



Clean Harbors Florida, LLC.
7001 Kilo Avenue
Bartow, Florida 33830
863.533.6111
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April 21, 2017

Sent via eMail & Fed Ex

Bryan Baker, P.G., Environmental Administrator
Hazardous Waste Program and Permitting M.S. 4560
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(850) 245-8765

Re: First Request for Additional Information (RAI)
Polk County – Hazardous Waste
Clean Harbors Florida LLC
Facility ID: FLD 980 729 610
DEP Application No.: 64247-HO-017

Dear Mr. Baker,

This correspondence serves as the above referenced facility's response to the Department's March 1, 2017 RAI. The format of this response provides the facility's reply to each of the Department's issues in the order presented in the RAI – see Attachment. Please note the following:

1. See Enclosure 1. Enclosure 1 provides replacement pages for the RCRA Part B Permit Application Chapter I, Appendix C. Replace the current Appendix C with Enclosure 1 in the application. Be advised the electronic files for this response include a "redline" version of Appendix C for convenience to "Track Changes" concerning this matter.
2. See Enclosure 1. Enclosure 1 provides replacement pages for the RCRA Part B Permit Application Chapter I, Appendix C. Replace the current Appendix C with Enclosure 1 in the application. Be advised the electronic files for this response include a "redline" version of Appendix C for convenience to "Track Changes" concerning this matter.
3. See Enclosure 1. Enclosure 1 provides replacement pages for the RCRA Part B Permit Application Chapter I, Appendix C. As previously discussed/agreed with the Department the facility will retain all four (4) roll-off containers and add the magazine as opposed to supplant it for a roll-off container. Replace the current Appendix C with Enclosure 1 in the application. Be advised the electronic files for this response include a "redline" version of Appendix C for convenience to "Track Changes" concerning this matter.

Concerning the Department's assumption, "This permit modification also assumes that the North Container Building will no longer house any D001 or D003 materials.", be advised the North Container Storage Building will continue to be used for the storage and transfer of wastes identified with EPA Hazardous

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Waste Codes D001 and D003, as well as all other existing waste codes currently permitted for the facility. The defining factor for the need and use of the Class II low explosive magazine is for materials classified by DOT Hazard Class 1.4. Therefore, only DOT 1.4 materials will be placed in the magazine.

4. a. See Enclosure 1. Enclosure 1 provides replacement pages for the RCRA Part B Permit Application Chapter I, Appendix C. Replace the current Appendix C with Enclosure 1 in the application. Be advised the electronic files for this response include a "redline" version of Appendix C for convenience to "Track Changes" concerning this matter.
- b. See Enclosure 1. Enclosure 1 provides replacement pages for the RCRA Part B Permit Application Chapter I, Appendix C. Replace the current Appendix C with Enclosure 1 in the application. Be advised the electronic files for this response include a "redline" version of Appendix C for convenience to "Track Changes" concerning this matter.
- c. See Enclosure 1. Enclosure 1 provides replacement pages for the RCRA Part B Permit Application Chapter I, Appendix C. Replace the current Appendix C with Enclosure 1 in the application. Be advised the electronic files for this response include a "redline" version of Appendix C for convenience to "Track Changes" concerning this matter.
- d. See Enclosure 1. Enclosure 1 provides replacement pages for the RCRA Part B Permit Application Chapter I, Appendix C. Replace the current Appendix C with Enclosure 1 in the application. Be advised the electronic files for this response include a "redline" version of Appendix C for convenience to "Track Changes" concerning this matter.
- e. See Enclosure 1. Enclosure 1 provides replacement pages for the RCRA Part B Permit Application Chapter I, Appendix C. Replace the current Appendix C with Enclosure 1 in the application. Be advised the electronic files for this response include a "redline" version of Appendix C for convenience to "Track Changes" concerning this matter.
- f. See Enclosure 1. Enclosure 1 provides replacement pages for the RCRA Part B Permit Application Chapter I, Appendix C. Replace the current Appendix C with Enclosure 1 in the application. Be advised the electronic files for this response include a "redline" version of Appendix C for convenience to "Track Changes" concerning this matter.
5. See Enclosure 2. Enclosure 2 provides replacement pages for the RCRA Part B Permit Application Chapter II, Section A, Appendix II, F.2 Contingency Plan. Replace the current pages in the application those in Enclosure 2. Be advised the electronic files for this response include a "redline" version of the affected pages for convenience to "Track Changes" concerning this matter.
6. See Enclosure 3. Enclosure 3 provides replacement pages for the RCRA Part B Permit Application Chapter II, Section A, Appendix II, F.5 Personnel Training, 1.0, Training Program. Replace the current pages in the application with those in Enclosure 3. Be advised the electronic files for this response include a "redline" version of the affected pages for convenience to "Track Changes" concerning this matter.



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7. See Enclosure 3. Enclosure 3 provides replacement pages for the RCRA Part B Permit Application Chapter II, Section A, Appendix II, F.5 Personnel Training, 3.0 Job Descriptions: FIELD OPERATIONS. Replace the current pages in the application with those in Enclosure 3. Be advised the electronic files for this response include a "redline" version of the affected pages for convenience to "Track Changes" concerning this matter.
8. See Enclosure 4. Enclosure 4 provides replacement/additional pages for the RCRA Part B Permit Application Chapter II, Section A, Appendix II, F.6 Inspections, 3.0 Weekly Inspections. Replace the current and insert the new pages in the application with those in Enclosure 4. Be advised the electronic files for this response include a "redline" version of the affected pages for convenience to "Track Changes" concerning this matter.
9. See Enclosure 5. Enclosure 5 provides replacement pages for the RCRA Part B Permit Application Chapter II, Section A, Appendix II, H. Waste Analysis Plan (WAP), 3.4 Special Wastes. Replace the current pages in the application with those in Enclosure 5. Be advised the electronic files for this response include a "redline" version of the affected pages for convenience to "Track Changes" concerning this matter.
10. See Enclosure 6. Enclosure 6 provides replacement pages for the RCRA Part B Permit Application Chapter II, Section B, Containers and Containment Structures for the Storage of Hazardous Waste, 3.0 Container Management Practices. As previously discussed/agreed with the Department the facility will retain all four (4) roll-off containers and add the magazine as opposed to supplant it for a roll-off container. Replace the current pages in the application with those in Enclosure 6. Be advised the electronic files for this response include a "redline" version of the affected pages for convenience to "Track Changes" concerning this matter.
11. See Enclosure 7. Enclosure 7 provides replacement pages for the RCRA Part B Permit Application Chapter II, Section K, Closure Plan, 9.3 Maximum Waste Inventory at Closure. Replace the current pages in the application with those in Enclosure 7. Be advised the electronic files for this response include a "redline" version of the affected pages for convenience to "Track Changes" concerning this matter.
12. See Enclosure 7. Enclosure 7 provides replacement pages for the RCRA Part B Permit Application Chapter II, Section K, Closure Plan, 9.8.1 Perimeter Road (Staging Area). As previously discussed with the Department the facility will retain all four (4) roll-off containers and add the magazine as opposed to supplanting it for a roll-off container. Replace the current pages in the application with those in Enclosure 7.

Presently the RCRA Part B Permit Application does not appear to include a "Figure 9". The facility's closure cost estimate is included in the application as Appendix II-D. Enclosure 8 provides replacement pages for Appendix II-D. Replace the current pages in the application with those in Enclosure 8.

Be advised the electronic files for this response include a "redline" version of the affected pages for convenience to "Track Changes" concerning this matter.



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13. See Enclosure 7. Enclosure 7 provides replacement pages for the RCRA Part B Permit Application Chapter II, Section K, Closure Plan, Figure 9.1, Maximum Waste Inventory at Closure. Replace the current pages in the application with those in Enclosure 7. Be advised the electronic files for this response include a "redline" version of the affected pages for convenience to "Track Changes" concerning this matter.
14. See Enclosure 9. Enclosure 9 provides replacement pages for Table of Contents in the RCRA Part B Permit Application. Replace the current pages in the application with those in Enclosure 9.
15. See the hardcopy binder for this response and the referenced Enclosures.

Additionally, Enclosure 10 provides a revised/updated site plan. This site plan shows the location of the magazine as well as revised locations for the four (4) roll-off containers and a proposed non-hazardous waste shredder for the mix tub which is the subject of a pending intermediate Solid Waste Permit modification. Replace Appendix A in Chapter I, Part 1 in the RCRA Part B Permit Application with Enclosure 10.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "David A. DeSha".

David A. DeSha
Sr. Compliance Manager

Attachment/Enclosures

cc:

FDEP Regional Office
Jim Childress (w/o Attachment & Enclosures)
Facility File

Clean Harbors Environmental Services



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

**RCRA PART B OPERATING PERMIT
APPLICATION**

Revision 1

MODERATE PERMIT MODIFICATION

April 2017



Florida Department of Environmental Protection

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

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Ryan E. Matthews
Interim Secretary

REQUEST FOR ADDITIONAL INFORMATION

March 1, 2017

Mr. John Bosek, Facility General Manager
7001 Kilo Avenue
Bartow, FL 33830
bosek.john@cleanharbors.com

Re: First Request for Additional Information (RAI)

Polk County – Hazardous Waste
Clean Harbors Florida LLC
Facility ID: FLD 980 729 610
DEP Application No.: 64247-HO-017

Dear Mr. Bosek:

Thank you for your application to modify the hazardous waste permit for the above referenced Facility. The Department has assigned DEP Application No. 64247-HO-017 to the application. A Department staff review of the application and supporting documentation submitted on February 21, 2017, indicates the application is incomplete. Pursuant to the provisions of Rule 62-730.220 F.A.C. and Rule 62-730.220(6), F.A.C., please provide the information in the attached document and refer to this correspondence in your response.

In order for the Department to continue processing your application, please submit the requested information as soon as possible. The Department must receive a response within 14 days of the date of this letter, unless a written request for additional time to provide the requested information is submitted and approved. Pursuant to Rule 62-730.220(6), F.A.C. and Section 120.60, F.S., failure of an applicant to provide the timely requested information by the applicable deadline may result in denial of the application. You are encouraged to contact this office to discuss the items requested to assist you in developing a complete and adequate response.

Please submit the response in electronic format to HWPP@dep.state.fl.us, with a copy to Carrie.L.Kruchell@dep.state.fl.us. If the file is very large, you may post it to a folder on this office's ftp site at: [ftp://ftp.dep.state.fl.us/pub/incoming/DWM/\[name of folder\]](ftp://ftp.dep.state.fl.us/pub/incoming/DWM/[name of folder]). After posting the document, send an e-mail to HWPP@dep.state.fl.us, with a copy to Carrie.L.Kruchell@dep.state.fl.us, alerting us that it has been posted.

If you have any questions, please contact Carrie L. Kruchell at (850) 245-8765, or by e-mail at

Mr. John Bosek, Facility General Manager
Page 2 of 5
March 1, 2017

Carrie.L.Kruchell@dep.state.fl.us .

Sincerely,

A handwritten signature in cursive script that reads "Bryan Baker".

Bryan Baker, P.G.
Environmental Administrator
Florida Department of Environmental Protection

cc (with attachment):

Brian Bastek, EPA Region 4 – bastek.brian@epa.gov

Carlos Merizalde, EPA Region 4 – Merizalde.carlos@epa.gov

Beth Knauss, DEP Southwest District – elizabeth.knauss@dep.state.fl.us

Ashanti McBride, DEP Headquarters OGC – ashanti.mcbride@dep.state.fl.us

Dawn Cinquino, DEP Headquarters – dawn.cinquino@dep.state.fl.us

David DeSha, Clean Harbors Environmental Services – desha.david@cleanharbors.com

James Childress, Clean Harbors Environmental Services – childress.james@cleanharbors.com

Attached: List of Requested Information

Attachment: List of Requested Information

Facility Name: Clean Harbors Florida LLC
Facility ID: FLD 980 729 610
DEP Application No.: 64247-HO-017

1. Chapter I, Appendix C: I-C-1.1.1 Process Summary – Add in a section detailing “Low Explosives Management”. (This permit modification assumes that Clean Harbors Florida LLC (CHF) will not store, manage or transport any consumer product other than the following: consumer fireworks, flares, emergency signals, marine distress devices and small arms ammunition (not revealed prior to the application being submitted). This permit modification also assumes that CHF will not store, manage or transport any consumer product that is classified as other than DOT 1.4 products, and that all “Low Explosives” fall under two hazardous waste codes: D001 and D003 only.)
2. Chapter I, Appendix C: I-C-1.2 Waste Receiving – Add in a section (I-C-1.2.5) dedicated to “In-Processing of Low Explosives at the Retail Facilities, Prior to Transportation to CHF”. A full understanding of how CHF will identify and treat any UHCs should be included. Additional information regarding when the manifests are signed, when the products are entered into the operating record, and when the products are accepted should be provided.
3. Chapter I, Appendix C: I-C-1.6 Storage of Waste – Amend the capacities for tanks and roll-offs and add in the capacity of the magazine. (It is important to clarify that this modification deletes one permitted roll-off and adds in one magazine. This permit modification also assumes that the North Container Building will no longer house any D001 or D003 materials.)
4. Chapter I, Appendix C: I-C-1.8.1 Magazine Container Storage of Low Explosives –
 - a. Amend the bulleted points to clarify the capacity of the magazine, the exact items intended for temporary storage in the magazine, and all RCRA and DOT waste codes/classifications for those items. (It was noted in the application that other items not previously listed were included, such as “small arms ammunition” and “etc.” Please consider that the Department needs a full understanding of all consumer products that Clean Harbors is wanting to manage/store/transport prior to issuance of the modified permit.)
 - b. Amend the bulleted points to clarify the final transport destination point (e.g., Colfax, LA) and the anticipated form of destruction for each item.
 - c. Include bulleted points that address specific training, security and employee access for the magazine, and provide references to the applicable sections of the application where more details can be found. Discuss the proper PPE employees must wear when entering the magazine.
 - d. Include bulleted points that discuss proper housekeeping of the magazine, and the allowable distance for parking of other vehicles, and other methods that will be utilized to prevent sparking.
 - e. Clarify exactly which of the items contain a “means of self-ignition” and detail

how CHF will prevent accidental ignition.

- f. While the packaging requirements are provided for consumer fireworks and signal flares, the Department would like clarification of how the remaining items (marine distress signals, small arms ammunition, emergency signals, “and etc.”) will be packaged prior to transportation to the facility, and prior to transportation to the final destination point.
5. Chapter II, Section A, Appendix II, F.2 Contingency Plan, 7.0-Response to Explosions – Detail exactly which items will be stored, delete the word “etc.” from this and all other sections of the application, and provide additional details about how each of the items will be stored within the magazine (e.g., fireworks will be stored under water within 5-gallon buckets...).
 6. Chapter II, Section A, Appendix II, F.5 Personnel Training, 1.0, Training Program – Add in a bullet point to provide a detailed overview of the specific training of employees who handle and transport the “Low Explosives”.
 7. Chapter II, Section A, Appendix II, F.5 Personnel Training, 3.0 Job Descriptions: FIELD OPERATIONS – Staff job descriptions and updated training requirements for all involved in the management, handling and/or transportation of “Low Explosives” must be added to this section in either table or text format.
 8. Chapter II, Section A, Appendix II, F.6 Inspections, 3.0 Weekly Inspections – Although no details were provided as far as the frequency of the inspections to be undertaken for the magazine, the Department assumes inspections will take place on a weekly basis just as the roll-offs are inspected weekly. Additional details and/or a separate spreadsheet must be provided listing all aspects of the inspection, e.g., locations both inside and outside of the magazine.
 9. Chapter II, Section A, Appendix II, H. Waste Analysis Plan (WAP), 3.4 Special Wastes – Add a bulleted point describing “Low Explosives stored in onsite magazine”. Since the existing WAP was not revised as part of the application process regarding the new line of service, the Department requests a revision to the WAP stating how CHF will handle the low explosive consumer products. If some of the low explosive consumer products happen to fall outside of the “Special Waste” category, CHF shall revise the applicable sections of the WAP as necessary. Text below the bulleted item should be added to explain how the various low explosives are profiled. The Department assumes that no laboratory analysis will be undertaken for any of the low explosive consumer products, please confirm.
 10. Chapter II, Section B, Containers and Containment Structures for the Storage of Hazardous Waste, 3.0 Container Management Practices – Second paragraph, please change “four” hazardous waste roll-off containers to “three”, and add a sentence about how the magazine takes the place of one of the roll-offs. Add references to other sections of the application as necessary.

11. Chapter II, Section K, Closure Plan, 9.3 Maximum Waste Inventory at Closure – Amend the number of roll-offs, add in the magazine and correct the total gallons of capacity in each. Revise Figure 9 and 9.1 as necessary.
12. Chapter II, Section K, Closure Plan, 9.8.1 Perimeter Road (Staging Area) – Amend this section to discuss the closure for the three (3) remaining roll-offs and the one (1) magazine. Prepare an updated cost estimate for closure to be submitted as a separate document to the Department so that Financial Assurance may be updated as needed.
13. Chapter II, Section K, Closure Plan, Figure 9.1, Maximum Waste Inventory at Closure – Change the title “Roll-Offs/Mixbox” to “Roll-Offs/Solid Waste Mixbox & Magazine”, and then update the number of roll-offs and applicable gallons plus the added magazine and its capacity in gallons. Update the final “Maximum Storage Capacity of Waste at CHF” in gallons.
14. Table of Contents – Update as necessary based upon above comments.
15. Binder Cover – Prepare a new binder cover for the revised application. All edited pages must have “Revision 1” and the date of the revision in the header.

CHAPTER 1
APPENDIX C

DESCRIPTION OF OPERATION

I-C-1.1 Introduction

I-C-1.1.1 Process Summary

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

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

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

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

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

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

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

Sometimes CHF receives containers of wastes, which have two phases of materials in them (solids and liquids). These solids and liquids are separated using a sludge box type or a roll-off with a screen near the bottom of the roll-off. The screen is elevated enough for the void beneath

it to contain the liquids which flow to the bottom due to gravitational forces. The accumulated liquid is then transferred to a separate container.

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

CHF stores DOT Hazard Class 1.4 low explosives in the form of expired and/or discarded consumer products like consumer fireworks, marine and highway flares, flare guns, marine and other types of distress signals and small arms ammunition in a Class II magazine. These products which are no longer suitable to be sold to the public are collected from wholesale and retail outlets. All such consumer products that are classified as 1.4 low explosives must be stored in a Class II magazine per applicable OSHA requirements, and are typically classified with EPA Hazardous Waste Numbers D001 and D003. However, pursuant to an EPA guidance document products like small arms ammunition is not classified as D003. Per OSHA, the defining factor as to what must be stored in the Class II magazine is DOT Hazard Class 1.4. Whereas the magazine is used to store Hazard Class 1.4 consumer products that are classified as D001 and/or D003, the only reason for use of the magazine is for materials that are 1.4 low explosive. D001 and/or D003 hazardous wastes that are not 1.4 low explosives will not be placed in the magazine.

I-C-1.1.2 Description of Wastes

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

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

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

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

I-C-1.2 Waste Receiving

I-C-1.2.1 In-Processing of Wastes

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

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

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

I-C-1.2.3 Large Bulk Shipments

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

I-C-1.2.4 Management of Empty Containers

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

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

I-C-1.2.5 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 Chapter 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.

I-C-1.3 Fuel Blending

I-C-1.3.1 Wastes Amendable to Fuel Blending

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

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

I-C-1.3.2 Process Description

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

I-C-1.3.3 Containerized Shipments

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

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

I-C-1.3.4 Tank Truck Shipments

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

I-C-1.4 Corrosives and Alkalines

The contents of bulk shipments arriving in tank trucks will be sampled and analyzed according to

the Waste Analysis Plan. After confirming the identity of the waste, acidic and alkaline waste will be transferred off-site to a permitted TSDF.

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

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

I-C-1.5 Waste Filtering

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

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

I-C-1.6 Storage of Waste

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

72,600 gallons -- T-101 to T-110, 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

5,000 gallons -- 1.4 low explosive magazine

353,240 gallons -- Total capacity for hazardous waste storage

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

I-C-1.7 Sludge Management

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

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

I-C-1.8 Storage Only Waste

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

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

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

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

I-C-1.8.1 Magazine Container Storage of Low Explosives

1. Magazine Description

- a. The magazine occupies one of the existing permitted hazardous waste container storage areas as shown on the Facility Site Plan – See Chapter 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. Training and Personal Protective Equipment (PPE)

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 Chapter 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:

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

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

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 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. Security

- a. Only authorized personnel are allowed to enter the facility – see Chapter 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. Magazine Maintenance

- 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.

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Appendix II-F.2

CONTINGENCY PLAN

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CONTINGENCY PLAN

1.0 Purpose and Implementation of the Plan

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

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

2.0 Content of the Plan

2.1 Emergency Procedures

2.1.1 List of CHF Emergency Coordinators

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

2.1.2 Primary Emergency Coordinator and Alternate Emergency Coordinator Responsibilities

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

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

1. Director, Hazardous Materials Team, Public Safety Department, 911 or (863) 534-5600.
2. The Polk County Fire Department, 911 or (863) 534-0380.

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

1. The Florida Department of Environmental Protection (813) 632-7600. (8 am to 5 pm, non-weekend days and non-holidays)
2. The Polk County Sheriff's Department 911 or (863) 298-6200
3. The National Response Center 1-800-424-8802.
4. The Division of Emergency Management (Florida) (850) 413-9911.

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

1. His/her name and telephone number.
2. The name and location of the facility. (CHF, Avenue D, North, Bartow Municipal Airport Industrial Park Building # 170).
3. Time and type of incident.
4. Chemicals involved and quantity, if known.
5. The extent of injuries, if any.
6. The possible hazards(s) to human health or the environment outside the facility, if any.

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

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

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

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

Recovered hazardous wastes will be treated as follows:

1. Spilled waste in a containment area will be placed into a container or tank and stored until processed.
2. If a significant amount of water has contaminated the wastes, the wastes will be stored until tested. If within the allowable limits it will be discharged to the P.O.T.W. Logs of the water discharged to the P.O.T.W. will be maintained in the operating record for three years. These logs will include: test results of the water, volume discharged, date and time of discharge. If the levels are too high for discharge, the water will either be treated on-site or shipped to a RCRA permitted TSDF facility.
3. If soil becomes contaminated with hazardous waste, the soil will be collected and analyzed. If it is determined to be hazardous, the contaminated soil will be shipped to RCRA permitted TSD facility.

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

- no waste that may be incompatible with the released material is treated, stored, or disposed until cleanup procedures are completed; and
- all emergency equipment listed in this Contingency Plan is cleaned and fit for its intended use before operations are resumed.

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

Decontamination equipment available on-site includes the following:

- Open head container - located near the South Container Storage Building to collect and accumulate decontamination rinsate.
- Chemical resistant hoses - located in the Maintenance Building - to act as a conduit for the flow of decontamination solutions.
- Pressure washer - located in the Maintenance Building.

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

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

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

2.2 Arrangements With Local Authorities

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

2.3 Emergency Equipment

2.3.1 General

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

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

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

2.3.2 Fire Suppression Equipment

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

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

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

The reactives room in the North Container Storage Building is equipped with an automatically activated CO₂ 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 CO₂ system is activated at 190°F.

2.3.3 Communication Equipment

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

- Pull stations - (to sound the alarm, alert the fire department and open the front gate) are located inside the North and South Container Storage Buildings, inside the Boiler Building, outside (south side) of the Maintenance Building, the Process Area and the Main Office Building.
- Telephones - (available to Emergency Coordinator to notify outside agencies and summon emergency response assistance) are located in the Maintenance Building, North and South Container Storage Buildings, Process Area, in the small room adjacent to the South Container Storage Building and the Main Office Building.

2.4 Evacuation Plan

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

3.0 Copies of Plan

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

4.0 Amendment of Plan

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

- the facility permit is revised; or
- the plan fails in an emergency; or
- CHF changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or CHF changes the response necessary in an emergency; or
- the list of emergency coordinators changes; or
- the list of emergency equipment changes.

5.0 Response to Release

5.1 General Response Actions

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

1. Identify the source and extent of the release.
2. Identify the specific chemical, if possible.
3. Notify the Emergency Coordinator and/or Operations Manager of the release.
4. Obtain back-up help.
5. If contact with the chemical is likely, don appropriate protective clothing.
6. Move fire fighting equipment, mobile spill control equipment, and portable pumps, as determined necessary by the Emergency Coordinator, to the release site.
7. Take appropriate measures to stop the release.
8. Once the source of the release has been stopped, contain the release.
9. Collect the released material using pumps, absorbent, or other procedure that is appropriate.
10. Place released residues in DOT-specification containers or, if volume warrants, into a tank or tank truck.
11. Decontaminate the release area.

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

5.2 Response to Releases From Transportation Activities

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

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

- absorbed using a suitable sorbent, which will be placed into a DOT approved non-bulk container for disposal at a RCRA permitted disposal facility; or
- Transferred to a bulk container; or
- pumped directly into the appropriate tank in one of the hazardous waste tank farms (using a portable pump).

5.3 Response to Releases From Containers

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

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

5.4 Response to Releases from Tanks

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

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

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

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

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

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

Waste in the tanks secondary containment system will be:

- Transferred into DOT-specification non-bulk containers and placed in a Container Storage Building; or
- absorbed using a suitable sorbent, which will be placed into DOT-specification non-bulk containers and transferred to a Container Storage Building; or
- Transferred to a bulk container; or
- pumped directly into a compatible tank in the hazardous waste tank farm.

5.5 Response to Releases from Overhead Piping

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

- pumped into a DOT-specification non-bulk container and placed in a Container Storage Building; or
- absorbed using a suitable sorbent, which will be placed into a DOT specification non-bulk container and transferred to a Container Storage Building; or
- Transferred to a bulk container; or
- pumped directly into a compatible tank in one of the hazardous waste tank farms.

6.0 Response to Fires

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

1. Immediately sound alarm from the nearest pull station (see Figure 6.6) and activate the appropriate fire fighting system. Pull stations are located inside the Container Storage

Buildings, inside the Boiler Building, Maintenance Building, in the Process Area, and the office area.

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

2. Emergency shut-down procedures will be initiated by personnel in the process area if instructed by the Emergency Coordinator. Emergency shut-down procedures may involve closing of tank valves leading to the process area.
3. As long as contact from the chemicals or fire can be avoided, one person shall remain in the process area to monitor equipment or circumvent any dangerous situation which may arise. The order to evacuate this area shall come from the Emergency Coordinator or an alternate.
4. Additional fire fighting systems will be activated by the Emergency Coordinator, if necessary. If it is safe to do so, employees will fight the fire until the fire department arrives and assumes control, or until the evacuation signal is given. When this signal is sounded the personnel shall immediately evacuate the area using the safest route available. Figure 6.8 illustrates all emergency gates to be used in the event of an evacuation.
5. Liquid residues (e.g. fire fighting solutions and released wastes) will be collected in containers for analysis when it is safe to enter the area again. (large amounts may be pumped to a tank using a portable pump).
6. The area will be assessed for contamination and the Emergency Coordinator will initiate decontamination efforts.
7. In the event of a fire, it will be un-necessary to remove containers from the Container Storage Buildings to prevent the spread of the fire because the buildings are protected by an automatic foam-generating fire suppression systems. The safest response to a fire in the building will be to allow the foam system to operate and to not enter the building in an effort to remove waste containers.

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 and small arms ammunition prior to offsite shipment to authorized destruction facilities.

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

1. Unless otherwise specified, all fireworks and signal flares must be packaged in UN Rated containers meeting the PGII rating level or higher.
2. 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.
3. Steel, and plastic drums are applicable container types for packaging and transporting 1.4 Consumer Fireworks and signal flares.
4. All screw type closures on containers must be secured in place with tape.
5. No devices with protruding parts that may penetrate a level of packaging material may be utilized.
6. All inner packagings must be secured from movement
 - A. Fill containers with packing material so no empty void space exists in each container.
7. 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 container packaging requirements.
8. 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.

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 6.8

illustrates all evacuation routes. At no time will any CHF employee attempt to control a situation in which explosions are occurring.

8.0 Chemical Data

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

9.0 Power Outages

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

10.0 Severe Weather

The facility maintains a separate stand alone severe weather plan which addresses actions taken to mitigate any operational process along with preparedness steps to take in anticipation of severe weather such as hurricanes, severe lightning storms, and prolonged rain fall.

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- Figure 6.1 List of Emergency Coordinator and Alternates
- Figure 6.2 Authorization to Commit CHF Resources
- Figure 6.3 Coordination Agreement with Response Agency
- Figure 6.4 Local Agency Response
- Figure 6.5 List of Spill Response Equipment, Uses and Capabilities
- Figure 6.6 Locations of Fire Response Equipment
- Figure 6.7 Locations and Description of Fire Extinguishers
- Figure 6.8 Evacuation Routes
- Figure 6.9 Contingency Plan Revisions and Amendments
- Figure 6.10 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**

Address: 510 Little Lake Court
Winter Haven, FL 33884

Home Telephone Number: (863) 324-0498

Work Telephone Number: (863) 533-6111

Cell Phone Number: (863) 559-1613

First Alternate: **Mike Bodiford**

Address: 2351 Gerber Dairy Road
Winter Haven, FL 33880

Home Telephone Number: (863) 651-5680

Work Telephone Number: (863) 533-6111

Cell Phone Number: (863) 559-2144

Second Alternate: **John Bosek**

Address: 1323 Monte Lake Drive
Valrico, FL 33594

Home Telephone Number: (813) 655-9220

Work Telephone Number: (863) 533-6111

Cell Phone Number: (863) 559-1610

FIGURE 6.2 AUTHORIZATION TO COMMIT CHF RESOURCES

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

**PRIMARY EMERGENCY
COORDINATOR:**

Wes McDuffie

Address: 510 Little Lake Court
Winter Haven, FL 33884

Home Telephone Number: (863) 324-0498

Work Telephone Number: (863) 533-6111

Cell Phone Number: (863) 559-1613

First Alternate: **Mike Bodiford**

Address: 2351 Gerber Dairy Road
Winter Haven, FL 33880

Home Telephone Number: (863) 651-5680

Work Telephone Number: (863) 533-6111

Cell Phone Number: (863) 559-2144

Second Alternate: **John Bosek**

Address: 1323 Monte Lake Drive
Valrico, FL 33594

Home Telephone Number: (813) 655-9220

Work Telephone Number: (863) 533-6111

Cell Phone Number: (863) 559-1610

General Manager: _____

John Bosek

FIGURE 6.3 COORDINATION AGREEMENT WITH RESPONSE AGENCY

Date

Address

Dear Sir or Madam:

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

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

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

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

Sincerely,

CHF

FIGURE 6.4 LOCAL AGENCY RESPONSE

Date

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

Dear Sir or Madam:

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

We can offer the following services:

_____ Fire Response _____ Spill Response

_____ Medical _____ Traffic Control

_____ Other (specify): _____

Sincerely,

Name: _____

Title: _____

Organization: _____

Address: _____

Figure 6.5 Spill Response Equipment, Uses and Capabilities

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

* Maintained in each emergency response cabinet.

FIGURE 6.6 LOCATIONS OF FIRE RESPONSE EQUIPMENT

FIGURE 6.8 EVACUATION ROUTES

FIGURE 6.9 CONTINGENCY PLAN REVISIONS AND AMENDMENTS

[illegible]

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

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

APPENDIX II-F.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. 49 CFR, Part 172, Subpart H, 29 CFR 1910.120, 40 CFR 264.16 to include regulatory background, intent and purpose of RCRA, as well as site-specific, local, state, and federal regulations regarding the generation, treatment, recovery, storage, and handling of hazardous wastes and materials.
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.
19. Proper identification, packaging, labeling and marking as well as placement, storage and housekeeping for low explosives in the Class II magazine.

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, and/or via online courses. The RCM or designee, as the trainer, will maintain a working knowledge of the regulations through research; reading regulations; attendance of training outside the facility; and of facility operations. Therefore it will not be necessary for them to receive the on-site facility training. The trainer will also review the facility's Contingency Plan before the annual training sessions.

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

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

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

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

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

2.0 Training Documentation

Training will be documented for each employee, as follows:

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

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

3.0 Job Descriptions

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

MANAGEMENT/ENVIRONMENTAL PERSONNEL

Facility Manager*
Operations Manager*

OPERATIONS PERSONNEL

Technical Services Manager/Local Resource Manager*
Disposal Coordinator/Scheduler
Lab Supervisor
Lab Tech
Manifest Clerk
Operations Supervisor/Lead Person*
Chemical Handler/Technician*
Warehouse Worker/Material Inspector*

Lead Maintenance Mechanic/Supervisor*
Maintenance Mechanic*

FIELD OPERATIONS

Field Operations Manager*
Projects Manager*
Projects Supervisor*
Field Operations Supervisor*
Field Chemist*
Truck Driver*

SALES/CUSTOMER SERVICE PERSONNEL

Customer Service Manager
Customer Service Representative/Chemist

OFFICE/GENERAL PERSONNEL

Administrative Assistant

* Trained on proper identification, packaging, labeling and marking as well as placement, storage and housekeeping for low explosives in the Class II magazine.

APPENDIX II-F.6

INSPECTIONS

1.0 General Inspection Requirements

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

2.0 Daily Inspections

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

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

3.0 Weekly Inspections

On at least a weekly basis, areas where containers are stored (Magazine, 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, and housekeeping. Relative to the Class II magazine inspections include the outside of the unit for:

- Proper drainage of rainwater around magazine;
- No vegetation and/or combustible debris within 25 feet of the magazine;
- Dent, holes or breaches in the shell of the magazine;
- Condition of metal shell, paint and signage;
- Condition of door and door hinges;
- Proper locking device(s) and use of locking device(s);
- Source of ignition around the magazine

Inspections of the inside of the magazine include:

- Proper identification, labeling and markings for packages/containers of 1.4 low explosives;
- Proper placement, stacking and aisle space for packages/containers of 1.4 low explosives;
- Proper venting of the magazine;
- Stability and condition of the wood barrier/linings in the magazine;
- Proper housekeeping – floor swept and no accumulation of debris.

The can crusher will also be inspected on a weekly basis for deteriorating or malfunctioning equipment as well as the perimeter road area which will be inspected for integrity, cracks, etc.

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

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

4.0 Monthly Inspection

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

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

5.0 Annual Inspections

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

6.0 Schedule of Remedial Action

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

LIST OF FIGURES

1. Figure 4.1 Example of Facility Inspection Form
2. Figure 4.2 Example of an Annual Tank Shell Thickness
Inspection Log

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.

4.0 Waste Verification Methods, and Rationale

4.1 Waste Verification

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

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

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

<u>Parameter*</u>	<u>Wastes for Which Test is Applicable</u>
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 be conducted.

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

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

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

4.2 Methods and Rationale

4.2.1 pH

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

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

4.2.2 Major Organic Components

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

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

4.2.3 Moisture Content

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

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

4.2.4 TCLP Constituents

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

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

4.2.5 PCB's

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

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

4.2.6 Heating Value (BTU)

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

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

4.2.7 Compatibility

Waste compatibility will be determined prior to mixing any waste.

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

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

4.2.8 Specific Gravity

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

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

4.2.9 Flash Point

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

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

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

5.1 QA/QC Program

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

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

5.2 Waste Movements

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

5.3 Sampling

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

5.3.1 Small Container Sampling

1. Select, at a minimum, 10% of the containers from each waste shipment to be sampled.
2. Select a proper, clean sampling device. A sampling device may be a coliwasa, drum thief, sampling rod, etc.
3. After sampling a container, empty the volume of the sampling device into a sample container.
4. Use a clean sampling device to obtain a representative core sample of all solids in a drum.
5. Once the phases, appearance, and solids have been measured and recorded, the samples within a waste shipment can be composited into a single sample container. The lab and/or sampling personnel will create the composite.
6. No more than 20 drums can be composited.
7. If a container for compositing has more than one phase, then the composite sample must be taken using representative volumes of each phase.
8. If a shipment for compositing is single phased, an equal portion of each drum can be added directly to the composite sample.
9. All samples are to be labeled with the following information: bar code drum number.
10. All samples are delivered to the lab unless the analysis is simple (such as pH) and is conducted where the sample is taken.
11. The appropriate personnel will review all samples. If there is a problem, the appropriate personnel may request that the drums be re-sampled and/or re-composited.

5.3.2 Larger Container Sampling

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

3. If more than one compartment exists then sample each compartment following steps 1 and 2.
4. All samples are brought to the lab.
5. If a liquid load has more than one phase, then the sample must be taken using representative volumes of each phase.

5.3.3 Sampling of Paint Can Consolidation Drums

1. Select proper, clean sampling device. A sampling device may be similar to a colliwasa, drum thief, sampling rod, etc.
2. Select 100% of the consolidated paint waste containers to extract a sample.
3. After sampling a container, empty the volume of the sampling device into a sample container. Use a clean sampling device to obtain a representative core sample of any solids in the container. The samples will be composited from no more than 20 drums for analysis. These composite samples will be from an equal portion of each drum. The samples may be composited by lab and/or sampling personnel.
4. All samples are to be labeled with the following information: bar code drum number.
5. The lab personnel will review all samples. If there is a problem, the lab may request that the paint cans be re-sampled and re-composited or analyzed individually.

LIST OF FIGURES

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 is a MPS

Clean Harbors Profile No. CH480725



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

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

HOCs	PCBs
NONE	NONE
< 1000 PPM	< 50 PPM
>= 1000 PPM	>= 50 PPM
IF PCBs ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?	
	YES NO

ADDITIONAL HAZARDS

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

YES NO (If yes, explain)

CHOOSE ALL THAT APPLY

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



Clean Harbors Profile No. CH480725

F. REGULATORY STATUS

YES	NO	USEPA HAZARDOUS WASTE?	
YES	NO	DO ANY STATE WASTE CODES APPLY?	
		Texas Waste Code	
YES	NO	DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?	
YES	NO	IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?	
		LDR CATEGORY:	
		VARIANCE INFO:	
YES	NO	IS THIS A UNIVERSAL WASTE?	
YES	NO	IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?	
YES	NO	IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?	
YES	NO	DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?	
YES	NO	IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?	
YES	NO	DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?	
YES	NO	DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?	
YES	NO	DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?	
YES	NO	IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?	
YES	NO	IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?	
		Hazardous Organic NESHAP (HON) rule (subpart G)	Pharmaceuticals production (subpart GGG)
YES	NO	IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?	
YES	NO	Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?	
YES	NO	Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?	
		What is the TAB quantity for your facility?	
			Megagram/year (1 Mg = 2,200 lbs)
		The basis for this determination is: Knowledge of the Waste Or Test Data	Knowledge Testing
		Describe the knowledge :	

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

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

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

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

AUTHORIZED SIGNATURE

NAME (PRINT)

TITLE

DATE

CleanHarbors® Waste Receiving Report

Waste Receiving Report

SAMPLE

Plant Received Date:	4/5/2011 1:27 PM	Generator:	Products LLC	806
Work Order #:	2201	Customer:	Products LLC	806
Receiving Facility:	Bartow, FL Facility (BW)	Manifest:	0007481671 Cnt: 2	
Equipment:	455117-8	Genfr EPA ID:	00000018102	State EPA ID: D0060

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

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

Safety, Handling, or Special Instructions:	PPE Waste Safety Data Sheet: T-1	Level C
<p>Safety, Handling, or Special Instructions:</p>		

Supernovae

Surcharges
Total Weight

Waste Codes: D001		Special Instructions:														
Billing Requirements:																
Container Y/N	Weight Y/N															
	Y															
Drum No.	Final Code	Cont. Size	Cont. Type	H2O Mix (+/-)	PH (Value)	Ign (+/-)	CN (+/-)	Sulfide (+/-)	PCB Value	Rad (+/-)	Oxid (+/-)	CC Insp	CHL (+/-)	Weight	Weight UOM	Comments
23537855		55DM	DM											276	LBS	
23537856		55DM	DM											276	LBS	

SECTION B

CONTAINERS AND CONTAINMENT STRUCTURES FOR THE STORAGE OF HAZARDOUS WASTE

1.0 South Container Storage Building

1.1 Design of Aisle Space, Capacity, and Containment Volume

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

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

The South Container Storage Building will typically be used to store 55-gallon containers. Other types of containers stored are totes, cubic yard boxes, 5-gallon containers, 30-gallon containers, etc. The containers will be stored on pallets 42" X 42" or 48" X 48" with typically 4 drums placed on each pallet, and stacked two pallets high. The drums, with a 2' diameter, will extend over the sides of the pallets in some cases.

(NOTE: smaller containers such as 5-gallon pails may be stored more than two containers high but the total height of these containers will typically not exceed the height of two pallets of 85 gallon drums).

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

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

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

At 1/8" per foot slope, liquid (at a depth of 5") will accumulate at a distance of 40' on each side of the centerline containment trench.

The volume of this triangle shaped containment on each side of the trench is:

$$\frac{1}{2}bhl = \frac{1}{2}(40')(.4167')(125') = 1041 \text{ ft}^3$$

where: b = base
h = height
l = length

volume of the centerline trench is 171 ft³ (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).

$$\begin{aligned}\text{Total containment volume} &= 2(1041 \text{ ft}^3) + 171 \text{ ft}^3 \\ &= 2253 \text{ ft}^3 \\ &= 16,852 \text{ gal (@ 7.48 gal/ft}^3\text{)}\end{aligned}$$

1.2 Containment System Run-on

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

Also the capacity allows for the volume occupied by the 8" concrete wall in back of, and on the west end of the fuels blending area. The wall is .67' wide; 102' in length (62' on back, 40' on west end); and 5" deep for a total volume of 28 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
<u>10% of drums capacity*</u>	<u>10,692 gallons</u>
Additional available containment	5,167 gallons

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

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

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

2.0 North Container Storage Building

2.1 Design of Aisle Space, Capacity, and Containment Volume

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

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

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

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

aisle space between each row of pallets.

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

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

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

2.2 Containment System Run-on

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

3.0 CONTAINER MANAGEMENT PRACTICES

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

A maximum of four (4) hazardous waste roll-off containers are stored at the facility. They will be stored within the curbed driveway area which will provide secondary containment. The roll-offs will generally contain solids so the need for secondary containment will be minimal. The tops of the containers will be kept closed, unless it is necessary to add or remove waste. CHF uses two types of roll-offs, open top roll-offs and "sludge boxes". Liquids are not placed in open

top roll-offs, however on occasion rain or absorbed liquids may accumulate in the bottom.

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 Segregation Table for Hazardous Materials denotes which class of material may be transported together and any special precautions which must be observed. The items which cannot be transported together are denoted by an "X". CHF does not store those materials which are classified by an "X" in the same cell.

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

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

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

LIST OF FIGURES

1. Figure 11.1 - Typical Arrangement of Pallets within the South Container Storage Building; and Drainage Patterns in the South Container Storage Building
2. Figure 11.2 - Floor Plan and Typical Arrangement of Pallets in the North Container Storage Building
3. Figure 11.3 - Containment Calculations of the North Container Storage Building
4. Figure 18.5.3 - Hazardous Waste Roll-off and Magazine Storage Locations

Figure 18.5.3

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 could contain the equivalent of 32,320 gallons. The Class II magazine holds up to 5,000 gallons of 1.4 low explosives that are expired/discarded consumer products.

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 353,240 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 on-site. However, should soil and/or groundwater contamination requiring post-closure care be found to exist, a post-closure care plan will be submitted as appropriate.

LIST OF FIGURES

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

Four 40 yd³ roll-off boxes 32,320 gallons

One Class II Magazine 5,000 gallons

MAXIMUM STORAGE CAPACITY OF WASTE AT CHF = 353,240 gallons

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 32,320 gallons in roll-offs, and/or 5,000 gallons in the Class II magazine. The total maximum container storage not to exceed 280,640 gallons
- Maximum permitted capacity RCRA waste is 353,240 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			280,640 gallons

Tanks

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

The following assumptions are used to calculate disposal costs:

- Tank solids and sludges will be slurried and disposed in bulk.
- Wastewater generated is assumed to be RCRA regulated.
- All drums are consolidated into bulk transporters for off-site shipments
- Empty drums will be shipped offsite for reclamation.
- Drums contain 55 gallons and weighs 545 lbs net weight.
- Bulks solid density is 2000 lbs/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 – 1 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 hours/month)	\$16
Tank Removal - 2 tanks @ \$1,284/tank	\$2,568
Equipment Decontamination - 1 day @ \$247/day	\$247
Wastewater Transport - 568 gallons @ \$0.60/gal	\$341
Scrap Steel Transport - \$1.70/mile @ 100 miles/truck for 2 trucks	\$340
Wastewater Disposal - 568 gal @ \$0.25/gallon (pressure wash 284 s.f. @ 2 gals/s.f.)	\$142
Solid Waste/Carbon Steel Disposal (salvaged material)	\$0
PPE \$10/day/person @ 1 day with 3 persons and 1 day with 6	

persons.	\$90
Steps 7-9; Fuels Blending Area Decontamination	
Supervisor - 104 hours @ \$51.50/hour	\$5,356
Skilled Labor - 180 hours @ \$31.00/hour	\$5,580
Skilled Labor - 48 hours @ \$19.00/hour	\$912
Pressure Washer Rental - 180 hours @ \$860/month (160 hours/month)	\$968
Miscellaneous Equipment - \$20	\$20
Detergent - \$130	\$130
Wastewater Transport – 28,420 gallons @ \$0.60/gal	\$17,052
Wastewater Disposal - 28,420 gallons @ \$0.25/gallon (pressure wash 9,472 s.f. @ 2 gals/s.f. and triple rinse 9,472 s.f. @ 1 gal/s.f.)	\$7,105
PPE - \$10/day/person @ 36 days with 2 persons	\$720
Steps 10-12; Rinsate Sampling	
Skilled Labor - 8 samples @ \$22.50/sample	\$180
Sample Analysis - 8 samples @ \$475/sample	\$3,800
Miscellaneous Equipment - \$30	\$30
Sample Shipping - 8 samples @ \$20/sample	\$160
Steps 13-23; Soil Sampling	
Skilled Labor - 4 samples @ \$45/sample	\$180
Sample Drilling - 4 samples @ \$16.40/L.F. @ 1.5 L.F./sample	\$98
Split Spoon Sample Collection - 4 samples @ \$31.00/sample	\$124
Sample Analysis - 4 samples @ \$580/sample	\$2,320
Miscellaneous Equipment - \$30	\$30
Decontamination of Drilling Equipment - 1 day @ \$90/day	\$90
Sample Shipping - 4 samples @ \$20/sample	\$80

Disposal of Drill Cuttings - \$170	\$170
Step 24: Independent Florida PE	\$4,000
TOTAL FOR CLOSURE OF THE FUELS BLENDING AREA	\$52,994
NORTH CONTAINER STORAGE, STAGING, AND LOADING RAMP AREAS	
Steps 1 - 4, 6, & 8 waste removal and disposal (This analysis assumes Step 5 is not possible, therefore Step 7 is not needed.)	
Skilled Laborer - 150 hours @ \$31.00/hour	\$4,650
Supervisor/Inspector - 75 hours @ \$51.50/hour	\$3,863
Off-site disposal - 1,930 fuel drums @ \$24.20/drum (55 gallon @ \$0.44/gal)	\$46,706
Off-site disposal – 550 RCRA solids drums (150 tons) @ \$172.10/drum	\$25,815
Steps 9-14; Building Decontamination	
Supervisor - 270 hours @ \$51.50/hour	\$13,905
Skilled labor - 457 hours @ \$31.00/hour	\$14,167
Skilled labor - 116 hours @ \$19.00/hour	\$2,204
Pressure washer rental - 457 hours @ \$860/month (160 hours/month)	\$2,456
Miscellaneous Equipment - \$50	\$50
Detergent - \$313	\$313
Wastewater Transport – 72,780 gallons @ \$0.60/gal	\$43,668
Wastewater Disposal - 72,780 gallons @ \$0.25/gallon (pressure wash 24,844 s.f. @ 2 gals/s.f. and triple rinse 23,100 s.f. @ 1 gal/s.f.)	\$18,195
PPE - \$10/day/person @ 82 days with 2 people/day	\$1,640
Steps 12-14; Rinsate Sampling	

Skilled Labor - 21 samples @ \$22.50/sample	\$473
Sample Analysis - 21 samples @ \$475/sample	\$9,975
Miscellaneous Equipment - \$50	\$50
Sample Shipping - 21 samples @ \$20/sample	\$420
Steps 15-25; Soil Sampling	
Skilled Labor - 16 samples @ \$45/sample	\$720
Sample Drilling - 16 samples @ \$16.40/L.F. @ 4.5 L.F./sample	\$1,181
Split Spoon Sample Collection - 16 samples @ \$31.00/sample	\$496
Sample Analysis 16 samples @ \$580/sample	\$9,280
Miscellaneous Equipment - \$40	\$40
Decontamination of Drilling Equipment - 2 days @ \$90/day	\$180
Sample Shipping -16 samples @ \$20/sample	\$320
Disposal of Drill Cuttings - \$170	\$170
Step 25: Independent Florida PE	\$4,000
TOTAL FOR CLOSURE OF NORTH CONTAINER STORAGE, STAGING, AND LOADING RAMP AREAS	\$204,937
TANKS	
Steps 1-6; Waste Removal and Disposal	
Supervisor/Inspector - 100 hours @ \$51.50/hour	\$5,150
Skilled Laborers - 350 hours @ \$31.00/hour	\$10,850
Transportation & Disposal costs for liquids –72,600 gal @ \$0.44/gal (fuels blending)	\$31,944
Steps 7-8; Tank Cleaning and Disposal	
Mobilization - \$3,500	\$3,500
Supervisor - 36 hours @ \$51.50/hour	\$1,854
Skilled Labor - 71 hours @ \$31/hour	\$2,201

Pressure Washer Rental - 71 hours @ \$860/month (160 hours/month)	\$382
Tank Removal - 12 tanks @ \$1,284/tank	\$15,408
Equipment Decontamination - 6 days @ \$247/day	\$1,482
Wastewater Transport – 14,912 gallons @ \$0.60/gal	\$8,947
Scrap Steel Transport - \$1.70/mile @ 100 miles/truck and 12 trucks	\$2,040
Wastewater Disposal - 14,912 gal. @ \$0.25/gallon (pressure wash 7,456 s.f. @ 2 gals/s.f.)	\$3,728
Scrap Steel Disposal (salvaged material)	\$0
PPE - \$10/day/person @ 11 days with 2 persons and 6 days with 6 person	\$580
Steps 9-11; Containment Area Decontamination	
Supervisor - 40 hours @ \$51.50/hour	\$2,060
Skilled Labor - 68 hours @ \$31.00/hour	\$2,108
Skilled Labor - 18 hours @ \$19.00/hour	\$342
Pressure Washer Rental - 68 hours @ \$860/month (160 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
TOTAL CLOSURE COST ESTIMATE	\$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)	\$917,900

The estimated cost derived from COST PRO will be used for closure cost estimate and certification upon approval. COST PRO supporting file is presented in Attachment 2 to this section.

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 1.

ATTACHMENT 1

CURRENT FINANCIAL ASSURANCE

ATTACHMENT 2

COST PRO FILE (2011)

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Aerial photograph of facility (From Google Maps)

Front gate of facility

Crude storage tank farm secondary containment pad

Fuels Blending Tanks T-112 and T-114

Paint Can Crusher

South Container Storage Building (SCSB)

Non RCRA product storage tanks secondary containment pad

North Container Storage Building (NCSB)

Secured RCRA/Pharm Storage Drumtainer

PCB cell in NCSB

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Staging areas in NCSB

North container storage area

Drum Scale in NCSB

West loading docks and ramp of NCSB

Used Oil Tanks

Class II Magazine

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