

**PERMA-FIX OF FLORIDA, INC.**

**Part B Permit Renewal NOD Response**

**Submitted To:**

**State of Florida  
Department of Environmental Protection  
7825 Baymeadows Way, Suite 200B  
Jacksonville, Florida 32256**

**October 9, 1995**

**PERMA-FIX**  
**ENVIRONMENTAL SERVICES**

---

**Submitted By:**

**Perma-Fix of Florida, Inc.  
1940 NW 67th Place  
Gainesville, Florida 32653  
(904) 373-6066**

**PERMA-FIX OF FLORIDA, INC.**

**Part B Permit Renewal NOD Response**

**Submitted To:**

**State of Florida  
Department of Environmental Protection  
7825 Baymeadows Way, Suite 200B  
Jacksonville, Florida 32256**

**October 9, 1995**

**PERMA-FIX**  
**ENVIRONMENTAL SERVICES**

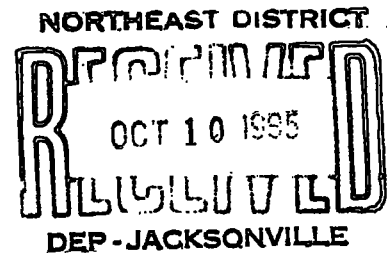
---

**Submitted By:**

**Perma-Fix of Florida, Inc.  
1940 NW 67th Place  
Gainesville, Florida 32653  
(904) 373-6066**

**PERMA-FIX™**  
ENVIRONMENTAL SERVICES, INC

October 9, 1995



Mr. Michael J. Fitzsimmons  
Waste Program Administrator  
Florida Department of Environmental Protection  
Northeast District  
7825 Baymeadows Way, Suite B200  
Jacksonville, Florida 32256-7590

RE: Part B Permit Renewal (NOD dated August 8, 1995)  
Perma-Fix of Florida, Inc. (PFF) Formerly Quadrex Environmental Company  
EPA ED Number FLD-980-711-071

Dear Mr. Fitzsimmons:

This letter is in response to the correspondence referenced above requesting additional information for inclusion in the Perma-Fix of Florida, Inc. (formerly Quadrex Environmental Company) facility Part B Permit Renewal. The information requested and corresponding revisions to the application are provided in this submittal.

If you have any questions regarding these matters, please contact me at (904) 395-1356.

Sincerely,

A handwritten signature in cursive script that reads "Jennifer Hazard".

Jennifer Hazard  
Coordinator, Technology and Development

PERMA-FIX OF FLORIDA, INC.

NORTHEAST DISTRICT

OCT 10 1995

Part B Permit Renewal NOD Response

Submitted To:

State of Florida  
Department of Environmental Protection  
7825 Baymeadows Way, Suite 200B  
Jacksonville, Florida 32256

October 9, 1995

**PERMA-FIX**  
ENVIRONMENTAL SERVICES

Submitted By:

Perma-Fix of Florida, Inc.  
1940 NW 67th Place  
Gainesville, Florida 32653  
(904) 373-6066

**DOCKET # P.21**

**Part I**

- 1) A.13 *appendix A - The application for transfer of permit, dated March 8, 1994, stated that the address for Perma-Fix Environmental Services was in Atlanta, GA. Verify that Perma-Fix Environmental Services' address is in Gainesville, FL.*

Provided as Attachment A is correspondence dated August 2, 1994 addressed to the FDEP, along with Form 8700-12 and the State's Request for Status or Information Change Form. On Form 8700-12 the owner of Perma-Fix of Florida is Perma-Fix Environmental Services, Inc., at 1940 NW 67th Place, Second Floor, Gainesville, FL 32653. On August 12, 1994 PFF received a letter from the FDEP (also part of Attachment A) recognizing the change.

- 2) B-1 *page I.B.1 and appendix A - Verify the facility's latitude and longitude. The Department believes that it should be latitude 29°43'10" and longitude 82°21'9".*

PFF has verified the facility's latitude to be 29°43'00" and longitude is 82°20'58".

Text in the document has been revised as follows:

**B1 Facility Location**

Perma-Fix of Florida, Inc. (PFF) is located on lots 1, 2 and 3 of the Northwest Industrial Park Unit #1 in Gainesville, Alachua County, Florida at Latitude 29°42'08" 29°43'00" and Longitude 82°20'51" 82°20'58".

- 3) *page I.B.1 and appendix A - List the appropriate UTM.*

PFF has determined that the Universal Transverse Mercator Grid Number (UTM) for the facility is 17/369500/3288000.

Text in the document has been revised as follows:

**B1 Facility Location**

Perma-Fix of Florida, Inc. (PFF) is located on lots 1, 2 and 3 of the Northwest Industrial Park Unit #1 in Gainesville, Alachua County, Florida at Latitude 29°43'00" and Longitude 82°20'58". The UTM number for the PFF facility is 17/369500/3288000 according to the U.S.G.S. Gainesville East Florida 1988 map 29082-F3-TF-024.

- 4) B-3 *page I.B.1, paragraph 3 - The referenced scale drawing should be Figure 6.*

Text in the document has been revised as follows:

See Figure 3 for drawing. Photographs are located in Appendix B.

- 5) B-4 *page I.B.1 - Intake and discharge structures within 1 mile of the facility are not shown. If there are no structures, explicitly state so in the text. Otherwise, show them on the appropriate figure.*

As required by 40 CFR 270.13(I), PFF has shown all intake and discharge structures on-site on Figure 3. PFF is authorized to discharge storm water in accordance with the general storm water discharge permit issued for the State of Florida; the facility's storm water permit number is FLR00A094. PFF is not aware of other structures off site within 1 mile of the facility.

Text in the document has been revised as follows:

#### **B4 Topographic and Other Maps**

... \* PFF does not discharge any process waste water. The facility does not have any intake structures located on-site; storm water discharge out-falls are shown on Figure 3. PFF is unaware of any other intake or discharge structures within a mile of the facility.

- 6) C-1 *page I.C.1 and figure 4 - The text states that zoning of the facility is "manufacturing industrial", while the figure shows the zoning to be "local service industrial". Explain the discrepancy.*

When PFF submitted the original permit in early 1988, the property was in the county and its zoning was "manufacturing industrial". In 1992, the area was annexed into the City of Gainesville and at that time the zoning titles changed; PFF is now in a I-1. Figure 4 submitted in the permit application dated 06/01/95 was in error and a corrected Figure has been incorporated in this submittal.

Text in the document has been revised as follows:

#### **LAND USE INFORMATION**

##### **C1 Zoning**

As identified in Figure 4, Perma-Fix of Florida, Inc. (PFF) is located within the Northwest Industrial Park Unit I and has the zoning designation of ~~MP~~ ~~(manufacturing industrial)~~ **I1**.

- 7). D-2      *Section D.2. - Specify exactly what type(s) of treatment in containers (TO4, as shown on figure 6) are being performed in the storage building and adjacent to the transfer facility. In addition, the treatment area adjacent to the transfer facility was designated as a loading/unloading area only in the facility's last permit modification. If this area is a new hazardous waste management unit, a construction and operation permit would be required instead of the operation permit renewal in order to incorporate this new unit into the permit.*

*In addition, include descriptions of all non-hazardous waste activities performed at the facility in this section and show their locations on a figure.*

PFF has removed reference to TO4 (treatment in containers) from the permit application document and withdraws the request to add TO4 to the RCRA permit.

PFF conducts a wide variety of non-hazardous waste activities at the facility including management of site generated non-hazardous wastes as well as management of other industrial wastes from off-site. When non-hazardous wastes are managed within units permitted for hazardous waste, PFF will use knowledge of the waste to evaluate compatibility with other materials stored within the permitted unit. If necessary, portable containment units will be used to separate potentially incompatible materials within common containment systems.

Currently two non-hazardous process units are operated on-site; location of these units is shown on NOD Response Figure 1, Location of Non-Hazardous Process Units. The hopper/drainers for rinsed LSV solids is a mobile unit normally located within Zone 2. The can crushing unit is currently mounted in Zone 2. Both of these units may be relocated to other areas on-site at some time in the future. Since these units are non-RCRA units, PFF requests that the location drawing provided as NOD Response Figure 1 to this document be used for informational purposes and not included in the final RCRA permit for TSD operations. Additional non-hazardous waste operations may be initiated at PFF depending on evolving technologies and regional non-hazardous waste management capacity requirements. A current list of non-hazardous wastes managed at PFF is provided as Attachment B to this response document; please note that this list may be expanded in the future.

Text referring to T04 activities throughout the document has been removed.

- 8) *section D.2 - Provide more information on solvent distillation and solvent recycling, including: specifications of the distillation unit, where the unit will be located on the facility, what waste codes will be processed, what are the criteria for choosing which waste solvents to recycle, disposition of distillation bottoms, etc.*

"PFF no longer performs solvent distillation therefore all text in regard to this process has been removed".

Text in D.2 has been revised as follows:

... PFF operates a waste processing business which includes liquid and sludge bulking, scintillation vial and other small container crushing and shredding, ~~solvent distillation, repackaging of solid wastes contaminated by hazardous wastes, stabilization of waste in containers, and~~ consolidation and storage of discarded mercury containing devices....

~~...■ Stabilization of characteristic hazardous waste is conducted in containers; this process is performed in the area adjacent to transfer facility activities in the laboratory building.~~

~~...■ Solvent Recycling. Solvents which can be recovered from wastes will be recycled utilizing distillation. Solvents will be recycled in a batch process at the rate of approximately one drum per batch. The clean solvent will be stored for reuse and the still bottoms will be blended with other materials in the bulk tank for reuse as fuel or packaged for disposal.~~

~~Contingency Plan ...I.B.6. Solvent recovery by distillation is conducted in on-site process equipment.~~

- 9) *section D.2 - Include a description of the facility's paint consolidation operation in this section. Also, include a description and specifications of the "can crusher" and indicate its location on a figure.*

Text in the document has been revised as follows:

~~PFF occasionally receives 55-gallon drums or pallets that contain smaller~~



containers of paint cans and solvents. At the time of processing of these smaller containers, a temporary area is set up in Zone 2 (NOD Response Figure 1) of the storage building. The drums are opened and the waste aerosols are put into a separate drum. The other containers are opened on the table and consolidated manually into 55 gallon drums. Filled drums are labelled, identified and sampled for test. Drums are then stored pending test results. Based on tests, the drums are then fuel blended or disposed of in a proper manner. Empty containers (i.e. gallon paint cans etc) are loaded into a bailer/compactor approximated 10-15 at a time and crushed. The crushed blocks of metal are consolidated in a waste gondola and then bulked with other wastes for shipment to an energy recovery facility where the metals are segregated for recycling. The above process is for household exempt wastes. RCRA empty containers will be managed in accordance with state and federal regulations. Upon completion of the operation the table(s) are removed and the can crusher is totally cleaned and covered to await the next usage.

- 10) *page I.D.1, paragraph 4 - The text stated that Perma-Fix of Florida (PFF) will operate as business which include "...consolidation and storage of discarded mercury containing devices.". The Department recently promulgated Rule 62-737, Florida Administrative Code (FAC), "Management of Spent Mercury-Containing Lamps and Devices Destined for Recycling". Before PFF operates as a consolidation and storage point for mercury containing devices, it must comply with all applicable provisions of 62-737, FAC, including registration or permitting for this activity. Enclosed is a copy of 62-737, FAC, and related Department forms. Contact the Department for additional information on 62-737, FAC, and its interaction with hazardous waste regulations and PFF's RCRA permit.*

A copy of PFF Mercury-Containing Lamp and Device Storage, Volume Reduction, Mercury Recovery and Mercury Reclamation Facility Permit Application Form has been included as Attachment C.

- 11) *page I.D.3, paragraph 1 - The text stated that the Liquid Scintillation Fluid (LSF) are "...qualitatively spot checked for chemical constituents.". Does this refer to waste analysis procedures for wastes that will be placed in the 3000-gallon storage tank? If not, what is the purpose of this check? Also, explain how is it performed and list sampling and analytical method(s) that are used.*

The description of LSV operations in this section is provided as a general overview. LSV operations at PFF are conducted in accordance with a Florida

Radioactive Materials (FRM) license (FRM license number 2598-1, expiration date of August 31, 2000); selected Operating Quality Procedures (OQP) sections for the license are presented in Appendix D for informational purposes. Analytical methods for radiologic testing are specified in the FRM license.

The spot check referenced in this section is applicable to processing procedures in accordance with the FRM license. The spot check is designed to monitor radioactivity levels of LSV solvents. Therefore, the phrase "chemical constituents" should read "radiological isotopes." LSV solvents are relatively uniform and samples for radiological testing are collected through a valve located near the bottom of each catch tank. Waste solvents received for the LSV process are characterized by generator "knowledge" in accordance 40 CFR 262.11(c)(2), as incorporated by reference at FAC 62-730-160(1), which allows use of MSDS or other "knowledge of process" information for waste characterization. PFF does conduct the compatibility testing in accordance with the facility Waste Analysis Plan prior to blending of LSV wastes into the hazardous waste fuel program.

Text in the document has been revised as follows:

~~The fluids are collected and tested for its-specific radioactivity levels in accordance with the FRM license issued to the facility by the State of Florida Department of Health and Rehabilitative Services - Office of Radiation Control and qualitatively spot checked for chemical constituents.~~

12) page I.D.5, paragraph 1 - Verify the capacity of the DOT tote tanks.

An inventory was taken to verify the capacity of the DOT tote containers, the following is the results:

Zone	Number of Tote Containers	Capacity
One	10	550 gallons each
One	2	450 gallons each
Two	2	550 gallons each
Two	2	450 gallons each

All reference to DOT tote tanks in the text has been changed to DOT tote containers.

- 13) *Page I.D.5, paragraph 4 - Explain how PFF will determine the compatibility of the solids/sludges from different containers of ignitable wastes. Also, describe procedures for preventing fire or explosion from grinding and blending the above solids/sludges.*

PFF evaluates compatibility of prospective waste streams during the pre-acceptance protocol (i.e., the approval process used to identify wastes suitable for management in on-site processes). The compatibility of the waste is re-evaluated upon arrival at the facility (i.e., acceptance protocol). These protocols as well as the compatibility test method are presented in the Waste Analysis Plan, Appendix F (Section II.E., Additional Requirements for Wastes Generated Off-Site, WAP-2, Fuel Compatibility, and WAP-5, Waste Analysis) Parameters, Rational and Applicability).

Fire prevention procedures/equipment are summarized in Section A4 of Part II and include prohibition of smoking in process areas, a fire suppression system for the LSV process equipment, available fire extinguishers, appropriate grounding of tanks and transfer equipment as well as use of non-sparking equipment (as required) and the "Hot Work" program for equipment repair which requires use of heat in the vicinity of ignitable materials.

Text in the document has been revised as follows:

"Occasionally containers of ignitable waste will be received at PFF with solids, sludges or other precipitates settled in the bottom of the container. This material will be removed from the container and ~~processed through a grinder, whereupon the resultant material~~ will be blended with ignitable ~~other compatible~~ waste in the blending tank or packaged for disposal.

- 14) *page I.D.6, paragraph 2 - The Department has no records that PFF registered under the provisions of 62-737, FAC. Please provide a copy of the registration. Also, the first work (PFD) should be PFF.*

PFF registered with the FDEP in August 1994, a registration is enclosed as Attachment D.

Text in document revised as follows:

■ ~~PFD~~PFF is registered with the FDEP to operate as a consolidation point for mercury containing lamps and devices for recycling.

- 15) D.3 page I.D.5, paragraph 6 - List all non-hazardous wastes that will be stored in the storage facility in order for the Department to incorporate them into the permit.

A list of all non-hazardous wastes that will be stored in the storage facility is located as Attachment B.

**Part II, A - General**

- 16) A.1 section A.1 - Provide at least one scale drawing which shows all permitted units, including their respective dimensions, which is signed and sealed by a Professional Engineer (P.E.) registered in Florida. Also, provide a drawing which shows the interior layout of the warehouse.

A new drawing (Figure 19) has been developed to show location and scale of permitted units at the facility.

- 17) A.1.a page II.A.1 - State which figure(s) of the application shows the information requested in this section, similar to what was done on page I.B.1.

Text in the document has been revised as follows:

A1a Topographic map: Figures 1

Map scale and date: 1" = 2000' and May 21, 1995

100 - Year flood zone map: Figure 2

Access control: Figure 5

Injection and withdrawal wells: No injection wells or withdrawal wells are used by PFF and there are no injection or withdrawal wells within one mile of the facility

Building and other structures: Figure 6

Contours: Figure 1 and Figure 19

Loading and unloading areas: Figure 6

Drainage or flood control: Figure 3

Runoff control system: Figure 3

Location of TSD areas

Past, Present, Future: Figure 1

Location of all permitted units: Figure 1 and Figure 17

Location of Solid Waste Management Units: Figure 18

- 18) *section A.1.a - page I.B.1 stated that there are not withdrawal wells on PFF property. However, are there withdrawal wells within 1000' of a permitted unit? If there are, show them on a figure.*

No withdrawal wells are located within 1000 feet of the facility.

Text in the document has been revised as follows:

There are no injection or withdrawal wells within 1000' of a permitted unit.

- 19) *section A.1.a - Some of the figures showing the information requested for the 1" to 200' topographic map has a scale of 1" to 300' instead. Revise those figures to a scale of 1" to 200' or smaller to show more detail, and ensure that the figures show at least 1000' around the permitted unit(s).*

Drawings in this section are provided at a scale appropriate to the material to be presented. The topographic map is provided at the current scale to improve map quality by use of a U.S.G.S. topographic map for area topography one mile surrounding the facility. At least one drawing of the facility will be included at a scale of 1" to 200'.

- 20) *section A.1.a - Show the 100 year flood plain on a figure with a scale of 1" to 200'. [see comment 28 also]*

Figure 2 has been revised as requested.

- 21) *section A.1.a - Figure 3 shows the direction of surface water flow, but does not show surface water flow contours. Submit a revised figure.*

New Figure 19 has been provided as requested.

- 22) *section A.1.a - Both figure 3 and figure 5 have a stated scale of 1" to 300'. However, the two figures are obviously not drawn to the same scale. Explain the discrepancy.*

Figure 3 scale was in error and has been corrected.

- 23) A.2.a section A.2.a - Review and verify all costs stated in the closure cost estimate. Justify the stated costs by providing sample quotes and/or invoices from third parties that will perform the specified services. [see comment 82 also]

PFF has reviewed and up-dated the closure cost estimate. Quotes are submitted as Attachment E.

## **...A2 Financial Responsibility Information**

### **A2a Closure Cost Estimate**

For purposes of estimating closure costs for PFF, certain assumptions are made regarding waste types managed on-site; i.e., the proportion of LS derived hazardous wastes to RCRA hazardous waste.

#### **■ Drum Disposal**

The maximum volume of hazardous waste in containers stored and unprocessed at any one time is limited to 1,311 - 55 gallon drums or equivalent. Other odd sizes may be received but PFF will not exceed the volume equivalent of 1,311 - 55 gallons drums.

According to contracts with the brokers/generators, the liability for the disposal of unprocessed drums of waste material remains with generators. PFF does not take title to the waste, only possession, until processing.

If the container cannot be processed for any reason, PFF has the option to return the waste to the generator or to ship for further management at an alternate facility. This closure cost estimate is based on current, third party, disposal costs for the total permitted volume of hazardous waste stored in tank and container storage areas on-site. Closure costs also include decontamination of the tank and container storage system and associated equipment to meet clean closure criteria.

Since some of the waste received is considered a mixed waste, the methods for disposal are limited. However, currently there are two other companies performing similar operations:

Nuclear Sources & Services, Inc. in Houston, TX; and DSSI in Kingston, TN.

If other TSD facilities are available at final facility closure, PFF may use an alternate properly permitted facility for disposition of mixed hazardous wastes generated by closure activities.

Typically the LSV business has been about 1/3 of the total containers. Therefore, with a storage capacity of 1,311 drum equivalents the breakdown is 435 LSV and 876 hazardous.

#### ■ Loading and Transportation Costs

##### LSV Drums

435 drums @ 190 drums/truckload = 3 truckloads	
\$1.90/mile x 1200 miles x 3 truckloads	\$ 6,840
3 personnel x 4 hours each x \$35/hour x 3 truckloads	\$ 1,260

##### Hazardous Drums

876 drums @ 88 drums/truckload = 10 truckloads	
\$1.90/mile x 325 miles x 10 truckloads	\$ 6,175
3 personnel x 4 hours each x \$35/hour x 10 truckloads	\$ 4,200

* Subtotal Loading and Transportation Costs	\$ 18,475
---	-----------

#### ■ Disposal

##### LSV Drums

435 drums of which 15% will be at \$675/drum and 85% will be at 187.50

65 X \$675	\$ 43,875
370 X \$187.50	\$ 69,375

##### Hazardous

876 Hazardous drums distributed as follows:

Fuel blend basic (60%) 525 at \$32	\$ 16,800
Fuel blend with (15%) sludge 132 at \$80	\$ 10,560
Drums with solids (15%) 132 at \$200	\$ 26,400
Water drums (10%) 85 X 55 gallons	
= 4785 gallons at 1.25	\$ 5,844

Hazardous at average disposal of \$125 876 X \$125	\$222,750
--	-----------

* Subtotal Disposal	\$172,992
---------------------	-----------

#### ■ Storage Tank Cleaning

##### Liquid Disposal

The maximum amount of liquid stored in the tank at any one time would be 3,000 gallons. We would expect that a third party contractor would ship the material to Oldover or a comparable disposal facility as is normal practice of PFF. The cost of disposal of 3,000 gallons of liquid is approximately \$2,500.

Storage Tank Liquid Disposal \$ 2,500

**Tank & Piping Disassembling and Disposition**

4 personnel x 40 hours @ \$25/hour \$ 4,000  
Equipment rental @ \$300/day x 5/day (crane, etc.) \$ 1,500

**Tank Cleaning**

The storage tank and the retainment berm would be steam cleaned with (if required) surfactant or other cleaner. All rinse water would be collected and disposed of at an approved site. We expect that a total of 900 (3 rinse) gallon of wash water would be adequate to accomplish the clean up task.

Labor: 2 man day x \$400/day \$ 800  
~~Disposal: 20 drums x \$225/drum \$ 4,500~~  
~~Disposal: 900 gallons at 1.25 gallon \$ 1,125~~  
Supplies, tools: \$ 3,000

\* Subtotal for Storage Cleaning \$16,300 ~~12,925~~

■ **Process Area Decon**

All equipment and the process floor will need to be decontaminated and steam cleaned and the wash water will be recovered for final disposal.

Steam Cleaning  
Labor: 6 man days x \$400/day \$ 2,400  
~~Disposal Cost: 5 drums at \$225/drum \$ 1,125~~  
~~Disposal Cost: 312 gallons at \$1.25 gallon \$ 390~~

\* Subtotal for Cleaning Process Area \$ 3,525 ~~2,790~~

■ **Remediation (TSD Storage Area)**

Labor:

Team of 1 leader at \$45/hour X 8 hours/day = \$360

3 Technicians at \$35/hour X 8 hours/day = \$840

Team rate/day = \$1,200

**Disassembly**

Team requiring two weeks at 40/hours/week \$ 12,000  
Tools at \$200/day \$ 2,000

**Decontamination**



Team requiring 2 weeks	\$ 12,000
Supplies at \$200/day	\$ 2,000
Tools at \$100/day	\$ 1,000
Steam cleaning 1750 gallons at \$1.25/gallon	\$ 2,188

#### Disposal

Articles and items during decontamination Estimated at 150 Ft <sup>3</sup> at 175/Ft <sup>3</sup>	\$ 26,250
--	-----------

#### Survey

Perform survey of facility at 3 days	\$ 3,600
Instrumentation rental at \$250/day at 3 days	\$ 750

#### Loading/Unloading Areas

Steam Cleaning	
Labor: 3 man days X \$400	\$ 1,200
Disposal: 1500 gallon water at \$1.25 gallon	\$ 1,875

#### 10 Day Transfer Area

Steam Cleaning	
Labor: 2 man days X \$400	\$ 800
Disposal: 625 gallon at \$1.25 gallon	\$ 782

#### Can Crusher

Steam Cleaning	
Labor: 1 man day at \$400	\$ 400
Disposal: 55 gallon at \$1.25 gallon	\$ 69

\* Subtotal Remediation **\$59,600 66,914**

#### ■ By-Product Disposal

We expect the maximum by-product material at any one time to be limited to 2,000<sup>Ft<sup>3</sup></sup> of vermiculite and crushed glass.

Preparation: 5 man days x \$400	\$ 2,000
Transportation:	\$ 900
Disposal of glass/plastic and Vermiculite:	\$ 5,000
* Subtotal for By Product Disposal	\$ 7,900

■ **Miscellaneous Cost**

Analytical: 2017 samples at \$350/sample	\$ 7,000
Certification: 6 man days at \$560/day	\$ 3,360
* <b>Subtotal Miscellaneous Costs</b>	<b>\$10,360</b>

Recap of Costs

Loading & Transportation	\$ 18,475
Disposal	\$ 222,750
Storage Tank Cleaning	\$ 16,300
Process Area Decon	\$ 3,525
Remediation	\$ 59,600
By-Product Disposal	\$ 7,900
Miscellaneous Costs	\$ 10,360
<b>Sub-Total</b>	<b>\$ 339,032</b>
10% Contingency	<u>33,093</u>
<b>Total Closure Cost</b>	<b>\$ 372,813</b>

Closure costs will be updated annually in accordance with the requirements of 40 CFR 264.142.

**A2b Post Closure Care Estimate**

Post-closure care is not applicable.

**A2c Liability/Coverage**

All financial assurance documents are filed with the FDEP.

- 24) page II.A.2 - Under Loading and Transportation Costs - LSV Drums, explain how 190 drums fit into on truckload.

The Lab Pack Type LSV drums are very light with, typically 200-225 pounds and therefore are routinely shipped double stacked. Two levels of drums in a tractor trailer are about 190 drums.

- 25) *page II.A.3 - Under Disposal - LSV Drums, explain why 15% of the drums have a disposal cost of \$675 while the rest have a cost of \$187.50.*

Two types of LSV drums are received. One is classified as "exempt" or non-regulated and is usually either carbon or tritium isotopes. The other type of LSV drum is classified and "regulated" as hazardous waste and may contain one of a number of listed isotopes. Approximately 15% of the drums received are "regulated" and as such have a higher disposal cost.

- 26) *pages II.A.3 and II.A.4 - Provide justification for all volumes of decontamination fluids (20 drums for the tank and 5 drums for the process area). Also, no cost was provided for decontamination fluids generated from the containers storage areas.*

Decontamination of the tank was based on 10% of the tank volume (3000 gallon tank) or 300 gallon of steam/water rinse being performed 3 times for a total volume of about 900-1100 gallons or about 20 drums of wash waste resulting. For the process area of approximately 1200 ft<sup>2</sup> a rinse volume of ¼ gallon/ft<sup>2</sup> of steam/water was used in determining the waste volume of 5 drums. The container storage area has been added to the cost estimated using this same basis with its area being about 7000 ft<sup>2</sup>.

- 27) *page II.A.5 - Under Miscellaneous Cost - Analytical, note that all analyses must be performed by an independent laboratory. Adjust the closure cost accordingly.*

Analytical adjustments have been made. Attachment F list prices from an independent laboratory.

- 28) A.3 *page II.A.6 and figure 2 - It is unclear whether the flood map is a Federal Insurance Administration (FIA) map. If it is not a FIA map, provide information what equivalent mapping technique was used for flood plain determination, and the sources of any data used in the determination.*

Figure 2 has been developed from Darabi and Associates, Inc. to show the 100 year flood plain elevation.

- 29) A.4.b appendix C - Provide a site plan which clearly shows where the facility's hazards are located.

A site plan showing locations of potential hazards (i.e., hazardous waste management areas, flammable product storage, etc.) has been added to the Contingency Plan as CP-8.

- 30) appendix C - Whenever PFF has a spill of hazardous waste over five (5) gallons, it must be reported to the Department using the same notification procedures and time frames that are in the contingency plan. Revise the plan and section II.C.13 (Tank Systems, Response to Leaks or Spills) accordingly.

In accordance with 40 CFR 264.196(d), reporting requirements for releases from tank systems specify that any release to the environment, unless the quantity is less than or equal to one (1) pound and the spill is immediately contained and cleaned up, must be reported to the Regional Administrator within 24 hours of its detection. A report of a release in excess of the RQ as specified in 40 CFR Part 302 will satisfy this requirement.

Reporting requirements for emergency situation as specified in 40 CFR 264.56 include immediate notification of any release, fire or explosion which could threaten human health or the environment, outside the facility.

Text has been revised to comply with the requirements for release from tank systems as follows:

~~C13d The FDEP will be notified within 24 hours if the spill results in a release to the environment in excess of an reportable quantity (RQ).~~ In accordance with 40 CFR 264.196(d), any release of hazardous waste to the environment, unless the quantity is less than or equal to one (1) pound and the spill is immediately contained and cleaned up, will be reported to the FDEP within 24 hours of its detection. A report of a release in excess of the RQ as specified in 40 CFR Part 302 will satisfy this requirement.

C13e A written report in accordance with the requirements of 40 CFR 264.196(d)(3) will be sent to the FDEP within 30 days of such occurrence.

Text in Section II.D of Appendix C conforms with the notification and reporting requirements 40 CFR 264.56; these notification requirements include notification of fire or explosion as well as notification of releases to the environment outside

the facility.

- 31) appendix C, page 3 - Carbon tetrachloride decomposes to phosgene at high temperatures and should not be used for firefighting. Either revise the plan or provide an explanation for using carbon tetrachloride.

Text in the document has been revised as follows:

**TO FIGHT FIRE: USE FOAM, CARBON DIOXIDE, DRY CHEMICAL OR ~~CARBON TETRACHLORIDE~~ (AS DESIGNATED BY THE FIRE DEPARTMENT).**

- 32) A.4.c section A.4.c - Discuss the effects of equipment failure and power outage on the facility's operations and how the facility will minimize these effects.

Hazardous waste is managed in storage and processing units on-site. Power outages will result in shut-down of electrical processing units (i.e., blending and pumping units). Shut-down of electric units or equipment failure will not result in release of hazardous waste to the environment. In addition, all waste transfer activities are conducted by trained personnel who monitor waste transfer and processing activities.

A prolonged power outage or equipment failure could result in shut-down and suspension of process operations. PFF will not accept hazardous waste from off-site generators if permitted storage capacity and/or processing equipment is not available. Active waste management (i.e., processing) is not conducted when the facility is not staffed; storage of waste in tanks or containers will not be directly affected by power outages. Supplemental power supplies (i.e., generators) are available, if deemed necessary, for rent through local vendors.

A computer system is used for data management on-site. To minimize the potential for loss of information resulting from power outages or computer failure, waste management documentation is also maintained in hard copy form.

Text in Section A4c (page 8 of Part II, Section A) of the document has been revised as follows:

Non-Hazardous waste operations are conducted with personnel present at all times. These personnel are thoroughly trained in PFF procedures and safety measures.

A prolonged power outage or equipment failure could result in shut-down and suspension of processing operations. Shut-down or electric units or equipment failure will not directly result in release of hazardous waste to the environment. PFF will not accept hazardous waste from off-site generators if permitted storage capacity and/or processing equipment is not available. Active waste management (i.e., processing) is not conducted when the facility is not staffed; storage of waste in tanks or containers will not be directly affected by power outages. Supplemental power supplies (i.e., generators) are available, if deemed necessary, for rent through local vendors.

A computer system is used for data management on-site. To minimize the potential for loss of information resulting from power outages or computer failure, waste management documentation is also maintained in hard copy form.

No smoking or open flames are permitted in the processing area and extensive fire fighting equipment is conspicuously located.

- 33) *page II.A.7, paragraph 2 - Include a description of PFF's "Hot Work" program.*

Required "Hot Work" is subject to the PFF the "Hot Work" program, in Appendix I. ~~The entire area where these items are located facility~~ is fenced for security and areas where ignitable materials are stored or processed are posted as "No Smoking" areas.

The Hot Work program is presented as Appendix I in the PFF Part B Permit Renewal Application.

- 34) A.4.e *section A.4.e - Provide job duties/description for the "Hazardous/Non-Hazardous Coordinator" (Dwayne Singleton).*

Text in the document has been revised as follows:

Responsible for all levels of Waste Management Services which includes employees having the proper safety equipment. Scheduling drums for treatment, disposal or storage and labpacking. Inspection of the work area and labeling drums. Crushing of oil filter drums and disposal. Pulling samples for customers as needed. Schedule county collections with proper employees, equipment, setup, transportation and pre-evaluation of collection site. Packaging of materials from household collection events to be sent off-site.

- 35) section A.4.e - Since Perma-Fix Analytical Services' personnel handle hazardous waste, provide all required training information for these employees.

Perma-Fix Analytical Services' personnel training information is supplied in the Chemical Hygiene Plan, Appendix D, page 14.

- 36) A.5 section A.5 - Provide the information requested in this section, including sample waste profiles for "typical" waste streams received at PFF.

"Typical" Waste Profiles are provided as Attachment G.

- 37) A.6 appendix F, page 1, paragraph 1 - The citation should be 40 CFR 270.14(b)(3), instead of (b)(2).

Text in the document has been revised as follows:

...Waste characterization procedures have been designed to comply with the requirements of 40 CFR 270.14(b)(2), 40 CFR 246.13(a), and the Florida Administrative Code,

- 38) appendix F, page 5, paragraph 5 - Waste analysis requirements for Conditionally Exempt Small Quantity Generators (CESQG) cannot be waived by PFF. CESQGs also need assurance that wastes received at PFF are the same as what they sent to PFF.

PFF has removed text in the document as follows:

~~Conditionally exempt small quantity generators may not be required to perform some of the initial waste analysis parameters identified in Section WAP-5, page 31, Waste Analysis Parameters, Rationale, and Applicability. The waste analysis data requirements for these generators will be determined on a "case by case basis" by PFF personnel prior to approval.~~

- 39) appendix F, page 7 - Pursuant to 62-730.160(4), FAC, items 1-16, D, F, H, I, and K of the Uniform Hazardous Waste Manifest must be completed. The facility should check for all of the above items on all manifests received.

In accordance with 62-730.160(4), FAC, all required items of the Uniform Hazardous Waste Manifest will be completed.

- 40) *appendix F, page 9, paragraph 2 - The facility shall sample each waste stream received for fingerprint analyses. Multiple containers of the same waste stream shall be sampled randomly. At least 20% of the containers shall be sampled for up to 25 containers. Multiple containers of 26 or more shall require analysis of a number of samples equal to the square root of the number of containers or 10%, whichever is larger.*

Original text from the permit application provided for sampling to ten percent of all containers in a single waste stream. Protocol suggested in the NOD required use of square root for calculation of the number of containers for sampling. For simplification of facility operations, PFF request that the agency approve the requirement of twenty percent sampling of wastes streams consisting of less than one hundred containers and ten percent sampling for waste streams of one hundred or more containers.

Text in the document has been revised as follows:

Standard facility waste sampling protocol (for waste acceptance) required that a minimum of ten percent (10%) percentage of the containers in a shipment will be sampled, and if applicable, composited of analysis. For shipments of one hundred containers or more, the sampling percentage is ten percent (10%); twenty (20%) of containers will be sample for shipments of less than 100 containers. Standard facility waste, discarded commercial products, and site-generated wastes. Acceptance protocols for these wastes are discussed below.

- 41) *appendix F, page 9, paragraph 2 - Waste analysis protocols may be waived for discarded commercial products only if the products were in original containers and had intact product labels.*

Adequate information required for proper management of wastes, in accordance with 40 CFR 262.11(c)(2), as incorporated by reference at FAC 62-730.160(1), can include the use of MSDS or other "knowledge of process" information for wastes which are off-specification and out-dated commercial chemical products (wastes of well known origin); i.e., the identification or discarded commercial chemical products may be well known even if original labels or containers are not available. Waste commercial chemical products may be stored or shipped in bulk



or original containers may not meet current DOT performance oriented packaging requirements. PFF requests that the current waste analysis protocol be maintained as specified in paragraph 2 on page 9 of Appendix F.

- 42) *appendix F, page 9, paragraph 3 - Provide PFF's definition of composite samples. Note that the Department generally requires grab samples for waste analysis protocols.*

PFF collects a "grab sample" from each container sampled for analysis. Grab samples from a single waste stream, may be combined as a "composite sample" for analysis. The procedure used is designed to obtain a representative sample of an entire waste stream.

Text in the document has been revised for clarification as follows:

Standard facility waste sample protocol (for waste acceptance) requires that a minimum percentage of the containers in a shipment will be sampled, and if applicable, composited for analysis. For shipments of one hundred containers or more, the sampling percentage is ten percent (10%); twenty (20%) of containers will be sampled for shipment of less than one hundred containers. "Grab samples from a single waste stream may be consolidated as a "composite sample" for analysis. If analytical results of a composite do not meet pre-acceptance parameters, individual containers will be sampled for analysis to identify potential problem containers of the waste stream.

1. Grab Sample - A grab sample is a representative sample obtained from a single containers or tank.

2. Composite Sample - A composite sample is a combination of two or more grab samples. The grab samples are combined in such a way as to serve as a representative samples of the combination of tanks or containers. The procedure used is designed to obtain a representative sample of an entire waste stream.

- 43) *appendix F, page 10 - Specify the waste acceptance criteria or "acceptance tolerances" for each fingerprint analysis parameter, and include justification for selecting the criteria. EXAMPLE: flash point - how many degrees or how much % variance from the waste profile value will PFF allow before it rejects the waste?*

Waste acceptance is in accordance with waste profile sheets authorized by the generator. In the event that fingerprint analysis indicates a variance from the waste profile sheet beyond the standard deviation of the respective analysis, the discrepancies shall be handled in accordance with 40 CRF 264.72.

- 44) *appendix F, page 12 - Verify the citation "148 Subpart B". What regulation does this refer to ?*

Text in the document has been revised as follows:

II.G WASTE ANALYSIS PLAN AMENDMENT FOR WASTES SUBJECT TO  
THE LAND DISPOSAL RESTRICTIONS: ~~148-SUBPART B40 CRF PART~~  
~~268~~

- 45) *appendix F, WAP-1 - Provide justification for TO4 design capacity (550 gallons).*

Reference to TO4 treatment in containers has been removed. See response to Item 7.

Text in document has been revised as follows:

TO4 ————— 550 Gallons ————— See list below

- 46) *appendix F, WAP-1 - Verify all waste codes and names on this list. Some appear to be inaccurate. Examples include:*

- a) Some wastes listed as D001 are not ignitable, such as ethylene glycol, propylene glycol, and m-toluidine.*
- b) P003 is 2-propenal, not 2-propenyl.*
- c) P075 (nicotine and salts) is not the same as Pyridine (F005/U196).*

WAP-1 and WAP-3 have been revised for clarification of wastes accepted at PFF.

- 47) *appendix F, WAP-2 - This table is not referenced in the text, and in any case should be incorporated with the descriptions of other test methods. [see comment 52]*

Table WAP-2 is referenced in WAP-5.

- 48) *appendix F, WAP-2 - The Department suggests that for the fuel compatibility test, after shaking the mixture for 60 seconds (step 4), it should be observed both immediately and after allowing the mixture to settle for several minutes. In addition, explicitly state what results (vapors, temperature and pressure changes, etc.) the tester looks for and the criteria used to determine compatibility.*

Text in the document has been revised as follows:

Pour into an 8 oz jar; shake for 60 seconds; observe immediately for results, then allow several minutes for mixture to settle for a second observation. The tester looks for the resulting criteria (i.e., vapors, temperature and pressure changes) to determine compatibility.

- 49) *appendix F, WAP-3 - Explain the purpose of this table. It is unclear from the text whether PFF wishes to store the waste codes listed in WAP-1 or WAP-3. If the WAP-3 listing is what PFF wishes to store, review and revise applicable sections of the permit application to take this into account of the permit application to take this into account (waste compatibility, waste separation, etc.)*

WAP-1 and WAP-3 have been revised for clarification.

- 50) *appendix F, WAP-5 - It appears that TOC and TCLP are performed for Land Disposal Restriction (LDR) waste analysis requirements (40 CFR 268.7) to determine whether a waste meets Universal Treatment Standards for its waste constituents. Although this information should be a part of the waste analysis plan, discuss and show the fingerprint analysis and LDR requirements separately in the plan to avoid confusion.*

LDR requirements have been removed along with treatment (TO4) in containers.

Although TO4 has been removed from this document analyses for LDR have been retained as optional analyses to be conducted if, deemed necessary, to further evaluate waste characteristics.

- 51) *appendix F, WAP-5 - A number of parameters were listed as optional analysis. Explain when these optional parameters will not be analyzed for.*

Appendix F, WAP-5 - PFF conducts specific analyses for the Pre-Acceptance and Acceptance protocols. The Pre-Acceptance protocol is designed to evaluate the waste proposed for management at PFF to determine if the waste is suitable for management at the facility; i.e., that the EPA waste code for the waste is part of the RCRA permit and that PFF has the facilities to properly manage the waste. The Acceptance protocol is designed to verify that the waste arriving at the facility is the waste that was approved for management on-site. Used in conjunction with information provided by the generator, analyses designated for Pre-Acceptance and Acceptance Protocols normally provide adequate information to allow PFF to make appropriate decisions regarding proper management of the respective wastes.

Optional methods may be used to enhance understanding of waste characteristics. However, optional methods will not normally be conducted when waste characteristics determined by methods performed during Pre-Acceptance and Acceptance corroborate generator provided information regarding waste characterization in accordance with 40 CFR 262.11; generator characterization may include testing or knowledge of the waste. When additional analytical methods are deemed necessary by PFF management, such methods will normally be selected from the analytical methods referenced in the WAP.

- 52) *appendix F, WAP-5 - Provided descriptions of all analytical methods that are not available in reference texts, e.g., Merckoquant 10044, DEXSIL methods, Hack methods.*

WAP-5 has been revised to show EPA standard method references.

- 53) *appendix F, WAP-5 - Does the DEXSIL CLOR-N-OIL method detect PCBs or chlorine/chloride?*

Clor-N-Oil detects polychlorinated byphenols (PCBs) by stripping the chlorine atoms from the PCBs through a catalytic reaction with sodium. A description has been included as Attachment H.

- 54) A.7 *page II.A.17, paragraph 2 - The EPA Form should be 8700-13B, instead of D.*

Text in the document has been revised as follows:

- An unmanifested waste report will be submitted on EPA Form 8700-13DB within 15 days of receipt of the waste.

- 55) A.8 *section A.8 - Provide the information requested in this section on how PFF complies with various Federal environmental legislation, including the Coastal Zone Management Act, the Endangered Species Act, the Fish and Wildlife Coordination Act, the National Historic Preservation Act, and the Wild and Scenic Rivers Act. [-40 CFR 270.3]*

Text in the document has been revised as follows:

PFF is not subject to the Coastal Zone Management Act, Fish and Wildlife Coordination Act, and Wild and Scenic Rivers Act. In addition, the facility is located within an Industrial Park in an urban setting and to the best of our knowledge there are no endangered species or archeological or historical sites within the property.

PFF is not subject to the requirements of the legislation referenced above.

## ***II, B - Containers***

- 56) *section B.1 - List the height of the perimeter berm.*

Due to the sloped floor in each zone the height of the perimeter berm varies from 2 3/4 inches to 6 inches. See Figure 12.

- 57) *Section B.1 - Provide information on the sealant used to coat the floor of the container storage areas, including when it was last applied, and specifications on its chemical resistance.*

PFF operates container management areas in accordance with the requirements of 40 CFR Subpart I incorporated by reference at 62-730.180(1). Specifications for containment systems include a base which is free of cracks or gaps and is

sufficiently impervious to contain leaks, spills, or accumulated liquids until such liquids can be detected and removed. The containment systems for container management areas are constructed of concrete which is maintained to be free of gaps or cracks. The concrete is sufficiently impervious to the wastes managed to facilitate detection and removal of accumulated liquids in a timely manner; the concrete has not been coated with an additional sealant. Specifically, inspections of container management areas are conducted at least weekly. In addition, containers in storage are inspected each operating day by personnel trained to identify potential problems. Accumulated liquids are collected and removed within 24 hours of detection.

- 58) *section B.2 - It is unclear from figures 5 and 6 whether the storage building is greater than 50 feet from the property boundary. Provide or revise a scale drawing which clearly shows the distances between the storage building, the fence line, and the property boundary.*

Permitted containers storage areas are at least 50' from property boundary. Drawings have been revised to show property line as requested.

- 59) *page II.B.2 - Explain how PFF assures that a waste will not be placed into an unwashed containers that previously held an incompatible waste/material. [40 CFR 264.177(b)]*

PFF will not place hazardous waste in an unwashed container which previously held an incompatible waste or material unless the requirements of 40 CFR 264.17(b) are complied with. PFF will use knowledge of waste types, in accordance with the Waste Analysis Plan, to fulfill these requirements.

Descriptive text has added to the permit application as new Section B4d.

**B4d Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Waste 40 CFR 264.177(b)**

PFF will manage ignitable and reactive waste in accordance with the following procedures. Incompatible wastes, or incompatible wastes and materials will not be placed in the same container or in an unwashed container unless precautions are taken to prevent reactions which could:

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

Ignitable or reactive wastes are either stored in closed containers or closed top tanks in order to prevent accidental ignition or reaction. Incompatible wastes are separated and ignitable/reactive wastes are protected from sources of ignition or reaction. Activities that could produce open flames, hot surfaces, frictional heat, sparks, spontaneous ignition or radiant heat will not occur in the vicinity of ignitable wastes.

- 60) *page II.B.2 - Explain how PFF will physically separate incompatible wastes in storage, e.g., chlorinated organics and bases, and how storage area(s) which stored one type of waste will be decontaminated before storing another type of waste that is incompatible.*

PFF will not store incompatible wastes in common containment areas; portable containment units may be used to isolate specific containers. When service of a containment area or portable containment units is changed to accommodate materials incompatible with the waste previously stored, PFF will evaluate the need for decontamination procedures. If visual inspection identifies contamination of the containment system, the structure will be decontaminated prior to use for storage of incompatible wastes.

Text in the document has been revised for clarification as follows:

- Currently all hazardous wastes are pre-approved by the generator submitting a profile sheet and as requested a sample of the waste. ~~If the waste from the generator has a minimal of 20% of a non-compatible waste, PFF will begin a policy of segregating those containers from the remaining waste in the containment area by using a temporary berm portable containment unit. Any container holding a hazardous waste that is incompatible with any waste or other materials will be~~

separated from the other materials by means of a dike, berm, wall, or other equivalent device; portable containment units may be used for this purpose.

Container management areas may be used for storage of wastes incompatible with the waste previously stored. Prior to change in service to an incompatible waste type in the unit, containment structures will be visually evaluated for evidence of contamination or indications of release of hazardous waste or hazardous waste constituents into the containment system. In the event that visual contamination is observed, the containment structure will be decontaminated. Decontamination of containment structures will be accomplished by cleaning with high pressure water, steam, non-phosphate detergent, or other appropriate method. Rinsate and/or cleaning residuals will be managed in accordance with state and federal regulations.

- 61) appendix D, Facility Inspection Plan - Where is "non-haz zone 4"?

Non-Haz Zone 4 is located at the rear of lot 1, as shown on NOD Response Figure 1.

- 62) appendix D, Facility Inspection Plan - Loading/unloading areas must be inspected daily. Revise the inspections logs accordingly. [40 CFR 264.15(b)(4)]

PFF has been incorporated the inspections logs accordingly.

## II,C - Tank Systems

- 63) section C.1 - This section states that all permitted wastes will be stored in the tank. Will this include D002 corrosive waste? Specify exactly what waste codes will be stored in the tank.

PFF will not place incompatible wastes, or incompatible wastes and materials in the same tank unless the requirements of 40 CFR 264.17(b) are complied with. In addition, hazardous waste will not be placed in a tank that not been decontaminated and previously held an incompatible waste or material unless the requirements of 40 CFR 264.17(b) are complied with. As specified in the facility Waste Analysis Plan, all wastes designated for storage in the tank system are evaluated for compatibility with the material stored in the tank prior to placement of the waste into the tank system. Because of waste variability within EPA waste



code designations, specification of waste codes for tank management is not as protective as the compatibility protocol used by the facility. In addition, PFF will not add corrosive waste designated as D002 into the tank system at the facility.

Text in Section C10 of the document has been revised for clarification as follows:

**C10 Ignitable, Reactive or Incompatible Wastes in Tanks**

The 3,000 gallon storage tank is a dedicated tank and can only receive LS fluids or other compatible waste pumped to it from the processing area. PFF operating procedures including waste characterization prior to acceptance and evaluation upon arrival at PFF are designed to prevent the addition of incompatible wastes which could cause failure of the tank system. Specifically, PFF will not place incompatible wastes, or incompatible wastes and materials in the same tank unless the requirements of 40 CFR 264.17(b) are complied with; wastes designated as D002 will not be managed in the facility tank system. Therefore the waste is stored in such a way that it is protected from any material or condition that may cause the waste to react or ignite.

- 64) *section C.1 - Provide a signed and sealed certification from a P.E. registered in Florida certifying the structural integrity of the tank and its secondary containment. Specify for how long the certification is effective.*

A signed/sealed certification form Bodo and Associates based on an inspection completed Tuesday September 26, 1995, is provided as Figure 13.

- 65) *section C.2 - Provide the structural integrity examination results of the tank, including its dimensions and current thickness.*

A signed/sealed structural integrity examination from Bodo and Associates based on an inspection completed Tuesday September 26, 1995, is provided as Figure 13.

- 66) *section C.4 - No instrumentation diagram(s) have been provided. Clearly show all instrumentation for the tank, such as level alarms, temperature and pressure sensors, etc. and their range/sensitivity.*

See response to NOD 64.

- 67) *section C.5 - Discuss in detail whether the tank material is compatible with the wastes that will be stored, and possible corrosion and erosion effects from the stored wastes.*

See certification referenced in response Item 64 which include an evaluation or compatibility with materials store.

- 68) *section C.5 - Is the interior of the tank lined or coated? Is the exterior and the support of the tank coated, galvanize, or otherwise protected?*

The interior of the tank is not coated or lined, however the exterior is painted to provide protection from the elements.

- 69) *section C.7 - Is the secondary containment area coated? If so, provide information on the sealant used to coat the area, including when it was last applied, and specifications on its chemical resistance.*

PFF operates the tank system in accordance with the requirements of 40 CFR Subpart J incorporated by reference at 62-730.180(1). Specifications for tank systems include containment designed to prevent migration of wastes or accumulated liquid out of the system which facilitates leak detection and removal of accumulated liquids. The tank is equipped with a concrete containment system which is sufficiently impervious to the wastes managed to facilitate detection and removal of accumulated liquids in a timely manner; the concrete has not been coated with an additional sealant. Inspections of the containment system are conducted each operating day to identify potential problems. Accumulated liquids are collected and removed within 24 hours of detection.

- 70) *section C.9 - Per Appendix D, LSV Processing Procedures, page 6, the tank has a high level alarm which shuts off the feed pump when the tank reaches 90% capacity. Clearly state that above in this section or reference Appendix D.*

Text in document has been revised as follows:

The tank feed lines are utilized only in a batch mode and not prone to fluid losses. Detailed inventory logs are maintained for each process batch with any potential losses occurring in the transfer of fluids being readily identified. The overflow protective device is interlocked to the fluid infeed system to prevent overfilling.

Should overfilling be attempted, the tank has a high level alarm which shuts off the feed pump when the tank reaches 90% capacity. The infeed system will not function and an alarm will sound. The bulk tank is compatible with the flammable liquids and is permanently grounded via a specially installed grounding system.

- 71) *section C.9 and appendix D, Bulk Tank and Loading - There does not appear to be any spill control devices (check valve, dry disconnect coupling, etc.) for the tank. Explain how PFF prevents waste from being leaked/spilled from the line connecting that tank and the tanker truck during and after transfer of the waste.*

Bulk Tank and Loading - The 3,000 gallons tank is equipped with a ball valve and check valve at the base of the tank. However, waste is transferred from the tank to a transport tanker using a flexible hose and portable pump system. The hose is attached at the tank and the tanker with cam-locks which are secured with tape during transfer operations. Transfer operations are conducted by trained personnel who visually monitor all transfer operations for leaks or spills.

Text in Section C9 of the document has been revised for clarification as follows:

#### **C9 Spills and Overflow Protection**

... The bulk tank is compatible with the flammable liquids and is permanently grounded via a specially installed grounding system.

Transfer of waste from the 3,000 gallon tank to tank trucks is monitored by personnel for potential leaks and spills. Waste is transferred from the tank to the transport tanker using a flexible hose and portable pump system; cam-lock systems attach the hose at both ends and are taped for security during transfer operations. Hoses are drained after each use to prevent spills from the transfer line.

- 72) *section C.11 and appendix D, Facility Inspection Plan, page 3 - Although the tank inspection log in appendix D shows daily inspection of the tank, the text states inspections are done weekly. Explain the discrepancy.*

In accordance with 40 CFR 264.15(b)(4), PFF will perform inspection on every day the facility is operational. All text referencing weekly inspections have been changed to specify each operating day

## *II, K - Closure*

*\*\* Unless other wise specified, all comments in this section applies to both containers (section B.6) and tank systems (section C.12)*

- 73) *All sampling and analysis shall be in accordance with EPA SW-846, and shall be performed by an independent laboratory which has a Department approved Comprehensive Quality Assurance Plan.*

All sampling and analysis are in accordance with EPA SW-846, and a independent laboratory pricing schedule is included as Attachment F.

- 74) *To achieve clean closure, PFF must show that all hazardous waste and waste constituents have been removed from the permitted units. Therefore, analyzing for TCLP constituents only is not adequate. In general, the facility must analyze for Total Organic Carbon (TOX), Total Organic Halogens (TOX), and all 40 CFR 261 Appendix VIII parameters that have ever been stored at PFF. The clean closure criteria is the Method Detection Limit (MDL). For metals, the facility may use the Florida Primary Drinking Water Standards (FPDWS) found in 62-550, FAC. PFF may also use a parameter's background concentration in lieu of MCL/FPDWS if it is higher.*

The "Clean Closure Standard" has been revised as requested.

### **Clean Closure Standard**

The clean closure criteria will be based on TCLP-constituents of concern in soils not exceeding MCLs Method Detection Limits (MDL) for non-metal constituents, Florida Primary Drinking Water Standards (FPDWS) for metal constituents, or background (for all constituents), whichever is greater. Specific tests conducted will be appropriate to the constituents of concern which will include all 40 CFR 261 Appendix VIII constituents which have been stored at PFF. A composite background sample will be obtained from 3 locations on-site considered unaffected by facility operations. These samples will be taken at a depth of 0.5 to 1.0 feet using a US EPA sampling method<sup>1</sup> or equivalent method. Should ground water

---

<sup>1</sup> January 1991. Compendium of ERT Soil Sampling and Surface Geophysics Procedures. EPA/540/P-91/006, United States Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington DC 20460 (Section 2.0, Soil Sampling: SOP #2012).

monitoring be deemed essential due to evidence of soil contamination, ground water cleanup criteria will be established based on MCLs or background concentrations.

- 75) *Any background samples must be taken from an area that has not been impacted from the facility's operations.*

A composite background sample will be obtained from 3 locations on-site considered unaffected by facility operations. These samples will be taken at a depth of 0.5 to 1.0 feet using a US EPA sampling method or equivalent method.

See response to Item 74 for revisions to text in Section B6e.

- 76) *PFF has not proposed decontamination of its loading/unloading areas, treatment areas, and can crusher. Incorporate these areas/equipment into the sampling and analysis plan.*

These items have been incorporated into the closure cost calculation as requested. See response to NOD 23 for revision to text.

- 77) *Provide more details on the sampling analysis of the decontamination fluids (rinse water), including parameters, number of samples, sampling and analytical methods, and justification for their selection.*

Decontamination procedures for containment structures are provided in the response to item 79 below. The TCLP analysis selected for evaluation of decontamination fluids is suitable for selection of the appropriate disposal option. Since the decontamination fluids will be collected, one representative sample of the waste stream will be evaluated. In addition, to the chemical analysis, visual examination of the containment structure will supplement the analysis of the decontamination fluids. The facility may choose to conduct additional analyses.

- 78) *Provide more details on the sampling and analysis of the concrete surfaces (wipe samples and/or concrete chip samples), including parameters, number and location of samples, sampling and analytical methods, and justification for their selection.*

Visual evaluation of containment structures as well as chemical analysis of rinsate

will be used to determine decontamination status of containment structures; see response to Item 79 below. PFF expects that decontamination procedures will adequately clean containment surfaces. However, if staining of concrete identifies areas which are suspected of being contaminated with hazardous constituents, PFF will conduct wipe tests or concrete chip tests. The costs for these evaluations would be covered by the contingency included in the closure plan.

- 79) *Provide more details on the sampling and analysis of soil, including specific criteria on determining when soil sampling will be necessary, analytical parameters, number, location and depth of samples, sampling and analytical methods, and justification for their selection.*

Details on sampling and analysis of soil have been relocated to Section K4, other sections have been revised to reference the new section.

Text in Section B6e has been revised as follows:

**B6e** Containment structures will be decontaminated using high pressure water containing (if deemed necessary) non-phosphate detergent solution or containment structures will be decontaminated using another suitable method. The wash water will be collected and managed in accordance with state and federal regulations. The structure will then be rinsed twice; rinsate will be collected and managed in accordance with state and federal regulations. The final rinsate from the containment structure will be analyzed, and when TCLP constituent levels are below characteristic levels (in accordance with 40 CFR 261 Subpart C) and no visible residues remain on the containment structure, the structure will be deemed to be decontaminated. ~~The underlying containment structure (asphalt and concrete) will be examined for its integrity and should any evidence of cracks, gaps, or stains be present~~ release of hazardous constituents. If staining is observed, PFF will collect wipe samples or concrete chip samples for analysis; the test method conducted will be selected based on the constituents managed in the unit. The number of samples will be determined by the extent of staining observed on the containment structure. The containment structure may be retained for service other than for hazardous waste management if the integrity of the structure is deemed acceptable. If the examination identifies areas of suspect integrity, the structure will be removed and soil evaluation conducted; dismantled containment structures will be managed in accordance with state and federal regulations. Soil samples will be preferentially collected from those areas associated with suspect integrity of the containment system. Soil evaluation will be conducted in accordance with Section K-4, Soil Evaluation Procedures, the

~~asphalt/concrete and the underlying soils will be sampled on a grid of 5' X 5'. Soils will be sampled on six (6) inch depth intervals and soils showing contamination above maximum contaminant level (MCL) or background (for TCLP constituents, whichever is greater, will be excavated and removed for off-site disposal. All floors not requiring excavation will be cleaned with high pressure wash water and a final wipe test conducted.~~

Text in Section C12f has been revised as follows:

**C12f** Containment structures will be decontaminated using high pressure water containing (if deemed necessary) non-phosphate detergent solution or containment structures will be decontaminated using another suitable method. The wash water will be collected and managed in accordance with state and federal regulations. The structure will then be rinsed twice; rinsate will be collected and managed in accordance with state and federal regulations. The final rinsate from the containment structure will be analyzed, and when TCLP constituent levels are below characteristic levels (in accordance with 40 CFR 261 Subpart C) and no visible residues remain on the containment structure, the structure will be deemed to be decontaminated. ~~The bermed area in and around the storage tank will be examined for its integrity. The containment area surface and walls will be steam cleaned and rinse water collected at the pump will be tested for TCLP constituents contaminated rinse waste will be shipped for off site disposal. Ten wipe tests of the bottom and side walls of the containment pad will be collected and analyzed for TCLP constituents.~~ If staining is observed, PFF will collect wipe samples or concrete chip samples for analysis; the test method conducted will be selected based on the constituents managed in the unit. The number of samples will be determined by the extent of staining observed on the containment structure. The containment structure may be retained for service other than for hazardous waste management if the integrity of the structure is deemed acceptable. If the examination identifies areas of suspect integrity, the structure will be removed and soil evaluation conducted; dismantled containment structures will be managed in accordance with state and federal regulations. Soil samples will be preferentially collected from those areas associated with suspect integrity of the containment system. Soil evaluation will be conducted in accordance with Section K-4, Soil Evaluation Procedures.

#### **K4 Soil Evaluation Procedures**

##### **K4a Background Sample**

A composite background sample will be obtained from 3 locations on-site

considered unaffected by facility operations. These samples will be taken at a depth of 0.5 to 1.0 feet using a US EPA sampling method<sup>2</sup> or equivalent method.

#### **K4b Soil Sampling**

All visible contaminated soil will be removed, evaluated for TCLP constituents, and managed in accordance with state and federal regulations. After removal of visually contaminated soil, soil samples will be taken at a depth of 0.5 to 1.0 feet using a USEPA sampling method<sup>1</sup> or equivalent method. In addition to sample locations selected in association with potential contamination (where applicable), soil samples will be collected on a 25 foot grid and composited for analysis. Analyses will be chosen to measure levels of constituents of concern; constituents of concern will include all 40 CFR 261 Appendix VIII constituents which have been stored at PFF.

#### **K4c Clean Criteria**

Clean closure criteria will be based on levels of constituents of concern in soils not exceeding MCLs Method Detection Limits (MDL) for non-metal constituents, Florida Primary Drinking Water Standards (FPDWS) for metal constituents, or background (for all constituents), whichever is greater. Specific tests conducted will be appropriate to the constituents of concern which will include all 40 CFR 261 Appendix VIII constituents which have been stored at PFF. If soil does not meet these conditions, an additional 0.5 feet of soil will be removed and evaluation will be repeated. PFF will repeat this sequence until the clean criteria are satisfied. Soil will be removed or otherwise managed in accordance with the requirements of 40 CFR 262.

---

<sup>2</sup> January 1991. Compendium of ERT Soil Sampling and Surface Geophysics Procedures. EPA/540/P-91/006, United States Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington DC 20460 (Section 2.0, Soil Sampling: SOP #2012).



<b>Section K5. Closure Schedule</b>	
<b>Closure Activity</b>	<b>Days Elapsed</b>
Submittal of Closure Permit Application in accordance with FAC 62-730.260 to the Department.	- 180
Notification in writing to the Department of intent to begin closure activities.	-45
Receipt of known final volume of hazardous waste into container or tank management unit or receipt of Department approval of closure plan, whichever is later <sup>1</sup> .	0
Begin treatment and/or removal all hazardous wastes from container or tank management unit(s) <sup>2</sup> .	30
Complete treatment and/or removal of all hazardous wastes from container or tank management unit(s).	90
Complete removal and (if necessary) decontamination of ancillary equipment, tanks, and empty containers.	120
Complete decontamination of secondary containment structures.	135
Conduct visual investigation for evidence of contamination of surrounding/underlying soil and (if necessary) begin soil sampling/remediation activities.	150
Complete final closure activities.	180

<sup>1</sup> If an unexpected event during closure of a hazardous waste management unit requires modification of the approved closure plan, PFF will request a permit modification within 30 days of the unexpected event.

<sup>2</sup> In the event that there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, PFF will initiate closure activities no later than one year after the date on which the unit received the most recent volume of hazardous waste as specified under 40 CFR 264.112(d)(2).

Submit certification to the Department (by PFF and independent registered professional engineer) that the hazardous waste management unit/facility has been closed in accordance with the specifications of the approved closure plan <sup>3</sup> .	240
--	-----

- 80) *State that if excavation of contaminated soil and/or groundwater monitoring is necessary, PFF will revise its closure plan accordingly.*

II.K Closure - Text in section K1b has been modified as requested

In the event that complete decontamination cannot be achieved for either unit, a ~~plan for closure/post closure care plan~~ will be submitted to the FDEP. ~~If excavation of contaminated soil (additional to that described in Section E4) and/or groundwater monitoring is necessary, PFF will revise its closure plan accordingly.~~

- 81) *PFF must list all decontamination equipment that will be used in closure activities, and procedures to decontaminate or dispose of all equipment used in closure.*

Text in Section A2a has been revised as requested.

The decontamination equipment to be used in closure will consist of the following:

- 1500 PSI or greater steam/pressure washer
- Industrial wet/dry shop vacuum
- Air driven diaphragm type pump
- Absorbent socks/booms
- Personal protective equipment, i.e. tyvek coverall, safety glasses and footwear, gloves, etc.
- DOT containers for shipment of waste
- Shovels and other miscellaneous hand tools.

Upon completion, the steamer (or equivalent) will be used to decon all reusable equipment and/or all items will handled as a RCRA waste.

---

<sup>3</sup> Requirements for inspection and certification by an independent engineer do not apply to partial closure activities.

- 82) *Revise the closure cost estimate and financial assurance mechanism taking into account the above comments concerning closure.*

The closure cost estimate has been revised and the financial assurance mechanism will be adjusted to reflect the new closure cost estimate.

- 83) *The following items should be included in the closure plan:*

- a) The closure plan and all approved amendments must be maintained at the facility. [40 CFR 264.112(a)(2)]*
- b) Any amendment to the closure plan must be submitted to the Department. [40 CFR 264.112(c)]*
- c) Provide a more detailed closure schedule, preferably in the form of a figure, taking into account the other comments concerning closure.*
- d) At least 180 days before closure is anticipated to begin, PFF must submit a closure permit application to the Department.*

See response to Item 79 for the closure schedule presented as new Section K5.

Text has been added to Section K as requested.

**K1 The general facility information can be found in Part II Section A, B and C of this application.**

PFF will maintain a copy of the approved closure plan and all revisions to the plan on-site until the certification of closure completeness has been submitted to and approved by the Department.

This written plan for closure of hazardous waste management units will be amended, and written notification of or request for a permit modification to authorize the change in the approved closure plan will be submitted to the department, whenever:

- Changes in operating plans or facility design affect the closure plan; or
- In conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.

PFF will submit the notification or request for a permit modification including a copy of the amended closure plan, for approval by the Department, at least **sixty (60) days** prior to the proposed change in facility design or operation, or no later than **sixty (60) days** after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, PFF will request a permit modification no later than **thirty (30) days** after the unexpected event.

In accordance with FAC 62-730.260, PFF will submit a closure permit application to the Department at least 180 days before final facility closure is anticipated to begin. A closure schedule is provided in Section K-5. PFF will close hazardous waste tank and container management units in accordance with this closure plan unless an alternate partial or final closure plan has been approved by the Department. In accordance with 40 CFR 112(e), this closure plan shall not preclude PFF from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

- 84) *Both PFF and an independent P.E. registered in Florida must complete the certification of closure.*

In accordance the requirements of 40 CFR 264.115, PFF will submit to the department, by registered mail, a certification that the hazardous waste facility, has been closed in accordance with the specifications in the approved closure plan. The certification, to be submitted within 60 days of the completion of final closure, will be signed by PFF and by an independent registered professional engineer.

Text in Section K1g has been revised to incorporate this language.

**K1g Not applicable.** In accordance the requirements of 40 CFR 264.115, PFF will submit to the department, by registered mail, a certification that the hazardous waste facility, has been closed in accordance with the specifications in the approved closure plan. The certification, to be submitted within 60 days of the completion of final closure, will be signed by PFF and by an independent registered professional engineer.

- 85) *section C.12 - If clean closure cannot be achieved for the tank, then it must be closed as a landfill. [40 CFR 264.197(b)]*

Text in Section K2 has been revised as requested.

#### **K2 Post Closure Plan**

A Post Closure Plan is nNot required at this time. However, if "clean closure" in accordance with 40 CFR 264.197(b) cannot be achieved for closure of the tank system, then PFF will submit a closure/post closure plan in accordance with the requirements of for landfills (§ 264.310).

#### ***II, P - Potential Releases from SWMUs***

- 86) *appendix H - Per the June 27, 1990 letter form the U.S. Environmental Protection Agency, a RCRA Facility Assessment (RFA) had been performed at PFF in October 1989 and not Solid Waste Management Units (SWMU) at that time required further investigation. However, operations at PFF have expanded and changed significantly since that time. Therefore, please submit all information and the certification requested in this section.*

All information and the certification requested in this section has been provided in Appendix H and J as requested.

#### ***II, Q - Information Requirements for SWMUs***

- 87) *Similar to section II.P, please provide all information requested in this section for all identified SWMUs.*

Information requested in reference to all new SWMUs has been provided in Appendix J.

#### ***II,R - Process Vents***

- 88) *The requirements of 40 CFR 264 Subpart AA should be discussed in this section, not II.S. Also, note that the requirements of this section is applicable to the recycling unit used for solvent recycling. [40 CFR 264.103(b)(2)]*

All requirements of 40 CFR 264 Subpart AA has been moved to section II, R - Process Vents per your request. All text in reference to solvent recycling has been removed from the application.

## ***II, S - Requirements for Equipment***

- 89) *The text states that there are equipment on-site that are applicable to 40 CFR Subpart BB requirements, yet no information has been provided for the equipment in question. Provide all information requested for all applicable equipment, including but not limited to: the feed pump used to transfer the LSF from the processing area to the bulk tank (pumps in light liquid service); the solvent recycling unit (compressors and/or other equipment); any valves associated with the bulk tank (valves in light liquid service).*

As a result of the promulgation of Subpart CC standards [59 FR 62896, December 6, 1994 (as amended)], the requirements of 40 CFR Subpart BB will apply to permitted TSD facilities on December 6, 1995. PFF will comply with applicable organic air emission standards for equipment, tanks, and containers by the compliance deadline. Text in the permit document has been revised to reflect the current deadline for compliance and PFF will submit the information requested regarding Subpart BB equipment prior to that date.

Text in the document has been revised as follows:

### **S1 RCRA TSDF Air Rules:**

...Perma-Fix of Florida, Inc. (PFF) operates some tank and container management units, as well as certain equipment, which will be subject to these requirements on December 6, 1995.

### **S2 Subpart BB Requirements:**

...This equipment ~~is therefore~~ will be subject to the Air Emission Standards for Equipment Leaks in accordance with 40 CFR Subpart BB....

### **S3 Subpart CC Requirements:**

The requirements of 40 CFR Subpart CC will apply to tank and container units which manage hazardous waste with average VOC concentrations exceeding 100 ppmw;...

*General*

- 90) *appendix G - All certifications required for the permit application were copies. Provide at least 3 sets of certifications with original signatures and P.E. seal. Also, the certifications for operator, facility owner, and owner, and P.E. should not be place in section II.P.*

Original signature pages and certifications have been provided as requested.

- 91) *Explain how the Stormwater which accumulates in the loading/unloading ramp near the transfer facility receiving are is managed before it is discharged.*

Stormwater that accumulates in the transfer facility off-loading area is managed on a routine basis and discharged under Perma-Fix's General Stormwater Permit. If a spill occurs during loading/off-loading or other indications exist of possible contamination, the stormwater shall be tested for constitutes associated with the spill and managed in accordance with 40 CFR 261.

- 92) *All of the information contained in PFF's submittal for a permit modification to operate a transfer facility should be incorporated into the permit application, including but not limited to inspections, operation logs, closure plan, etc.*

All information in reference to the transfer facility has been incorporated into the permit as Appendix K.

*General*

- 90) *appendix G - All certifications required for the permit application were copies. Provide at least 3 sets of certifications with original signatures and P.E. seal. Also, the certifications for operator, facility owner, and owner, and P.E. should not be place in section II.P.*

Original signature pages and certifications have been provided as requested.

- 91) *Explain how the Stormwater which accumulates in the loading/unloading ramp near the transfer facility receiving are is managed before it is discharged.*

Stormwater that accumulates in the transfer facility off-loading area is managed on a routine basis and discharged under Perma-Fix's General Stormwater Permit. If a spill occurs during loading/off-loading or other indications exist of possible contamination, the stormwater shall be tested for constitutes associated with the spill and managed in accordance with 40 CFR 261.

- 92) *All of the information contained in PFF's submittal for a permit modification to operate a transfer facility should be incorporated into the permit application, including but not limited to inspections, operation logs, closure plan, etc.*

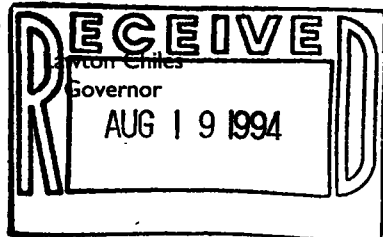
All information in reference to the transfer facility has been incorporated into the permit as Appendix K.



Attachment "A"



# Department of Environmental Protection



Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

08-12-94

JENNIFER HAZARD, TECH & DEV CORD  
PERMA FIX OF FLORIDA  
1940 NW 67TH PLACE  
GAINESVILLE FL 32653

RE: Facility ID # FLD980711071  
LOC: 1940 NW 67TH PLACE  
GAINESVILLE

Based on information supplied by you, we have processed and accepted at the state level your request for the facility identified with the above ID number to receive the following name change under RCRA:

FROM: QUADREX ENVIRONMENTAL

TO: PERMA FIX OF FLORIDA

The status of your facility:

Treater.  
Storer.  
Disposer.

will remain unchanged.

We are advising EPA of this change. Please notify us if there is any further change in your operations which would affect your status.

THIS LETTER IS INTENDED TO NOTIFY YOU OF YOUR EPA ID NUMBER. THIS LETTER IS NOT AN APPROVAL TO TRANSPORT HAZARDOUS WASTE OR OPERATE A HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY. PLEASE CONTACT THE DEPARTMENT FOR COMPLETE REQUIREMENTS.

Sincerely,

Michael X. Redig  
Environmental Supervisor II  
Hazardous Waste Management Section

cc: Dave Gray - EPA/Region IV  
DER/Jacksonville  
GMS-ID # 3101P81353



August 2, 1994

Hazardous Waste Regulation Section  
Florida Department of Environmental Protection (FDEP)  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**CERTIFIED MAIL**

Dear Sir:

At the request of Stanley Tam, Hazardous Waste Engineer, FDEP, Jacksonville office, enclosed you will find a completed Change of Status form, a Notification of Regulated Waste Activity form and a copy of the Department's permit transfer approval letter of June 14, 1994 for our hazardous waste facility in Gainesville, Florida.

If you have any questions or comments concerning this material, please feel free to contact me at your earliest convenience.

Sincerely,

A handwritten signature in cursive script, reading "Jennifer B. Hazard".

Jennifer B. Hazard  
Technology and Development Coordinator

c:	Centofanti	Perma-Fix Environmental Services, Inc.
	Flaacke	Perma-Fix of Florida
	Foster	Perma-Fix Environmental Services, Inc.
	Sherman	Perma-Fix Environmental Services, Inc.
	Tam	Florida Department of Environmental Protection, Jacksonville office

Enclosures: FDEP Change of Status form  
FDEP Notification of Regulated Waste Activity form  
Copy of FDEP permit transfer approval letter of June 14, 1994

JH06/02

P 889.284.218



# Receipt for Certified Mail

No Insurance Coverage Provided  
Do not use for International Mail  
(See Reverse)

PS Form 3800, June 1991

Sent to <b>Hazardous Waste Reg. Sec</b>	
Street and No. <b>FOEP 2600 Blair Stone Rd</b>	
P.O., State and ZIP Code <b>Tallahassee, FL 32399-2400</b>	
Postage	\$ <b>.29</b>
Certified Fee	<b>1.00</b>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	<b>1.00</b>
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ <b>2.29</b>
Postmark or Date <b>Hazard, Jennifer</b> <b>8/2/94</b>	

<b>SENDER:</b> • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1 <input type="checkbox"/> Addressee's Address 2 <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3 Article Addressed to: <b>Hazardous Waste Reg Section</b> <b>FOEP</b> <b>2600 Blair Stone Road</b> <b>Tallahassee, FL 32399-2400</b>		4a Article Number <b>P. 889.284.218</b>	
4b Service Type <input checked="" type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise		7 Date of Delivery <b>AUG 04 1994</b>	
5 Signature (Addressee) 		8 Addressee's Address (Only if requested and fee is paid)	
6 Signature (Agent) 			
PS Form 3811, December 1991 ★ U.S.G.P.O. 1992-307-530 <b>DOMESTIC RETURN RECEIPT</b>			



Lawton Chiles  
Governor

## Florida Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

### REQUEST FOR STATUS OR INFORMATION CHANGE FOR HAZARDOUS WASTE GENERATORS, TRANSPORTERS, FACILITIES

This form may be used by hazardous waste generators, transporters, or treatment, storage, or disposal facilities in Florida to request a change in their status. The request is subject to verification by the Department.

BUSINESS EPA/DEP ID NUMBER

F L D 9 8 0 7 1 1 0 7 1

Check below if  
information has  
changed

BUSINESS NAME PERMA-FIX OF FLORIDA

☒

LOCATION ADDRESS 1940 NW 67th Place

CITY, STATE Gainesville, FL 32653

MAILING ADDRESS Same as above

CITY, STATE, ZIP

☐

CONTACT PERSON Jennifer Hazard

☒

CONTACT TITLE Technology & Development Coordinator

PHONE NUMBER 904 / 373-4200

☒

PREVIOUS STATUS: \_\_\_\_\_

#### IF YOUR CURRENT FACILITY STATUS IS:

☐ LARGE QUANTITY GENERATOR

☐ SMALL QUANTITY GENERATOR (SQG)

☐ CONDITIONALLY EXEMPT SQG

☐ TRANSPORTER

☐ HAZARDOUS WASTE FUEL MARKETER/BURNER

☐ USED OIL MARKETER

☐ TREATMENT FACILITY

☐ STORAGE FACILITY

☐ DISPOSAL FACILITY

☐ MOVED\*

PLEASE COMPLETE THE ATTACHED EPA FORM 8700-12 (NOTIFICATION OF REGULATED WASTE ACTIVITY) TO NOTIFY THE DEPARTMENT OF YOUR CURRENT STATUS (FLORIDA ADMINISTRATIVE CODE 17-730.150(5)).

\* IF BUSINESS HAS MOVED, SUBMIT FORM 8700-12 FOR THE NEW BUSINESS LOCATION IF THE NEW LOCATION WILL BE INVOLVED IN HAZARDOUS WASTE MANAGEMENT ACTIVITIES.

**OUT OF BUSINESS:**

\_\_\_\_\_ Business closed on \_\_\_\_\_ (Date)

**NON-HANDLER STATUS**

This status change is requested because:

\_\_\_\_\_ Business no longer generates, transports, treats, stores, or disposes of hazardous waste.

\_\_\_\_\_ Waste generated by business has been delisted.

\_\_\_\_\_ Other, explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_


**HAZARDOUS WASTE TRANSFER FACILITY STATUS**

\_\_\_\_\_ Hazardous waste transfer facilities must also notify as a hazardous waste transporter and must comply with FAC 17-730.170 and 17-730.171.

Please attach any documentation or additional explanations and justification to support your request for a status change. You may be asked to submit additional information.

I HEREBY CERTIFY THAT UNDER PENALTY OF LAW I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

Jennifer Hazard Technology & Development Coordinator  
NAME TITLE

 2 August 1994  
SIGNATURE DATE

Please mail completed forms to :

Hazardous Waste Regulation Section  
Florida DEP  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Attachment: EPA Form 8700-12 and instructions

Please refer to the instructions for Filing Notification before completing this form. The notification requested here is by law (Section 3010 Resource Conservation and Recovery Act).



# Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received  
(For Official Use Only)

## I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐ A. First Notification ☒ B. Subsequent Notification (complete Item C)

C. Installation's EPA ID Number

F L D 9 8 0 7 1 1 0 7 1

## II. Name of Installation (Include company and specific site name)

P E R M A - F I X O F F L O R I D A

## III. Location of Installation (Physical address not P.O. Box or Route Number)

Street

1 9 4 0 N W 6 7 t h P L A C E

Street (continued)

City or Town

G A I N E S V I L L E

State

F L

ZIP Code

3 2 6 5 3 -

County Code

9 1 - 6

County Name

A L A C H U A

## IV. Installation Mailing Address (See instructions)

Street or P.O. Box

M E

Town

State

ZIP Code

## V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (last)

H A Z A R D

(first)

J E N N I F E R

Job Title

T E C H &amp; D E V C O R D

Phone Number (area code and number)

9 0 4 - 3 7 3 - 4 2 0 0

## VI. Installation Contact Address (See instructions)

A. Contact Address

Location Mailing

☒ ☐

B. Street or P.O. Box

City or Town

State

ZIP Code

## VII. Ownership (See instructions)

A. Name of Installation's Legal Owner

P E R M A - F I X E N V I R O N M E N T A L S E R V I C E S, INC.

Street, P.O. Box, or Route Number

1 9 4 0 N W 6 7 t h P L A C E, 2 n d F L O O R

City or Town

G A I N E S V I L L E

State

F L

ZIP Code

3 2 6 5 3 -

Phone Number (area code and number)

9 0 4 - 3 7 3 - 4 2 0 0

B. Land Type

P

C. Owner Type

P

D. Change of Owner Indicator

Yes

X

No

(Date Changed)

Month Day Year

0 6 1 7 9 4

ID: For Official Use Only																									
<b>VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to Instructions.)</b>																									
<b>A. Hazardous Waste Activity</b>  1. Generator (See Instructions) <input type="checkbox"/> a. Greater than 1000 kg/mo (2,200 lbs.) <input type="checkbox"/> b. 100 to 1000 kg/mo (220 - 2,200 lbs.) <input type="checkbox"/> c. Less than 100 kg/mo (220 lbs.)  2. Transporter (Indicate Mode in boxes 1-5 below) <input type="checkbox"/> a. For own waste only <input type="checkbox"/> b. For commercial purposes  Mode of Transportation: <input type="checkbox"/> 1. Air <input type="checkbox"/> 2. Rail <input type="checkbox"/> 3. Highway <input type="checkbox"/> 4. Water <input type="checkbox"/> 5. Other - specify _____  <input type="checkbox"/> 3. Treater, Storer, Disposer (at installation) (Note: A permit is required for this activity; see Instructions)  4. Hazardous Waste Fuel <input type="checkbox"/> a. Generator Marketing to Burner <input type="checkbox"/> b. Other Marketers <input type="checkbox"/> c. Boiler and/or Industrial Furnace  Indicate Type of Combustion Device(s) <input type="checkbox"/> 1. Smelter, Refractory <input type="checkbox"/> 2. Small Quantity Exemption <input type="checkbox"/> 1. Utility Boiler <input type="checkbox"/> 2. Industrial Boiler <input type="checkbox"/> 3. Industrial Furnace  <input type="checkbox"/> 5. Underground Injection Control	<b>B. Used Oil/Fuel Activities</b>  1. Off-Specification Used Oil Fuel <input type="checkbox"/> a. Generator Marketing to Burner <input checked="" type="checkbox"/> b. Other Marketer <input type="checkbox"/> c. Burner - Indicate device(s) - Type of Combustion Device  <input type="checkbox"/> 1. Utility Boiler <input type="checkbox"/> 2. Industrial Boiler <input type="checkbox"/> 3. Industrial Furnace  <input checked="" type="checkbox"/> 2. Specification Used Oil Fuel Marketer (or On-site Burner) who first claims the Oil Meets the Specification																								
<b>IX. Description of Regulated Wastes (Use additional sheets if necessary)</b>																									
<b>A. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. (See 40 CFR Parts 261.20 - 261.24)</b> <table style="width: 100%; border-collapse: collapse;"><tr><td style="width: 25%;">1. Flammable (D001)</td><td style="width: 25%;">2. Corrosive (D002)</td><td style="width: 25%;">3. Reactive (D003)</td><td style="width: 25%;">4. Toxicity Characteristic (D000)</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr></table> (List specific EPA hazardous waste number(s) in the Toxicity Characteristic container(s))		1. Flammable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic (D000)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																
1. Flammable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic (D000)																						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																						
<b>B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33. See Instructions if you need to list more than 12 waste codes.)</b> <table style="width: 100%; border-collapse: collapse;"><tr><td style="width: 16.6%; text-align: center;">1</td><td style="width: 16.6%; text-align: center;">2</td><td style="width: 16.6%; text-align: center;">3</td><td style="width: 16.6%; text-align: center;">4</td><td style="width: 16.6%; text-align: center;">5</td><td style="width: 16.6%; text-align: center;">6</td></tr><tr><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td></tr><tr><td style="text-align: center;">7</td><td style="text-align: center;">8</td><td style="text-align: center;">9</td><td style="text-align: center;">10</td><td style="text-align: center;">11</td><td style="text-align: center;">12</td></tr><tr><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td></tr></table>		1	2	3	4	5	6							7	8	9	10	11	12						
1	2	3	4	5	6																				
7	8	9	10	11	12																				
<b>C. Other Wastes. (State or other wastes requiring a handler to have an I.D. number. See Instructions.)</b> <table style="width: 100%; border-collapse: collapse;"><tr><td style="width: 16.6%; text-align: center;">1</td><td style="width: 16.6%; text-align: center;">2</td><td style="width: 16.6%; text-align: center;">3</td><td style="width: 16.6%; text-align: center;">4</td><td style="width: 16.6%; text-align: center;">5</td><td style="width: 16.6%; text-align: center;">6</td></tr><tr><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td></tr></table>		1	2	3	4	5	6																		
1	2	3	4	5	6																				
<b>X. Certification</b>																									
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.																									
Signature 	Name and Official Title (type or print) Jennifer Hazard, Tech & Dev Cord	Date Signed 2 August 94																							
Comments Change of ownership from Quadrex Environmental Company to Perma-Fix of Florida																									
Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)																									





# Florida Department of Environmental Protection

Lawton Chiles  
Governor

Northeast District  
7825 Baymeadows Way, Suite B200  
Jacksonville, Florida 32256-7577

Virginia B. Wetherell  
Secretary

June 14, 1994

## CERTIFIED - RETURN RECEIPT

Dr. Louis Centofanti  
Perma-Fix Environmental Services, Inc.  
Building G, Suite 520  
5775 Peachtree-Dunwoody Road  
Atlanta, GA 30342

Dear Dr. Centofanti:

Quadrex Environmental Company  
FLD 980 711 071  
HO 01-169480  
Alachua County - Hazardous Waste

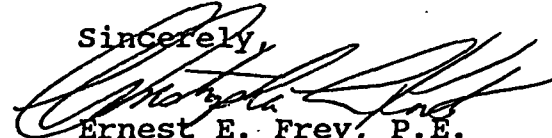
This letter is in response to your request for transfer of permit dated March 8, 1994, and subsequent additional information. The Department finds your request satisfactory. Therefore, pursuant to Rule 17-730.300(2), FAC, the Department modifies the following items of the permit:

<u>Item</u>	<u>From</u>	<u>To</u>
Facility Name/ Facility Operator/ Facility Owner/ Land Owner	Quadrex Environmental Company	Perma-Fix of Florida, Inc.

This modification becomes effective immediately. All other permit conditions remain as issued. This letter must be attached to your permit and becomes part of that permit.

If you have any questions regarding this letter, please contact Ashwin B. Patel at the letterhead address or call (904)448-4320, ext. 378.

Sincerely,

  
Ernest E. Frey, P.E.  
For Director of District Management

EEF:str

cc: Satish Kastury  
G. Alan Farmer  
Jeffrey Sherman✓

● Attachment 'B'

PFF may store the following non-hazardous waste storage area:

- radiator coolant
- petroleum contaminated water
- petroleum contaminated soil
- hydrocarbon contaminated media/debris
- industrial waste
- absorbent material
- oil filters
- oily rags
- oily water
- solvents
- tank bottoms
- photo solutions
- waste fuel
- waste oil
- leachate
- paint waste, paint filters and paint solids
- inks and pigments
- all other forms and types of non-hazardous and non-regulated waste

- Attachment "C"

**APPLICATION FOR A MERCURY-CONTAINING LAMP OR DEVICE  
STORAGE, VOLUME REDUCTION, MERCURY RECOVERY OR  
MERCURY RECLAMATION FACILITY PERMIT**

**Part I**

**TO BE COMPLETED BY ALL APPLICANTS**

**Please Type or Print**

**A. General Information**

**1. Type of facility:**

<b>Storage</b>	<b>[X]</b>	<b>Volume Reduction</b>	<b>[ ]</b>
Lamps	[X]	Lamps	[ ]
Devices	[X]	Devices	[ ]
<b>Mercury Recovery</b>	<b>[ ]</b>	<b>Mercury Reclamation</b>	<b>[ ]</b>
Lamps	[ ]	Lamps	[ ]
Devices	[ ]	Devices	[ ]
		Other mercury wastes	[ ]
		Commodity grade mercury	[ ]

**2. Type of application:** [ ] new construction [X] operation [ ] modification

**3. Revision Number:** N/A

**4. Date current operation began (or is expected to begin):**

**5. Facility name:** Perma-Fix of Florida, Inc.

**6. EPA/DEP ID. No.:** FLD 980711071

**7. Facility location or street address:** 1940 NW 67th Place

**8. Facility mailing address:**

Street or PO. Box	City	State	Zip
<u>1940 NW 67th Place</u>	<u>Gainesville</u>	<u>FL</u>	<u>32653</u>

**9. Contact person:** Raymond Whitte Telephone: (804) 373-6066

**Title:** Facility Manager

**Mailing Address:**

Street or P.O. Box	City	State	Zip
<u>1940 NW 67th Place</u>	<u>Gainesville</u>	<u>FL</u>	<u>32653</u>

10. Operator's name: Perma-Fix Environmental Telephone: (904) 372-4200

11. Operator's address:

Street or P.O. Box	City	State	Zip
<u>1940 NW 67th Place</u>	<u>Gainesville</u>	<u>FL</u>	<u>32653</u>

12. Facility owner's name: Perma-Fix Env. Inc Telephone: (904) 373-4200

13. Facility owner's address:

Street or P.O. Box	City	State	Zip
<u>N/A</u>			

14. Legal structure: ☒ Corporation ☐ Non-profit Corporation ☐ Partnership ☐ Individual  
☐ Local Government ☐ State Government ☐ Federal Government ☐ Other (specify)

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

County: Alachua State: Florida

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

State of incorporation: Delaware

17. If the legal structure is an individual or partnership, list the owners' names and mailing addresses.

Name: N/A

Address:

Street or P.O. Box	City	State	Zip

Name: \_\_\_\_\_

Address:

Street or PO. Box	City	State	Zip

Name: \_\_\_\_\_

Address:

Street or PO. Box	City	State	Zip

Name: \_\_\_\_\_

Address:

Street or PO. Box

City

State

Zip

\_\_\_\_\_

18. Site ownership status: ☒ owned ☐ to be purchased ☐ to be leased \_\_\_\_\_ years

☐ presently leased; the expiration date of the lease is: \_\_\_\_\_

If leased, indicate:

Land owner's name: N/A

Land owner's address:

Street or PO. Box

City

State

Zip

\_\_\_\_\_

19. Name of professional engineer: Frank Darabi and Associates, Inc.

Registration no.: 20385

Address:

Street or PO. Box

City

State

Zip

730 N. Waldo Road Suite A Gainesville FL 32601

Associated with: Darabi and Associates, Inc.

20. Facility located on Indian land: ☐ yes ☒ no

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

TYPE OF PERMIT	AGENCY	PERMIT NUMBER	DATE ISSUED	EXPIRATION DATE
----------------	--------	---------------	-------------	-----------------

PCRA Hazardous

Waste Permit

FDEP

HO 01-169480

02/28/90

09/27/95

Radioactive

Materials License FDHRS 2598-1

08/18/95

08/31/2000

Storm Water

General Permit

USEPA FLR00A094

12/31/92

12/31/97

Used Oil

Registration

FDEP

50428-U0

07/01/92

06/30/95

## B. Site Information

1. Facility location : County: Alachua Nearest Community: Gainesville

Latitude: 29° 43' 00" Longitude: 82° 20' 58"

Section: NW ¼ of Sec 18 Township: 9 South Range: 20 East

UTM # 17 1369500 13288000 1

2. Area of facility site (acres): 7.62

3. Attach a topographic map of the facility area and a scale drawing and photographs of the facility showing the location of all past, present, and future material receiving, storage and processing areas. Also show the incoming and outgoing material traffic pattern including estimated volume and controls. *Topographic Map see attachment A*

*See attachment B for photographs*

4. Is the site located in a 100-year flood plain? ☐ yes ☒ no

## C. Land Use Information

1. Present zoning of the site. I-1

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

N/A

3. Present land use of site

Industrial

## D. Operating Information

1. Is hazardous waste generated on site? ☒ yes ☐ no

List the types and anticipated annual amounts of generation (attach a separate sheet if necessary).

S I C 4953



See attachment c

2. Attach a brief description of the facility operation, nature of the business, and activities.

3. Specify below each process used for storing or recycling of lamps or devices (including daily design capacities for recycling operations) at the facility, and annual quantities, to be stored or processed at the facility. (Attach a separate sheet if necessary)

PROCESS	DAILY DESIGN CAPACITY	UNIT OF MEASURE	ANNUAL QUANTITY
---------	-----------------------	-----------------	-----------------

Process: Storage

Daily Design Capacity: 2,000 Kilograms of mercury  
containing lamps and up to 100 Kilograms of mercury  
containing devices

Units of Measure: Kilograms

Annual Quantity: 730,000 Kg. mercury containing lamps  
36,500 Kg. mercury containing devices

Indicate the type of material and total amount of maximum desired storage to be permitted by the facility. This is the maximum amount of raw or unprocessed material, such as lamps or devices, and the total types and amounts of processed material, such as glass or phosphor material, which shall exist at the facility at any time. This shall be the maximum allowed storage by the facility. (attach a separate sheet if necessary)

2,000 Kilograms of mercury containing lamps and up to

100 Kilograms of mercury containing devices per day

5. Attach a description of how the facility shall be constructed and operated and the specifics of the technology which shall be utilized to process or recycle lamps and devices. Include any engineering plans, calculations and other related information describing the process to include the design, installation and operation of any air pollution control equipment. All engineering plans and reports shall be signed and sealed by a professional engineer registered in the State of Florida. Describe the specific types of materials the facility shall accept for introduction into its process. (e.g. fluorescent lamps, electrical thermostats etc.)

Construction and operation plans are labeled as Attachment N/A

6. Attach a description of the facility's contingency plan for responding to and dealing with spills or releases of hazardous material to the environment during facility operation or any other emergency conditions. Include the name and 24-hour response telephone number of the facility emergency response coordinator, who is to be contacted in the event of an emergency. Plans should at a minimum conform to the requirements of 40 CFR 264, Subpart D. Attach a description of procedures, structures, or equipment used at the facility to:

- (1) Mitigate effects of equipment failure
- (2) Prevent hazards in unloading operations (i.e., ramps, special forklifts);
- (3) Prevent undue exposure of personnel to hazardous material (i.e., protective clothing);
- (4) Prevent releases to soil, water or the atmosphere; and

Attach a description of the preparedness and prevention procedures including required equipment, testing and maintenance of equipment, access to communications or alarm system, required aisle space, and arrangements with local authorities.

Contingency plan is labeled as Attachment D

7. Attach a copy of the facility's employee training plan. This plan shall be of sufficient detail to describe how workers will be informed of the hazards present in the workplace and how to protect them from exposure or injury from these conditions. The plan should contain elements to instruct employees in identification of hazards, releases, emergency response conditions and methods to prevent releases of hazardous material.

Employee training plan is labeled as Attachment E

8. Attach a copy of the facility's quality control plan to be approved in accordance with Chapter 62-160, F.A.C. This plan should include detailed description of how the facility shall monitor the conformance to the facility's operational plan, training plan, its methods of determining compliance with permit or Rule conditions and the performance of its processing equipment or pollution control equipment (if applicable). The plan shall also contain the measures to monitor conformance with the facility's closure plan.

Facility's quality control plan to be labeled as Attachment F

9. Attach a copy of the facility's closure plan. This plan shall be of adequate detail as to describe how the facility shall properly remove all quantities of raw or unprocessed material and processed materials or wastes in the event of either voluntary or involuntary closure or cessation of operations. The plan must also include programs for clean up or decontamination of process equipment and process areas if applicable and any analytical testing which must be performed to determine the adequate removal of hazardous materials. The plan must also include the estimated costs involved in carrying out each aspect of the closure of the facility.

Attach the following information to meet the closure performance standard which requires removing all hazardous wastes and hazardous constituents and controlling, minimizing, or eliminating, to the extent necessary to protect human health and the environment, closure related releases of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground water, surface waters or to the atmosphere. The closure plan must include the following information:

- a. A description of how the applicant will close the facility.

b. An estimate of the maximum inventory of unprocessed and processed materials and wastes on site at any one time over the active life of the facility and a detailed description of the methods to be used during closure. The methods may include methods for removing, transporting, treating, storing, recycling or disposing of all processed and unprocessed materials and all hazardous wastes. Identify the type(s) of the off site recycling or hazardous waste management units the applicant will use, if applicable;

c. A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during closure. The steps include procedures for cleaning equipment and removing contaminated materials, methods for sampling and testing contaminated operational areas of the facility, and criteria for determining the extent of decontamination required to satisfy the closure plan standard;

d. A schedule for closure of each facility. The schedule must include, at a minimum, the total time required to close each facility and the time required for intervening closure activities which will allow tracking of the progress of final closure ; and

e. A detailed description of the costs of closure. Attach the most recent closure cost estimates for the facility and a copy of the financial mechanism used to establish financial assurance for closure of the facility. The financial information must be submitted using forms specified in 62-737.600 (e)

The facility's closure plan is labeled as Attachment N/A

The facility's financial assurance form is labeled as Attachment N/A

10. Attach a copy of the documents used to demonstrate both general and pollution liability insurance coverage of at least \$1,000,000 as required in 62-737.800 F.A.C.. Proof of this coverage must be provided to the Department on an annual basis

The facility's certificate of insurance is labeled Attachment N/A

11. Attach a list of the destinations and uses of processed material shipped off site for disposal or recycling. This is to include the markets for recycled glass or metal end caps or the recovered mercury from reclamation operations. Identify the mercury reclamation facility which accepts your material for recovery of the mercury. Include the facilities' certification of compliance to the provisions identified in 62-737.840 (4), if this is an out of state facility.

The list of destinations facilities labeled as Attachment G

12. Attach a copy of the facility's inspection plan. This plan shall include the measures the facility shall take to monitor and inspect the performance of process operations and pollution control equipment. Indicate the methods and frequency of these inspections and the types of logs or records which shall be maintained.

The facility's inspection plan is labeled as Attachment N/A

**APPLICATION FOR A MERCURY-CONTAINING LAMP OR DEVICE  
STORAGE, VOLUME REDUCTION, MERCURY RECOVERY OR  
MERCURY RECLAMATION FACILITY PERMIT**

**Part II - CERTIFICATION**

**TO BE COMPLETED BY ALL APPLICANTS**

Facility Name: Perma-Fix of Florida Inc EPA ID# FLD-980-711-071

**1. Operator**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, I agree to comply with the provisions of Chapter 403, Florida Statutes, 62.737 F.A.C., and all rules and regulations of the Department of Environmental Protection. It is understood that the permit is only transferable in accordance with Chapter 62-737, F.A.C., and, if granted a permit, the Department of Environmental Protection will be notified prior to the sale or legal transfer of the permitted facility.

Signature of the Operator or Authorized Representative\*

Michael J. Haynes

Michael J. Haynes / VICE PRESIDENT-GENERAL MANAGER  
Name and Title (Please type or print)

Date: 10/09/95 Telephone : (904) 373-6066

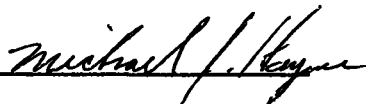
\* If authorized representative, attach letter of authorization.

## 2. Facility Owner

This is to certify that I understand this application is submitted for the purpose of obtaining a permit to construct, or operate a mercury-containing lamp or device storage, volume reduction or mercury recovery or mercury reclamation facility. As owner of the facility, I understand fully that the facility operator and I are jointly responsible for compliance with the provisions of Chapter 403, Florida Statutes, Chapter 62-737, F.A.C. and all rules and regulations of the Department of Environmental Protection.

Signature of the Facility Owner or Authorized Representative\*

Michael J. Haynes



SE Region Vice President - GENERAL MANAGER

Name and Title (Please type or print below signature)

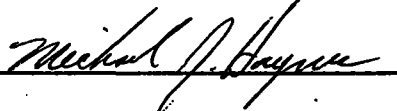
Date: 10/09/95 Telephone: (904) 373-6066

\* If authorized representative, attach a letter of authorization

### 3. Land Owner

This is to certify that I, as land owner, understand that this application is submitted for the purpose of obtaining a permit to construct, or operate a mercury-containing lamp or device storage, volume reduction, mercury recovery or mercury reclamation facility on the property as described.

Michael J. Haynes



Signature of the Land Owner or Authorized Representative\*

SE Regional Vice President - GENERAL MANAGER  
Name and Title (Please type or print)

Date: 10/09/95 Telephone: (904) 373-6066

\* If authorized representative, attach letter of authorization.

**4. Professional Engineer Registered in Florida**

[Complete when not exempted by Chapter 62-737, F.A.C.]

This is to certify that the engineering features of this mercury-containing lamp or device storage, volume reduction or mercury recovery or reclamation facility have ~~been designed and~~ examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, this facility, when properly constructed, maintained and operated, or closed, will comply with all applicable statutes of the State of Florida and rules of the Department of Environmental Protection.

  
\_\_\_\_\_  
Signature

Frank Darabi  
Name (please type)

Florida Registration Number: 20385

Mailing Address: 730 N. Waldo Road  
Street or PO. Box

Gainesville FL 32601  
City State Zip

Date: 10/09/95 Telephone (904) 376-6533

**[PLEASE AFFIX SEAL]**



# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

DEP Form #	62-737.800(1)
Form Title	Mercury-Containing Lamp/Device Transporter and Storage Facility Registration Form
Effective Date	May 10, 1985

## Mercury-Containing Lamp and Device Transporter and Storage Facility Registration and Instructions 199

For registration period from January 1, 199 through December 31, 199

Pursuant to Rules 62-737.500, 62-737.700 and 62-737.710, Florida Administrative Code (F.A.C.), persons/businesses which transport, store or sponsor a reverse distribution program for mercury-containing lamps or devices destined for recycling must register with the Department using this form before transporting, storing or collecting such lamps or devices. (See "Who Must Register" on the back of this form.)

Part I: Registration Status: ☐ New ☐ Renewal EPA ID No. FLD-980-711-071

### Part II: Business Information:

1. Business name: Perma-Fix of Florida, Inc. FEID Number: 59-3241888
2. D.B.A. (Doing Business As): \_\_\_\_\_ Telephone No.: (904) 373-6066
3. Mailing address : 1940 NW 67th Place  
Gainesville State FL Zip 32653
4. Street address: 1940 NW 67th Place  
City Gainesville County Alachua State Florida Zip 32653
5. Name of Installation's Legal Owner: Perma-Fix Environmental Services, Inc.  
Mailing Address: 1940 NW 67th Place, Suite A  
City Gainesville State Florida Zip 32653

### Part III: Type of Activity: Check all boxes which apply to your mercury-containing lamp and device activity(ies)

1. ☐ Transporter (more than 100 kilograms per month): ☐ Lamps ☐ Devices
2. ☒ Storage Facility: ☐ Lamps (not more than 2,000 kilograms [8,000 lamps] for 180 days)  
☐ Devices (not more than 100 kilograms for 180 days)
3. ☐ Reverse Distribution Program (Attach program description including names/addresses of all participating facilities)

Part IV: Certification: I hereby affirm that (1) I have read and understand Chapter 62-737, F.A.C.; (2) I understand that spent lamps and devices which are stored at or transported to facilities not operating in accordance with Chapter 62-737, F.A.C., are subject to 40 CFR 262.11 and all other applicable state and federal regulations including Rule 62-701.300, F.A.C.; (3) employees handling lamps and devices are trained in the proper handling and emergency cleanup and containment procedures applicable to transport or storage; and (4) emergency procedures will be kept at my business location and (for transporters only) on each transport vehicle, or (for reverse distribution programs only) as otherwise allowed under this Chapter. To the best of my knowledge and belief I certify, under penalty of perjury, that the information provided on this form is true, accurate, and correct. I have attached all documents and/or authorizations that are required.

Michael J. Haynes  
Print Name of Authorized Agent

Michael J. Haynes  
Signature of Authorized Agent

10/09/95  
Date



Attachment "D"



# Department of Environmental Protection

Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

11-09-94

JENNIFER HAZARD, TECH & DEV CORD  
PERMA FIX OF FLORIDA  
1940 NW 67TH PLACE  
GAINESVILLE FL 32653

The Hazardous Waste Management Program has reviewed your application for a hazardous waste DER/EPA I.D. Number. Based on the information received you have been issued the following identification number for the facility at 1940 NW 67TH PLACE, GAINESVILLE

Facility ID # FLD980711071  
Your facility status is the following:

Treater.  
Storer.  
Disposer.

Florida Administrative Code rule 17-730 requires all large quantity generators of hazardous waste and all hazardous waste treatment, storage, or disposal facilities to file a biennial report of their hazardous waste activities with DER. You must comply with this rule concerning the filing of a biennial report by March 1 for the preceding odd-numbered year. The report forms will be sent to the contact person. Businesses that generate less than 1000 kilograms of hazardous waste per month (small quantity generators) are not subject to these reporting requirements.

If any of the information on the Hazardous Waste activity form changes, please notify us in writing at the letterhead address. For further assistance, please call 904/488-0300.

THIS LETTER IS INTENDED TO NOTIFY YOU OF YOUR EPA ID NUMBER. THIS LETTER IS NOT AN APPROVAL TO TRANSPORT HAZARDOUS WASTE OR OPERATE A HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY. PLEASE CONTACT THE DEPARTMENT FOR COMPLETE REQUIREMENTS.

Sincerely,  
*Michael X. Redig*  
Michael X. Redig  
Environmental Supervisor II  
Hazardous Waste Management Section

cc: Dave Gray - EPA/Region IV  
DER/Jacksonville  
GMS-ID # 3101P81353

"Protect, Conserve and Manage Florida's Environment and Natural Resources"



# Florida Department of Environmental Protection

Twin Towers Office Building

2600 Blair Stone Road

Tallahassee, Florida 32399-2400

Lawton Chiles  
GovernorVirginia B. Wetherell  
Secretary

## FAX TRANSMITTAL LETTER

DATE: 11-14-94TO: Jennifer Hazard, Tech. Dev. CoordAGENCY: Perma EX of FLATELEPHONE: 904-395-1354

NUMBER OF PAGES (INCLUDING COVER SHEET) \_\_\_\_\_

FROM: David Kelly / Tina ThompsonAGENCY: DEP / TallahasseeIf any of the pages are not clearly received, please call  
IMMEDIATELY,Phone No. 904-498 0300SENDERS NAME: Tina T

COMMENTS:



# Department of Environmental Protection

Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

11-09-94

JENNIFER HAZARD, TECH & DEV CORD  
PERMA FIX OF FLORIDA  
1940 NW 67TH PLACE  
GAINESVILLE FL 32653

The Hazardous Waste Management Program has reviewed your application for a hazardous waste DER/EPA I.D. Number.

Based on the information received you have been issued the following identification number for the facility at 1940 NW 67TH PLACE, GAINESVILLE

Facility ID # FLD980711071  
Your facility status is the following:

Treater.  
Storer.  
Disposer.

Florida Administrative Code rule 17-730 requires all large quantity generators of hazardous waste and all hazardous waste treatment, storage, or disposal facilities to file a biennial report of their hazardous waste activities with DER. You must comply with this rule concerning the filing of a biennial report by March 1 for the preceding odd-numbered year. The report forms will be sent to the contact person. Businesses that generate less than 1000 kilograms of hazardous waste per month (small quantity generators) are not subject to these reporting requirements.

If any of the information on the Hazardous Waste activity form changes, please notify us in writing at the letterhead address. For further assistance, please call 904/488-0300.

Sincerely,

Michael X. Redig  
Environmental Supervisor II  
Hazardous Waste Management Section

cc: Dave Gray - EPA/Region IV  
DER/Jacksonville  
GMS-ID # 3101P81353

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

**PERMA-FIX™**  
ENVIRONMENTAL SERVICES, INC

August 11, 1994

Hazardous Waste Regulation Section  
Florida Department of Environmental Protection (FDEP)  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

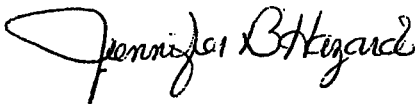
**CERTIFIED MAIL**

Dear Sir:

At the request of Jack Flaacke, General Manager for Perma-Fix of Florida, enclosed you will find a Notification of Regulated Waste Activity form. The purpose of this form is noted in Section XI, Comments.

If you have any questions or comments, please feel free to contact me at your earliest convenience.

Sincerely,



Jennifer B. Hazard  
Coordinator, Technology and Development

c: Flaacke Perma-Fix of Florida  
Sherman Perma-Fix Environmental Services, Inc.

encl: FDEP Notification of Regulated Waste Activity form

10/21/94  
Contact - David Kelly  
904-488-0300  
"In the hands of  
Jack Price" -  
Jack stated that  
it was approved and  
they do not issue  
certificates as of  
this date, but will  
try to send us  
a letter  
JH

P 287 598 808



# Receipt for Certified Mail


No Insurance Coverage Provided  
Do not use for International Mail  
(See Reverse)

Sent to	
HAZARDOUS Waste Regulation Section	
Street and No.	
FDEP 8600 Blair Stone Road	
P.O. State and ZIP Code	
Tallahassee, FL 32399-2400	
Postage	\$ .29
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 2.29
Postmark or Date	
HAZARD, Jennifer	
8/11/94	

PS Form 3800, June 1991

<b>SENDER:</b> • Complete items a) and/or 2) for additional services. • Complete items 3) and 4a) & b). • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressed Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: HAZARDOUS Waste Regulation Section FDEP 8600 Blair Stone Road Tallahassee, FL 32399-2400		4a. Article Number: P 287 598 808	
4b. Service Type: <input checked="" type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise		7. Date of Delivery: AUG 12 1994	
5. Signature (Addressee): 		8. Addressee's Address (Only if requested and fee is paid):	
6. Signature (Agent): 			
PS Form 3811, December 1991 • U.S.G.P.O. 1992-307-530 <b>DOMESTIC RETURN RECEIPT</b>			

Thank you for using Return Receipt Service

<b>Please refer to the instructions for filling this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).</b>		 <b>EPA</b>		<b>Notification of Regulated Waste Activity</b>		<b>United States Environmental Protection Agency</b>		<b>Date Received (For Official Use Only)</b>				
<b>I. Installation's EPA ID Number (Mark 'X' in the appropriate box)</b>												
<input type="checkbox"/> A. First Notification		<input checked="" type="checkbox"/> B. Subsequent Notification (complete item C)		<b>C. Installation's EPA ID Number</b>								
				F L D 9 8 0 7 1 1 0 7 1								
<b>II. Name of Installation (Include company and specific site name)</b>												
P E R M A - F I X O F E I O R I D A												
<b>III. Location of Installation (Physical address, not P.O. Box or Route Number)</b>												
<b>Street</b>												
1 9 4 0 N W 6 7 t h P L A C E												
<b>Street (continued)</b>												
<b>City or Town</b>					<b>State</b>		<b>ZIP Code</b>					
G A I N E S V I L L E					F L		3 2 6 5 3 -					
<b>County Code</b>		<b>County Name</b>										
9 1 6		A L A C H U A										
<b>IV. Installation Mailing Address (See instructions)</b>												
<b>Street or P.O. Box</b>												
<b>City or Town</b>					<b>State</b>		<b>ZIP Code</b>					
<b>V. Installation Contact (Person to be contacted regarding waste activities at site)</b>												
<b>Name (last)</b>					<b>(first)</b>							
F L A A C K E					J A C K							
<b>Job Title</b>					<b>Phone Number (area code and number)</b>							
G E N E R A L M A N A G E R					9 0 4 - 3 7 3 - 6 0 6 6							
<b>VI. Installation Contact Address (See instructions)</b>												
<b>A. Contact Address:</b>		<b>B. Street or P.O. Box</b>										
<input checked="" type="checkbox"/> Location <input type="checkbox"/> Mailing												
<b>City or Town</b>					<b>State</b>		<b>ZIP Code</b>					
<b>VII. Ownership (See instructions)</b>												
<b>A. Name of Installation's Legal Owner</b>												
P E R M A - F I X E N V I R O N M E N T A L S E R V I C E S, INC.												
<b>Street, P.O. Box, or Route Number</b>												
1 9 4 0 N W 6 7 t h P L A C E												
<b>City or Town</b>					<b>State</b>		<b>ZIP Code</b>					
G A I N E S V I L L E					F L		3 2 6 5 3 -					
<b>Phone Number (area code and number)</b>					<b>B. Land Type</b>		<b>C. Owner Type</b>		<b>D. Change of Owner Indicator</b>		<b>(Date Changed)</b>	
9 0 4 - 3 7 3 - 4 2 0 0					P		P		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Month Day Year	



EPA Form 8700-12 (Rev. 9-92) Previous edition is obsolete.



Attachment "E"

Southeastern Chemical  
755 Industrial Road  
P.O. Box 1755  
Sumter, South Carolina 29151  
Phone: (803) 773.1400  
Fax: (803) 775.7016



August 17, 1995

Mr. Raymond Whittle  
Permafix of Florida  
1940 N.W. 67th Place  
Gainesville, FL 32606

Dear Raymond,

Good talking with you the other day. I talked with Jack later and he appears to have a good deal, I wish him well. Prices we can quote you for your waste are as follows:

- Liquids (pumpable) \$32.00 drum

Liquid up to the viscosity of gear oil. May contain readily dispersible sludge up to one-third of a drum.

- Sludge (mixable) \$80.00 drum

Thicker than pumpable, but will still pour out of the drum when upended. Also includes paste inks and free flowing powders.

- Solids (processable) \$170.00 drum

Highly viscous to solids materials that require mechanical means to remove from the drum and/or mechanical size reduction.

- Trash (monolithic solids) \$200.00 drum

This is material not amenable to liquid fuel blending.

- Surcharges, \$25.00 additional charge per drum for the following:

BTU value of less than 8000 btu/lb.

Water greater than 15% but less than 50%.

- Freight, \$1.45 per running mile. On shipments of alcohol to your facility,

back haul freight of \$600.00 per load.

Please let me know if I can help you in scheduling loads into Omni.

Best Regards,

Harold Talbert  
Vice President Marketing

HT/cam

cc: Tracey



February 14, 1994

QUOTATION

Quadrex Environmental Corp  
1940 N W 67th Place  
Gainesville, FL 32606  
904-373-6066

<u>Generator Waste Description</u>	<u>Profile#</u>	<u>Price</u>
WATER WITH SOLVENTS	T09522	\$ 1.25/GAL

Minimum Disposal: \$750.00

Transportation: \$3,200.00/LOAD. Allows one hour loading, \$100.00/hour for each additional hour.

The above pricing was determined based on profile and sample analysis (if supplied). We have listed specifications for each of your waste streams. Additional charges may apply if a waste stream does not conform. Terms are Net 15 days and prices are firm for 30 days.

<u>Profile #</u>	<u>Specifications</u>
------------------	-----------------------



PLEASE REMIT TO:

Giant Resource Recovery Company, Inc.

Lock Box  
P.O. Box 60808  
Charlotte, N.C. 28260

CONTINUATION PAGE 2

Customer  
Number 19799

PERMA-FIX OF FL., INC.

13918 05/19/95

300246-2432

Invoice Number	Invoice Date	Control No	Customer P.O.	Terms	
		008208			

Code	Quantity	Unit	Description	Price	Amount
------	----------	------	-------------	-------	--------

051.00	1.000	EACH	LAB FEE - FUEL	125.000	125.00
			5-16-95 MANIFEST 95141 TK 1240		1,878.88
030.00	5043.000	GALS	BROKERAGE - FUEL	0.300	1,512.90
085.00	18.670	TONS	INSPECTOR FEE	1.500	28.01
088.00	18.670	TONS	S.C. HAZARDOUS MATERIAL TAX	10.000	186.70
051.00	1.000	EACH	LAB FEE - FUEL	125.000	125.00
090.00	1.000	EACH	UNLOADED FROM TOP OF TANKER	100.000	100.00
			5-17-95 MANIFEST 95142 TK 1241		1,952.61
030.00	5677.000	GALS	BROKERAGE - FUEL	0.300	1,703.10
085.00	22.030	TONS	INSPECTOR FEE	1.500	33.05
088.00	22.030	TONS	S.C. HAZARDOUS MATERIAL TAX	10.000	220.30
051.00	1.000	EACH	LAB FEE - FUEL	125.000	125.00
			5-18-95 MANIFEST 95147 TK 1240		2,081.45
SUB TOTAL----->					12,206.80
TOTAL THIS INVOICE----->					12,206.80

HF- 42501

*[Signature]*  
5/26/95

● Attachment "F"



# **PRICING SCHEDULE FOR LABORATORY SERVICES**

## **PRECISION ENVIRONMENTAL LABORATORY, INC.**

10200 USA TODAY WAY  
MIRAMAR, FLORIDA 33025

(305) 431-4550

NATIONAL TOLL-FREE NUMBER:  
1-800-LAB-8550

VERSION 3.1  
EFFECTIVE 03/01/95

# METALS BY ATOMIC ABSORPTION SPECTROSCOPY & ICP

METAL	EPA/STANDARD METHODS TEST METHOD ***			COST OF ANALYSIS	
	WATER (EPA 200.7 or...)	OTHER ** (EPA 6010 or ...)		WATER \$	OTHER** \$
Aluminum	202.1	7020		15.00	20.00
Antimony	204.1(2)	7041		15.00	20.00
Arsenic	206.3	7061		15.00	20.00
Barium	208.1	7080		15.00	20.00
Beryllium	210.1(2)	7090		15.00	20.00
Bismuth	SM 3111B	SM 3111B		15.00	20.00
Cadmium	213.1(2)	7130		15.00	20.00
Calcium	215.1	7140		15.00	20.00
Chromium	218.1(2)	7190		15.00	20.00
Cobalt	219.1(2)	7200		15.00	20.00
Copper	220.1(2)	7210		15.00	20.00
Gold	231.1(2)	SM 3111B		15.00	20.00
Iron	236.1	7380		15.00	20.00
Lead	239.1(2)	7420/7421		15.00	20.00
Magnesium	242.1	7450		15.00	20.00
Manganese	243.1(2)	7460		15.00	20.00
Mercury	245.1(2)	7470/7471		20.00	25.00
Molybdenum	246.1(2)	7480		15.00	20.00
Nickel	249.1(2)	7520		15.00	20.00
Potassium	258.1	7610		15.00	20.00
Selenium	270.2(3)	7741		15.00	20.00
Silver	272.1(2)	7760		15.00	20.00
Sodium	273.1	7770		15.00	20.00
Strontium	SM 303	7780		15.00	20.00
Thallium	279.1(2)	7840/7841		15.00	20.00
Tin	282.1(2)	7871		15.00	20.00
Titanium	283.1	SM 3111D		15.00	20.00
Tributyltin	Solv Ext/282.2	Solv Ext/7871		25.00	40.00
Vanadium	286.1(2)	7911		15.00	20.00
Zinc	289.1	7950		15.00	20.00

WATER CATEGORY INCLUDES: DRINKING WATER, WELLWATER, SEAWATER, SURFACEWATER, EFFLUENTS.

\*\*\*OTHER CATEGORY INCLUDES: SOILS, SEDIMENTS, SLUDGES, ALL HAZARDOUS WASTES AND OILS.

PRICES INCLUDE APPROPRIATE 4.1.3, 3005, 3010, 3020 OR 3050 DIGESTIONS.

FOR TCLP ANALYSIS, A ONE-TIME EXTRACTION FEE OF \$90 IS CHARGED PER SAMPLE.

METALS ARE THEN PRICED AT \$20 EACH. (\$25 FOR MERCURY)

\*\*\* BEST APPLICABLE METHOD WILL BE APPLIED FOR DETECTION LIMIT, REGULATIONS AND MATRIX CONSIDERATIONS.

# ORGANIC ANALYSIS (GC-GC/MS)

METHODOLOGY TITLE	EPA/STANDARD METHODS TEST METHOD				COST OF ANALYSIS		
	DRINKING WATER	NON- POTABLE WATER	OTHER**		DRINKING WATER \$	NON- POTABLE WATER \$	OTHER** \$
Purgeable Organics	-	601+602/8021	8010+20/8021		-	175.00	180.00
Purgeable Halocarbons	-	601/8021	8010/8021		-	100.00	105.00
Purgeable Aromatics	-	602/8021	8020/8021		-	90.00	95.00
Purgeable Organics by GC/MS	524.2	624/8260	8260		175.00	250.00	275.00
EDB, DBCP	504	8011	8011		50.00	50.00	60.00
Organochlorine Pesticides	505	608	8080		125.00	125.00	150.00
PCBs (ONLY)	508A	608	8080		80.00	80.00	90.00
Nitrogen, Phosphorus & Triazine Pesticides	507	619	-		125.00	125.00	-
Organophosphorus Pesticides	-	614	8141		-	150.00	175.00
Chlorophenoxy Herbicides	515.1	615	8150		170.00	170.00	195.00
Carbamate Pesticides	531.1	-	-		200.00	-	-
Glyphosate	547	-	-		125.00	-	-
Endothall	548	-	-		125.00	-	-
Diquat/Paraquat	549	-	-		125.00	-	-
Chlorination Disinfection Byproducts	551	-	-		125.00	-	-
Nonhalogenated Solvents	-	8015	8015		-	125.00	150.00
TRPH by GC-FID	-	EPA GRO/DRO/TRO	EPA GRO/DRO/TRO		-		
Florida-TRPH	-	FL-TRPH	FL-TRPH			100.00	125.00
Phenols	-	604*	*		-	150.00	175.00
Benzidines	-	605*	*		-	150.00	175.00
Phthalate Esters	-	606*	*		-	150.00	175.00
Nitrosamines	-	607*	*		-	150.00	175.00
Nitroaromatics and Isophorone	-	609*	*		-	150.00	175.00
Polynuclear Aromatic Hydrocarbons	-	610*	*		-	150.00	175.00
Haloethers	-	611*	*		-	150.00	175.00
Chlorinated Hydrocarbons	-	612*	*		-	150.00	175.00
Semi-Volatile Extractable Compounds	525	625/8270	8270		350.00	350.00	375.00
"Tentatively Identified" Compounds" (Volatile)	524.2 Library Search	8260 Library Search	8260 Library Search		100.00 additional	100.00 additional	100.00 additional
"Tentatively Identified Compounds" (Semi-Volatile)	525 Library Search	8270 Library Search	8270 Library Search		100.00 additional	100.00 additional	100.00 additional

PRECISION ENVIRONMENTAL USES NEWER EPA 8021 CAPILLARY COLUMN METHODOLOGY TO ENCOMPASS 601, 602, 8010, AND 8020 METHODS. LIKEWISE, EPA 8260 REPLACES 624/8240. EPA 8270 REPLACES 625/8250.

\* DENOTES PRECISION ENVIRONMENTAL ROUTINELY ANALYZES FOR THESE COMPOUNDS USING EPA 625/8270 GC/MS METHODOLOGY WHICH "PROVIDES FOR THE QUALITATIVE AND QUANTITATIVE CONFIRMATION OF RESULTS" 40 CFR 136.

DRINKING WATER CATEGORY IS LIMITED TO EPA SAFE DRINKING WATER & FAC 62-550 REQUIREMENTS  
NON-POTABLE WATER CATEGORY INCLUDES: GROUNDWATERS, SURFACEWATERS, SEAWATERS, AND EFFLUENTS

IER\* CATEGORY INCLUDES: SOILS, SLUDGES, SEDIMENTS, ALL HAZARDOUS WASTES AND OILS.



Attachment "G"

8/30/95

Generator Name ( if different ) \_\_\_\_\_

Pick-up Address \_\_\_\_\_

☐ Check here if same as Billing address SIC \_\_\_\_\_

Note: P.O. Box unacceptable for pick-up address

Generator Contact Person John Doe \_\_\_\_\_

Facility Name \_\_\_\_\_

Pick-up Address \_\_\_\_\_

( P.O. Box unacceptable - must be street address )

City Anywhere \_\_\_\_\_

State USA \_\_\_\_\_ Zip \_\_\_\_\_

Phone # Area Code ( \_\_\_\_\_ ) \_\_\_\_\_

USEPA ID # FLD 000 000 000

ED. 8/30/95

Generator Name ( if different ) \_\_\_\_\_

Pick-up Address \_\_\_\_\_

☐ Check here if same as Billing address SIC \_\_\_\_\_

Note: P.O. Box unacceptable for pick-up address

Generator Contact Person John Doe

Facility Name \_\_\_\_\_

Pick-up Address \_\_\_\_\_

( P.O. Box unacceptable - must be street address )

City Anytown

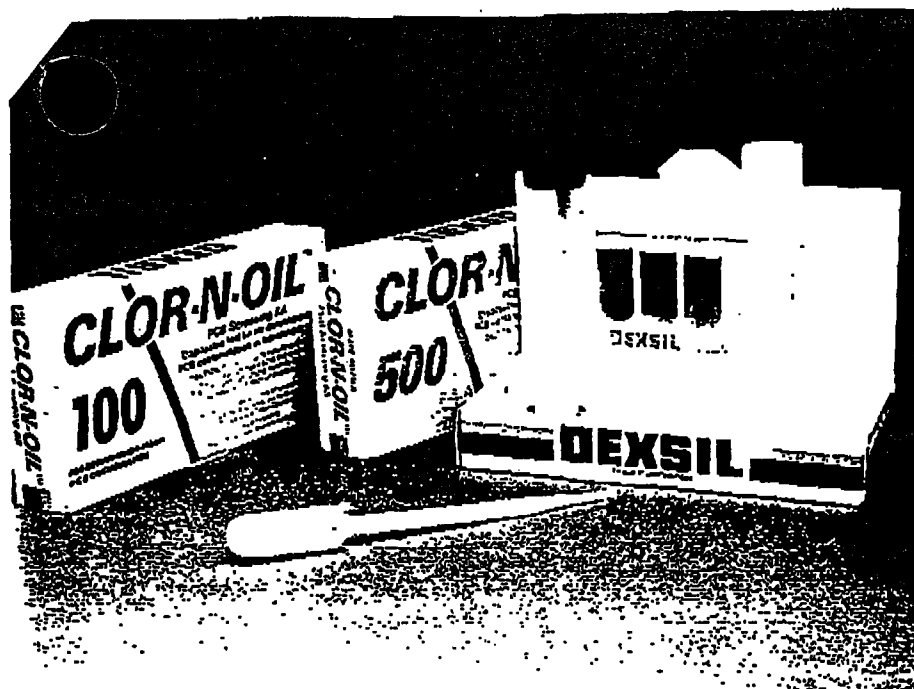
State USA Zip \_\_\_\_\_

Phone # Area Code ( \_\_\_\_\_ )

USEPA ID # F20 000 000 000

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED. 30/  
*[Signature]* *mg* 8/18/95

● Attachment "H"



## CLOR-N-OIL

### PCB Screening Kits For Electrical Insulating Fluid

Clor-N-Oil PCB Screening Kits are proven and accurate methods to test insulating fluid from electrical equipment for the presence of polychlorinated biphenyls (PCB). Clor-N-Oil kits are available to test PCB at 50, 100, 500 ppm.

Each kit is pocket-sized and self-contained with everything necessary to perform the procedure on-site. It is simple to use, takes less than 5 minutes to perform, and requires no mixing or measuring of reagents.

The Clor-N-Oil kits have been proven in hundreds of thousands of field uses throughout the world to be safe, accurate and economical methods to screen electrical equipment for PCB.

The Clor-N-Oil 50 Laboratory Pack contains 20 tests, bulk packaged, for faster and simpler bench top analysis.

*\* 20 ppm Kit also available \**

Catalog #  
CL-050  
CL-100  
CL-500  
CL-LAB

-Oil 50 ppm  
Clor-N-Oil 100 ppm  
Clor-N-Oil 500 ppm  
Clor-N-Oil 50 Laboratory Pack

Packaged 20 kits to a shelf pack, 80 kits per case.  
Minimum order of 10 kits. Orders greater than 10 kits must be in multiples of 20.  
(For PCB wipe sampling kit see page 9)



## CLOR-N-SOIL

### PCB Screening Kit For Soil

The Clor-N-Soil PCB Screening Kit is an accurate and economical method for determining the presence of polychlorinated biphenyls (PCB) in soil at 50 ppm. This kit can be used to detect PCB either at a spill site or as part of a routine area check. The kit works on virtually any type of soil including, sand, topsoil, sediment and clay.

Clor-N-Soil has been proven invaluable in many spill site remediation situations by aiding clean-up crews in quickly determining the presence of PCB and mapping out the spill's boundaries. The kit is simple to use, takes only 10 minutes to perform, and requires no mixing or measuring of reagents.

Catalog #  
CS-OIL

Clor-N-Soil 50

Packaged 12 kits to a shelf pack, 48 kits per case.  
Minimum order of 6 kits. Orders greater than 6 kits must be in multiples of 12.  
(For PCB wipe sampling kit see page 9)

# TECHNICAL APPROACH

The Clor-N-Oil PCB Screening Test is based on the detection of the total concentration of chlorine in an oil sample. Since all PCB contains some chlorine and the amount of chlorine is directly proportional to the amount of PCB, then the PCB concentration in a given sample can be indirectly measured by determining the total chlorine concentration.

During the testing process, the chlorine atoms are stripped away from the PCB through the action of sodium and a catalyst. The chloride ions are then introduced into a water buffer solution and reacted with a carefully controlled amount of dissolved mercuric nitrate. A color indicator, sensitive to mercuric ions, is then added. If there are more mercuric ions than chloride ions, the free mercuric ions react with the indicator resulting in a purple color, indicating less than 50 ppm PCB. If the number of chloride ions is equal

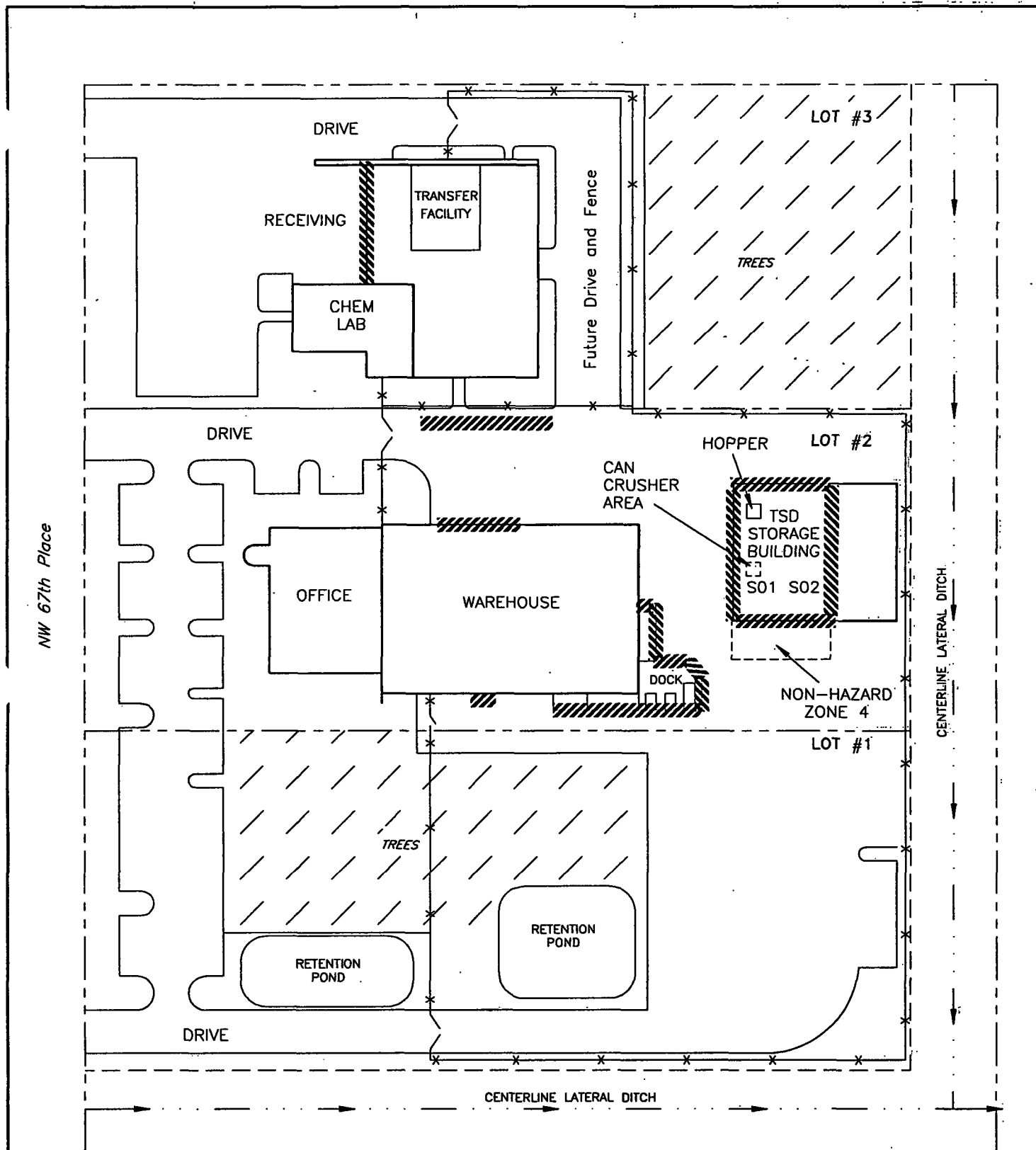
to or greater than the number of mercuric ions, then all the mercuric ions are associated with the chloride ions and there are no mercuric ions free to react with the color indicator, thus, no purple color can develop. The result is a pale yellow or colorless solution revealing the presence of greater than 50 ppm PCB.

Since the exact amount of mercuric nitrate is known, it is easy to determine if the concentration of chloride ions is above or below the preset endpoint dictated by the mercuric nitrate. Once the amount of chlorine is known, one has a good indication of the amount of PCB present in the sample. When a positive reading has been obtained with the Clor-N-Oil testing procedure, the oil sample should be further tested by a PCB specific method, usually gas chromatography, in order to determine the exact amount of PCB present in the sample.

ASKAREL TYPE	% PCB IN ASKAREL			% CHLORINATED BENZENES		COMPONENT RATIOS		PCB CONCENTRATION AT 21 PPM CHLORINE (point where Clor-N-Oil gives positive result)
	1260	1254	1242 (1016)	Trichloro-benzene	Tetrachloro-benzene	PCB/Askarel	Cl/PCB	
1) TRANSFORMER ASKARELS (ASTM D2283)								
A	60			40		0.60	0.99	21
B	45			40	15	0.45	1.34	16
C			80	15	5	0.80	0.57	37
D		70		30		0.70	0.79	27
E			100			1.00	0.42	50
F		45		40	15	0.45	1.27	17
G		60		40		0.60	0.92	23
2) CAPACITOR ASKARELS (ASTM D2233)								
A			100			1.00	0.42	50
B		100				1.00	0.54	39
C		75		25		0.75	0.73	29
D			(100)			1.00	0.42	50

- NOD Figure 1

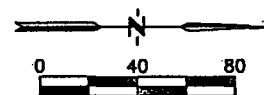




NW 67th Place

- Property Line
- - - - - Drainage Easement
- ////// Loading Areas

- S01 Hazardous Waste Container Storage
- S02 Hazardous Waste Tank Storage



<b>TITLE:</b> NOD RESPONSE FIGURE 1 LOCATION OF NON-HAZARDOUS PROCESS UNITS			
<b>PREPARED FOR:</b> <b>PERMA-FIX OF FLORIDA, INC.</b> 1940 NW 67th Place Gainesville, FL 32653			
<b>SCALE:</b> 1"=80'	<b>APPROVED BY:</b> C. ORBAN	<b>DRAWN:</b> PRODRIFT	
<b>DATE:</b> 10/6/95	<b>REVISED:</b>		<b>DRAWING NUMBER:</b> SUP 1
<b>PROJECT NUMBER:</b> 9003			

