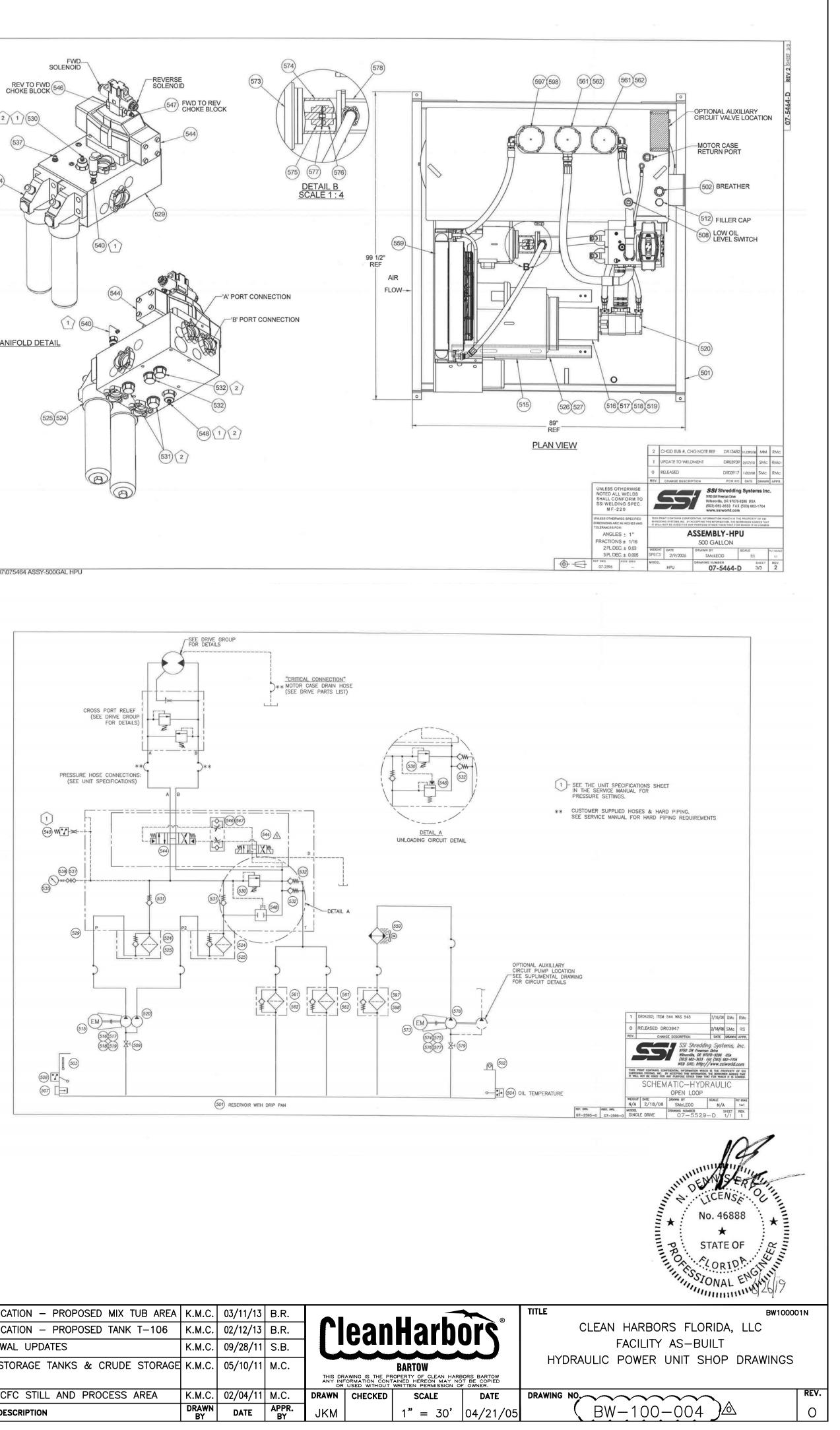
<u>Equipment id tag on installed</u> <u>Hydraulic power unit</u>





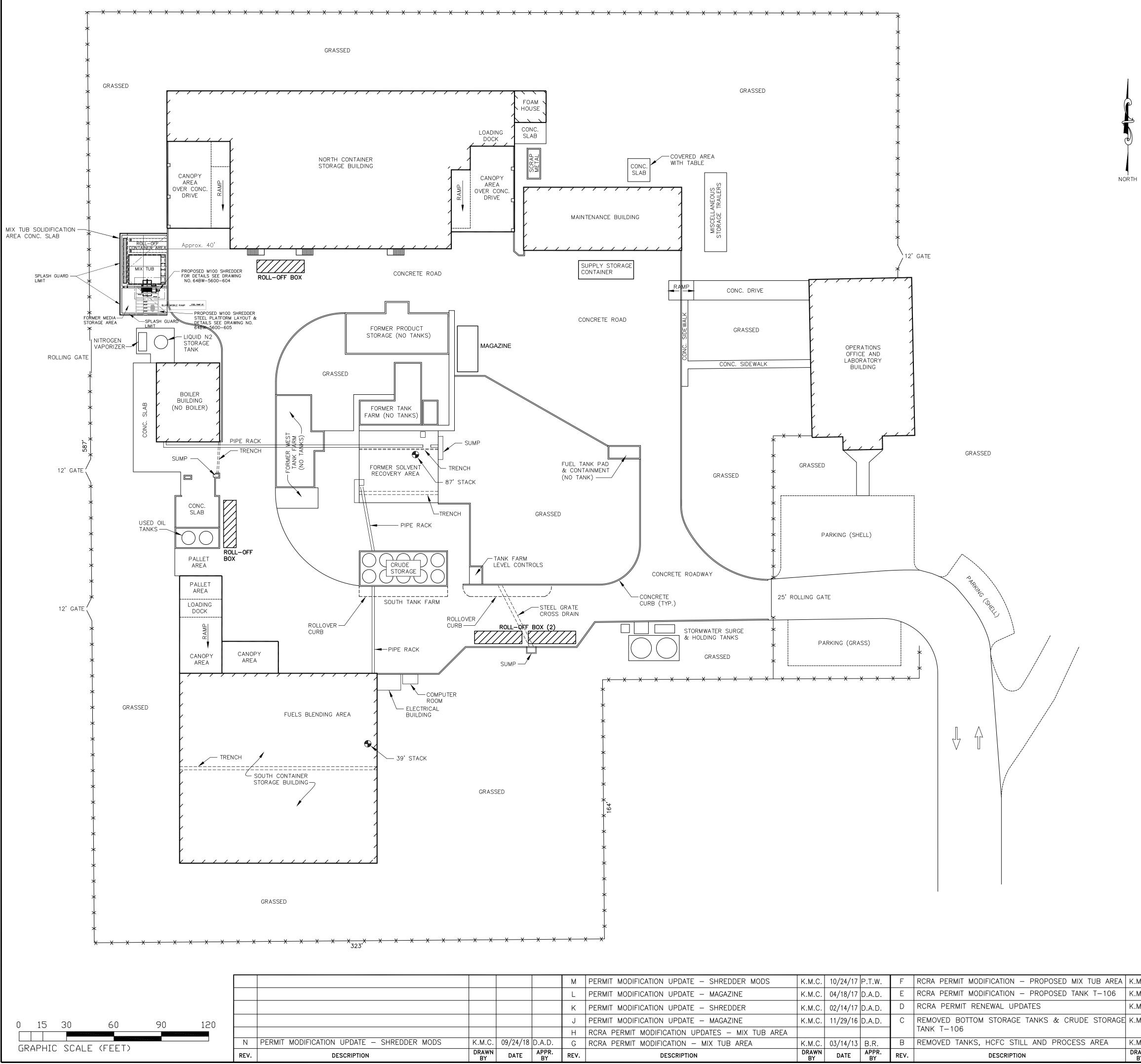
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N	PERMIT MODIFICATION UPDATE - SHREDDER MODS		09/24/18	D.A.D.	G	RCRA PERMIT MODIFICATION - MIX TUB AREA	K.M.C.	03/14/13	B.R.	В	REMOVED TANKS, HCFC STILL AND PROCESS AREA	K.M.C
0	AS-BUILT DRAWINGS		06/27/19		Н	RCRA PERMIT MODIFICATION UPDATES - MIX TUB AREA					TANK T-106	
					J	PERMIT MODIFICATION UPDATE – MAGAZINE	K.M.C.	11/29/16	D.A.D.	С	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE	Е К.М.С
					к	PERMIT MODIFICATION UPDATE - SHREDDER	K.M.C.	02/14/17	D.A.D.	D	RCRA PERMIT RENEWAL UPDATES	К.М.С
					L	PERMIT MODIFICATION UPDATE - MAGAZINE	K.M.C.	04/18/17	D.A.D.	Е	RCRA PERMIT MODIFICATION - PROPOSED TANK T-106	К.М.С
					М	PERMIT MODIFICATION UPDATE - SHREDDER MODS	K.M.C.	10/24/17	P.T.W.	F	RCRA PERMIT MODIFICATION - PROPOSED MIX TUB AREA	К.М.С





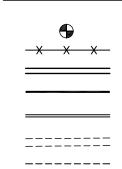
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Attachment C



												, ,	
APPR. BY	REV.	DESCRIPTION	DRAWN DAT	E APPR. BY	REV.	DESCRIPTION DRAWN BY	D.	ATE APPR. BY	JKM		1" = 30'	04/21/05	E
.A.D.	G	RCRA PERMIT MODIFICATION - MIX TUB AREA	K.M.C. 03/14	/13 B.R.	В	REMOVED TANKS, HCFC STILL AND PROCESS AREA K.M.C.	. 02/	04/11 M.C.	DRAWN	CHECKED	SCALE	DATE	DRAWING NO.
	Н	RCRA PERMIT MODIFICATION UPDATES - MIX TUB AREA				TANK T-106			THIS DF ANY INI OR	AWING IS THE PR FORMATION CONT USED WITHOUT	OPERTY OF CLEAN HAR AINED HEREON MAY N WRITTEN PERMISSION (BORS BARTOW OT BE COPIED DF OWNER.	
	J	PERMIT MODIFICATION UPDATE – MAGAZINE	K.M.C. 11/29	/16 D.A.D.	С	REMOVED BOTTOM STORAGE TANKS & CRUDE STORAGE K.M.C.	05/	10/11 M.C.			BARTOW		
	Κ	PERMIT MODIFICATION UPDATE – SHREDDER	K.M.C. 02/14	/17 D.A.D.	D	RCRA PERMIT RENEWAL UPDATES K.M.C.	. 09/	28/11 S.B.					FA
	L	PERMIT MODIFICATION UPDATE - MAGAZINE	K.M.C. 04/18	/17 D.A.D.	Е	RCRA PERMIT MODIFICATION - PROPOSED TANK T-106 K.M.C.	02/	12/13 B.R.		ean	Harb	nrç İ	CLE
	М	PERMIT MODIFICATION UPDATE - SHREDDER MODS	K.M.C. 10/24	/17 P.T.W.	F	RCRA PERMIT MODIFICATION - PROPOSED MIX TUB AREA K.M.C.	. 03/	11/13 B.R.					TITLE

LEGEND



AIR EMISSIONS STACK CHAINLINK FENCE PIPE RACK ROOF LINE CONTAINMENT AREA TRENCH ROLLOVER CURB DESIGNATED HAZARDOUS WASTE ROLL-OFF AREAS





BW100001N CLEAN HARBORS FLORIDA, LLC FACILITY DRAWING/PLOT PLAN APPENDIX A

BW-100-001

REV. Ν

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Attachment D

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