Used Oil Processing Facility Permit Application

June 23, 1997

Presented To:

State of Florida
Department of Environmental Protection
Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256

Present By:

Perma-Fix of Florida
1940 NW 67th Place
Gainesville, Florida 32653

Sykes

PERMA-FIX
ENVIRONMENTAL SERVICES

September 8, 1997

Mr. Ashwin Patel
State of Florida
Department of Environmental Protection
Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

RECEIVED
SEP - 9 1997
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT - JAX

CERTIFIED MAIL

Dear Mr. Patel:

Perma-Fix of Florida (PFF) recently submitted a permit application for a used oil processing facility as required in 62-710.800. Personnel from the FDEP Tallahassee office informed PFF that under the new regulation the facility is captured as a processing facility, as oil is occasionally received by the facility from transporters other that PFF. Following is a brief regulatory analysis that leads us to believe that a used oil processor permit is not required for the operations at the PFF facility in Gainesville.

62-710.210 incorporates by reference 40 CFR 279 Standards for the Management of Used Oil

Selected 40 CFR 279.1 Definitions include:

Used oil processor/re-refiner means a facility that processes used oil.

Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of fuel oils, lubricants, or other used oil derived products. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining.

Used Oil Transporter means any person who transports used oil, any person who collects used oil from more than one generator and transports the collected oil, and owners and operators of used oil transfer facilities. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation but, with the following exception, may not process used oil. **Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation** (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products or used oil fuel.

1940 N.W. 67TH PLACE · GAINESVILLE, FLORIDA 32653 · TEL (352) 373-6066 · FAX (352) 372-8963

EPA-PERMITTED TSD FACILITY · HAZARDOUS WASTE · NON-HAZARDOUS WASTE · MIXED WASTE

PFF conducts the following operations associated with used oil:

* Receives and ships oil-contaminated debris to off-site solid waste disposal facilities;

* Receives and ship oily water to off-site oil processing facilities; and

* Receives oil and combines it with hazardous waste, thus subjecting the resulting mixture to the more stringent hazardous waste regulation.

PFF operations do not include specific operations listed in the definitions or *Processing* nor any operation intended or implied by the definition.

Used oil can be either as described in the definition of *Processing* or "incidental to transport" as described in the last sentence of the definition of *Used Oil Transporter*. Perma-Fix neither processes "incidental to transportation" nor "not incidental to transportation." Thus 62-710-800(b)(2) has been incorrectly applied to the PFF facility. PFF occasionally transports used oil from a generator to the PFF facility and thus could be considered a transporter; however, as there is no processing of the oil PFF is not a processor and is not subject to the provisions of 62-710.800 Permits of Used Oil Processing Facilities.

Based on the fact the PFF does not conduct used oil processing at the Gainesville facility, we are withdrawing the application for permit at this time. Thank you for your attention to this issue.

Sincerely,

Jennifer Hazard

Jennifer Hazard
Compliance Coordinator

c: Richard Sykes

```
 _perMits_¦__Events_¦__Payment_¦__Site_¦__Facility_¦__partY_¦__Reports_¦_      >
--------------------------  _Permitting_Application_  --------------------------
+------------------------------- SITE Permit -------------------------------+
¦    Site Name: PERMA-FIX_OF_FLORIDA,_INC._(GVL)_____________ Site #: _0125299 ¦
¦                                                                             ¦
¦       County: ALACHUA_____ Comments: _ RPAs: _ # Cases: ___                 ¦
+---------------------------------- Project ----------------------------------+
¦Permit #:_______-___-____ Project #: 001 Logged:11-JUL-1997 CRA #: __________ ¦
¦Permit Office: NED_(DISTRICT)_____________________ Agency Action: Pending___ ¦
¦ Project Name: PERMA-FIX_OF_FLORIDA,_INC.____ Desc: ___________________________ ¦
¦ Type/Sub/Des: HO__/06_ USED_OIL_PROCESS_FACIL_____________ COE #: __________ ¦
¦     Received: 10-JUL-1997_     Issued: _____________     Expires: ___________ ¦
¦Fee: ___2000.00 Realized: __________ Dele: __________ Override: NONE___________ ¦
+------------------------------- Related Party -----------------------------+
¦Role: APPLICANT_______   Begin: 11-JUL-1997   End: ___________               ¦
¦Name: WARREN,_BERNHARDT_C._____________ Company: PERMA-FIX_OF_FLORIDA,_INC._____ ¦
¦Addr: 1940_NW_67TH_PLACE_____________________________________________________ ¦
¦City: GAINESVILLE_________________ State: FL Zip: 32606-____ Country: U.S.A._ ¦
¦Phone: 352-395-1352   Fax: _____________                                     ¦
+---------------------------------- Processors -------------------------------+
¦Processor: PATEL_A_________________ Y Active: 11-JUL-1997 Inactive: ___________ ¦
+-----------------------------------------------------------------------------+
[LIST]_for_valid_Processors.__[ENTQRY]_for_current_Processors._________________
Count: *0                                                   <List><Replace>
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  AREA: NED_______        Cash Receiving Application                    CRAF006A
                        Collection Point Log Remittance      Tot: ______$6,301.45
+-----------------------------------------------------------------------------+
| SYS$REMT: 198504__ Type: CP___    Recved Date: 10-JUL-1997  Status: RECEIVED |
| SYS$RCPT: 157859__ PNR: ________ Check #: 204429____  Amount: ______2,000.00 |
| SSN/FEI#: __________                Name: PERMA-FIX_OF_FLORIDA_INC______     |
|    First: ____________________ Middle: _____  Title:________ Suf: _____      |
| Address1: 1940_NW_67TH_PLACE_________________________  Short Comments:       |
| Address2: ___________________________________________ CB/OH/HO06-0125299-001___ |
|     City: GAINESVILLE_________ ST: FL  Zip: 32653-1692 Country: __________  |
+-----------------------------------------------------------------------------+
+--------------------------> P A Y M E N T (S) <-----------------------------+
|          Distr                                                          S  |
|          CL     Object                   Payment                        T  |
|SYS$PAYT  Area.. Code/Description.....:   Amount........ Reference#  Applic/ A  |
|204460__  NED___ 002234 HAZAR/WASTE-OPE  _____$2,000.00 HO0125299(  PA_  Fund CO|
|_________ ______ ______ _______________  _______________ ___________ ___ PFTF__ __|
|_________ ______ ______ _______________  _______________ ___________ ___ ______ __|
|_________ ______ ______ _______________  _______________ ___________ ___ ______ __|
|_________ ______ ______ _______________  _______________ ___________ ___ ______ __|
+-----------------------------------------------------------------------------+
 COMMIT FREQUENTLY                  ______$2,000.00  Payment total
Press_<TAB>_to_accept_Collection_Point_or_enter_F&A._____________________________
Count: *15          ^ v                                                <Replace>
```

PERMA-FIX OF FLORIDA, INC./OPERATING ACCOUNT

204429

OUR REF. NUMBER	YOUR INVOICE NUMBER	INVOICE DATE	INVOICE AMOUNT	AMOUNT PAID	DISCOUNT TAKEN	NET CHECK AMOUNT
			FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION USED OIL PROCESSOR PERMIT APPLICATION $2,000.00			

GAINESVILLE STATE BANK
GAINESVILLE, FL
63-1024/631

157859
204429

PERMA-FIX OF FLORIDA, INC.
OPERATING ACCOUNT
1940 N.W. 67TH PLACE
GAINESVILLE, FL 32653-1692
(352) 373-6066

CHECK DATE	CONTROL NUMBER	CHECK AMOUNT
6-23-97	204429	$2,000.00

PAY ***Two Thousand Dollars and 00 Cents***

TO THE ORDER OF
FLA DEPT OF ENVIRONMENTAL PROTECTION
7825 BAYMEADOWS WAY, SUITE B200
JACKSONVILLE FL 32256-7590

AUTHORIZED SIGNATURE

SECURITY FEATURES INCLUDED. DETAILS ON BACK.

⑈204429⑈ ⑆063110241⑆ 0300497901⑈

PERMA-FIX
ENVIRONMENTAL SERVICES

June 23, 1997

RECEIVED
JUL 10 1997
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT - JAX

Mr. Richard Sykes
State of Florida
Department of Environmental Protection
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

RE: Perma-Fix of Florida, Inc. (PFF)
Used Oil Processing Facility Permit

Dear Mr. Sykes:

Enclosed, please find an original and one copy of the Used Oil Processing Facility Permit for the Perma-Fix of Florida, Inc. (PFF) facility located in Gainesville; the facility formerly known as Quadrex Environmental Company (QEC). QEC was acquired by Perma-Fix Environmental Services, Inc. (PESI) on June 17, 1994; PFF is a subsidiary of PESI.

In accordance with Chapter 62-710, FAC, the permit application for the PFF facility requires a $2,000 fee. Therefore, check number 204429, in the amount of $2,000, made out to the Florida Department of Environmental Protection is attached. If you have any questions, please feel free to contact me at (352) 395-1356.

RECEIVED
JUL 10 1997
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT - JAX

Sincerely,

Jennifer Hazard

Jennifer Hazard
Compliance Coordinator

RECEIVED
JUL 10 1997
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT - JAX

c: Ben Warren
Raymond Whittle

1940 N.W. 67TH PLACE · GAINESVILLE, FL 32653 · TEL. (904) 373-6066 · FAX (904) 372-8963

APPLICATION FORM FOR A USED OIL PROCESSING FACILITY PERMIT

Part I

TO BE COMPLETED BY ALL APPLICANTS (*Please type or print*)

RECEIVED
JUL 10 1997
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT - JAX

A. General Information

1. New X Renewal _____ Modification _____ **Date old permit expires** _____

2. Revision number N/A

3. NOTE: Processors must also meet all applicable subparts, **(describe compliance in process description for applicable standards)** if they are:
   - _____ generators (Subpart C)
   - X transporters (Subpart E)
   - _____ burners of off-spec used oil (Subpart G)
   - X marketers (Subpart H)

   or
   - _____ are disposing of used oil (Subpart I)

4. Date current operation began: October 1983

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

6. EPA identification number: FLD - 980 - 711 - 071

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

8. Facility mailing address:
   1940 NW 67th Place — Gainesville, Florida 32606
   Street or P.O. Box — City State Zip Code

9. Contact person: Jennifer Hazard Telephone: (352) 3951356
   Title: Compliance Coordinator
   Mailing Address:
   1940 Nw 67th Place — Gainesville, Florida 32606
   Street or P.O. Box — City State Zip Code

10. Operator's name: Benhardt Warren Telephone: (352) 395-1352
    Mailing Address:
    1940 NW 67th Place — Gainesville, Florida 32606
    Street or P.O. Box — City State Zip Code

11 Facility owner's name: Perma-Fix Environmental Serv. Telephone: (352) 373-4200
    Mailing Address:
    1940 NW 67th Place Suite A — Gainesville, Florida 32606
    Street or P.O. Box — City State Zip Code

12 Legal structure:
   - X corporation (indicate state of incorporation) Delaware
   - _____ individual (list name and address of each owner in spaces provided below)
   - _____ partnership (list name and address of each owner in spaces provided below)
   - _____ other, e.g. government (please specify) _____

If an individual, partnership, or business is operating under an assumed name, enter the county and state where the name is registered: County_____ State _____

Name: _____
Mailing Address:
_____
Street or P.O. Box City State Zip Code

Name: _____
Mailing Address:
_____
Street or P.O. Box City State Zip Code

Name: _____
Mailing Address:
_____
Street or P.O. Box City State Zip Code

Name: _____
Mailing Address:
_____
Street or P.O. Box City State Zip Code

13 Site ownership status: [x]owned [ ]to be purchased [ ]to be leased ____ years
[ ]presently leased; the expiration date of the lease is:_____

If leased, indicate:
Land owner's name:_____
Mailing Address:
_____
Street or P.O. Box City State Zip Code

14 Name of professional engineer Frank Daribi Registration No. 20385
Mailing Address:
730 NE Waldo Road, Suite E Gainesville , Florida 32614
Street or P.O. Box City State Zip Code
Associated with: Darabi & Associates, Inc.

B. SITE INFORMATION

1. Facility location:
County: Alachua
Nearest community: Gainesville
Latitude: 29° 43' 00" Longitude: 82° 20' 58"
Section: NW 1/4 Of 18 Township: 9 South Range: 20 East
UTM # 17 / 36950 / 0328 / 8000

2. Facility size (area in 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 and waste receiving, storage and processing areas, including size and location of tanks, containers, pipelines and equipment. Also show incoming and outgoing material and waste traffic pattern including estimated volume and controls.

Attached as appendices A-D

C. OPERATING INFORMATION

1. Hazardous waste generator status (SQG, LQG) LQG

2. List applicable EPA hazardous waste codes:

Attached as appendix E

3. Attach a brief description of the facility operation, nature of the business, and activities that it intends to conduct, and the anticipated number of employees. No proprietary information need be included in this narrative.

A brief description of the facility operation is labeled as Attachment F

4. Attach a detailed description of the process flow should be included. This description should discuss the overall scope of the operation including analysis, treatment, storage and other processing, beginning with the arrival of an incoming shipment to the departure of an outgoing shipment. Include items such as size and location of tanks, containers, etc. A detailed site map, drawn to scale, should be attached to this description. (See item 4, page 4).

The facility's detailed process description is labeled as Attachment G Site Maps Appendices C & D

5. The following parts of the facility's operating plan should be included as attachments to the permit application. (See item 5 on pages 4 and 5):
   a. An analysis plan which must include:
      (i) a sampling plan, including methods and frequency of sampling and analyses;
      (ii) a description of the fingerprint analysis on incoming shipments, as appropriate; and
      (iii) an analysis plan for each outgoing shipment (one batch/lot can equal a shipment, provided the lots are discreet units) to include: metals and halogen content.

The analysis plan is labeled as Attachment H

b. A description of the management of sludges, residues and byproducts. This must include the characterization analysis as well as the frequency of sludge removal.

Sludge, residue and byproduct management description is labeled as Attachment H

c. A tracking plan which must include the name, address and EPA identification number of the transporter, origin, destination, quantities and dates of all incoming and outgoing shipments of used oil.

The tracking plan is included as Attachment H

6. Attach a copy of the facility's preparedness and prevention plan. This requirement may be satisfied by modifying or expounding upon an existing SPCC plan. Describe how the facility is maintained and operated to minimize the possibility of a fire, explosion or any unplanned releases of used oil to air, soil, surface water or groundwater which could threaten human health or the environment. (See item 6, page 5).

   The preparedness and prevention plan is labeled as Attachment ___I___

7. Attach a copy of the facility's Contingency Plan. This requirement should describe emergency management personnel and procedures and may be met using a modifiying or expounding on an existing SPCC plan or should contain the items listed in the Specific Instructions. (see item 7 on pages 5 and 6).

   The contingency plan is labeled as Attachment ___J___

8. Attach a description of the facility's unit management for tanks and containers holding used oil. This attachment must describe secondary containment specifications, inspection and monitoring schedules and corrective actions. This attachment must also provide evidence that all used oil process and storage tanks meet the requirements described in item 8b on page 6 of the specific instructions, and should be certified by a professional engineer, as applicable.

   The unit management description is labeled as Attachment ___K___

9. Attach a copy of the facility's Closure plan and schedule. This plan may be generic in nature and will be modified to address site specific closure standards at the time of closure. (See item 9, pages 6 and 7).

   The closure plan is labeled as Attachment ___L___

10. Attach a copy of facility's employee training for used oil management. This attachment should describe the methods or materials, frequency, and documentation of the training of employees in familiarity with state and federal rules and regulations as well as personal safety and emergency response equipment and procedures. (See item 10, page 7).

    A description of employee training is labeled as Attachment ___M___

    Hot Works Program - Appendix N

    Facility Inspection Plan - Appendix O

DEP Form#	62-710.901(a)
Form Title	Used Oil Processing Facility Permit Application
Effective Date	December 23, 1996

APPLICATION FORM FOR A USED OIL PROCESSING PERMIT

PART II - CERTIFICATION

TO BE COMPLETED BY ALL APPLICANTS

Form 62-710.901(a). Operator Certification

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

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 or knowing violations. Further, I agree to comply with the provisions of Chapter 403, Florida Statutes, Chapter 62-710, F.A.C., and all rules and regulations of the Department of Environmental Protection

Signature of the Operator or Authorized Representative*

Bernhardt C. Warren

Name and Title (Please type or print)

Date: June 23, 1997 Telephone: (352) 395-1352

* If authorized representative, attach letter of authorization.

DEP Form#	62-710.901(b)
Form Title	Used Oil Processing Facility Permit Application
Effective Date	December 23, 1996

APPLICATION FROM FOR A USED OIL PROCESSING PERMIT

PART II - CERTIFICATION

Form 62-710.901(b). Facility Owner Certification

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

This is to certify that I understand this application is submitted for the purpose of obtaining a permit to construct, or operate a used oil processing facility. As the facility owner, I understand fully that the facility operator and I are jointly responsible for compliance with the provisions of Chapter 403, Florida Statutes, Chapters 62-710, F.A.C. and all rules and regulations of the Department of Environmental Protection.

Signature of the Facility Owner or Authorized Representative*

Bernhardt C. Warren

Name and Title (Please type or print)

Date: June 23, 1997 Telephone: (352) 395-1352

* If authorized representative, attach letter of authorization.

DEP Form#	62-710.901(c)
Form Title	Used Oil Processing Facility Permit Application
Effective Date	December 23, 1996

APPLICATION FROM FOR A USED OIL PROCESSING PERMIT

PART II - CERTIFICATION

Form 62-710.901(c) Land Owner Certification

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

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 used oil processing facility on the property as described.

Signature of the Land Owner or Authorized Representative*

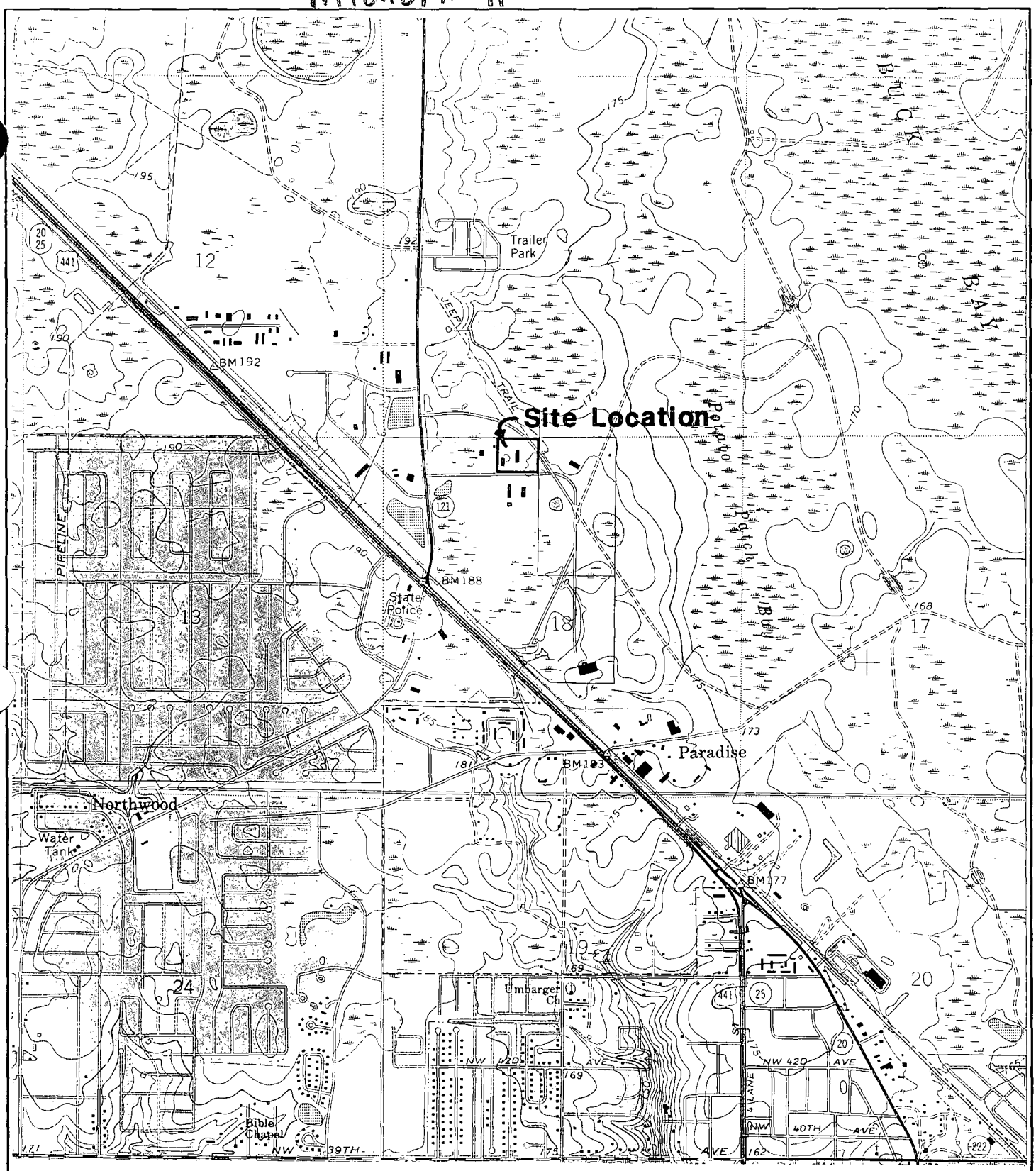
Bernhardt C. Warren

Name and Title (Please type or print)

Date: June 23, 1997 Telephone: (352) 395-1352

* If authorized representative, attach letter of authorization.

APPENDIX A



REF.: U.S.G.S. MAPS 7.5 MINUTE SERIES
PHOTOREVISED 1988, GAINESVILLE EAST, FLA.
A PART OF T 9 S, R 19 & 20 E

-N-

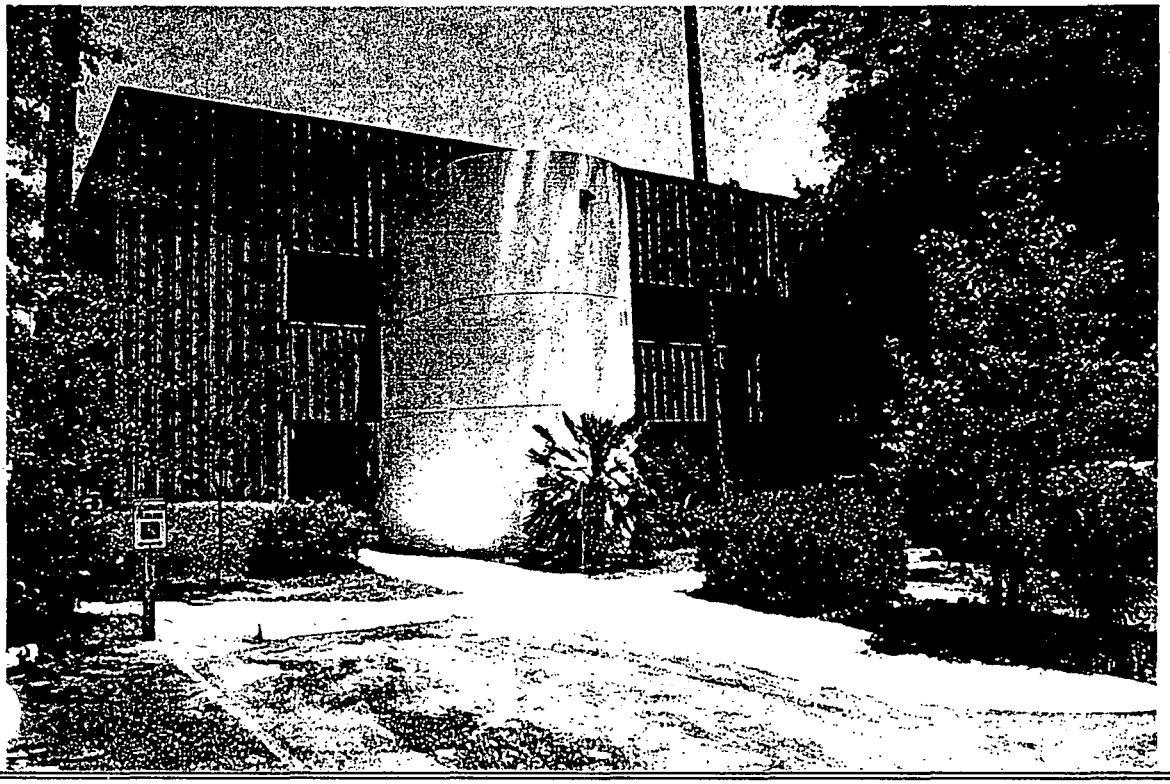
0 1000 2000

PERMA-FIX
ENVIRONMENTAL SERVICES

TITLE: FIGURE 1 TOPOGRAPHIC SITE LOCATION MAP		
PREPARED FOR: PERMA-FIX OF FLORIDA, INC. 1940 NW 67th Place Gainesville, FL 32653		
SCALE: 1=2000	APPROVED BY:	DRAWN: PRODRAFT
DATE: 5/12/95	C. ORBAN	REVISED:
PROJECT NUMBER: 9003		DRAWING NUMBER: FIG1

PERMA-FIX
ENVIRONMENTAL SERVICES

PERMA-FIX OF FLORIDA, INC.
Appendix B
Facility Photographs



MAIN ENTRANCE & RECEPTION

PERMA-FIX
ENVIRONMENTAL SERVICES

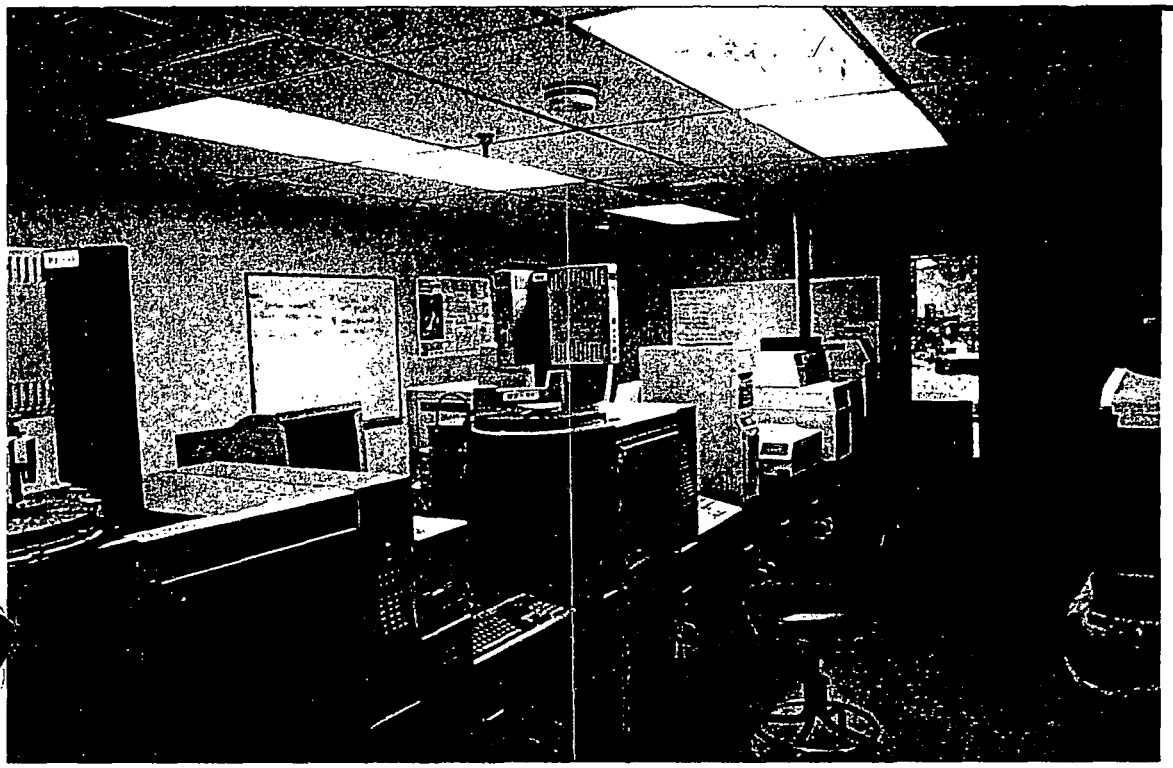
PERMA-FIX OF FLORIDA, INC.
Appendix B
Facility Photographs

PROFILING LAB

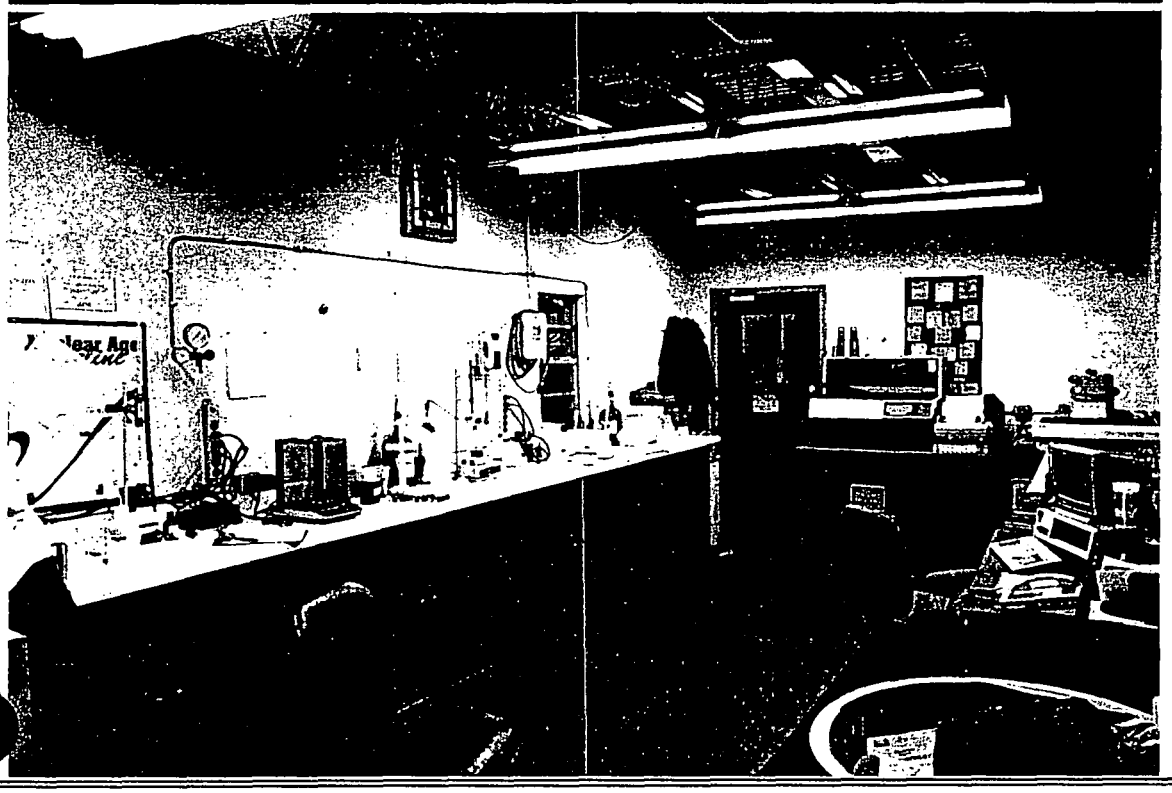
SAMPLE PREP AREA

PERMA-FIX
ENVIRONMENTAL SERVICES

PERMA-FIX OF FLORIDA, INC.
Appendix B
Facility Photographs



GAS CHROMATOGRAPHS

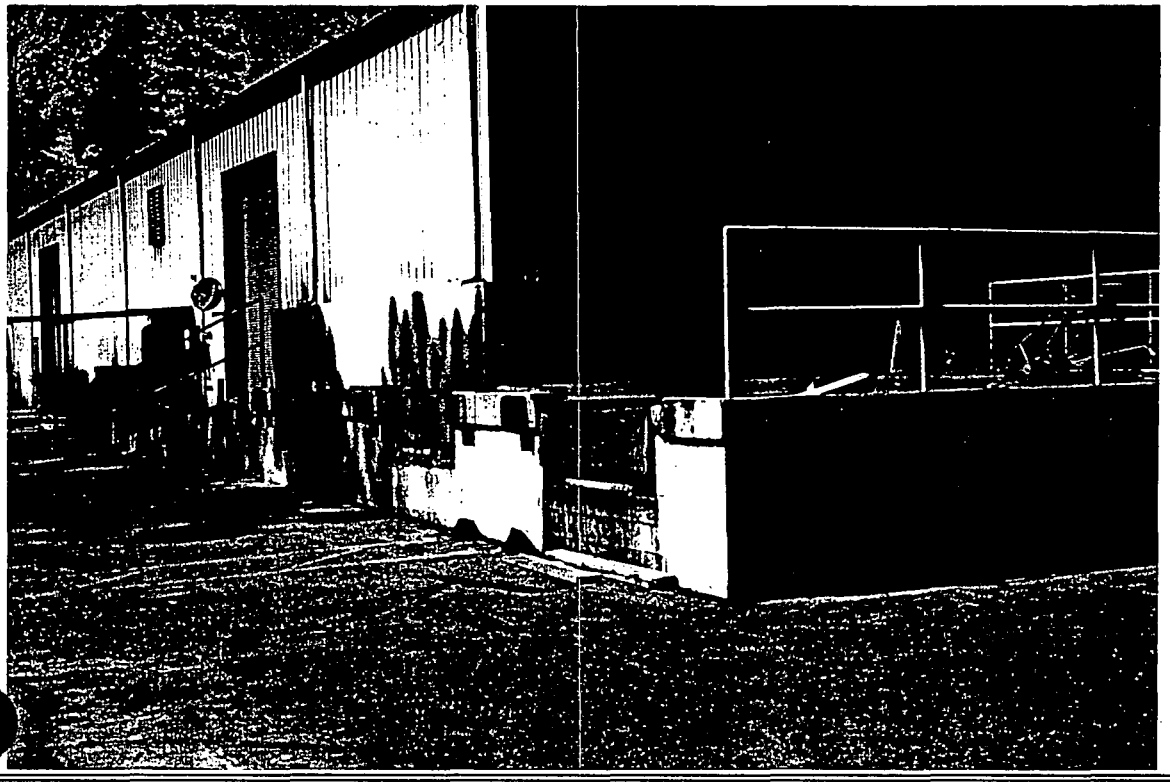


FINGERPRINT/ LS LAB

PERMA-FIX
ENVIRONMENTAL SERVICES

PERMA-FIX OF FLORIDA, INC.
Appendix B
Facility Photographs

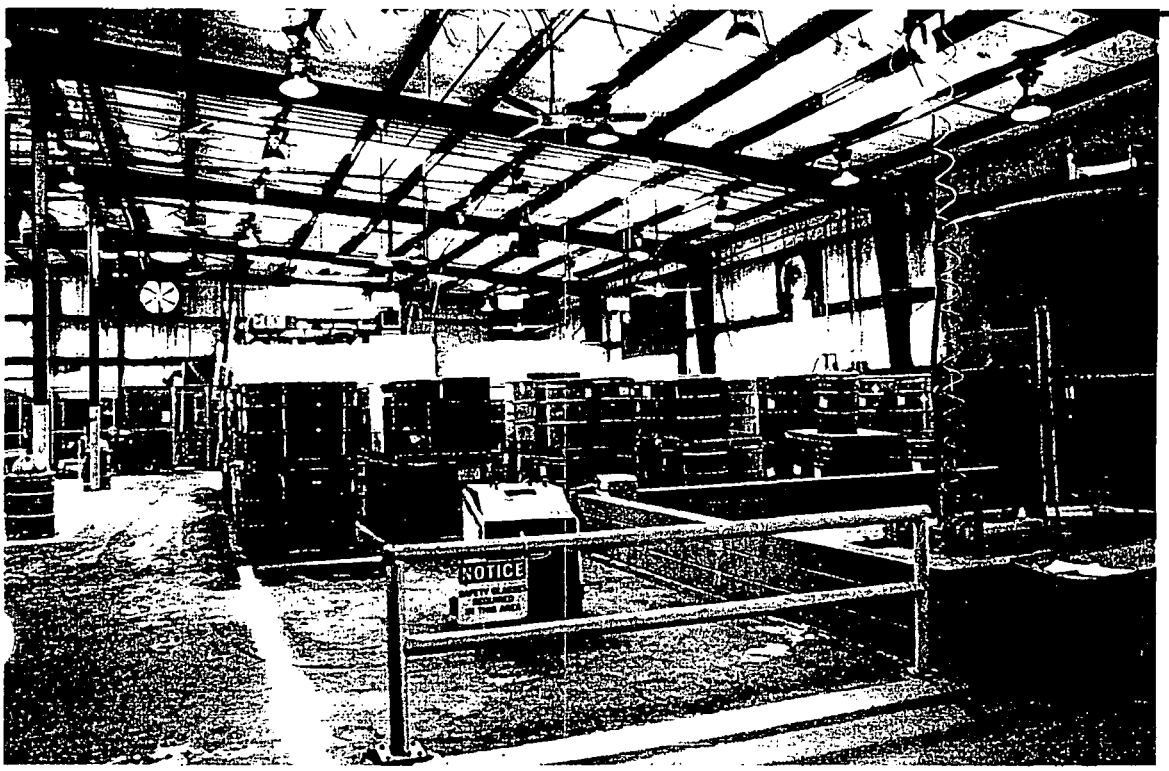
MAIN ENTRANCE



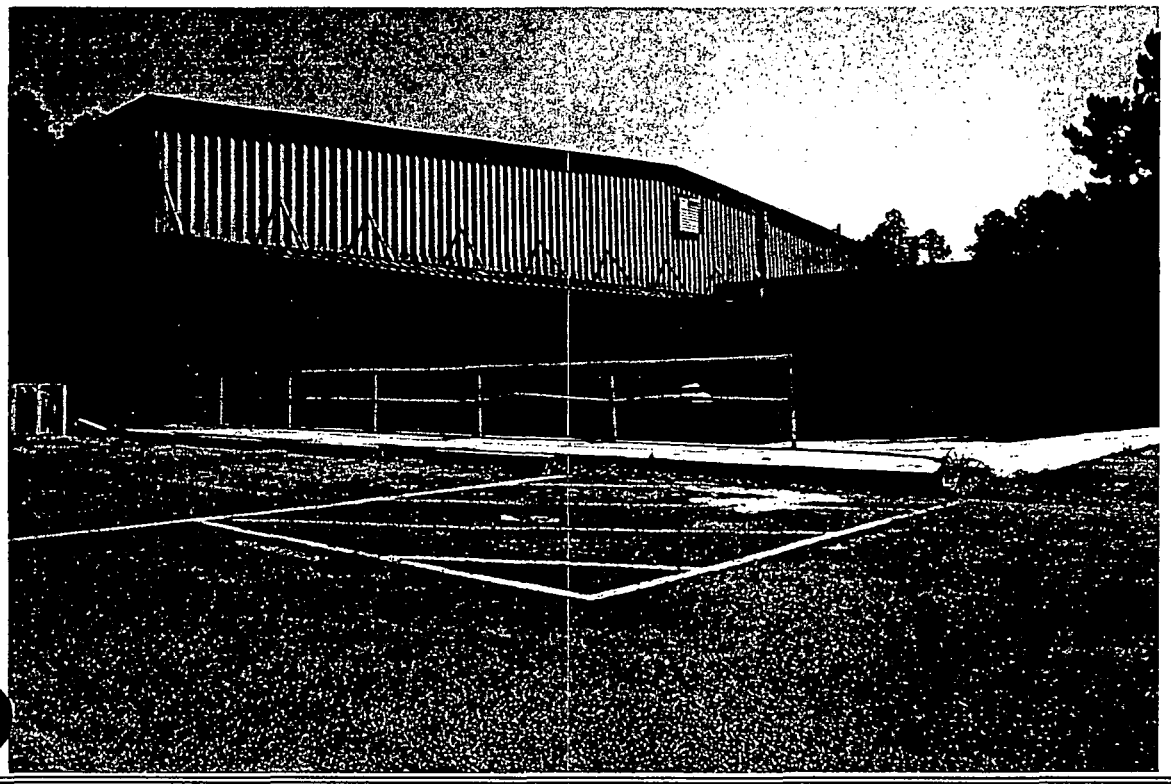
LOADING DOCK

PERMA-FIX
ENVIRONMENTAL SERVICES

PERMA-FIX OF FLORIDA, INC.
Appendix B
Facility Photographs

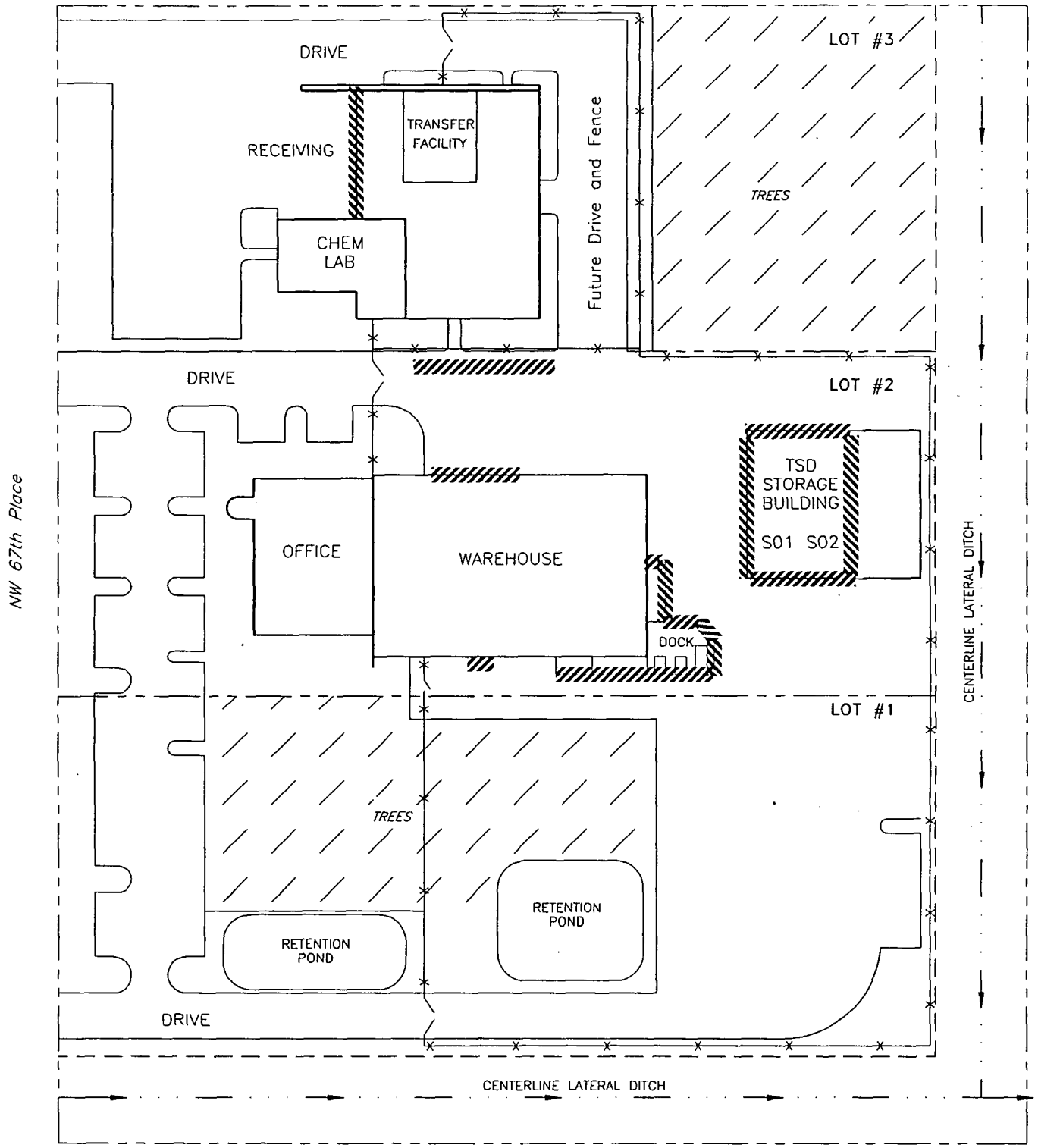


HOUSEHOLD & NONHAZ DRUM STORAGE



TRANSFER FACILITY

APPendix-C



Property Line

Drainage Easement

Loading Areas

S01 Hazardous Waste Container Storage

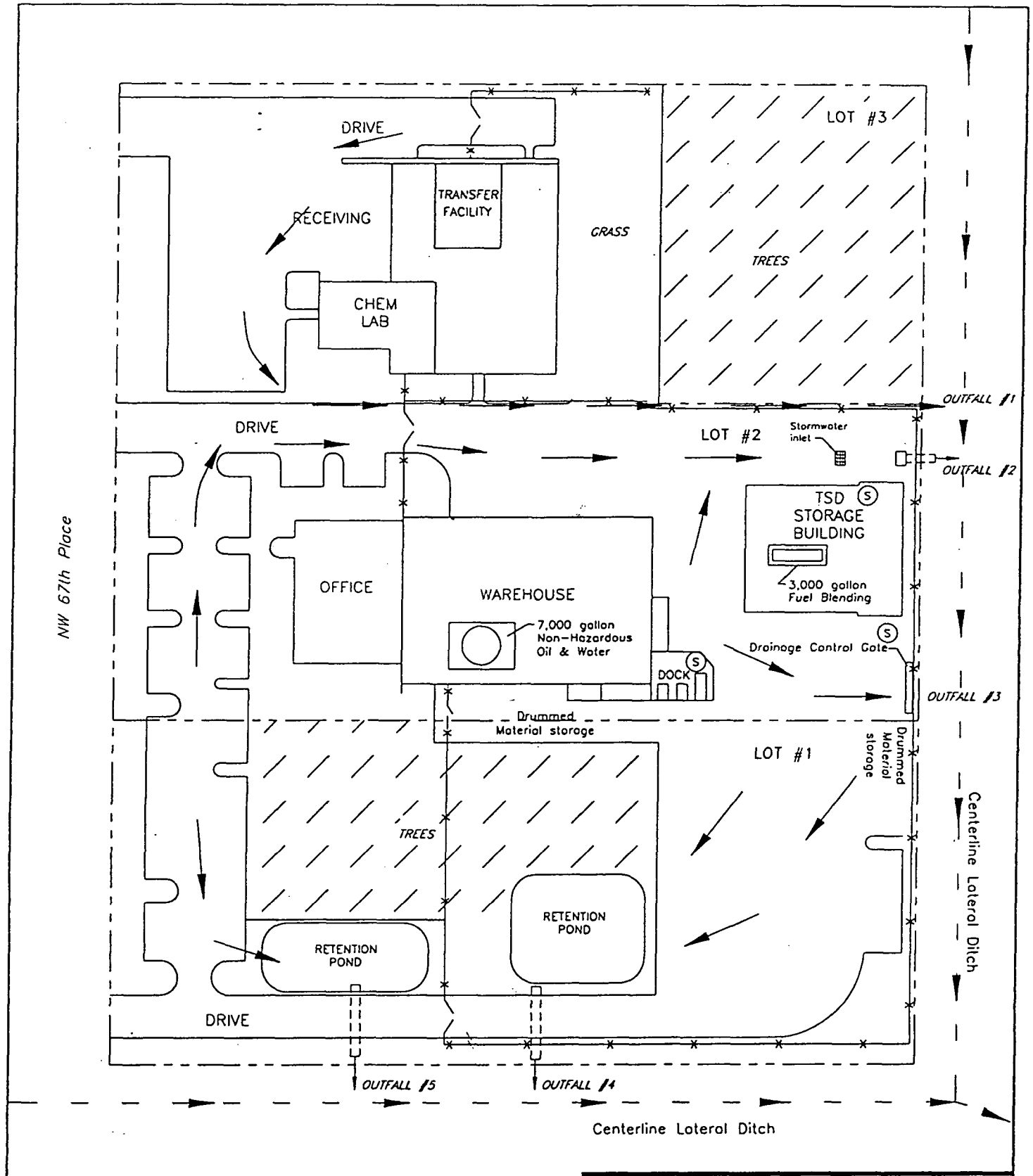
S02 Hazardous Waste Tank Storage

N

0 40 80

TITLE: FIGURE 6 FACILITY LAYOUT AND LOADING AREAS		
PREPARED FOR: PERMA-FIX OF FLORIDA, INC. 1940 NW 67th Place Gainesville, FL 32653		
SCALE: 1=80	APPROVED BY:	DRAWN: PRODRAFT
DATE: 10/4/95	C. ORBAN	REVISED:
PROJECT NUMBER: 9003		DRAWING NUMBER: FIG6

PERMA-FIX ENVIRONMENTAL SERVICES



Surface water flow direction

(S) Spill Response Kit

N

0 40 80

MINTECH INCORPORATED
ENVIRONMENTAL ENGINEERS

1626 NORTH 100TH EAST AVENUE
TULSA, OKLAHOMA 74116-1515
PHONE (918) 836-0700
FAX (918) 836-0766

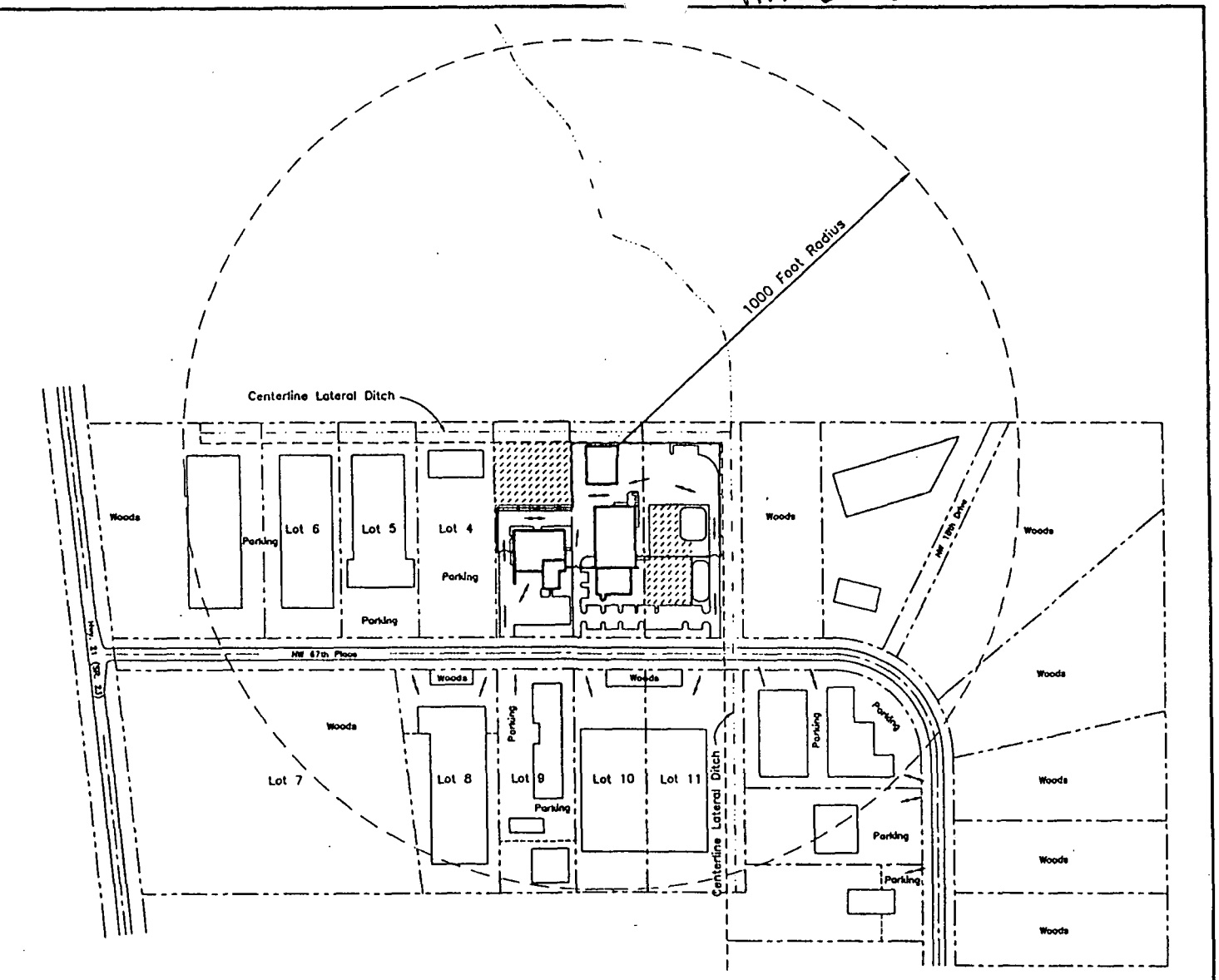
TITLE:

SITE PLAN

Perma-Fix of Florida, Inc.

ACAD FILE: D:\..\..\PF_GVILL\SWPPSITE.DWG			DRAFTED BY: SKG
SCALE: AS NOTED	APPROVED BY: W.A.DECKER	DATE: 6/30/95	PROJECT NO.: 1765
PROJECT LOCATION: 1940 NW 67th Place, Gainesville, FL			FIGURE NO.: 1

Appendix "D"



PROPERTY LINE
DRAINAGE EASEMENT
TRAFFIC PATTERN
WOODED AREA

PERMA-FIX ENVIRONMENTAL SERVICES

TITLE: FIGURE 5 SITE BOUNDARIES AND TRAFFIC PATTERN		
PREPARED FOR: PERMA-FIX OF FLORIDA, INC. 1940 NW 67th Place Gainesville, FL 32653		
SCALE: 1=200	APPROVED BY:	DRAWN: PRODRAFT
DATE: 2/12/98	C. ORBAN	REVISED:
PROJECT NUMBER: 9003		DRAWING NUMBER: FIG5

Appendix - E

PERMA-FIX ENVIRONMENTAL SERVICES

PERMA-FIX OF FLORIDA, INC.
Table 1
Hazardous Waste Stored at PFF

Table 1
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Hazardous Waste Identified by Characteristic:

Waste Code	Hazard Code	Estimated Capacity	Hazardous Waste
D001	(I)	60,000	Ignitible Waste
D002	(C)	10,000	Corrosive Waste
D004	(E)	125	Arsenic
D005	(E)	125	Barium
D006	(E)	125	Cadmium
D007	(E)	125	Chromium
D008	(E)	125	Lead
D009	(E)	125	Mercury
D010	(E)	125	Selenium
D011	(E)	125	Silver
D012	(E)	125	Endrin
D013	(E)	125	Lindane
D014	(E)	125	Methoxychlor

PERMA-FIX
ENVIRONMENTAL SERVICES

WAP-3
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Hazardous Waste Identified by Characteristic:

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
D015	(E)	125	Toxaphene
D016	(E)	125	2,4-D
D017	(E)	125	2,4,5-TP (Silvex)
D018	(E)	125	Benzene
D019	(E)	125	Carbon Tetrachloride
D020	(E)	125	Chlordane
D021	(E)	125	Chlorobenzene
D022	(E)	125	Chloroform
D023	(E)	125	o-Cresol
D024	(E)	125	m-Cresol
D025	(E)	125	p-Cresol
D026	(E)	125	Cresol
D027	(E)	125	1,4-Dichlorobenzene
D028	(E)	125	1,2-Dichloroethane

WAP-3
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Hazardous Waste Identified by Characteristic:

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
D029	(E)	125	1,1-Dichloroethylene
D030	(E)	125	2,4-Dinitrotoluene
D031	(E)	125	Heptachlor (and its epoxide)
D032	(E)	125	Hexachlorobenzene
D033	(E)	125	Hexachlorobutadiene
D034	(E)	125	Hexachloroethane
D035	(E)	125	Methyl ethyl ketone
D036	(E)	125	Nitrobenzene
D037	(E)	125	Pentrachlorophenol
D038	(E)	125	Pyridine
D039	(E)	125	Tetrachloroethylene
D040	(E)	125	Trichloroethylene
D041	(E)	125	2,4,5-Trichlorophenol
D042	(E)	125	2,4,6-Trichlorophenol
D043	(E)	125	Vinyl chloride

WAP-3

Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Hazardous Wastes from Non-specific Sources:

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
F001	(T)	15,000	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004 and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F002	(T)	350	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-triflouroethane, orthodichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004 or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

WAP-3
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Hazardous Wastes from Non-Specific Sources:

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
F003	(I)	100,000	The following spent non-halogenated solvents: Xylene, acetone), ethyl acetate), ethyl benzene), ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F004	(T)	15,000	The following spent non-halogenated solvents: Cresols and cresylic acid, nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

WAP-3
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Hazardous Wastes from Non-Specific Sources:

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
F005	(I,T)	100,000	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, and pyridine; benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F006	(T)	10,000	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
F019	(T)	10,000	Wastewater treatment sludges from the chemical conversion coating of aluminum.

WAP-3

Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Hazardous Wastes from Non-Specific Sources:

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
F037	(T)	10,000	Petroleum refinery primary oil/water/solids separation sludge. Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.
F038	(T)	10,000	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge. Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units.

WAP-3
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Hazardous Wastes from Non-Specific Sources:

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
F038	Continued	Continued	Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing.
F039	(T)	10,000	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under Subpart D of this Part (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028).

WAP-3
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Hazardous Wastes from Specific Sources:

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
K035	(T)	3,000	Wastewater treatment sludges generated in the production of creosote.
K048	(T)	3,000	Dissolved air flotation (DAF) float from the petroleum refining industry.
K049	(T)	3,000	Slop oil emulsion solids from the petroleum refining industry.
K050	(T)	3,000	Heat exchanger bundle cleaning sludge from the petroleum refining industry.
K051	(T)	3,000	API separator sludge from the petroleum refining industry.
K052	(T)	3,000	Tank bottoms (leaded) from the petroleum refining industry.
K141	(T)	3,000	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations).
K142	(T)	3,000	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.

WAP-3
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Hazardous Wastes from Specific Sources:

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
K143	(T)	3,000	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.
K144	(T)	3,000	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.
K145	(T)	3,000	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.
K147	(T)	3,000	Tar storage tank residues from coal tar refining.
K148	(T)	3,000	Residues from coal tar distillation, including but not limited to, still bottoms.
K149	(T)	3,000	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups, (This waste does not include still bottoms from the distillation of benzyl chloride.)

WAP-3

Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Hazardous Wastes from Specific Sources:

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
K150	(T)	3,000	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.
K151	(T)	3,000	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.

WAP-3
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Discarded Commercial Chemical Products, Off-Specification Species, Container Residues and Spill Residues Thereof[1]

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
P003	(H)	350	Acrolein
P022	(H)	350	Carbon disulfide
P075	(H)	350	Nicotine, and salts

WAP-3
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Discarded Commercial Chemical Products, Off-Specification Species, Container Residues and Spill Residues Thereof[1]

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
U001	(I)	350	Ethanal; Acetaldehyde
U002	(I)	350	Acetone; 2-Propanone
U003	(I,T)	350	Acetonitrile
U004	(T)	350	Acetophenone
U012	(I,T)	350	Aniline; Benzenamine
U019	(I,T)	10,000	Benzene
U027	(T)	350	Dichloroisopropyl ether
U029	(T)	350	Methyl bromide
U031	(I)	350	n-Butyl alcohol; 1-Butanol
U037	(T)	10,000	Chlorobenzene
U044	(T)	350	Chloroform; Methane, trichloro
U050	(T)	350	Chrysene
U051	(T)	350	Creosote
U052	(T)	350	Cresol (Cresylic Acid); Phenol, methyl

WAP-3
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Discarded Commercial Chemical Products, Off-Specification Species, Container Residues and Spill Residues Thereof[1]

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
U053	(T)	350	2-Butenal; Crotonaldehyde
U055	(I)	350	Cumene; Benzene, (1-methylethyl)
U056	(I)	350	Cyclohexane
U057	(I)	350	Cyclohexanone
U068	(T)	350	Methylene bromide
U070	(T)	350	Benzene, 1,2-dichloro-; o-Dichlorobenzene
U071	(T)	350	m-Dichlorobenzene; Benzene, 1,3-dichloro
U072	(T)	350	p-Dichlorobenzene; Benzene, 1,4-dichloro
U076	(T)	350	Ethylidene dichloride
U077	(T)	350	Ethylene dichloride
U080	(T)	350	Methylene chloride
U083	(T)	350	Propylene dichloride
U108	(T)	350	1,4-Dioxane
U110	(I)	350	Dipropylamine

WAP-3
Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Discarded Commercial Chemical Products, Off-Specification Species, Container Residues and Spill Residues Thereof[1]

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
U112	(I)	10,000	Ethyl acetate
U117	(I)	350	Ethyl ether
U121	(T)	350	Methane, trichlorofluoro
U122	(T)	350	Formaldehyde
U124	(I)	300	Furfuran; Furan
U140	(I,T)	350	Isobutyl alcohol
U154	(I)	35,000	Methanol; Methyl alcohol
U159	(I,T)	350	Methyl ethyl ketone (MEK)
U161	(I)	350	Methyl isobutyl ketone
U165	(T)	350	Naphthalene
U169	(I,T)	350	Nitrobenzene
U171	(I,T)	350	2-Nitropropane
U196	(T)	350	Pyridine
U208	(T)	350	1,1,1,2-Tetrachloroethane

WAP-3

Hazardous Waste Codes and Basis for Listing

The primary hazardous properties of these materials are indicated by the following Hazard Codes: T (Toxic), R (Reactive), I (Ignitable), C (Corrosive), E (Toxicity Characteristic), H (Acutely Hazardous).

Discarded Commercial Chemical Products, Off-Specification Species, Container Residues and Spill Residues Thereof[1]

Waste Code	Hazard Code	Estimated Annual Quantity*	Hazardous Waste
U209	(T)	350	1,1,2,2-Tetrachloroethane
U210	(T)	350	Tetrachloroethylene
U211	(T)	350	Carbon tetrachloride
U213	(I)	350	Tetrahydrofuran
U220	(T)	35,000	Toluene; Benzene, methyl
U226	(T)	350	Methyl chloroform
U227	(T)	350	1,1,2-Trichloroethane
U228	(T)	350	Ethene, trichloro-; Trichloroethylene
U239	(I,T)	35,500	Xylene, benzene, dimethuyl
U328	(T)	350	o-Toluidine
U353	(T)	350	p-Toluidine
U359	(T)	350	Ethanol, 2-ethoxy; Ethylene glycol monoethyl ether

* Estimated annual quantity in tons per year

[1] Hazardous Waste Codes identified in the Facility Part A and listed in 40 CFR 261.33 may have more than one chemical name. Where only one chemical name is listed in this table, omission of other chemical names does not preclude acceptance of a waste stream identified with an approved waste code and alternate chemical name.

PERMA-FIX ENVIRONMENTAL SERVICES, INC

PERMA-FIX OF FLORIDA, INC.
Appendix F
Brief Facility Description

Perma-Fix of Florida, Inc. a subsidiary of Perma-Fix Environmental Services, Inc., operates an industrial waste treatment, storage or disposal facility in accordance with the applicable requirements of 40 CFR Part 264. Currently, hazardous waste management on-site includes storage of a wide variety of industrial wastes. The facility blends hazardous waste into fuel for use as hazardous waste fuel at off-site cement kilns and the facility consolidates other hazardous wastes for shipment and treatment off-site. Hazardous waste management on-site also includes transfer facility activities such as storage prior to shipment off-site. The facility also manages non-hazardous industrial wastes and mixed wastes (in accordance with a license issued by the Florida Department of Health and Rehabilitative Services). PFF employs approximately 32 employees at the Gainesville facility

Description of Procedures, Structures or Equipment

The unloading of containers at Perma-Fix of Florida (PFF) is accomplished by means of forklift trucks in the area of the plant paved outside storage area. Due care is taken to prevent accidental dropping of containers and all forklift operators are instructed in proper and safe operation of the forklift.

Most runoff from PFF is directed to the on-site retention pond or drains off-site to a drainage ditch north of the facility. The processing area is inside a covered building to protect operations from precipitation. The used oil storage tank is contained within a bermed area capable of containing 130% the entire contents of the storage tank. The tank is located within the building to minimize contact with precipitation.

Appropriate precautions are taken to eliminate sources of ignition including open flames, smoking, cutting and welding hot surfaces, frictional heat and sparks from in and around the container storage, tank storage and processing area. Required "Hot Work" is subject to the PFF "Hot Work" program (Appendix N). The facility is fenced for security and areas where ignitable materials are stored or processed are posted as "No Smoking" areas.

In addition, PFF has designed the used oil processing to include numerous automatic safety features, including:

- Electrical grounding for all equipment including the processor, sampling tanks, used oil storage tank and transfer apparatus.

- Overflow interlocks and alarms for the sampling tanks.

All persons entering the process area are required to have on protective clothing commensurate with their tasks. These requirements are posted and are adhered to due to the mixed waste (radioactive and/or hazardous) characteristics. Protective clothing requirements also pertain to those persons loading and unloading vehicles or when otherwise handling the materials. Procedures are in place to provide visitors with the necessary protective mechanisms.

No drains are located within the process area and no unauthorized materials are released to the sanitary sewer nor to surface water runoff. PFF accounts for all wastes delivered to its site and removed from site through a materials accounting system. This includes a generator specific numbering system to identify, at all times, the current status of each container of material received on-site. PFF can track each container of material from time of receipt through final disposal.

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 waste to the environment.

PFF will not accept 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 fire fighting equipment is conspicuously located.

In addition to those items indicated above, PFF has a telephone communication system capable of notifying all employees in the event of any emergency. Access to this communication system is readily available from several locations in and around the processing area. The process area does not operate unless multiple (2 or more) employees are present.

Fire protection consists of an automatic fire suppression system in the processor and numerous fire extinguishers. These are routinely inspected by an outside contractor. Additionally, PFF is accessible by the Fire Department within 3-7 minutes and has adequate water available for fire fighting.

All containers and the bulk tank containing the waste fluids are readily accessible and inspectable.

Preparedness and Prevention Procedures

Arrangements with local authorities are documented in the Contingency Plan (Appendix J).

Spill Prevention

This procedure is to provide basic steps in the prevention of spills and clean up in the event of spills.

Prevention

- Trucks containing wastes in transit are parked in the storage area and are inspected daily for containment integrity and serviceability.

- Tank and container storage areas are inspected for potential leaks and spills in accordance with PFF inspection procedures. In addition, containment systems are visually inspected as part of PFF inspections.

- To prevent potential spills, all pipes carrying waste fluids are visually checked daily to assure proper fitting and that valves are working properly.

- All fluid level indicators on storage vessels are inspected periodically.

- Any impervious floor covering showing signs of deterioration is repaired.

Response Measures

- In the event fluids are spilled or leaked into containment areas, absorbent materials are placed on the fluid, then manually collected and placed in a container for proper disposal.

- The 7,000 gallon tank presents the largest potential for a spill or release. The concrete berm housing the tank is designed to provide full containment of all fluids in the event of leakage.

In the event of release of fluids in the berm with NO apparent associated environmental releases, the Regulatory Compliance Officer (RCO) will be immediately notified. The Process Coordinator (PC) will, in coordination with the RCO direct the collection and management of the fluids. The RCO will also direct any necessary repairs. Records will be maintained for review by the FDEP and HRS. In the event of release of fluids from the bermed area to the environment in excess of reportable quantity, the RCO, Fire Department, FDHRS and FDEP will be immediately notified of the situation. Recommendations by the Fire Department, FDEP, FDHRS, RCO and the PC will be evaluated to develop the most efficient and safe method in reclaiming the fluids.

- In the event that a spill occurs from a tanker parked in the storage area, there is sufficient containment within the storage area to prevent run-off outside of the storage area. The PC, will, in coordination with the Emergency Coordinator (EC) direct the removal, recontainment and storage of the spilled materials.

- In the event spills are identified while the waste containers are in storage, spills from the containers will be collected and placed in a drum for suitable management or a leaking container may be placed in an "over pack" container.

Spill Prevention Plan

- All persons responsible for supervising the processing activities are familiar with this procedure.

- Adequate spill prevention supplies are maintained on-site including:

  55 gallon drums for transfer of leaking drum contents
  Absorbent material
  Gloves and other safety gear
  Shovels, brooms, bags, etc.
  Overpack containers

Maps of access control, buildings and other structures, tanks and containers, loading and unloading areas, drainage or flood control barriers and run-off control systems are located in Appendices C & D.

FUELS STORAGE FACILITY

Parameters and Rationale:

Perma-Fix of Florida (PFF) has selected physical and chemical waste analysis parameters to facilitate safe hazardous waste handling practices as well as sound tank and container management practices at the facility. The waste analysis parameters selected and their rationale for selection are shown in Section WAP-1, Waste Analysis Parameters, Rationale, and Applicability.

Test Methods:

Analytical methods used by PFF are standard laboratory methods or are methods developed specifically for waste management on-site. The physical and chemical waste analysis parameters for hazardous waste management in container management areas, and (where applicable) process equipment are shown in Section WAP-1, Waste Analysis Parameters, Rationale, and Applicability. The specific analytical testing method(s) which may be used for each parameter is also shown in Section WAP-1.

Sampling Methods:

Sampling methods used at the PFF facility will be those listed in 40 CFR 261 Appendix I or equivalent. COLIWASA methods will be used for containerized liquids. Sampling devices for other than containerized liquids may be weighted bottles, dippers, coliwasas, triers or other equivalent devices depending upon the characteristics of waste to be sampled. Off-site generators are responsible for collecting representative samples of their waste streams; however, PFF staff or waste brokers may perform this service for the generator. PFF recognizes the importance of collecting a representative sample (as defined in 40 CFR 260) of each waste stream and recommends appropriate liquid sampling methods specified in 40 CFR 261, Appendix I or an equivalent sampling methods.

Frequency of Analysis

Hazardous waste will be analyzed with each shipment as it arrives at the facility in accordance with acceptance protocol. The waste will also be analyzed for pre-acceptance as detailed in the Pre-Acceptance Protocol.

Additional Requirements for Wastes Generated Off-Site: (Pre-Acceptance Protocol)

Before approving wastes for management at the facility, PFF conducts a preliminary evaluation to determine if the material is suitable for management at the facility. A form summarizing waste characteristics as shown in Section WAP-2, Waste Profile Document is required to be completed by the generator for each hazardous waste stream.

In addition to the profile, the generator will attach any previously performed analytical data. The generator may use knowledge of process or laboratory analysis to complete this form. The completed profile will allow PFF to make a preliminary evaluation regarding the acceptability of the waste and will provide preliminary basic information enabling PFF to successfully manage hazardous waste in accordance with the requirements of 40 CFR Part 264.

The generator (or the generator's representative) will be required to submit a representative sample of the waste stream for evaluation. However, the requirement for submittal of a waste sample may be waived if adequate information regarding the characteristics of the waste is provided; e.g., analytical data from a commercial laboratory, MSDS for off-specification/post-dated chemicals or profile information from an affiliated or permitted TSDF, etc.

The initial waste profile will be evaluated and recertified annually. If a generator can certify that the chemical and physical characteristics and the process generating the waste have not changed over the past year, the initial waste analysis requirements (if applicable) will not be repeated. A periodically shipped waste will be recertified with the first shipment after the annual recertification date.

Recertification may not be performed for generators who have not been shipped to the facility during the preceding twelve month period. If the generator cannot make this certification, a waste re-characterization (profile) will be required from the generator.

A waste stream re-characterization will occur when a generator notifies PFF that a process or operation generating the waste has changed. In the event PFF has reason to believe that the process or operation generating the waste has changed without notice from the generator, a re-characterization request will be made. The results will be submitted to PFF before additional waste can be accepted from the generator.

For certain emergency response situations and generator spills, some of the initial waste analysis parameters for on-site management may be waived until after the waste is received at PFF. This will only occur if the generator can adequately make the hazardous waste determination of 40 CFR 262.11. All available analytical data and supporting MSDSs will be evaluated prior to receipt of the waste at the facility.

Pre-acceptance protocols for special wastes are discussed below.

Lab pack wastes - Packing lists will be reviewed prior to acceptance to determine the facilities ability to accept and process the waste.

Transshipped wastes - Waste acceptance for transshipped wastes will consist of a waste profile review to ensure that the facility is permitted to receive and trans-ship the materials.

Discarded commercial products - Generator "knowledge of process" including applicable MSDSs provide adequate characterization of waste commercial products.

Methods for Additional Waste Analysis Requirements

All methods used for analysis are detailed in WAP-1.

Acceptance Protocol:

Upon arrival of a hazardous waste at PFF, a visual inspection is conducted and compared to data contained on the profile sheet for consistency and color. After this visual inspection, samples of the waste stream will be taken for "fingerprint" analysis on-site. Fingerprint parameters are selected to screen incoming wastes to determine that the wastes received at the facility are the anticipated wastes. These parameters are a subset of the initial waste information (profile) that generators have provided to PFF during pre-acceptance procedures. Fingerprint parameters are detailed in WAP-1.

Standard waste sampling protocol (for waste acceptance) requires that a minimum percentage of the containers in a waste stream be sampled for analysis. A sample will be drawn from twenty percent(20%) of the containers for each waste stream for each shipment. The samples will be composited prior to analysis in groups of not more than ten. Standard facility waste acceptance, trans-shipped wastes and discarded commercial products. The packing list arriving with lab packs will be compared to the pre-acceptance packing list. If a discrepancy is discovered, PFF will contact the generator to resolve the issue in accordance with the requirements of 40 CFR 264.72(b)

In the event that the "fingerprint analysis" of a waste indicates that the waste received at the facility does not agree with the waste acceptance profile, the generator must characterize the waste by providing a corrected waste profile. Waste will be considered non-conforming if the sample is solid rather than liquid or vice versa, corrosive rather than solvent based, more than 30% difference from profile in water content, or more than 10% different for chlorine content. If the generator fails to provide a corrected waste profile, or if the waste is one which PFF is not permitted to store, then the waste will be shipped to an alternate facility or will be returned to the generator.

Waste Analysis Plan Amendment for Wastes Subject to the Land Disposal Restrictions: 40 CFR Part 268

In the event that changing land disposal restrictions require amendments to the Waste Analysis Plan, amendments will be submitted to FDEP in a timely manner.

PERMA-FIX TREATMENT PROCESS STORAGE AND TREATMENT UNITS

The Waste Analysis Plan incorporates procedures for three objectives:

1. Analyses performed by or at the request of PFF to determine whether a waste will be accepted from off-site generators;
2. Those analyses used to confirm the identity of wastes when received; and
3. Analyses to confirm that the Perma-Fix Treatment Process (PTP) has successfully treated the waste.

PFF may accept Waste codes D001 (oxidizer), D002, D003 (in bench-scale quantities), and D004-D011 for treatment by the PTP.

Parameters and Rationale:

The waste analysis parameters selected and their rationale for selection are shown in Section WAP-1.

Test Methods:

Analytical methods used by PFF are standard laboratory methods or are methods developed specifically for waste management on-site. Methods are listed in WAP-1.

Sampling Methods

Sampling will be conducted in a manner which gives a representative example of a waste stream. Sampling methods used will be those referenced in 40 CFR 261 Appendix I or equivalent. Sampling devices may be coliwasas, weighted bottles, dippers, triers or other devices, the selection of which will depend on the consistency and homogeneity of the waste stream.

Frequency of Analysis:

Hazardous waste will be analyzed with each shipment as it arrives at the facility in accordance with acceptance protocol. The waste will also be analyzed for pre-acceptance as detailed in the Pre-Acceptance Protocol.

Additional Requirements for Wastes Generated Off-Site: (Pre-Acceptance Protocol)

Each waste stream will be evaluated prior to acceptance at the facility. The evaluation is based on both a written waste profile provided by the generator using generator knowledge or existing analysis, and analysis of a representative sample of the waste stream. Pre-acceptance analysis will be conducted annually on each waste stream unless the generator provides a written certification which certifies that the process generating the waste has remained consistent and the characteristics of the waste are the same. For certain emergency response situations and generator spills, some of the initial waste analysis parameters for on-site management may be waived until after the waste is received at PFF. This will only occur if the generator can adequately make the hazardous waste determination of 40 CFR 262.11. All available analytical data and supporting MSDSs will be evaluated prior to receipt of the waste at the facility.

Pre-acceptance protocols for special wastes are discussed below.

Lab pack wastes - Packing lists will be reviewed prior to acceptance to determine the facilities ability to accept and process the waste.

Transshipped wastes - Waste acceptance for transshipped wastes will consist of a waste profile review to ensure that the facility is permitted to receive and trans-ship the materials.

Discarded commercial products - Generator "knowledge of process" including applicable MSDSs provide adequate characterization of waste commercial products.

Acceptance Protocol:

When waste for the PTP arrives at the facility, fingerprint analysis will be conducted to confirm that the waste stream is properly identified. This analysis will be conducted with each shipment of the waste. In order to ensure that the sampling is representative for incoming shipments, the following method will be used.

For shipments of fifty containers or less, ten percent of the incoming containers will be sampled and analyzed in accordance with the fingerprint protocol. For in-coming shipments of greater than fifty containers, five percent of the containers will be sampled and analyzed.

Post-Treatment Analyses

After the treatment of each batch of waste by the PTP, analysis will be conducted in order to determine the efficacy of the treatment. For finished batches of 85 gallon size (drum quantities) or less, five percent of the finished drums will be sampled and analyzed. For large quantity waste streams which are solidified into greater than 85 gallon size packages, 10 percent of the packages will be sampled and analyzed.

Methods for Additional Waste Analysis Requirements

All methods used for analysis are detailed in WAP-1.

Waste Analysis Plan Amendment for Wastes Subject to the Land Disposal Restrictions: 40 CFR Part 268

In the event that changing land disposal restrictions require amendments to the Waste Analysis Plan, amendments will be submitted to FDEP in a timely manner.

WAP-1 Waste Analysis Parameters, Rational and Applicability				
Parameter	**Rational**		**Method (see Notes)**	**Applicability**
Specific Gravity	Waste character, fingerprint		ASTM D-1298 or ASTM 287	All liquid waste streams[1, 2, 3, 4]
pH	Waste character, fingerprint	PAS-4000-004	SW-846 9040B or SW-846 9041A or SW-846-9045C	Liquid waste streams[1, 3, 4] > 20% H_2O
Percent Water	Waste character, fingerprint	PAS-4000-003	ASTM E 203-75 ASTM D 4017-81 ASTM D 1744-83 ASTM 4377-84	Waste fuel streams[1,2] PTP liquid streams[3,4]
Flash Point	Determine ignitability	PAS-4000-002	SW-846 1010 ISO 2719	Non-haz waste streams
Gas Chromatographic (FID)	Qualitative and quantitative evaluation of organic\hydrocarbons	PAS-4000-001	PAS Protocol	Fuels[1]
Paint Filter Test	Identification free liquids	PAS-4000-011	SW-846 9095	Optional analysis
BTU	Waste character	PAS-4000-008	ASTM D-4809	Fuels[1]
Sulfide Screen	Identification of reactive wastes	PAS-4000-018	SW-846-9030 SW-846-9031 EPA 372.6	D003, F006, F019 Waste streams[3]
Cyanide Screen	Identification of reactive wastes	PAS 4000-019	EPA 335.3 SW-846-9010 SW-846-9012 SW-846-9013	D003, F006, F019 Waste streams[3]
Fuel compatibility	Waste character, fingerprint	PAS-4000-013	PAS Protocol	Waste fuels[2]

WAP-1 Waste Analysis Parameters, Rational and Applicability				
Parameter	**Rational**		**Method (see Notes)**	**Applicability**
Chlorides/Halogen Chlorides/Halogen, (TOX) Chloride/Halogen, (Test Kit)	Screen for chloride content	PAS-4000-007 PAS-4000-014 Manufacture's Specification	SW-846 5050, SW-846 9252A, SW-846-9253, SW-846-9076, SW-846-9023 SW-846-9077	Halogenated solvents Waste streams[2]
PCB Screen	Screen for TSCA wastes	PAS-2000-004	Chlor-N-Oil, Chlor-N-Soil, SW-846 8080, EPA 608	Optional analysis
Metals (Sb, As, Ba, Cd, Cr, Pb, Se, Ag, Ni)	Waste character	PAS-4000-015	SW-846-1311 SW-846-3051 SW-846-6010A	PTP metals stream[3] TCLP (PTP treated metals)[5]
Mercury	Waste character	PAS-4000-017	SW-846 1311 SW-846 7470A SW-846 7471A	PTP metals stream[3] TCLP (PTP treated metals)[5]

[1] Preacceptance (fuels)
[2] Acceptance (fuels, fingerprint analysis)
[3] PTP Preacceptance
[4] PTP Acceptance (fingerprint)
[5] Post-PTP Testing

Note 1: PAS = Perma-Fix Analytical Services Protocols

Method References

SM	Standard Methods for the Examination of Water and Wastewater, 16th Edition, 1985
ASTM	American Society for Testing and Materials
SW-846	Test Methods for Evaluating Solid Wastes
Compatibility	Hatayama, H.K., "A Method for Determining the Compatibility of Hazardous Wastes," 1980

15708

PERMA-FIX

CUSTOMER SERVICE MANAGER
PERMA-FIX
1940 NW 67TH PLACE
GAINESVILLE, FL 32653

WAP
Waste Profile Sheet

MATERIAL PROFILE FORM INSTRUCTIONS

This Material Profile Form (MPF) has been specifically designed to provide Perma-Fix with information necessary to transport, store and recycle your waste stream in full compliance with state and federal regulations.

Except as noted below, a separate MPF is required for each waste stream. A revised MPF must be submitted (1) whenever there is a change in the characteristics of the waste stream or a change in the process which might result in a change in waste stream characteristics or (2) there is a change in state or federal regulations which changes the regulated status of the waste stream or any constituents thereof. The MPF must be submitted to Perma-Fix for entry into the internal review process, before a sales order can be initiated. No material can be received by Perma-Fix unless specifically authorized by a Perma-Fix approval.

A representative sample of the waste stream, collected in accordance with appropriate methods found in "Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods", EPA publication SW-846, must be submitted with each MPF that is submitted to the Perma-Fix Laboratory. If this sample requires TCLP analysis, sample volume must be at least 1 quart and sample container must be borosilicate glass. The sample must be packaged, labeled and shipped in accordance with provisions of 40 CFR 261.4 (d) (2) and applicable USDOT and USPS regulations. The "pull-off" label provided below must be completed, signed and attached to the sample container.

When instructions and form are completed, remove last page (yellow customer copy) and keep with instruction page for your records. Return remainder of the form (blue, pink and green copies) with the representative sample to Perma-Fix, Attention: Customer Service Manager at address on label.

MAKE SURE LABEL AND FORM ARE FILLED OUT CORRECTLY AND LABEL IS APPLIED TO SAMPLE CONTAINER.

SEE REVERSE SIDE FOR IMPORTANT INSTRUCTIONS

NAME OF COMPANY

ADDRESS	CITY	STATE	ZIP

TELEPHONE NO.	DATE SAMPLE COLLECTED	DATE SAMPLE SHIPPED

SAMPLE COLLECTED BY	TITLE

DESCRIPTION OF SAMPLE

SHIP SAMPLE TO:
Customer Service Mgr.
Perma-Fix
1940 NW 67th Place
Gainesville, FL 32653
(904) 373-6066

I certify that the sample contained herein was collected in accordance with methods approved in SW 846 and is representative of the waste described in Perma-Fix.

Material Profile Form Number

15708

SIGNATURE

PRINT NAME & TITLE

CAUTION: LEAVE A MINIMUM OF 1" HEADSPACE WHEN FILLING

MAKE SURE SAMPLE CONTAINER IS CLEAN BEFORE APPLYING LABEL

WAP
Waste Profile Sheet

ANSWERS MUST BE PROVIDED FOR ALL QUESTIONS/ITEMS ON THE ATTACHED FORM. Remove instructions (page 1) and print (pen only) or type (12 pitch) the answer or check the appropriate boxes so that all pages are clearly legible. If a particular question is not applicable to your waste stream, you may so signify with the response "NA". If additional information is submitted to complete answer (i.e. MSDS's, other laboratory analysis, etc.), indicate on the form that the additional information is attached as Attachment 1, Attachment 2, etc. When instructions and form are completed, remove last page (yellow customer copy) and keep with instructions page for your records. Return remainder of the form (blue, pink and green copies) to Perma-Fix's Customer Service Manager at address on label.

MAKE SURE LABEL AND FORM ARE FILLED OUT COMPLETELY AND LABEL IS APPLIED TO SAMPLE CONTAINER.

PART A - GENERAL INFORMATION

Billing Address - This section is to be completed by the party who has (may) contracted directly with Perma-Fix for desired services.

Pick-up Address - This section pertains specifically to the facility from which the waste will be shipped. Pick-up address must be a street address (not a post office box). Include the USEPA ID#, or explain if not included. Also, please include the Purchase Order Number for sample analysis.

PART B - WASTE DESCRIPTION

Waste Name - Give name for the waste that is commonly used at the facility and which describes the nature or composition of the waste.

Process Generating Waste - Describe the process or source generating the waste. If the amount or composition of waste varies, please specify in what way and at what frequency. Note: In accordance with RCRA regulations, Perma-Fix routinely analyzes incoming shipments. If such analyses indicate a significant difference from the information described in the MPF, Perma-Fix may be required to reject the shipment.

PART C - GENERAL CHARACTERISTICS

Odor - Describe as completely as possible (sweet, nauseating, onion-like, etc.). Indicate the strength/intensity of the odor by checking appropriate space.

% Free Liquid - Estimate percent volume of free liquids in waste as packaged for shipment. If the waste is 100% liquid, indicate "NA" in the space provided for % free liquid.

Phases - If the waste contains more than one phase or layer, check the appropriate box.

PART D - SPECIAL HANDLING INFORMATION

Indicate special handling techniques which should be employed during the transportation and storage of the waste. If the waste is incompatible with certain types of containers or will react when it comes into contact with other materials, please indicate. Attach additional information as necessary to fully describe hazards and appropriate safeguards. Absence of hazard information requested under Part D will imply that, to your knowledge and belief, there are no hazards or adverse effects associated with the waste.

PART E - RCRA INFORMATION

List all applicable waste codes, both listed and characteristic, if the waste meets the definition of a hazardous waste. Note: The concentration of each constituent imparting a TCLP Toxicity Characteristic (40 CFR 261.24) must be provided under Part H.

PART F - SHIPPING INFORMATION

Shipping Name - If the waste is a hazardous waste or hazardous material as defined in 40 CFR 172, enter the D.O.T. Shipping Name, Hazard Class, ID No. and R.Q.(Reportable Quantity). Note: This information must be consistent with information contained on any manifest covering the shipment of the waste.

PART G - PHYSICAL / CHEMICAL PROPERTIES

Items 1-6 and 8 - Use analytical methods described in SW-846 whenever applicable and ASTM methods in all other cases.

Items 1-5 - Check the block that most accurately describes the range of characteristics in question. Also give actual value determined from the sample analyses.

Item 3 - Applicable only to liquids or liquid portions of the waste. If pH is less than 2 or greater than 12.5 Perma-Fix may not accept the waste stream.

Item 4 - Check the box that is closest to the BTU value of the material on a per pound basis. Note: These numbers depict BTUs multiplied by 1000.

Item 6-8 - Check the appropriate box that accurately describes the waste stream. All values should be filled in as ppm levels. Be sure to check whether the metals results are on a totals or a TCLP basis.

PART H - ORGANIC ANALYSIS

Item-1 On the blank lines following the TCLP components, list the organic components in the waste stream and the appropriate percentages. (must total 100%)

Item-2 Check the appropriate box to indicate what analyses must be performed on the TCLP extract of your sample. If a lab other than Perma-Fix's is used for the TCLP analysis, attach those results. If the generator chooses to rely on his knowledge to classify his waste, the signature block must be completed.

Item-3 To be completed by Perma-Fix for material subject to ten day transfer.

Be sure to sign the bottom of the form. Samples cannot be reviewed without a signature.

PERMA-FIX

WAP
Waste Profile Sheet

15708

A GENERAL INFORMATION

Billing/Broker Name _____
Billing Address _____
Customer Contact Person _____
Customer Name _____
Address _____
City _____
State _____ Zip _____
Phone # Area Code ( ) _____
USEPA ID # _____
Purchase Order No. for Test Sample _____

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 _____
Facility Name _____
Pick-up Address _____
(P.O. Box unacceptable - must be street address)
City _____
State _____ Zip _____
Phone # Area Code ( ) _____
USEPA ID # _____

B WASTE DESCRIPTION

NAME OF WASTE _____
PROCESS GENERATING WASTE _____

C GENERAL CHARACTERISTICS (at 70° F unless otherwise specified)

COLOR _____ ODOR _____ ☐ NONE ☐ STRONG ☐ MILD
☐ LIQUID _____ % FREE ☐ SOLID ☐ SLUDGE ☐ POWDER
PHASES _____ ☐ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI - LAYER

D SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, i.e. overpacking, specify: _____
Is a representative sample provided? Yes ☐ No ☐
If no, explain: _____

E RCRA INFORMATION

Is this a USEPA hazardous waste? ☐ Yes ☐ No
Please give USEPA hazardous waste codes:

_____ _____ _____ _____
_____ _____ _____ _____
_____ _____ _____ _____

F SHIPPING INFORMATION

DOT hazardous material ☐ Yes ☐ No
PROPER SHIPPING NAME _____
HAZARD CLASS _____ ID# _____ R / Q _____
ANTICIPATED VOLUME _____ GAL. _____ YDS., _____ LBS.
☐ DRUM (S) ☐ BULK
☐ ONE TIME ☐ WK ☐ MO ☐ YR OTHER _____
Type and size of container: _____
WT PER CONTAINER: _____
WT PER GALLON: _____

PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY

☐ < 0.8 ☐ 1.4 - 1.7
☐ 0.8 - 1.0 ☐ > 1.7
☐ 1.0 - 1.2 ☐ _____ actual
☐ 1.2 - 1.4

2 VISCOSITY (centipoise)

☐ 1 - 100 ☐ _____ actual
☐ 100 - 1000
☐ 1000 - 10,000
☐ > 10,000

3 pH

☐ < 2 ☐ > 12.5
☐ 2 - 6 _____ actual
☐ 6 - 8
☐ 8 - 10 _____ constituent
☐ 10 - 12.5

4 BTU's 1000 / lbs.

☐ < 1 ☐ 12 - 16
☐ 1 - 4 ☐ > 16
☐ 4 - 8 _____ actual
☐ 8 - 12

5 FLASH POINT (closed cup)

☐ < 100 F ☐ > 200 F
☐ 100 - 140 F _____ actual
☐ 140 - 200 F

6 HALOGENS (%)

Chlorine _____ Fluorine _____
Bromine _____ Iodine _____
Total _____

7 HAZARDOUS CHARACTERISTICS AND OTHER COMPONENTS

Reactivity: ☐ None ☐ Explosive ☐ Pyrophoric
☐ Shock Sensitive ☐ Water Reactive PCB's _____ (ppm)

8 METALS ☐ TOTAL (PPM) ☐ TCLP (mg/L)

Arsenic (As) _____ Selenium (Se) _____
Barium (Ba) _____ Silver (Ag) _____
Cadmium (Cd) _____ Copper (Cu) _____
Chromium (Cr) _____ Nickel (Ni) _____
Mercury (Hg) _____ Zinc (Zn) _____
Lead (Pb) _____

H 1 CHEMICAL COMPOSITION (MUST TOTAL 100%) — ORGANIC/INORGANIC

NAME	%	NAME	%

2 TCLP REQUIREMENTS

☐ Volatiles ☐ TCLP analysis already performed (Attach results)
☐ Semi-volatiles
☐ Metals (RCRA) ☐ Generator's knowledge
☐ Pesticides/Herbicides

_____
Signature

3 FOR TEN DAY TRANSFER ONLY

MATERIAL APPROVED AT

_____

FACILITY APPROVAL NUMBER

_____

PERMA-FIX USE ONLY
RECERTIFICATION DATE _____

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.

AUTHORIZED SIGNATURE _____ TITLE _____ DATE _____

OFFICE COPY

Appendix-I

OIL SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN (40 CFR 112) FOR PERMA-FIX OF FLORIDA GAINSVILLE, FLORIDA

By

MINTECH, INC.
800 NORTHWEST MAIN STREET
LEE'S SUMMIT, MISSOURI 64086

JULY 1995

MANAGEMENT CONCURRENCE BY:

Michael A. Haynes Date: 9-1-95 (MH)

~~Jack Flaacke~~ MICHAEL A. HAYNES
General Manager
Perma-Fix of Florida
Gainsville, Florida

REVIEWED BY:

William Date: July 10, 1995

William A. Decker
Registered Professional Engineer
State of Missouri
No. E-25046

STATE OF MISSOURI
WILLIAM ANTHONY DECKER
NUMBER E-25046
REGISTERED PROFESSIONAL ENGINEER

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Attachment 8: Discharge Release Form

OIL SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN

1.0 INTRODUCTION

This SPCC Plan has been prepared in accordance with 40 CFR 112.7 for Perma-Fix of Florida (PFF) to address the storage and management of petroleum products at the PFF facility in Gainsville, Florida. The plan describes practices, procedures, structures, and equipment at the facility to prevent spills and to mitigate or preclude adverse impact on the environment.

1.1 - Facility Description

The PFF facility is located in an industrial/~~commercial~~ area of Gainsville, Florida. The PFF facility covers an area of approximately 6.4 acres of which roughly 25 percent is covered by asphalt parking and/or grass. The remainder of the property is occupied by buildings and a combination of asphalt/concrete pavement.

The PFF operation consists primarily of a hazardous waste management facility subject to the treatment, storage, and disposal (TSD) facility requirements under the Resource Conservation and Recovery Act (RCRA). The operations include liquid and sludge bulking, scintillation vial and other small container crushing and shedding, ~~solvent distillation,~~ repackaging of solid wastes contaminated by hazardous wastes, ~~stabilization of waste in containers,~~ consolidation and storage of discarded mercury-containing devices, and the operation of a 10-day transfer facility.

The layout of on-site activities and facilities is identified in Figure 1.

The generators which send waste to PFF include medical facilities, research institutions, paint-related industries, and other solvent waste-producing generators.

1.1.1 - Drummed Waste Unloading and Storage

Upon entering the facility, trucks park trailers and tanker vessels on site on the northeastern portion of the property. Fifty-five-gallon drums are unloaded from the trailers at the loading dock which is located on the north end of the warehouse.

As part of the 10-day transfer facility, 55-gallon drums of waste will be received and temporarily stored within the western warehouse.

1.1.2 - Waste Processing

Once containers are off loaded they are staged for lid removal, content inspection, and inventory adjustment. Drums are segregated within the warehouse as hazardous or nonhazardous liquid waste.

Hazardous liquids are opened and their contents dumped into a hopper for processing through the scintillation process. Fluids are collected in one of two 80-gallon test tanks. Each test tank is sampled and tested. Upon test and release, the liquids are pumped from the test tank through aboveground pipes to the 3,000-gallon tank for transport.

Nonhazardous liquids are pumped from the drum directly into the 7,000-gallon aboveground storage tank located within the warehouse.

Aboveground piping is double cased and the 3,000- and 7,000-gallon aboveground storage tanks are

located within block containment structures inside of the TSD storage and warehouse buildings, respectively.

1.1.3 - Bulked Waste Shipping
The bulked liquids are pumped into the 3,000- or 7,000-gallon bulk tank, consolidated into 550-gallon DOT tote tanks, or pumped directly into transport tankers.

2.0 SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

The SPCC Plan for the PFF facility at Gainsville, Florida, is presented in the following subsections according to the format detailed in 40 CFR 112.

2.1 - Past Spill Occurrences - 112.7 (a)

To date, spills involving significant quantities of oil have not occurred at the Gainsville, Florida, facility. Minor spillage which may have occurred during transfer would have been contained within the secondary containment structures.

2.2 - Potential Spill Occurrences - 112.7 (b)

Experience indicates that there is a low potential for tank failure (such as tank overflow, rupture, or leakage) at the facility. This can be attributed to several factors:

1. Tanks are well vented and are operated at atmospheric pressure.

2. Piping and valves are confined to areas in which vehicular travel is not permitted.

3. Exposed areas of tanks, pumps, valves and piping are inspected daily and the results are recorded on a plant inspection log.

4. Written instructions detailing proper tank filling procedures are regularly reviewed by employees under management direction.

Spillage of product is most probable during tanker truck transfer. However, the quantity of waste which would typically be spilled is small. Personnel are required to be present and containment or diversion structures are provided at all transfer points.

2.3 - Containment and Diversion Structures - 112.7 ©

The following preventive systems are used at the facility to prevent a discharge of oil from reaching a navigable water course.

2.3.1 - Onshore Facilities - 112.7(c)(1)
Secondary containment is provided for all tanks used to store petroleum related products at the facility, as shown in Figure 1.

2.3.2 - Offshore Facilities - 112.7(c)(2)
No offshore facilities are located at the PFF facility in Gainsville, Florida.

2.4 - Oil Spill Contingency Plan and Manpower - 112.7(d)

The discharge of oil can be prevented by the use of conventional containment methods. However, because of the nature of the facility operations, PFF maintains a spill contingency plan that provides detailed instructions for spill response activities. A copy of the contingency plan is maintained on site and is routinely reviewed and updated as required.

2.5 - Additional Facility Guidelines, Spill Prevention, and Containment Procedures - 112.7(e)

In addition to the provisions of Subsection 2.3, the following guidelines and procedures will govern unless rules, regulations, and/or guidelines enacted by the State of Florida are more stringent.

2.5.1 - Facility Drainage - 112.7(e)(1)(I) through (v)

All storm water discharged through Outfalls 1 through 5 converges at a single point near the northeast corner of the property. Surface water drainage patterns for the facility are illustrated in Figure 1.

The western third of the property drains into a ditch that flows to the north and enters a ditch running parallel to the northern property line.

The central third of the facility drains toward two outfalls identified as Outfalls 2 and 3 on the Site Plan. Outfalls 2 and 3 are located along the northern property line.

The PFF surface drainage patterns and outfall locations are shown in the facility Site Plan provided in Figure 1. Surface water discharges from the eastern third of the facility are routed into one of two retention basins. Each basin is designed to overflow to the east into a drainage ditch that runs south to north along the eastern property line. The outfalls for the overflow points are identified on the site plan as Outfalls 4 and 5.

The facility's Storm Water Pollution Prevention Plan (SWPPP) identifies facility modifications and specific Best Management Practices (BMPs) that have been implemented in order to address surface water drainage from the facility.

2.5.2 - Bulk Storage Tanks (Onshore) - 112.7(e)(2)

All storage tanks were constructed and are used in accordance with the implied intent of the manufacturers.

2.5.2.1 - Compatibility of Tanks and Product Stored - 112.7(e)(2)(I)

All tanks are fully compatible with the material they hold and the environmental conditions to which they can reasonably be expected to be subjected. None of the tanks are used to store material at greater than atmospheric pressure.

2.5.2.2 - Secondary Containment - 112.7(e)(2)(ii)

Localized containment structures are provided at the facility for aboveground storage tanks. In addition, area wide containment is provided within the TSD storage building. The area wide containment system within the TSD storage building provides adequate containment for the DOT totes, drums, and tanker trucks that are utilized for blended fuel storage and transfer. The location of the containment structures are identified in Figure 1. Each of the containment areas is sufficiently sized to contain the contents of the largest vessel within the area and is provided with overhead cover to prevent the accumulation of rainwater.

Localized containment is provided for 55-gallon drums held within the 10-day transfer facility.

2.5.2.3 - Drainage of Rainwater - 112.7(e)(2)(iii) (A) and (B)
Because all containment areas within the facility are provided with overhead cover, it is extremely unlikely that it will ever be necessary to release water. However, in the unlikely event that it should become necessary, the following procedure will be followed.

Prior to the release of water from the facility containment areas, the surface of the water is visually inspected to determine if an oil sheen or other indication of regulated substances is present in discernable quantities. Should there be any question about the quality of the water present, the General Manager, at his option, will (a) arrange for transport off site for proper treatment and disposal, (b) allow the water to evaporate and, if appropriate, take corrective action on the residual petroleum product, or © analytically test a representative sample of the water for suspect pollutants to determine if the quality of the water meets or exceeds the regulatory requirements of the State or other regulatory authorities in effect at the time of release of the water (NPDES permit guidelines).

Discharge of water from containment areas is to be performed only upon the direct order of the General Manager and only by personnel who have received proper instruction and are otherwise qualified to determine whether or not the water is of sufficient quality to be released.

A record shall be maintained utilizing Attachment 8 to reflect the circumstances which required a release of excess precipitation; which individual was responsible for determining the water quality and by what method; when the release was initiated; when the release was terminated; which individual was assigned to deactivate pumps and reseal valves; and when and by what method the General Manager ascertained that further release(s) was controlled.

2.5.2.4 - Buried Metallic Storage Tanks - 112.7(e)(2)(iv)
There are no buried storage tanks installed at the facility.

2.5.2.5 - Partially Buried Metallic Storage Tanks - 112.7(e)(2)(v)
There are no partially buried storage tanks at the facility.

2.5.2.6 - Periodic Integrity Testing - 112.7(e)(2)(vi)
All tanks are inspected on a regular basis to assess tank integrity. Formal daily inspections include:

- Evidence of leaks or spills
- Corrosion deterioration
- Foundation deterioration
- Tank auxiliary equipment (valves, piping and pumps)
- Containment structures

All inspections are properly recorded by the Terminal Manager utilizing Attachment 2.

2.5.2.7 - Internal Heating Coils - 112.7(e)(2)(vii)
None of the tanks located at the facility utilize internal heating coils.

2.5.2.8 - Fail-Safe Engineering - 112.7(e)(2)(viii)
The possibility of a significant discharge is reduced by the following equipment/procedures:

- Manual control over and physical presence by trained plant employees at all movements of oil products, process chemicals, and finished products.

- Level-actuated pump shutoff controls.

- Regular inspections of tanks and auxiliary equipment.

- All tanks are located such that they are within close view of the daily operations conducted at the facility.

- Procedures for tank cleaning and filling are detailed in writing and supported by formal training and regular review programs for all employees.

2.5.2.9 - Plant Effluent Discharged into Navigable Waters - 112.7(e)(2)(ix)
The facility produces no effluent for discharge to navigable waters or the tributaries thereof.

2.5.2.10 - Correction of Tank Deficiencies - 112.7(e)(2)(x)
If, by regular inspections or otherwise, it is determined that the integrity of the tanks or auxiliary equipment is or may have been compromised, the system shall immediately be taken out of service, the problem evaluated, and appropriate steps taken to correct all deficiencies.

2.5.2.11 - Mobile/Portable Oil Storage Tank - 112.7(e)(2)(xi)
Portable 350- and 550-gallon DOT totes are utilized for the storage and transfer of liquid products at the facility. The totes are maintained within the containment system provided within the TSD storage building.

2.5.3 - Facility Transfer Operations, Pumping, and In-plant Process - 112.7(e)(3)
The receipt and dispensing of waste is conducted with equipment and by procedures common to the waste handling industry.

2.5.3.1 - Buried Piping Installations - 112.7(e)(3)(I)
There is no underground piping at the facility.

2.5.3.2 - Out-of-Service Piping - 112.7(e)(3)(ii)
There is no out-of-service or abandoned piping at the facility.

2.5.3.3 - Piping Support Design - 112.7(e)(3)(iii)
Aboveground piping is protected from vehicular traffic by metal plates that are placed over the piping trench.

2.5.3.4 - Inspection of Aboveground Valves and Pipelines - 112.7(e)(3)(iv)
All valves and fittings are periodically inspected for leaks. Pipelines, valves, and piping are monitored during product transfers.

2.5.3.5 - Potential for Damage to Underground Piping - 112.7(e)(3)(v)
There is no underground piping at the facility.

2.5.4 - Facility Tank Truck Loading/Unloading Areas - 112.7(e)(4)
Wastes are transferred from tank trucks and tractor trailers at the site. The tank trucks are operated by contract transporters or PFF employees. The transfer of bulk waste is typically conducted within the drainage basin of the TSD storage building identified on Figure 1.

However, tanker trucks are periodically allowed to load on the east side of the TSD building. Drainage from the east side of the TSD storage building can be controlled by a gate valve that can be used to prevent the off-site discharge of liquids through Outfall 3. Additionally, absorbent materials and overpack drums are staged adjacent to this outfall.

Additionally, the nonhazardous oily waters contained in the 7,000-gallon aboveground storage tank are transferred to tanker trucks near the east face of the warehouse. Drainage of this transfer area is toward Outfall 3. Outfall 3 is equipped with a gate valve that can be used to shut off flow in the event of a transfer system failure. In addition, absorbent materials are staged adjacent to Outfall 3 for rapid response to potential emergencies.

2.5.4.1 - Tank Truck Loading/Unloading Procedures - 112.7(e)(4)(I)
Tank truck loading and unloading procedures meet the minimum requirements of the Florida State Department of Transportation.

The delivery and loading of products is monitored by the physical presence of both the truck driver and a qualified representative of the facility operator. In addition, signs are posted at the delivery ports and at loading areas directing the truck driver to monitor delivery and loading from outside the cab of the vehicle.

2.5.4.2 - Rack Area Drainage - 112.7(e)(4)(ii)
The primary loading rack for the facility is located within the TSD storage building. The building is constructed with a containment system that is capable of containing the contents of the largest vessel that would be loaded.

2.5.4.3 - Disconnect Warning - 112.7(e)(4)(iii)
During loading operations, drivers and/or PFF personnel are required to be out of the trucks monitoring the operations. Drivers are monitored by PFF on-site personnel as the connections and disconnections of transfer lines are made.

2.5.4.4 - Examination of Tank Truck Drains - 112.7(e)(4)(iv)
Prior to departure, the driver of the tank truck is required to examine the lowermost drain and other outlets for leakage. Where necessary, outlets are adjusted to prevent leakage while in transit.

2.5.5 - Oil Production Facility Drainage - 112.7(e)(5)(I) through (iv)
The facility is not an oil production facility. As such, the requirements of this section do not apply.

2.5.6 - Oil Drilling and Workover Facilities - 112.7(e)(6)(I) through (iii)
The facility is not an oil drilling or workover facility. As such, the requirements of this section do not apply.

2.5.7 - Oil Drilling, Production, and Workover Facilities - 112.7(e)(7)(I) through (xviii)
The facility is not an oil drilling, production, or workover facility. As such, the requirements of this section do not apply.

2.5.8 - Inspections and Records - 112.7(e)(8)
The inspection program is intended to provide a mechanism to prevent and detect system malfunctions, equipment deterioration and operator errors. The inspection program is designed to provide an early warning of the potential for such events in order that corrective and preventive actions may be taken in a timely manner.

The inspection program focuses on site security, safety, emergency equipment, and environmental monitoring systems. The inspection program is implemented by qualified and trained individuals assigned the responsibility to detect any unsafe conditions at the facility and to help prevent adverse consequences. The designated individuals have the training and authority to:

1. Implement the required inspections.
2. Perform necessary evaluations and hazard assessments.
3. Recommend appropriate corrective or remedial actions.

The inspection is performed according to a predetermined schedule based on engineering knowledge and operational experience with the systems and processes involved. Each inspection item has the content and frequency necessary to alert facility personnel prior to development of a serious problem. The General Manager will evaluate and assess each item indicating a potential deficiency, malfunction, equipment deterioration, or operator error through regular observation of the process and procedures. The level of response and its timing is determined by the nature and seriousness of the problem identified, with protection of personnel and the prevention of adverse environmental impact being a paramount concern.

2.5.8.1 - Administration of Inspection Program
The General Manager is fully responsible for implementation of the inspection program as well as directing the required remedial and corrective measures.

2.5.8.2 - Documentation and Record Keeping
Inspections and reinspections are conducted and documented in accordance with Attachment 2, Inspection Checklist. Completed checklists are given to the General Manager who then takes action as necessary to ensure completion of required remedial actions.

All completed forms and attachments are accumulated and filed at the facility. These are retained at the facility for a minimum period of three years from the date of inspection.

The Inspection Checklist includes significant administrative information such as tank identification, the name of the inspector, and the date of the inspection. The assessment of the inspector including notations of the urgency of the required response are included on the form. The completed form is delivered to the General Manager for review and appropriate action.

In summary, the General Manager observes facility operations and equipment on a periodic basis in accordance with a specified schedule and inspection elements. When any discrepancy is noted, the inspection results are reviewed by the General Manager's superior who initiates required corrective actions.

2.5.8.3 - General Facility Inspection
The general facility inspection activity encompasses the facility perimeter and those items within the property that are common to all operations. The general facility inspection activities encompass the following:

- Security devices
- Environmental monitoring systems including containment structures
- Safety and emergency equipment

The general inspection schedules including inspection parameters and frequency are determined by the types of problems that can potentially occur.

2.5.8.3 (A) - Types of Potential Problems
A breach of security, either intentional or unintentional, by persons or natural events may occur due to loss of fence integrity or obstruction of/damage to warning signs.

2.5.8.3 (B) - General Inspection Schedules
The general inspection schedules are based on the operational mode of the facility, the potential failure modes and an assessment of the hazard magnitude posed by a particular malfunction, failure or discrepancy.

Schedules designed for inspection of safety and emergency equipment are presented in Attachment 3.

2.5.9 - Security - 112.7(e)(9)
All waste handling and storage facilities are located within the general security perimeter of the facility.

2.5.9.1 - Access Control - 112.7 (e)(9)(I)
The facility is fenced with a six-foot chain link fence topped by three strands of barbed wire. As shown in Figure 1, there are two gates in the perimeter of the fencing which are used for vehicle traffic. Normal and routine access to the facility is monitored by plant personnel.

The gate is locked at the end of each operating period. Local law enforcement personnel occasionally check the plant security during nonoperating hours.

2.5.9.2 - Flow Drains and Valves - 112.7 (e)(9)(ii)
All containment system flow drains, valves, and piping are located within area(s) controlled by the security fence and are maintained in a closed position when not in regular use and in sight of plant personnel during operating hours.

2.5.9.3 - Pump Starter Control - 112.7(e)(9)(iii)
Electricity for unloading and loading pumps, process pumps, and other powered equipment is operated through electrical switch panels located within the security perimeter of the facility.

2.5.9.4 - Connections to Pipelines - 112.7(e)(9)(iv)
There are no delivery pipelines at the facility.

2.5.9.5 - Facility Lighting - 112.7(e)(9)(v)
Adequate lighting is provided at all loading, unloading, and process areas.

2.5.10 - Personnel, Training, and Spill Prevention Procedures - 112.7(e)(10)
Newly hired personnel responsible for handling or dispensing of blended fuel and/or other chemical waste and products participate in a spill prevention and control training program. All employees participate in a regularly scheduled review and update of spill prevention and control procedures.

2.5.10.1 - Personnel Training - 112.7(e)(10)(I)
Facility personnel are trained in the general orientation and operation of the facility. A training program related to the specific duties of each job function is specifically tailored for the position.

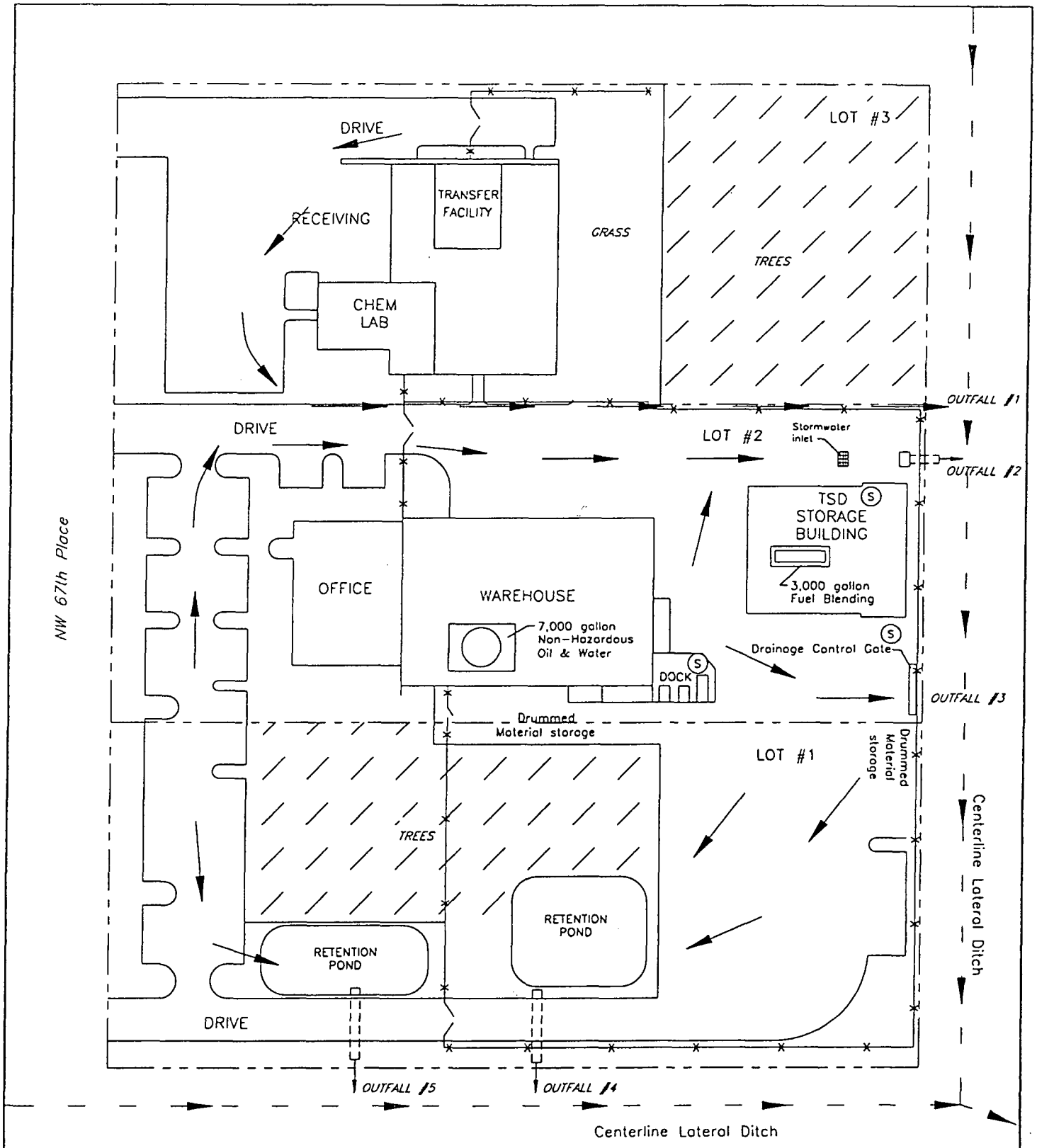
In addition, every employee will participate in continuing training to maintain proficiency, to learn new techniques and procedures, and to reinforce safety and quality consciousness.

2.5.10.2 - Emergency Coordinator - 112.7(e)(10)(ii)
The General Manager is the designated Emergency Coordinator for the site and is responsible for spill prevention and control, directing response to any site emergency and for reporting oil spills to the appropriate officials. A list of contacts, as may be required during an emergency, is provided in Attachment 6. The names and addresses of officials who must be notified after emergency response procedures have been completed is contained in the Attachment 5.

2.5.10.3 - Spill Prevention Briefings - 112.7(e)(10)(iii)
The facility uses monthly safety meetings as a forum to assure adequate understanding of SPCC procedures. Attachment 7 presents a list of emergency cleanup equipment available at the facility.

FIGURE 1

SITE PLAN



Surface water flow direction

(S) Spill Response Kit

0 40 80

MINTECH INCORPORATED
ENVIRONMENTAL ENGINEERS

1525 NORTH 105TH EAST AVENUE
TULSA, OKLAHOMA 74116-1515
PHONE (918) 836-0700
FAX (918) 836-0788

TITLE:

SITE PLAN

Perma-Fix of Florida, Inc.

ACAD FILE: D:\..\..\PF_GVILL\SWPPSITE.DWG			DRAFTED BY: SKG
SCALE: AS NOTED	APPROVED BY: W.A. DECKER	DATE: 6/30/95	PROJECT NO.: 1765
PROJECT LOCATION: 1940 NW 67th Place, Gainesville, FL			FIGURE NO.: 1

ATTACHMENT 1

TANK SCHEDULE

TANK SCHEDULE

Tank #	Contents of Tank	Capacity (Gallons)
1	Blended Fuels	3,000
2	Nonhazardous Oily Water	7,000

ATTACHMENT 2

GENERAL INSPECTION SCHEDULE

ATTACHMENT TO SPCC PLAN
Introduction to Attachment 2

Inspection Procedures and Record Maintenance

Inspection of Tanks, Piping and Equipment

A periodic inspection using the Inspection Checklist will be done while the plant is in operation and/or transferring product. It requires the inspection of individual items included in the schedule in Attachment 2. A daily plant walk-through and visual inspection will also be done. Any problems observed during the daily walk-through will be noted on the Daily Inspection Log. Tanks, piping, and equipment will be visually inspected to determine the presence and cause of any leaks and/or spilled product or the presence of any condition which could result in a leak and/or spilled product. Inspections will include, but are not limited to:

- Tank structures, hatches, manways, inspection covers, valves, sampling devices, gauges, mixers, gaskets and seals, and all attachments and/or entries to tanks.

- Pipe, pipe fittings, valves, flanges, gaskets and seals, hoses and hose fittings, and all other attachments to piping.

Secondary Containment and Security ~~of the Above~~

When a tank is open, a visual inspection of its interior will be made. When underground lines are uncovered, inspection will be made to determine the presence of leaks and integrity of piping and fittings.

Record Maintenance

Written records which summarize and date inspections will be kept by the Plant/Facility Manager and are updated on a frequent and routine basis. Records of inspections will be kept on file in the plant office.

4/7/95

GENERAL INSPECTION SCHEDULE

Inspections

I. All visible tanks, lines, flanges, pumps, etc., are to be examined on a routine basis for indications of leaks, drips, sweating, etc. Repair of any such items are to be handled on a priority basis. A personal inspection by the General Manager or his designated representative is to be made on a weekly basis.

II. Storage tanks are inspected in detail on a monthly basis including gauge hatch covers, manhole covers, gaskets, roof seals, and compartments.

III. Pump seals are inspected and lubricated or replaced as required.

IV. Aboveground storage tanks are inspected annually for physical alignment.

V. All perimeter fencing is inspected weekly. Valves, operating controls and other items normally kept in a closed or locked position are observed daily to ensure they are properly secured.

Bulk Storage Tanks

1. Rust spots will be cleaned and touched up as they appear for protection of the metal.
2. If leaks or seepage are noted during routine inspection, immediate steps to repair will be taken.
3. Tank foundations are routinely inspected for levelness and corrective steps taken if settlement or weakness is noted.
4. Gauges are routinely inspected and adjusted as needed.

Loading Rack

A. The racks shall always be kept neat and clean. Supplies, tools and other equipment must be properly stored.

B. Rust spots must be routinely brushed and painted for protection of the metal.

C. Leaks in piping, loading assemblies and downspouts must be promptly repaired.

D. Stairways, railings, walkways, and truck ramps must be maintained in a clean and safe condition.

Safety Equipment

a. Fire extinguishers and fire blankets must be in place and must be inspected every 30 days.

b. Hard hats and safety glasses must be available for the loading racks.

c. All ground cables must be in good working condition.

d. All lights must be in good working condition.

Perma-Fix of Florida
Inspection Checklist

Facility Location: _____

Inspector's Name: _____

Date: _____

Description	Yes	No	Inspection Comments
1. Are containment structures maintained in good condition (i.e., no cracks or other holes in wall or flooring)?			
2. Is there evidence of spillage or leakage in the area of waste storage tanks, totes, or drums?			
3. Is the overflow shutoff gauge for the 3,000-gallon tank operating properly?			
4. Is fire fighting equipment readily available?			
5. Is lighting adequate in the vicinity of the aboveground storage tanks?			
6. Are site security systems in good repair (i.e. fence intact, lights working, gates operable, etc.)?			
7. Is spill response equipment available?			
8. Have there been any significant spills since the last inspection?			
9. If yes to number 8, has corrective action been taken to prevent a reoccurrence of a similar event?			

Summary of Corrective Action(s) Taken:

_____

_____

_____

ATTACHMENT 3

SAFETY AND EMERGENCY EQUIPMENT

SAFETY AND EMERGENCY EQUIPMENT

Item	Inspection Required	Period
Protective Gear	Check accessibility	Daily
Hard-hats, Face Shields, Goggles, Boots, Gloves, Clothing, Hearing Protection	Check for adequate supply Check for deterioration	Monthly Monthly
Respiratory Protection	Check accessibility	Monthly
First Aid Kits	Check for restock needs	Monthly
Communications System	Check accessibility, operation	Monthly
Fire Extinguishers	Check accessibility Check pressure gauge Check inspection tag	Daily Weekly Monthly
Spill Response Kits	Check for adequate supply	Weekly

ATTACHMENT 4

SPILL RESPONSE PROCEDURES

SPILL RESPONSE PROCEDURES

NOTE: IN CASE OF FIRE, PROTECT HUMAN LIFE AND SAFETY, AND TAKE APPROPRIATE STEPS TO PUT OUT THE FIRE FIRST. THE CONTROL OF SPILLS IS SECONDARY TO SUCH CONCERNS.

Leaks, Seeps, and Other Nonflowing Releases of Nonflammable Products

1. Take actions/confirm that containment is provided by checking the position of valves, placement of absorbent materials, etc.

2. Notify General Manager of location and status. Note actions taken under Step 1 above.

Leaks, Seeps, and Other Nonflowing Releases of Flammable Products

1. Call for assistance from other personnel.

2. Terminate possible ignition sources such as motors, vehicles, etc.

3. Post qualified personnel at safe location to warn others and prevent ignition.

4. Take actions/confirm that containment is provided by checking the position of valves, placement of absorbent materials, etc.

5. Notify General Manager of location and status. Note actions taken under Steps 1 through 4 above.

Flowing Releases of Nonflammable Products

1. Call for assistance from other personnel. Terminate source.

2. Take actions/confirm that containment is provided by checking the position of valves, placement of absorbent materials, etc.

3. Notify General Manager of location and status. Note actions taken under Steps 1 and 2 above.

Flowing Releases of Flammable Products

1. Call for assistance from all personnel in immediate area; warn other personnel including those off site that they may be in immediate danger.

2. Terminate source and any ignition source such as motors, vehicles, etc.

3. Post qualified personnel at safe location to warn others and prevent ignition.

4. Notify General Manager of location and status. Note actions taken under Steps 1 through 3 above. If manager is not available, call the Fire Department immediately.

5. Take actions/confirm that containment is provided by checking the position of valves, placement of absorbent materials, etc.

ATTACHMENT 5

NOTIFICATION ACTION SUMMARY

NOTIFICATION ACTION SUMMARY

[Action to be taken after emergency conditions mitigated]

This Summary is provided to assure proper notifications. UNLESS NOTED OTHERWISE, NOTIFICATIONS ARE TO BE MADE **ONLY BY THE GENERAL MANAGER** AND ONLY AFTER THE EMERGENCY CONDITIONS RELATED TO THE RELEASE HAVE BEEN MITIGATED. THIS RESTRICTION IS NECESSARY TO PREVENT MISINFORMATION AND TO ENSURE THE NOTIFICATIONS ARE PROPERLY CONDUCTED.

Spills That *Have* Impacted or Have the Potential to Impact Surface Waters[1]
(includes spills where impact is imminent)

NOTE: STEPS 1 AND 2 SHALL BE IMPLEMENTED BY ANY PERSONNEL IF THE GENERAL MANAGER **IS NOT** IMMEDIATELY AVAILABLE.

1. Call the National Response Center at 1-800-424-8802. State as follows:
   a. "Operation oil spill - this is an alert."
   b. Give your name and the company name.
   c. Give location of spill.
   d. Describe nature of spill, type of product, and estimated size of spill.
   e. Describe type of action taken thus far and type of assistance or equipment needed.

2. Contact official of the Florida Department of Environmental Protection (904)448-4320.

3. Notify downstream facilities known to have water intakes.

4. For releases of over 1,000 gallons or more than two spill events reportable under Section 311(b)(5) of the FWPCA in a 12-month period, submit SPCC Plan to Regional U.S. EPA office.

Large Spills Confined to Perma-Fix of Florida Property

1. Contact PFF operational personnel. Be prepared to provide description of spill; what, if any, repairs are required, cleanup actions needed, or corrective action to prevent recurrence; and which actions will be needed prior to start-up of operations, if any.

2. Contact official of the Florida Department of Environmental Protection (904)448-4320.

3. For releases of over 1,000 gallons or more than two releases within a 12-month period that cause a sheen on surface waters or shoreline, or sludge or emulsion in waters, submit the SPCC Plan to the Regional U.S. EPA office. Provide a description of the spill and detail corrective action taken to prevent a recurrence.

Small Spills Confined to Perma-Fix of Florida Property

1. Contact PFF operational personnel. Be prepared to provide description of spill; what, if any, repairs are required, cleanup actions needed or corrective action to prevent recurrence; and which actions will be needed prior to start-up of operations, if any.

2. Contact official of the Florida Department of Environmental Protection (904)448-4320.

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[1] Surface waters do not include on-site ponded waters.

ATTACHMENT 6

EMERGENCY CONTACTS

CP-3
EMERGENCY COORDINATOR

Primary Emergency Coordinator

Name:	Raymond Whittle
Position/Title:	Facility Manager
Address:	Route 2, Box 1763, Starke, Florida 32091
Work Telephone Number:	(352) 395-1353/373-6066
Home Telephone Number:	(904) 964-7475
Beeper Number:	(352) 334-5473

Secondary Emergency Coordinators

Name:	Dwayne Singleton
Position/Title:	Site Coordinator
Address:	4138 NW 48th Place, Gainesville, Florida 32606
Work Telephone Number:	(352) 395-1362/373-6066
Home Telephone Number:	(352) 376-9624
Beeper Number	(352) 334-5475

Name:	Jennifer Hazard
Position/Title:	Compliance Coordinator
Address:	5207 NW 33rd Place, Gainesville, Florida 32606
Work Telephone Number:	(352) 395-1356/373-6066
Home Telephone Number:	(352) 336-9438
Beeper Number	(352) 334-5476

Name:	Andy Owens
Position/Title:	Site Coordinator
Address:	813 Maltas Avenue, Interlachen, Florida 32148
Work Telephone Number:	(352) 395-1357/373-6066
Home Telephone Number:	(904) 684-2520
Beeper Number	(352) 334-5474

ATTACHMENT 7

EMERGENCY CLEANUP EQUIPMENT

CP-5
EMERGENCY EQUIPMENT

Item	Description/Capability	Location(s)
Telephone	Telephone communication for emergency notification	Process area, lab and others
Fire Extinguisher	Dry chemical, CO_2, Halon	Process area, lab, bulk tank, storage area
Fire Hydrants	County Fire Department	Within Industrial Park
Absorbent Material	Vermiculite and chemsorb in spill kits	Process, storage and bulk area
Respirators	Full face, half face, SCBA	Process area, lab
Eye Wash	Permanent installation and eye wash bottles	Process area, lab
First Aid Kits	Scrapes, cuts, etc.	Change out area
Fork Lift	8,000 pound capacity, fossil fuel	Storage area
Automatic Fire Suppression	CO_2	Crusher
Protective		
Aprons	Cloth, Tyvek and rubberized	Lab
Gloves	Rubber	Lab
Safety Glasses		Lab

ATTACHMENT 8

DISCHARGE RELEASE FORM

DISCHARGE RELEASE FORM

Facility Location: _____

Manager's Name: _____

Date: _____

Time release was initiated: _____

Time release was terminated: _____

Approximate volume of water discharged: _____ Gallons

Description	Yes	No	Comments
1. Was it necessary to release the water from the containment area?			
2. Was there a sheen on the water within the containment area?			
3. Was there discoloration of the water or other evidence that might suggest contamination?			
4. Was the water tested by a laboratory?			If yes, attach the analytical results?
5. Was the containment area properly secured after release was terminated?			

Additional Notes:

_____

_____

_____

_____

APPENDIX-J

PERMA-FIX ENVIRONMENTAL SERVICES

PERMA-FIX OF FLORIDA, INC.
1940 N.W. 67th Place
Gainesville, FL 32653-1692

CONTINGENCY PLAN

AND

EMERGENCY PROCEDURES

FOR

PERMA-FIX OF FLORIDA, INC.

EPA Identification Number: FLD 980 711 071

October 9, 1995

PERMA-FIX OF FLORIDA, INC.
1940 N.W. 67th Place
Gainesville, FL 32653-1692

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I. INTRODUCTION

I.A. Background

This Contingency Plan and Emergency Procedures (CP) describes an organized course of action to be taken in response to possible hazardous waste emergencies at the Perma-Fix of Florida, Inc. (PFF) facility located in Gainesville, Florida. In addition, the CP lists emergency equipment to be maintained on-site and designates an Emergency Coordinator (EC).

This CP is designed to fulfill the requirements of the Resources Conservation and Recovery Act, 40 CFR Part 264 Subpart D.

The areas for which this Contingency Plan is written include the container storage area, processing area and the storage tank area.

I.B. Process Description

I.B.1. Liquid Scintillation Fluids (LSF) are received from academic research institutions directly or via waste brokers. These fluids contain ignitable materials in mixture with different concentrations of toluene and/or xylene. These fluids are contained in vials overpacked in DOT certified drums.

The vials are visually inspected and, placed into a shredder which separates the glass/plastic vials from the fluids. The fluids are pumped to a test tank for testing prior to further pumping to a bulk tank. Then the waste is pumped to a tanker for transport to a burner.

I.B.2. The LSF is also received in bulk form. Some generators choose to pour the contents from the vials into a bulk container. This container is overpacked into a DOT certified container. The inner container is surrounded with absorbent material to absorb any leaks from the inner container. The fluids are pumped from the container to the test tanks. The containers are rinsed and cleaned, sent to a drum recycler or disposal facility if of no further value.

I.B.3. Other characteristic ignitable solvents and wastes used in research laboratories are received and processed in the identical manner as identified in I.B.2 above.

I.B.4. Associated ignitable wastes (i.e., sludge, solids) are bulked and transported to permitted disposal facilities.

I.B.5. Other compatible industrial wastes are managed on-site in containers or placed in tank storage.

I.C. Scope and Objectives

The scope of this CP includes preparedness and planning for all emergencies that may occur from the point of receipt of hazardous waste through its processing and storage to the point of shipment off-site. It includes procedures for emergencies relating to waste unloading, on-site transport and final loading. Further, it addresses emergencies relating to spills associated with leaking drums or storage tank leaks or spills.

The objective of this CP is to describe the actions PFF personnel will take in response to fire, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water at PFF.

The provisions of the CP will be carried out immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

I.D. Contingency Plan Distribution

A copy of this CP will be maintained at PFF and copies will be provided to local fire, police, county EC and state offices.

I.E. Amendments to the Contingency Plan

This CP must be periodically reviewed and if necessary, immediately amended whenever:

I.E.1. Applicable regulations are revised.

I.E.2. The CP fails in an emergency.

I.E.3. Changes in PFF design, construction, operation, maintenance or circumstances that materially increase the potential for fires, explosions or release of hazardous waste or hazardous waste constituents.

I.E.4. The list of Emergency Coordinator(s) change.

I.E.5. Major modifications to the emergency equipment list (CP-5, page 13).

Each time this CP is amended, the EC should note the change on a log sheet, such as the one presented as CP-1, Revision Statement, on page 9.

II. PLANT WASTES and HAZARDS

The potential for emergency exists at PFF due to processing and storage of certain ignitable hazardous wastes. PFF processes and stores hazardous waste containing mixtures of several hazardous substances. Incompatible wastes are not stored or processed in RCRA permitted tank or container units unless precautions are taken in accordance with 40 CFR 264.17(b). The hazards associated with handling of the above mentioned wastes are as follows:

FIRE HAZARD

The chemicals having fire potential are the chemical contaminants being cleaned: ignitable or flammable.

As a FIRE HAZARD, the chemical contaminants are MODERATE when exposed to heat or flame and can react with oxidizing materials.

As an EXPLOSION HAZARD, the materials are considered MODERATE in the form of VAPOR when exposed to heat or flame.

ACTIONS

Standard fire evacuation and personal safety will be implemented, then the fire department will be notified. They will be told the chemical consistency of the flammable liquids.

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

II.A. Emergency Response

CP-2 on page 10 lists possible emergency scenarios which could arise at PFF. These events are characterized as "sudden" or "non-sudden" releases. Responses shown are only general duties and should not be a substitute for clear logical decision making during a hazardous waste emergency.

II.B. Arrangements With Outside Services and Local Authorities

In consideration of the type of material handled, type of facility and considerations of the nature of the facility activity, arrangements have been made with local authorities. This includes the opportunity for inspection by local authorities to familiarize them with PFF layout, the plant critical areas and access routes. The opportunity for site inspection will be repeated whenever there are any changes to PFF operations, or annually. Outside services and agencies receiving the CP include, but are not limited to: police department, fire department, major hospital, state and (if applicable) and local emergency response teams.

II.C. Emergency Coordinator (EC)

This CP identifies a primary Emergency Coordinator and Secondary Emergency Coordinator(s) as indicated in CP-3 on page 11. The individuals identified are thoroughly familiar with all aspects of PFF operations and are capable of making appropriate decisions under emergency circumstances. The ECs are authorized and have the ability to commit the resources needed to carry out the CP.

Other individuals capable of acting as EC may be selected in the future. Such additions will be covered by amendments to this CP. The duties and responsibilities of EC are outlined in Section II.C.1.

II.C.1. Emergency Coordinator (EC) Authority

The EC has the authority to commit the needed resources to carry out the CP and Emergency Procedures. The EC has the authority to shut down and restart processing areas and evacuate plant personnel. The EC must follow these guidelines:

- Activate internal facility alarms and communication systems, where applicable, to notify all plant services personnel.

- Notify the appropriate state and local agencies with designated response roles if their help is required.

- Whenever there is a release, fire or explosion the EC must immediately identify the character, exact source, amount and a real extent of any released material(s). The EC may do this by observation or review of PFF records or manifests, and if necessary, by chemical analysis.

- Concurrently, the EC must assess possible hazards to human health or the environment that may result from the release, fire or explosion. This assessment must consider both direct and indirect effects of the release, fire or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water runoff from water or chemical agents used to control fire and heat-induced explosions).

- If the EC determines that PFF has had a release, fire or explosion which could threaten human health or the environment, outside the facility, he must immediately alert the General Manager.

- During an emergency, the EC must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur or spread to other hazardous waste at PFF. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

- If PFF stops operations in response to a fire, explosion or release, the EC must monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes, or other equipment, wherever appropriate.

- Immediately after an emergency, the EC must provide for treating, storing or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire or explosion at PFF. If the recovered solid waste cannot be processed on-site, disposal in an off-site approved hazardous/non-hazardous waste management facility (as applicable).

The EC must ensure that in the affected area(s) of PFF, all waste that may be incompatible with the released material is treated, stored or disposed of until clean-up procedures are completed. All emergency equipment listed in the CP (CP-5, page 13) will be cleaned and inspected for integrity for its intended use before operations are resumed.

II.C.2. Record

Records relating to hazardous waste and hazardous waste emergencies should be maintained at the PFF office and should be readily accessible to the EC.

II.D. Notification of Emergency

If an EC determines that PFF has had a release, fire or explosion which could threaten human health or the environment, outside the facility, the employee must report their findings as follows:

II.D.1. If the EC assessment indicates that evacuation of local areas may be advisable, the EC must immediately notify appropriate local authorities. The EC must be available to help appropriate officials decide whether local areas should be evacuated; and,

II.D.2. The EC must immediately notify the Florida Department of Environmental Protection (FDEP) Response Center. The report must include:

II.D.2.a. Name and telephone number of reporter;

II.D.2.b. Name and address of facility;

II.D.2.c. Time and type of incident (e.g., release, fire);

II.D.2.d. Name and quantity of material(s) involved, and the extent known;

II.D.2.e. The extent of injuries, if any; and

II.D.2.f. The possible hazards to human health, or the environment, outside PFF.

The owner or operator must note in the operating record the time, date and details of any incident that require implementing the CP. Within 15 days after the incident, he must submit a written report on the incident to the FDEP (See CP-4 on page 12). The report must include:

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

II.E. Emergency Equipment

This CP must contain an Emergency Equipment List. This list must be kept current and must include the location, physical description and capability of each item on the list.

Emergency equipment for PFF is specified in CP-5 and CP-6, pages 13 and 14. This "emergency" equipment includes equipment which will be used for emergency clean-ups when appropriate.

II.F. Evacuation Contingency Plan

Potential emergencies requiring evacuation from PFF process and container storage area are primarily fire hazard and a remote possibility of the release of a toxic, irritating or asphyxiating gas. In either case the process area and PFF employees will execute the following procedures. All employees are made aware of these procedures and periodic evacuation drills are conducted to familiarize all staff members of the evacuation route.

II.F.1. Signals: An internal alarm system is sounded and the telephone emergency system is activated.

II.F.2. All personnel and employees are to evacuate the facility through the front door or closest exit excluding those near the LSF process area, if directed by the EC.

II.F.3. Upon complete evacuation of the plant, all employees will immediately assemble in the parking lot adjacent to the east side entrance or alternate location as directed by the EC. In the event that toxic or irritating gases are generated, the EC shall direct further evacuation from the area. Any person remaining in the area will be required to don respiratory protective equipment.

II.F.4. The first person arriving at the assembly point will take attendance and report this information to the responding Fire and Police departments. The authorities will receive copies of this CP and will be aware of this assembly point location (see CP-7, page 15 Emergency Evacuation Route Map).

II.F.5. All employees will remain at the assembly point until told otherwise by the authorities or the PFF EC.

II.F.6. The EC will advise the appropriate responding agencies, if there is any need for surrounding area evacuation.

II.F.7. A site plan which clearly shows the facility's hazards is located as CP-8, page 16.

CP-2
EMERGENCY RESPONSE REACTION

Area	Event	Description	Emergency Class	Response
Drum Unloading	Drum Rupture	Liquid spill on the paved area	Creates fire hazard and potential for spill runoff	Contain spill, collect materials, remove residues by absorbent material
Drum Storage	Leaking Drum	Routine inspection provides clues as to damage drum	Fire hazard spill	Isolate drum, remove liquid to new drum, or place in overpack, remove spill
Drum Processing	Spill	Material and liquid spill on the concrete floor	Fire hazard	Stop processing remove spill
Storage Tank	Tank Rupture	Storage tank leak or rupture	Fire and explosion hazard	Isolate area, remove nearby containers, remove spilled liquid from containment and drum, stop pumping
Storage Tank Unloading	Spill	Liquid spill due to unsecured connections or leaks	Fire hazard	Remove spilled material and drum

CP-3
EMERGENCY COORDINATOR

Primary Emergency Coordinator

Name:	Raymond Whittle
Position/Title:	Facility Manager
Address:	Route 2, Box 1763, Starke, Florida 32091
Work Telephone Number:	(352) 395-1353/373-6066
Home Telephone Number:	(904) 964-7475
Beeper Number:	(352) 334-5473

Secondary Emergency Coordinators

Name:	Dwayne Singleton
Position/Title:	Site Coordinator
Address:	4138 NW 48th Place, Gainesville, Florida 32606
Work Telephone Number:	(352) 395-1362/373-6066
Home Telephone Number:	(352) 376-9624
Beeper Number	(352) 334-5475

Name:	Jennifer Hazard
Position/Title:	Compliance Coordinator
Address:	3718 NW 110th Terrace, Gainesville, Florida 32606
Work Telephone Number:	(352) 395-1356/373-6066
Home Telephone Number:	(352) 336-9438
Beeper Number	(352) 334-5476

Name:	Andy Owens
Position/Title:	Maintenance Coordinator
Address:	246 13th Street, Interlachen, Florida 32148
Work Telephone Number:	(352) 395-1357/373-6066
Home Telephone Number:	(904) 684-2520
Beeper Number	(352) 334-5474

CP-4
EMERGENCY NOTIFICATION INFORMATION

In the event of an emergency which could threaten human health or the environment outside of PFF, the General Manager must immediately notify:

Department of Environmental Protection
Northeast District
Jacksonville, Florida
Telephone: **(904) 448-4320**

National Response Center
Telephone: **800-424-8802** (24 hours)
or
State Warning Point Number
(904) 413-9911

if impractical to report to the above number, call:

U.S. Environmental Protection Agency
Telephone: **(404) 347-7603** (24 hours)

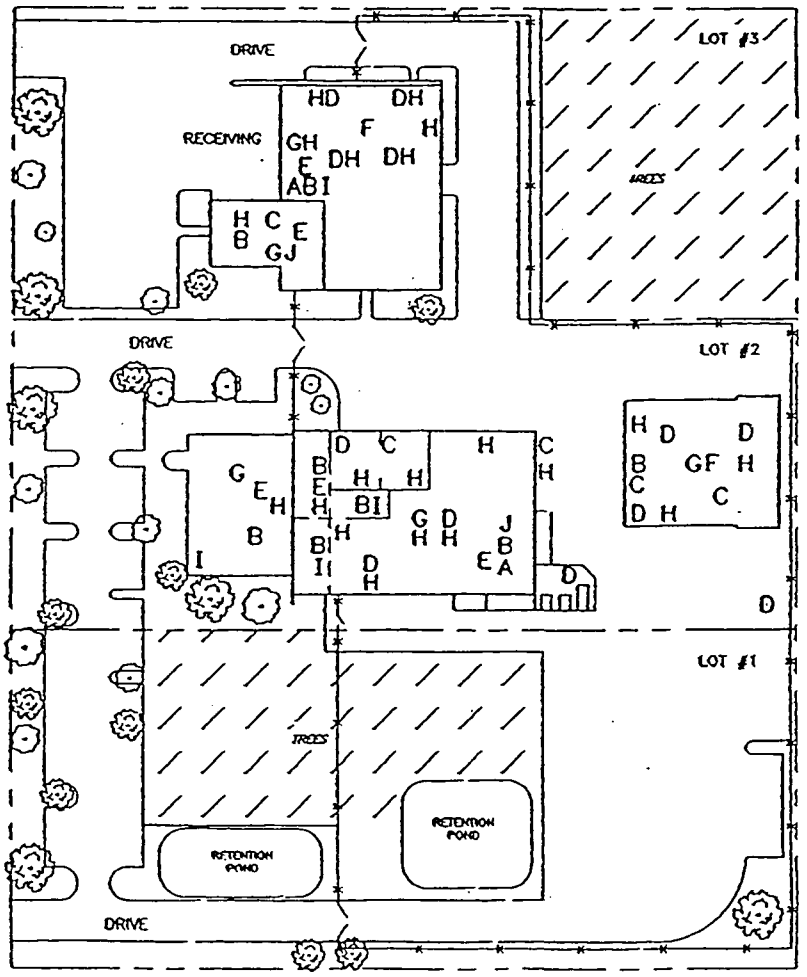
Within 15 days after the incident, send written report to:

Ernest E. Frey
District Manager Northeast District
State of Florida
Department of Environmental Protection
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256

CP-5
EMERGENCY EQUIPMENT

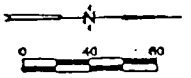
Item	Description/Capability	Location(s)
Telephone	Telephone communication for emergency notification	Process area, lab and others
Fire Extinguisher	Dry chemical, CO_2, Halon	Process area, lab, bulk tank, storage area
Fire Hydrants	County Fire Department	Within Industrial Park
Absorbent Material	Vermiculite and absorbent in spill kits	Process, storage and bulk area
Respirators	Full face, half face, SCBA	Process area, lab
Eye Wash	Permanent installation and eye wash bottles	Process area, lab
First Aid Kits	Scrapes, cuts, etc.	Change out area
Fork Lift	8,000 pound capacity, fossil fuel	Storage area
Automatic Fire Suppression	CO_2	Crusher
Protective		
Aprons	Cloth, Tyvek and rubberized	Lab
Gloves	Rubber	Lab
Safety Glasses		Lab

CP-6
EMERGENCY EQUIPMENT LOCATOR LIST



Legend

A Protective Equipment
B Phone
C Eyewash
D Spill Kit
E First Aid
F Drum Storage
G Alarm
H Fire Extinguisher
I Contingency Plans
J Shower

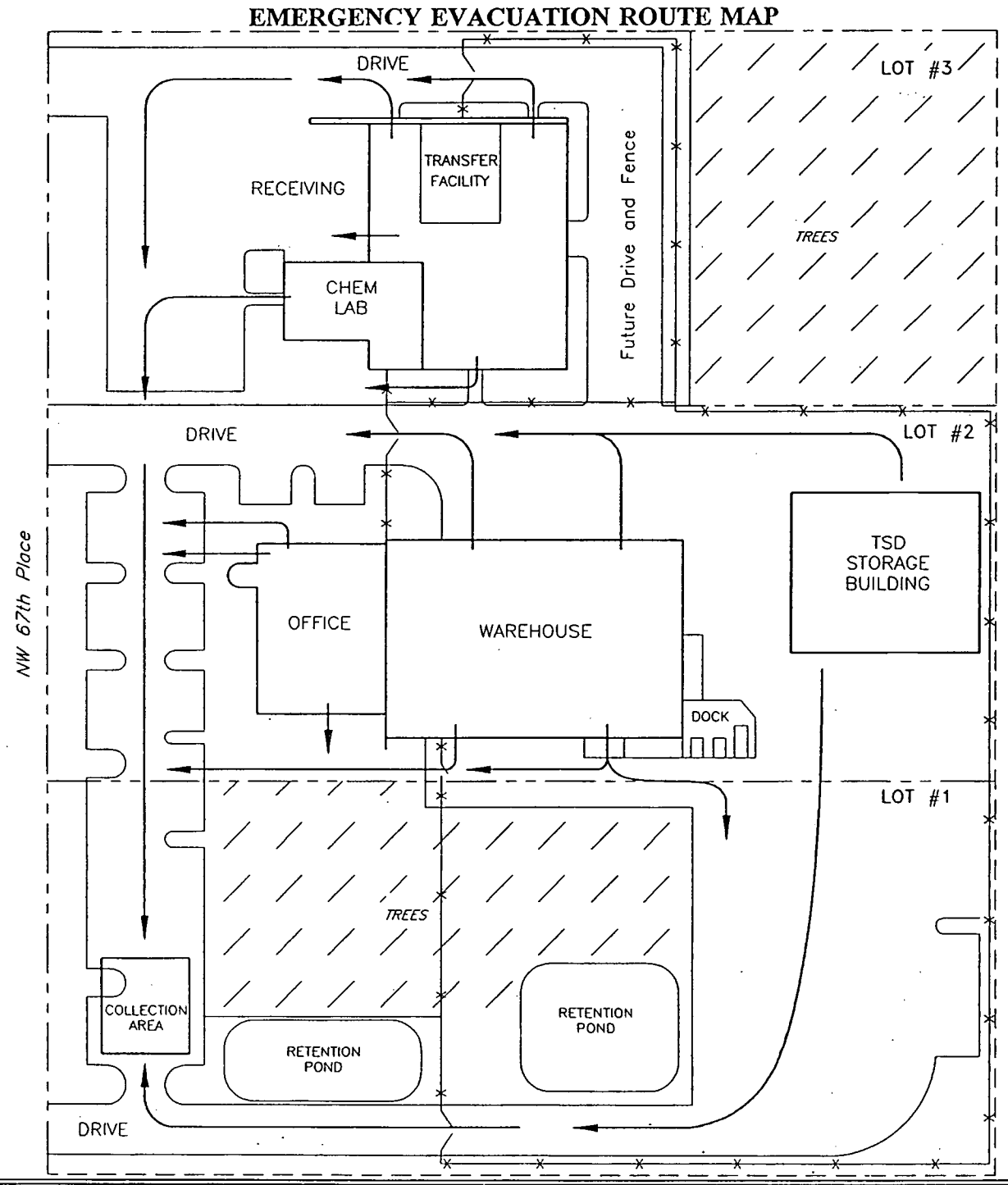


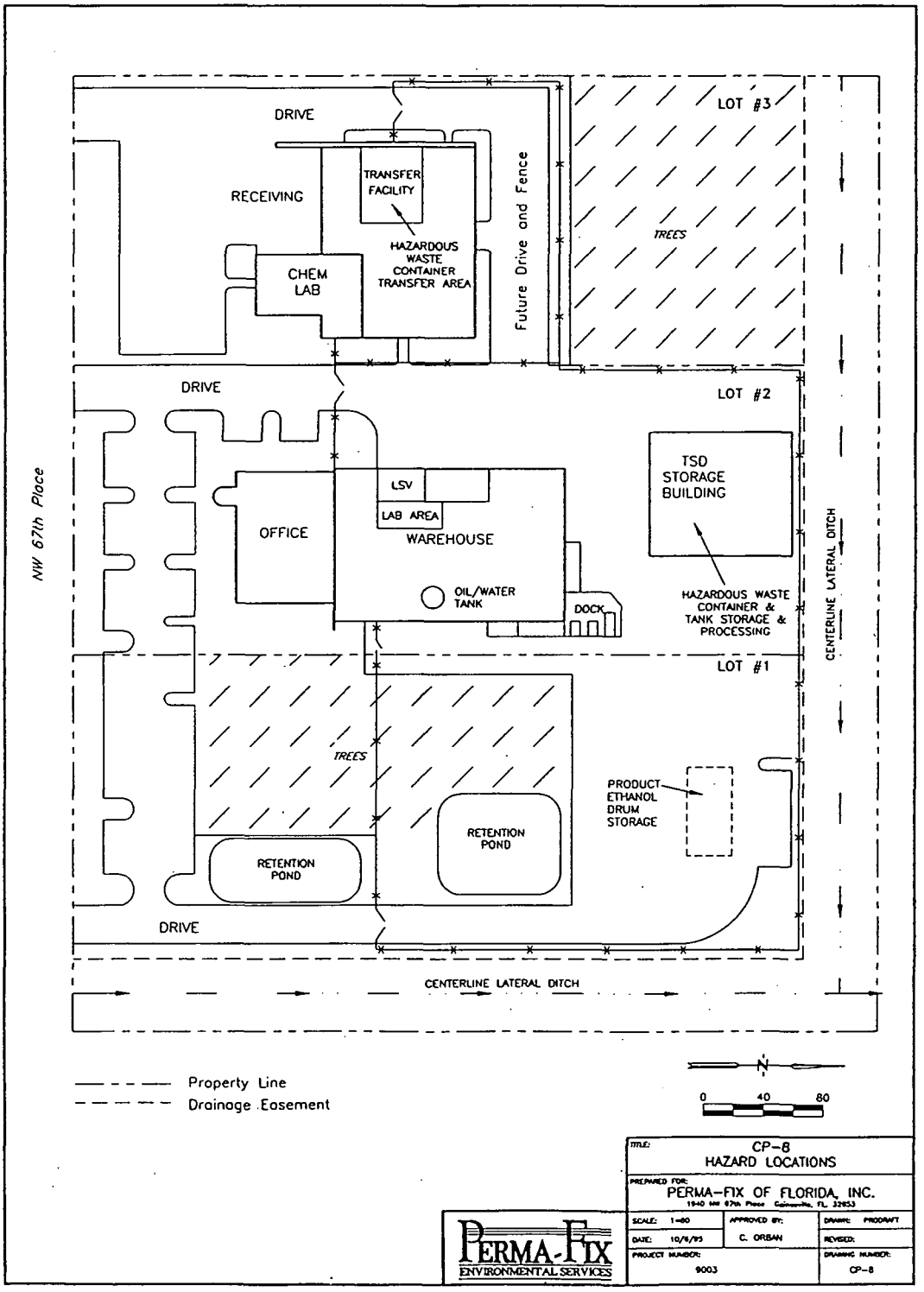
CP-6
EMERGENCY EQUIPMENT
LOCATOR MAP
PERMA-FIX OF FLORIDA, INC.

PERMA-FIX
ENVIRONMENTAL SERVICES

PERMA-FIX OF FLORIDA, INC.
1940 N.W. 67th Place
Gainesville, FL 32653-1692

CP-7
EMERGENCY EVACUATION ROUTE MAP




DRIVE
RECEIVING
TRANSFER FACILITY
HAZARDOUS WASTE CONTAINER TRANSFER AREA
CHEM LAB
Future Drive and Fence
LOT #3
TREES
DRIVE
LOT #2
NW 67th Place
LSV
LAB AREA
OFFICE
WAREHOUSE
OIL/WATER TANK
DOCK
TSD STORAGE BUILDING
HAZARDOUS WASTE CONTAINER & TANK STORAGE & PROCESSING
CENTERLINE LATERAL DITCH
LOT #1
TREES
PRODUCT ETHANOL DRUM STORAGE
RETENTION POND
RETENTION POND
DRIVE
CENTERLINE LATERAL DITCH
Property Line
Drainage Easement
N
0
40
80
TITLE:
CP-8
HAZARD LOCATIONS
PREPARED FOR:
PERMA-FIX OF FLORIDA, INC.
1940 NW 67th Place Gainesville, FL 32653
SCALE: 1=80
APPROVED BY:
C. ORBAN
DRAWN: PRODRAFT
DATE: 10/6/93
REVISED:
PROJECT NUMBER:
9003
DRAWING NUMBER:
CP-8
PERMA-FIX
ENVIRONMENTAL SERVICES

CONTAINERS - Containment System

The container and tank storage area is constructed of concrete as approved by the FDEP prior to construction. This material is compatible with the wastes to be stored at Perma-Fix of Florida (PFF). This is in accordance with EPA-OSWER policy directive # 9483.00-1, pp. 190 - 202 and 13-20 to 13-31.

Containers stored in the container area are very unlikely to leak large amounts of fluid. Therefore, most spills will be cleaned-up with absorbent material and placed in another container for disposal. In the event of catastrophic failure resulting in a pumpable amount present in the containment system, a small portable Sandpiper or hand pump will be utilized to pump the fluid into new containers or DOT tote containers. Liquids spilled in the container storage area will all be labeled with their contents on the container itself. "Used Oil" containers are properly marked and identified. If necessary, a sample will be analyzed in the PFF or off-site laboratory in accordance with the Waste Analysis Plan. Removal of spilled liquids will commence as soon as the spill is discovered. Absorbent material from spill kits maintained on-site will be used to control and collect the spilled liquid. The storage area is covered, which precludes the accumulation of precipitation.

PFF processes and stores ignitable wastes in containers. The container storage areas are located at least 50 feet from PFF property line.

Description of Containers - Condition of Containers

If a container is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the waste will be transferred to a container that is in good condition or the container will be provided with an "overpack". PFF will receive and ship waste only in DOT specification containers. These containers include; but are not limited to

- 55 gallon steel drums
- 55 and 30 gallon poly drums
- 30 gallon steel drums
- 5 gallon steel drums
- DOT overpacked drums containers
- DOT specification roll-off containers
- DOT specification fiberboard containers
- DOT specification tote tanks
- DOT specification tanker/trailers
- Other DOT approved (performance oriented) containers

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Management of Containers

Waste containers, from the time they are received at PFF, are kept closed during storage, except when samples are being taken. The wastes stored in drums are stacked no more than two drums high or for smaller containers, in stacks no more than 6 feet high.

The waste containers are adequately separated to allow inspection and with aisle space sufficient for forklift operation.

Inspection Schedule

A detailed inspection log is maintained for the container management area. Inspections are performed on a weekly basis and in most instances each operating day. Additional detailed inspection procedures are located in PFF Operating Quality Procedure 003G (Facility Inspection Plan, Appendix O).

Container Closure Plan

Most wastes stored at PFF are processed for final disposal at an off-site facility. In the event a decision is made to close PFF the closure plan described in Appendix L will be implemented.

TANKS - Description of Tank

Perma-Fix of Florida, Inc. (PFF), operates one 7,000 gallon tank. The tank is a vertical above ground storage tank and suitable for storage of used oil. The tank material, construction and operating pressure are such that it will not collapse or rupture under normally expected operating conditions. The tank foundation is capable of supporting the tank and its 7,000 gallons of liquid.

Tank Corrosion and Erosion

The 7,000 gallon tank is designed for the designated used oil and no significant corrosion is expected. The tank is well supported and in a concrete containment area within a building to minimize potential weathering.

Secondary Containment

This tank is housed in a covered concrete above-ground containment structure capable of holding 130% the entire contents of the 7,000 gallon bulk tank in the event of rupture.

Inspection Schedule

The storage tank, containment berm, pumps and associated pipings are included in the routine inspection schedule. Additional detailed inspection procedures are located in PFF Operating Quality Procedure 003G (Facility Inspection Plan, Appendix P).

Tank Closure Plan

Most wastes stored at PFF are processed for final disposal at an off-site facility. In the event a decision is made to close PFF the closure plan described in Appendix L will be implemented.

Response to Leaks or Spills

Should there be a leak or spill from the storage tank and/or its secondary containment, the following will be performed:

PFF will immediately stop flow to the tank.

All released material will be removed.

PFF will prevent further migration of the leak or spill.

PFF will perform the repairs, or provide secondary containment, as required, prior to returning the tank system to service.

If repairs are extensive, PFF will obtain a certification from an independent, qualified, registered professional engineer prior to returning the tank system to service. Within seven (7) days of the tank system returning to service, a copy of such certification will be sent to the FDEP.

Perma-Fix of Florida (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 used oil 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 40 CFR 279.54(h), 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 K1. PFF will close 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.

Container Closure Plan

Used Oil stored at PFF is processed for recycling at an off-site facility. In the event a decision is made to close PFF the following steps will be taken:

PFF will stop receiving used oil.

PFF will process all existing used oil stored in containers on-site.

The processed used oil will be shipped off-site.

All empty containers will be disposed of through an authorized drum recycler/disposal facility. Process equipment will be triple rinsed and the rinse water tested for Appendix VIII constituents. The rinse water will be treated on-site or shipped to an off-site processor.

Containment structures will be cleaned 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 containment structure (asphalt and concrete) will be examined for evidence of cracks, gaps or release of used oil. The structure may be retained for service other than for used oil management if the integrity of the structure is deemed acceptable. If staining is observed, PFF will collect 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.

If the examination identifies areas of suspect integrity, soil evaluation will be conducted. 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 titled Soil Evaluation Procedures below.

Clean Closure Standard

The clean closure criteria will be based on constituents of concern in soils not exceeding 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. Background samples 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[1] or equivalent method. Should ground water monitoring be deemed essential due to evidence of soil contamination, ground water cleanup criteria will be established based on MCLs or background concentrations.

Closure Notification and Schedule of Closure

PFF will notify the Regional Administrator in writing at least 45 days prior to the date on which final facility closure is expected to begin.

Certification of Closure will be submitted to EPA Regional Administrator when closure is completed. This Certification will be completed by both PFF and an independent registered professional engineer certifying that PFF has been closed in accordance with the specifications in the approved Closure Plan.

The closure schedule is presented in Section K1

PFF will complete final facility closure operations within 180 days of receiving the final volume of used oil unless an extension of the closure period has been approved by the Regional Administrator

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[1] 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).

Closure of both the container and the tank units will be conducted such that no post-closure care should be necessary.

In the event that complete decontamination cannot be achieved for either unit, a closure/post closure plan will be submitted to the FDEP. If excavation of contaminated soil and/or groundwater monitoring is necessary, PFF will revise this closure plan accordingly.

The maximum amount of used oil on-site will be the container and tank equivalent volume of 25,000 gallon. During the closure of container storage units the containers of waste will be loaded on trucks and sent to an approved facility to be reused as fuel or to an alternate TSD facility as appropriate.

The used oil area will be pressure cleaned and the rinsate collected for disposal. The tank will be cleaned using high pressure spray and sampled.

Tank Closure Plan

Prior to complete facility closure or partial tank closure the following steps will be taken:

PFF will cease pumping of additional used oil into the tank.

PFF will ship tank contents with appropriate for appropriate management.

PFF will clean the pump piping and tank by washing with high pressure water and surfactant (if necessary). Continue cleaning until the rinse water shows Appendix VIII constituent below clean closure standards.

PFF will drain tank and ship rinse liquids to appropriate TSD or industrial waste facility.

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 Appendix VIII constituents levels are below clean closure standards and no visible residues remain on the containment structure, the structure will be deemed to be decontaminated.

If staining is observed, PFF will collect 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 used oil management if the integrity of the structure is deemed acceptable. If the examination identifies areas of suspect integrity, soil evaluation will be conducted. 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 Soil Evaluation Procedures.

Closure Notification and Schedule of Closure

PFF will notify the EPA Regional Administrator in writing at least 45 days prior to the date on which final facility closure is expected to begin. A closure schedule is provided in Section K1.

The closure schedules can be found in Section K1.

In accordance the requirements of 40 CFR 279.54(h), PFF will submit to the department, by registered mail, a certification that the used oil 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.

Ancillary structures such as the loading/unloading areas, transfer facility, etc. will be closed using the same procedures utilized for the storage tank and drum storage area. The ancillary structures will be triple rinsed utilizing pressure cleaning. The rinsate will be collected for disposal. To demonstrate clean closure, the final rinsate from each structure will be analyzed for Appendix VIII constituents storage or processed in the respective areas.

Post Closure Plan

A Post Closure Plan is not required at this time. However, if "clean closure" in accordance with 40 CFR 279.54(h) cannot be achieved for closure of the tank system, then PFF will submit a closure/post closure plan in accordance with the requirements.

Soil Evaluation Procedures

Background Sample

Background samples 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 methods[1] or equivalent method. 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.

Soil Sampling

All visible contaminated soil will be removed (if any), evaluated for Appendix VIII constituents, and managed in accordance with state and federal regulations. After removal of visually contaminated soil (if any), soil samples will be taken at a depth of 0.5 to 1.0 feet using a USEPA sampling method[1] or equivalent method. In addition to sample locations selected in areas with visible contamination (where applicable), soil samples will be collected on a 25 foot grid around areas of visible contamination 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.

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.

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1 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).

Section K1. Closure Schedule	
Closure Activity	**Days Elapsed**
Submittal of Closure Permit Application in accordance with 40 CFR 279.54(h) to the Department.	- 180
Notification in writing to the Department of intent to begin closure activities.	-45
Receipt of known final volume of used oil into container or tank management unit or receipt of Department approval of closure plan, whichever is later[1].	0
Begin treatment and/or removal all used oil from container or tank management unit(s)[2].	30
Complete treatment and/or removal of all used oil from container or tank management unit(s).	90
Complete removal and (if necessary) cleaning of ancillary equipment, tanks, and empty containers.	120
Complete cleaning 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
Submit certification to the Department (by PFF and independent registered professional engineer) that the used oil management unit/facility has been closed in accordance with the specifications of the approved closure plan[3].	240

1 If an unexpected event during closure of a used oil management unit requires modification of the approved closure plan, PFF will request a permit modification within 30 days of the unexpected event.

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

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

Appendix-M

PERMA-FIX
ENVIRONMENTAL SERVICES

PERMA-FIX OF FLORIDA, INC.
1940 NW 67th Place
Gainesville, Florida 32653

OPERATING QUALITY PROCEDURE

004G

TRAINING

PREPARED BY: JACK FLAACKE DATE: MAY 15, 1995

APPROVED BY: JACK FLAACKE DATE: MAY 15, 1995

1.0 PURPOSE

The purpose of this procedure is to define the employee training program. It is designed to comply with appropriate sections of RCRA, OSHA, radiation protection regulations and management objectives for personnel development and environmental protection.

2.0 SCOPE

This procedure provides the requirements of an overall training program applicable to all employees working at Perma- Fix of Florida, Inc. (PFF)

3.0 DEFINITIONS

RSO - Radiation Safety Officer
OJT - On-the-job-Training
POT - Performance-Oriented Training

4.0 RESPONSIBILITIES

The responsibility for implementing and maintaining the overall training program lies with PFF General Manager. Certain implementation aspects may be delegated to specific staff members, as deemed appropriate. Training is a dynamic activity with new training methods and tools (i.e., videos) continually being updated/revised due to rule changes or improved methods. The General Manager has the flexibility to incorporate these materials at any time with the objective of improving the overall program.

Oversight responsibility for assuring that the training complies with established company objectives is performed by the Perma-Fix Environmental Services Corporate Compliance Group. Training that pertains to Radiation Safety must be reviewed by the Radiation Safety Officer (RSO).

5.0 PROCEDURE

5.1 New Employee Training

5.1.1 Administrative/Office Employees

New employees whose work duties are routinely of an administrative or office nature will receive orientation and formal Right-to-Know training as defined by Group A of the Employee Training Record (Attachment 4.1.1-A).

5.1.2 Production Employees

Before performing any work within the process areas, a new "Production Employee" will receive orientation and Right-to-Know training as defined in Group A of the Employee Training Record.

- New Production Employees must complete the classroom training of Groups A through K, as prescribed within six (6) months of employment.

  Until the completion of this formal training, the new employee shall work only under the supervision of a trained employee.

- The scope of training consists of:

  - Orientation training providing an introduction to the company's hazardous waste program, response to emergencies and familiarization with emergency equipment and systems. In addition, PFF policies, practices and procedures are covered;

  - Formal classroom training which provides an in-depth understanding of all facets of the hazardous and radioactive materials waste program; and

  - On-the-job training (OJT) which provides hands on experiences to assure Performance Oriented Training (POT). OJT is the performance of daily tasks under the supervision of a trained employee who can evaluate the new employee's progression.

- Certain aspects of this training may require objective documentation. The satisfactory completion of these tasks will be recorded on the employee's training record.

- All phases of New Employment Training, as noted above, must be satisfactorily completed prior to advancement in job classification for new hire Tech I status to Tech II status.

5.2 Refresher Training for Established Employees

All production employees are required to satisfactorily complete refresher training annually. This training will require a minimum of eight (8) hours and provides training in the following areas:

- New policies and procedures;
- Changes in rules and regulations;
- Contingency Plan implementation; and
- An overall review of the Hazardous Waste Program.

This annual training is scheduled during the months of March and April. Every employee who has completed "New Employee Training" is required to participate in the annual refresher program. A modified refresher is provided to office personnel.

5.3 Advancement Training/Testing

Advancement training/testing is that minimum training and testing required for a promotion to the next job classification, i.e., a job within the Tech III classification.

Employees failing to complete the required training are ineligible to apply for position in the higher classification.

5.4 Records and Testing Requirements

Employees attending an in-house training session are required to sign the "Attendance Log." In addition, the employee's individual training record, which is maintained on computer format, is updated to reflect completion of all training sessions.

Some training sessions may require testing. To satisfactorily complete all testing, a minimum of 70% is required on tests.

Records of tests for former employees shall be maintained for at least three (3) years after the employee leaves PFF, or as designated by the regulatory agency. Records on current employees must be kept until closure.

5.5 Instructor Qualification

The program is directed by the General Manager. The General Manager must be trained in hazardous waste management procedures and radiation safety principles and maintain himself current with rules and regulations. He will provide a program of instruction which teaches facility personnel hazardous waste management procedures relevant to the positions to which they are employed. Instructors shall be management and/or senior technician personnel who have significant training and experience in the area of instruction.

5.6 Retraining

5.6.1 Employees may be required to perform retraining activities under the discretion of their supervisor. Examples of this situation include:

- return from extended leave of absence;
- unsatisfactory performance; or
- involved in incident or mishap where review is appropriate to prevent repeat occurrence.

5.6.2 An employee working in one job classification who is assigned new or different work tasks, will be required to obtain additional training in the particular work area.

6.0 PROFESSIONAL DEVELOPMENT

As part of their professional development, employees are encouraged to attend outside courses. Depending on the scope of the program, tuition reimbursement may be authorized by the General Manager. Additionally, PFF may elect to send individuals to specific training programs.

Upon completion of any relevant outside course, employees should submit documentation to PFF to update their training record to reflect these additional courses.

7.0 ATTACHMENTS AND REFERENCES

- Employee Training Record

RECORD OF REVISION

REVISION NUMBER	*PURPOSE OF REVISION*	*EFFECTIVE DATE*
1	MINOR EDITORIAL CHANGES	5-15-95

PERMA-FIX OF FLORIDA, INC.

EMPLOYEE TRAINING RECORD

NAME: _____ START DATE: _____

LEVEL: TECH 1 COURSE REQUIREMENTS

HAZARDOUS WASTE MANAGEMENT

GROUP	DATE	COURSE TITLE	HOURS*	INSTRUCTOR	RESULTS
		NEW HIRE TRAINING			N/A
A		GENERAL ORIENTATION	2.00		N/A
		THE CONVINCER	0.50		N/A
		RIGHT TO KNOW/THE MSDS	1.00		
		RGHT TO KNW/HAZCOM LABELS	1.00		
		MOD V-RIGHT TO KNOW	1.50		
B		RCRA:HAZ WASTE TRNG	0.50		
		PROTECT THE ENVIRONMENT	0.25		
		MOD I-INTRO TO RCRA	1.50		
		FORKLIFT TRAINING PART 1			
		FORKLIFT TRAINING PART 2			
		FORKLIFT TRAINING PART 3			
		FORKLIFT TRAINING PART 4	2.00		
C		HAZ WASTE SAFETY PART 1			
		HAZ WASTE SAFETY PART 2	0.50		
		DOT REGS-PLACARDS	0.50		
		FLAMMABLE LIQUIDS	0.50		
		HAZ FLAMMABLE MATERIAL	0.50		
		EXTINGUISHERS	0.50		
D		CHEM SAFETY-PT 1,HNDLG	0.75		
		CHEM SAFETY-PT 2,HLTH HAZ	0.75		
		CHEM SAFETY-PT 3,FIRE	0.75		
		MOD III-SAFETY/CLOTH/EQUIP	1.50		
		BONDING & GROUNDING	1.00		
E		LIFTING SAFELY	0.50		
		DRUM HNDLG SAFETY	0.50		
		DRUM & OTHER SPILLS	0.50		
		SCBA TRAINING	1.00		
		RESPIRATOR TRAINING	1.00		
		PRO-FLEX TRAINING	1.00		
F		INTRO TO HAZ WASTE OPER	1.75		N/A
G		MOD II-KEEPING TRACK OF HW	1.50		
		OCCUPATIONAL HEAT STRESS	1.00		
		MOD IV-CONTING PLAN & SPIL	1.50		
		QUADREX CONTINGENCY PLAN	0.50		
H		STAND. OP. PROCEDURE #1-11	4.00		N/A
I		STAND. OP. PROCEDURE #12-22	4.00		N/A
J		FIRST AID-PART 1	0.75		
		FIRST AID-PART 2	0.75		
		FIRST AID-PART 3	0.75		
K		INTRO TO RADIATION-PART 1	1.00		
		INTRO TO RADIATION-PART 2	1.00		
		INTRO TO RADIATION-PART 3	1.00		
		INTRO TO RADIATION-PART 4	1.00		

TOTAL: 42.50 *

* DOES NOT INCLUDE REVIEW OR TEST TIME.

PERMA-FIX OF FLORIDA, INC.

EMPLOYEE TRAINING RECORD

NAME: HAZARDOUS WASTE START DATE: _____

LEVEL: ALL EMPLOYEES

HAZARDOUS WASTE MANAGEMENT

GROUP	DATE	COURSE TITLE	HOURS*	INSTRUCTOR	RESULTS
		1994 ANNUAL RCRA REFRESHER			
A	_____	RCRA TRNG TAPES			
		VIDEO #4	1.50		
		VIDEO #10	0.75		
		VIDEO #11	0.75		
B	_____	FLAMMABLES & EXTINGUISHERS			
		VIDEO #5	1.00		
		VIDEO #7	1.00		
C	_____	HAZ WASTE SAFETY			
		VIDEO #16/PART 1	1.00		
		VIDEO #16/PART 2			
D	_____	BONDING & GROUNDING			
		VIDEO #17	1.00		
E	_____	DRUM & OTHER SPILLS			
		VIDEO #20	0.50		
F	_____	RADIATION SAFETY			
		VIDEO #25	1.00		
		VIDEO #26	1.00		
G					
H	_____	RESPIRATOR	1.00	DRAKE	
I	_____				
J	_____				
K	_____	FORKLIFT TRAINING	2.00	CLARK	
L	_____				
		HISTORY OF OTHER TRNG 1994			
		TOTAL	12.5		

Appendix-N

PERMA-FIX

OF FLORIDA, INC.

Gainesville, Florida

HOT WORK PERMIT PROGRAM

OCTOBER 1995

PREPARED BY:

PERMA-FIX
ENVIRONMENTAL SERVICES

1940 NW 67th Place, Gainesville, FL 32653 904/373-6066 Fax 904/372-8963

Introduction and Applicability

The potential for fire at facilities where ignitable materials are stored or processed necessitates the development of this Hot Work Program (HWP). Operations subject to this HWP include cutting, welding (of any type), brazing, soldering, grinding, thawing pipe, torch applied activities or any other similar operation which could result in the production of an ignition source. This HWP has been developed for Perma-Fix of Florida, Inc. (PFF) and is intended for use as an instructional document for training applications.

Smoking shall be prohibited at or in the vicinity of "hot work" operations.

Purpose

This HWP establishes the criteria for "hot work" operations and specifies that PFF requires employees to conduct "hot work" in accordance with the procedures outlined in this HWP. This HWP includes a permit system to be used for hot work operations under the supervision of the PFF general manager (or designee). A permit shall not be issued until:

- it has been determined that hot work can be safely conducted at the desired location;
- combustibles have been moved away or safely covered;
- the atmosphere is nonflammable; and
- a fire watch (with extinguisher) is posted for the duration of the work, and for 30 minutes thereafter.

Implementation

Before "hot work" is conducted, the Hot Work Permit (presented in Attachment 1) shall be completed and approved by the operations manager (or designee). Within the confines of an operating plant or building, hot work shall be done in either:

- a specific area designed or approved for such work, such as a maintenance shop or a detached outside location that shall be of noncombustible or fire resistive construction, essentially free of combustible and flammable contents, and suitably segregated from adjacent areas; or
- when work cannot be moved practically, the area shall be made fire safe by removing combustibles or protecting combustibles from ignition sources.

PFF may use contractors to perform "hot work." Contractors will be required to have and follow procedures which are comparable to the requirements of this HWP.

Reference Material

NFPA 241, 1989 edition. Standard for Safeguarding Construction, Alteration and Demolition Operations.

NFPA 51B, 1989 edition. Standard for Fire Prevention in Use of Cutting and Welding Processes.

Approval

This HWP has been reviewed and approved by the following PFF management personnel:

Mike Haynes, Vice President/General Manager Perma-Fix of Florida, Inc.	Date
Raymond Whittle, General Manager Perma-Fix of Florida, Inc.	Date

Attachment 1. Hot Work Permit

Hot Work Permit

Date Permit Requested:		**Date Permit Issued:**	
Job Description:		**Date Permit Expires:**	
Authorized Personnel [Name(s)]			
Special Precautions (list)			
Equipment in Good Repair		Yes: ☐	No: ☐
Bonding/Grounding of all Electrical Equipment		Yes: ☐	No: ☐
Fire Watch - (Name) Always Required During and 30 Minutes after Operation			
Trained in use of equipment and in sounding fire alarm		Yes: ☐	No: ☐
Supplied with extinguisher		Yes: ☐	No: ☐
Within 35 FT of work			
Floors swept clean of combustibles		Yes: ☐	No: ☐
Any combustible material or flammable liquids		Yes: ☐	No: ☐
Combustibles/flammable liquids protected (covers/shields/etc.)		Yes: ☐	Mo: ☐
Work on Enclosed Equipment - Tanks, Containers, Etc.			
Equipment cleaned of all combustibles		Yes: ☐	No: ☐
Containers purged of flammable vapors		Yes: ☐	No: ☐
Air monitoring (where applicable)	LEL $\leq$ 10 %	Yes: ☐	No: ☐
	$O_2 \geq$ 19.5 % and $\leq$ 23 %	Yes: ☐	No: ☐
Final Check-Up/Fire Watch Continued 30 Minutes Past Completion		Yes: ☐	No: ☐
PPE Required - circle all required/identify as NA: where applicable, specify type	Hard Hat / Respirator	Retrieval Line/Device	
	Gloves / Airline	Hearing Protection	
	Coveralls / SCBA	Other -	
Problems/Comments			
Permit Authorized By (Signature)		Date:	Time:
Print Name/Title			
Permit Cancelled By (Signature)		Date:	Time:
Print Name/Title			

Appendix-O

PERMA-FIX™
OF FLORIDA, INC

TITLE: FACILITY INSPECTION PLAN **003G - REV. #2**

PREPARED BY: BERNHARDT C. WARREN **DATE:** MAY 15, 1995

APPROVED BY: MIKE HAYNES **DATE:** FEBRUARY 12, 1996

1.0 PURPOSE

This procedure is developed to provide a plan by which Perma-Fix of Florida (PFF) will remain in compliance with regard to its on-site TSD permit. Periodic inspections of the facilities, equipment, and materials are required by the U.S. EPA as part of the provisions for a TSD permit. These inspections must be performed on a predetermined frequency. The purpose for the inspections is to determine that the operating parameters of the facility remain in tact and in good working order such that human health and the environment are not harmed. The inspections will also allow for the identification of any problems, leaks, spills, or otherwise discrepant situations which require attention. An accurate log of these inspections must be maintained for review by the regulating agencies. The remainder of this procedure provides the inspection required, their frequency and the recording provisions.

2.0 SCOPE

The inspections defined in this procedure are limited to those activities performed at PFF.

3.0 DEFINITIONS

TSD - Treatment Storage and Disposal
CO - Compliance Officer
RSO - Radiation Safety Officer

4.0 RESPONSIBILITIES

The General Manager is responsible for assigning qualified individuals to perform the required inspection duties.

The attached inspection forms are maintained DAILY and retained for audit.

- The bulk tank and its associated containment are to be inspected daily. The overall functioning and protective measures should be noted. Additionally, the presence of spilled fluids must trigger a review of the cause and the fluid is recovered. Precipitation in the sump should be removed.

  The attached Bulk Tank Inspection Form is maintained daily and retained for audit.

- Additional inspections as noted on the Operating Inspection Log will be performed at least every month and records maintained for audit.

5.2 Inspection Performed by the CO

The CO will perform inspections of those items and areas as found in the Quarterly Inspection Log. The CO may perform additional reviews and audits as deemed necessary.

5.3 Testing and Maintenance Procedures for Emergency Equipment

All emergency equipment listed in the Emergency Equipment list section of the Contingency Plan are inspected at least quarterly. The absorbent materials, first aid supplies, and tools will be inspected to ensure that there are sufficient quantities on hand and these materials are in condition for use. The fire extinguishers will be inspected to determine that there is an adequate supply of the extinguishing media. This is accomplished by checking the gauges on each extinguisher to ensure that the extinguishers are full.

6.0 ATTACHMENTS AND REFERENCES

- Daily Inspection Sheet (Zone 1-4)
- Bulk Tank Inspection Log
- Inspection Log (Monthly)
- Inspection Log (Quarterly)
- Loading/Unloading Area Daily Inspection Sheet

HAZARDOUS ZONE 1 DAILY INS. SHEET

1	2	3	4	5	6	7	8	9	10
Date Time	Inspected By	Area Clean	# of Drums	Drums 1 High	Leaks/ Spills	Drum Condition	Sumps	Comments on Discrepancy	Resolution of Discrepancy Date and Action Taken

Instructions:

Column 1 – Enter the date and time of inspection.

Column 2 – Enter your initial or full name. Print clearly.

Column 3 – Is the area clean, yes or no? Note any dirty areas in the comment section. Be descriptive.

Column 4 – Enter the number of drums in the storage area.

Column 5 – Are the drums stacked only one (1) drum high? Answer either yes or no.

Column 6 – Are there any leaks or spills in the area? Answer either yes or no. If yes, describe in the comment section.

Column 7 – Describe the condition of the drums on a whole. Answer satisfactory (S) or unsatisfactory (U). If any drums need replacing or are damaged, identify the drums and their condition in the comment section. Be descriptive.

Column 8 – Describe the condition of the sumps, satisfactory (S) or unsatisfactory (U). Is there any liquid, trash, etc. in the sump? If yes, then describe in the comment section.

Column 9 – Describe any discrepancies that exist concerning the items inspected under columns 1 through 8.

Column 10 – Indicate the date and describe the actions taken to resolve any of the discrepancies discussed under column 9.

QECForm/HAZDZONE 1/94

HAZARDOUS ZONE 2 DAILY INS. . . . SHEET

1	2	3	4	5	6	7	8	9	10
Date Time	Inspected By	Area Clean	# of Drums	Drums 1 High	Leaks/ Spills	Drum Condition	Sumps	Comments on Discrepancy	Resolution of Discrepancy Date and Action Taken

Instructions:

Column 1 – Enter the date and time of inspection.

Column 2 – Enter your initial or full name. Print clearly.

Column 3 – Is the area clean, yes or no? Note any dirty areas in the comment section. Be descriptive.

Column 4 – Enter the number of drums in the storage area.

Column 5 – Are the drums stacked only one (1) drum high? Answer either yes or no.

Column 6 – Are there any leaks or spills in the area? Answer either yes or no. If yes, describe in the comment section.

Column 7 – Describe the condition of the drums on a whole. Answer satisfactory (S) or unsatisfactory (U). If any drums need replacing or are damaged, identify the drums and their condition in the comment section. Be descriptive.

Column 8 – Describe the condition of the sumps, satisfactory (S) or unsatisfactory (U). Is there any liquid, trash, etc. in the sump? If yes, then describe in the comment section.

Column 9 – Describe any discrepancies that exist concerning the items inspected under columns 1 through 8.

Column 10 – Indicate the date and describe the actions taken to resolve any of the discrepancies discussed under column 9.

QECForm/HAZDZONE 1/94

HAZARDOUS ZONE 3 DAILY IN[illegible] / SHEET

1	2	3	4	5	6	7	8	9	10
Date Time	Inspected By	Area Clean	# of Drums	Drums 1 High	Leaks/ Spills	Drum Condition	Sumps	Comments on Discrepancy	Resolution of Discrepancy Date and Action Taken

Instructions:

Column 1 – Enter the date and time of inspection.

Column 2 – Enter your initial or full name. Print clearly.

Column 3 – Is the area clean, yes or no? Note any dirty areas in the comment section. Be descriptive.

Column 4 – Enter the number of drums in the storage area.

Column 5 – Are the drums stacked only one (1) drum high? Answer either yes or no.

Column 6 – Are there any leaks or spills in the area? Answer either yes or no. If yes, describe in the comment section.

Column 7 – Describe the condition of the drums on a whole. Answer satisfactory (S) or unsatisfactory (U). If any drums need replacing or are damaged, identify the drums and their condition in the comment section. Be descriptive.

Column 8 – Describe the condition of the sumps, satisfactory (S) or unsatisfactory (U). Is there any liquid, trash, etc. in the sump? If yes, then describe in the comment section.

Column 9 – Describe any discrepancies that exist concerning the items inspected under columns 1 through 8.

Column 10 – Indicate the date and describe the actions taken to resolve any of the discrepancies discussed under column 9.

QECForm/HAZDZONE 1/94

NON-HAZARDOUS ZONE 4 DAILY . ON SHEET

1	2	3	4	5	6	7	8	9	10
Date Time	Inspected By	Area Clean	# of Drums	Drums 1 High	Leaks/ Spills	Drum Condition	Sumps	Comments on Discrepancy	Resolution of Discrepancy Date and Action Taken

Instructions:

Column 1 – Enter the date and time of inspection.

Column 2 – Enter your initial or full name. Print clearly.

Column 3 – Is the area clean, yes or no? Note any dirty areas in the comment section. Be descriptive.

Column 4 – Enter the number of drums in the storage area.

Column 5 – Are the drums stacked only one (1) drum high? Answer either yes or no.

Column 6 – Are there any leaks or spills in the area? Answer either yes or no. If yes, describe in the comment section.

Column 7 – Describe the condition of the drums on a whole. Answer satisfactory (S) or unsatisfactory (U). If any drums need replacing or are damaged, identify the drums and their condition in the comment section. Be descriptive.

Column 8 – Describe the condition of the sumps, satisfactory (S) or unsatisfactory (U). Is there any liquid, trash, etc. in the sump? If yes, then describe in the comment section.

Column 9 – Describe any discrepancies that exist concerning the items inspected under columns 1 through 8.

Column 10 – Indicate the date and describe the actions taken to resolve any of the discrepancies discussed under column 9.

QECForm/HAZDZONE 1/94

BULK TANK DAILY . . . TION LOG

1	2	3	4	5	6	7	8	9	10	11
Date Time	Inspected By	Area Clean	Evidence of Leak	Precipitation Present	Corrosion on Outer Surface	Plumbing in Good Condition	Concrete Bunker In Good Condition	Alarm and Overflow Functional	Comments on Discrepancy	Resolution of Discrepancy Date and Action Taken

Instructions:

Column 1 – Enter the date and time of the inspection.

Column 2 – Enter your initials. Print clearly.

Column 3 – Is the area clean of trash, debris, etc. Answer either yes or no. If no, describe the area in the comment section. Print clearly.

Column 4 – Is there any evidence of a leak in the bulk tank? Answer either yes or no. If yes, describe in the comment section the situation or evidence that indicates the leak.

Column 5 – Is any precipitation around the tank? Answer either yes or no. If yes, describe the precipitation's origin and quantity in the comment section.

Column 6 – Is there any corrosion on the tank? Answer either yes or no. If yes, describe in the comment section.

Column 7 – Is the plumbing in good condition? Answer either yes or no. If no, describe in the comment section.

Column 8 – Is the concrete berm in satisfactory condition? Answer either yes or no. If no, describe its conditions in the comment section.

Column 9 – Are the transfer pump and overflow devices functioning? Answer either yes or no. If no, indicate why not in the comment section.

Column 10 – This column should be used to describe any area or equipment from Columns 3 through 9 that require replacement, repair or cleaning. Print clearly.

Column 11 – Document the date and action that was taken to correct the discrepancy identified under Column 10. Print clearly.

OPERATIONAL MONTHLY INSPECTION LOG

1	2	3	4	5	6	7	8	9	10	11
DATE / TIME	INSPECTED BY	START-OFF SWITCHES ACCESSIBLE & FUNCTIONING	INTERLOCKED OVERFLOW & SEQUENCING ALARMS FUNCTIONING	HEPA AND CHARCOAL FILTERS IN WORKING ORDER	ALL VENTILATION FUNCTIONING (CHECK DP)	LEAKS	ALL PUMPS, TANKS, ETC., IN GOOD ORDER	SPILL KIT AND EYE WASH PRESENT AND FUNCTIONAL	COMMENTS ON DISCREPANCIES	RESOLUTION OF DISCREPANCY DATE AND ACTION TAKEN

INSTRUCTIONS

Column 1: Enter the date and time of inspection.

Column 2: Enter your initials. Print clearly.

Column 3-6: Are items discussed under Columns 3 - 6 functional and in good working order? Yes or No. If no, describe in Column 10 the condition of the drum.

Column 7: Are there any leaks in the equipment? If yes, describe in comment section.

Column 8-9: Is equipment functional and in good working order? If no, describe discrepancy in Comment section.

Column 10: Describe any area or equipment that requires replacement, repair or cleaning. Print clearly.

Column 11: Document action that was taken to correct discrepancy identified under Column 10. Print clearly.

QUARTERLY IN[illegible]TION LOG

1	2	3	4	5	6	7	8	9		11	12	13	14	15
DATE	INSPECTED BY	SPILL KIT PRESENT	CONTINGENCY PLAN POSTED	RESPIRATOR AND SCBA FUNCTIONAL	FIRE EXTINGUISHERS PRESENT & FUNCTIONAL	DRUM LOG IN ORDER / AREA INSPECTED	BULK TANK LOG IN ORDER / AREA INSPECTED	OPERATIONAL LOG IN ORDER / AREA INSPECTED	FIRE DRILL CONDUCTED	ENVIRONMENTAL SAMPLES TAKEN	BIOASSAYS PERFORMED	TRAINING IN ORDER	COMMENTS ON DISCREPANCY	RESOLUTION OF DISCREPANCY DATE AND ACTION TAKEN

INSTRUCTIONS

Column 1: Enter the date of inspection.
Column 2: Enter your initials. Print clearly.
Column 3-9: Enter yes or no. If no, document the discrepancy that caused you to answer no.
Column 10: Enter the date on which the last fire drill was conducted.
Column 11: Were environmental samples taken? If yes, when?
Column 12: Were Bioassay performed? If yes, when?
Column 13: Are health and safety training records and program in order?
Column 14: Discuss any discrepancies or general conditions that must be corrected or changed.
Column 15: Discuss how and when the discrepancy or general condition was corrected or resolved.

LOADING AND UNLOADING AREA DAILY INSPECTION SHEET

1	2	3	4	5	6	7	8
DATE / TIME	INSPECTED BY	AREA CLEAN	# OF DRUMS	LEAKS/ SPILLS	DRUM CONDITION	COMMENTS ON DISCREPANCY	RESOLUTION OF DISCREPANCY DATE AND ACTION TAKEN

INSTRUCTIONS

COLUMN 1 Enter the date and time of inspection.
COLUMN 2 Enter your initial or full name. Print clearly.
COLUMN 3 Is the area clean? (Yes or No) Note any dirty areas in comment section. Be descriptive.
COLUMN 4 Enter the number of drums in the storage area.
COLUMN 5 Are there any leaks or spills in the area? (Yes or No) If yes, describe in column above.
COLUMN 6 Describe the condition of the drums on a whole. (S) or (U)*. If drums need replacing or are damaged, identify drum & condition in comment section above. Be descriptive.
COLUMN 7 Describe any discrepancies that exist concerning the items inspected under columns 1-6.
COLUMN 8 Indicate date & describe actions taken to resolve discrepancies discussed under column 7.

*(S) = SATISFACTORY (U) = UNSATISFACTORY