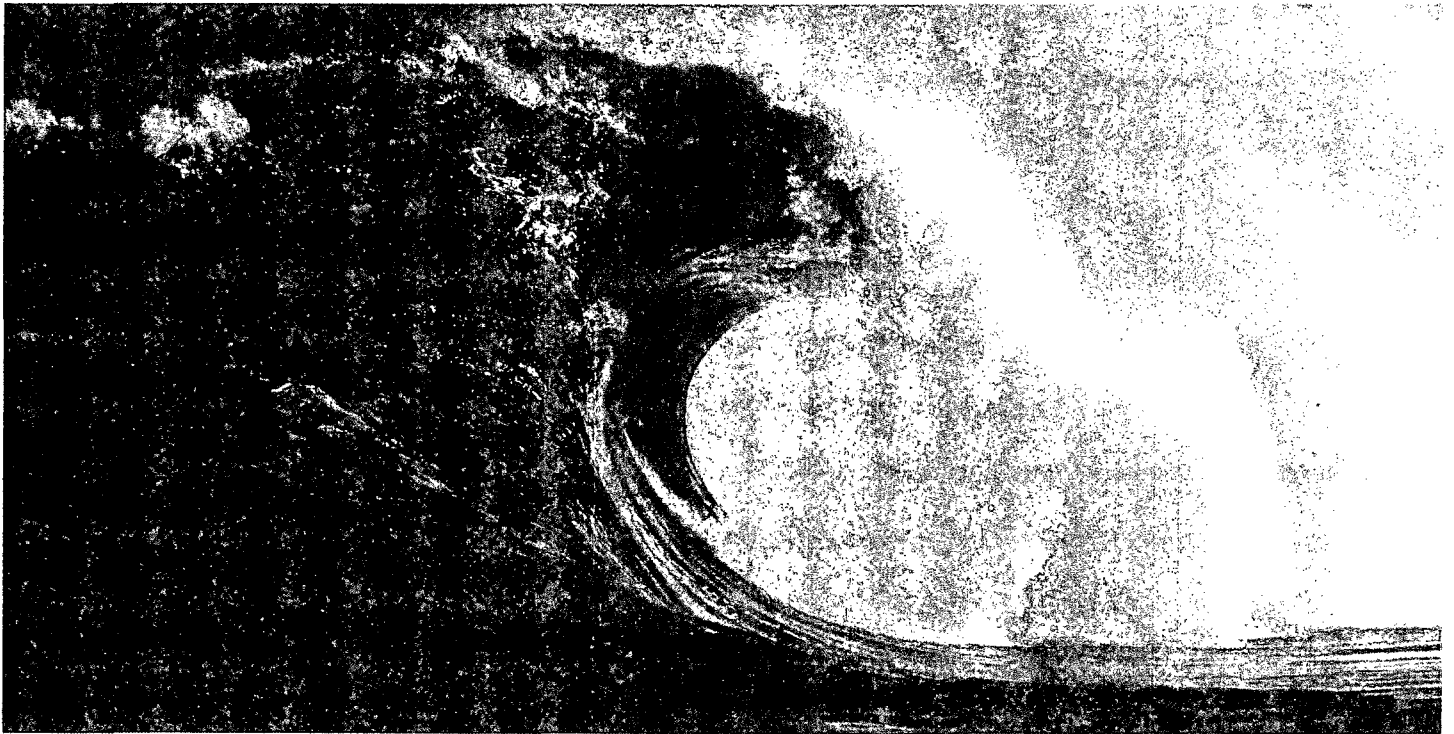


ORIGINAL



USFilter

CLOSURE PLAN AND CLOSURE COST ESTIMATE
POMPANO BEACH FACILITY

USFILTER RECOVERY SERVICES MID-ATLANTIC, INC.
POMPANO BEACH, FLORIDA

DECEMBER 2002

CLOSURE PLAN AND CLOSURE COST ESTIMATE
POMPANO BEACH FACILITY

USFILTER RECOVERY SERVICES MID-ATLANTIC, INC.
POMPANO BEACH, FLORIDA

DECEMBER 2002

PREPARED BY:
LISA SENDEK

APPROVED BY:
STEVE MCGUIRE

6109-03

USFilter

*Engineering & Construction
Airside Business Park
250 Airside Drive
Moon Township, PA 15108
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ENGINEERING & CONSTRUCTION
AIRSIDE BUSINESS PARK
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www.usfilter.com

Ref: 6109-03

VIA FEDEX Track # 7915 0312 0906

December 30, 2002

Florida Department of Environmental Protection
Bureau of Solid and Hazardous Waste
Hazardous Waste Regulation Section
Attn: Environmental Administrator – MS 4560
2600 Blainstone Road
Tallahassee, FL 32399-2400

RECEIVED
JAN 3 - 2003
DEPT OF ENV PROTECTION
WEST PALM BEACH

Re: Revised Application for Used Oil Processing Permit Renewal
USFilter Recovery Services Mid-Atlantic, Inc.
Pompano Beach Used Oil Processing Facility

USFilter Recovery Services Mid-Atlantic is pleased to submit two copies of our revised application for renewal of the Used Oil Processing Permit for our Pompano Beach Facility. The December revisions have been prepared according to the Notice of Deficiency requirements of Mr. Bill Parker, FDEP Permit Engineer for this facility. One copy is marked as the original; the second is marked as a copy. As required, an additional copy has been sent to the FLDEP Southeast District Office in West Palm Beach. As a separate part of the application procedure, a copy of the Closure Cost Estimate, stamped by a Florida PE, has been previously submitted to the Solid Waste Specialist at the Southeast District Office.

Any questions concerning this application may be directed as follows:

Ms. Lisa Sendek
USFilter Engineering & Construction
250 Airside Drive
Moon Township, PA 15108
Tel: 412-809-6737

Thank you for your attention to this submittal.

Sincerely,
USFilter Engineering and Construction

Lisa J. Sendek
Project Scientist

LJS: dll-098

cc: FLDEP Southeast District – Certified Mail 7099 3400 0017 5730-9842
Cathy Porthouse
Tim Ford

↑
Tallahassee
should be
reviewed this
too, per decision
made at WPA's meeting
VK

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

APPLICATION FORM FOR A USED OIL PROCESSING PERMIT

PART II - CERTIFICATION

Form 62-710.901(d) P. E. Certification [Complete when required by Chapter 471, F.S. and Rules 62-4.050, 62-761, 62-762, 62-701 and 62-710, F.A.C.]

Use this form to certify to the Department of Environmental Protection for:

1. Certification of secondary containment adequacy (capacity), structural integrity (structural strength), and underground process piping for storage tanks, process tanks, and container storage.
2. Certification of leak detection.
3. Substantial construction modifications.
- X 4. Those elements of a closure plan requiring the expertise of an engineer.
5. Tank design for new or additional tanks.
- Y 6. Recertification of above items.

Please Print or Type

 X Initial Certification Y Recertification

1. DEP Facility ID Number: FL0000346304
2. Tank Numbers: Table 1 List
3. Facility Name: USFilter Recovery Services Mid Atlantic-Fort Pierce Facility
4. Facility Address: 5690 West Midway Road, Fort Pierce, FL 34981

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

Norbert Joseph Lindner
Signature Norbert Joseph Lindner, P.E.

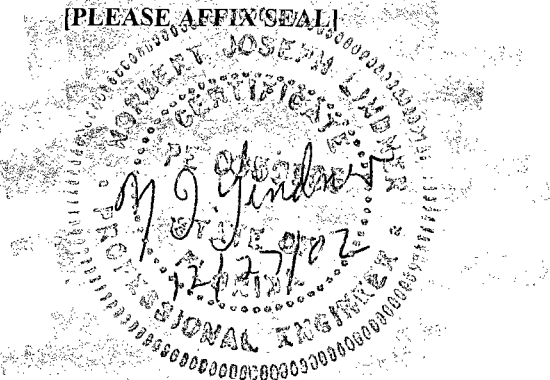
Name (please type)

Florida Registration Number: 50903

Mailing Address: 250 Airside Drive
Street or P. O. Box
Moon Township, PA 15108

Date: 12/27/02 City PA State PA Zip 15108
Telephone (412) 809-6160

[PLEASE AFFIX SEAL]



**USFILTER RECOVERY SERVICES MID-ATLANTIC, INC.
POMPANO BEACH USED OIL PROCESSING FACILITY
CLOSURE PLAN AND CLOSURE COST ESTIMATE**

The USFilter Recovery Services Mid-Atlantic, Inc. (USFRSMA) Pompano Beach facility located at 1280 NE 48th Street is designed, constructed, and operated to minimize any threat to the environment. The closure plan will be updated whenever significant operational changes occur or design changes are made. The closure plan will be maintained with records required under Rules 62-701 and 62-710, Florida Administrative Codes (FAC). A Solid Waste Closure Cost Estimate, for which financial assurance is required, is presented for those aspects of the facility engaged in the handling of Solid Wastes. Solid Waste operations are limited to the container storage areas. As requested by FLDEP, an overall facility Closure Cost Estimate, for which financial assurance is not required, is also presented.

The Closure Plan is based upon a scheduled and orderly shutdown of the facility. USFRSMA will submit an updated and detailed closure plan to the FDEP at least 60 days prior to the scheduled date of closing the facility. At this time, there is no scheduled closure date for the facility. The intent is to operate the facility for the indefinite future. Within 30 days after closing the facility, USFRSMA will submit a certification of closure completion to the FDEP, which demonstrates that the facility was closed in substantial compliance with the detailed closure plan.

CLOSURE PERFORMANCE STANDARD

Should closure become necessary, USFRSMA will comply with the requirements of 40 CFR, Part 279.54(h) and Chapter 62-710, FAC. The intent is to decommission the facility to an environmentally safe and secure state such that:

- There will be no need for further facility maintenance;
- Used oil will not contaminate surface or groundwater;
- All tanks, piping, secondary containment, and ancillary equipment will be emptied, cleaned, and decontaminated, and all storage materials removed and managed; and
- All aboveground storage and process tanks will be closed pursuant to Rule 62-761.800(2)(c), FAC.

The demolition of the facilities is not a part of the basic closure decommissioning process. If demolition becomes necessary to achieve the Closure Performance Standard, such demolition would be considered a contingency item. Demolition activities after

achieving closure certification are a business item not within the scope of this Closure Plan.

VERIFICATION OF CLOSURE PERFORMANCE STANDARD

The Final Closure of the USFRSMA Pompano Beach facility will require characterization of soil and groundwater quality conditions. The relevant Clean-up Target Levels for soil and groundwater are contained in FAC Rule 62-777.170. Petroleum Product Contaminants of Concern are defined in Rule 62-770. Sampling and analytical protocols will be in accordance with U.S. EPA SW-846 Methods and will include the Florida Petroleum Residual Organic Method for Total Recoverable Petroleum Hydrocarbons. In general, analyses will be required for Florida pre-burn constituents. Metals will be analyzed by Method 6010 or Graphite Furnace Method 7470 for mercury; volatile and semi-volatile organics will be analyzed by Methods 8260/8270. The laboratory will use other U.S. EPA-approved methods appropriate to the sample matrix and analytical requirements.

The Florida regulations do not contain any specific guidelines for determining whether equipment, tanks, and containment have been successfully decontaminated. If guidelines were available, they might be based on rinsate or wipe samples. At a minimum, rinsate samples will be compared to 40 CFR Part 261 limits for a characteristic hazardous waste. PCB wipe sample would be evaluated according to 40 CFR 761 protocols. Although the facility does not process hazardous wastes, it does handle hazardous wastes on a 10-day transporter transfer basis; therefore, the most appropriate decontamination standards are those identified in 40 CFR 268, Table 1, for the decontamination of material to a clean debris surface. Table 1, Option A(1)(e) for high-pressure steam or water and Option A(2)(a) for water wash, including the use of additives to remove hazardous contaminants, are the most readily available. These performance standards do not require analytical confirmatory testing, as the objective standard is visual inspection. QA/QC confirmatory tests using wipes or rinsates can be utilized if desired. Rinsates would be assessed for the presence of 40 CFR 261 hazardous characteristics.

CLOSURE OF TANK STORAGE

Maximum tank storage is 431,500 gallons (237,000 gallons for used oil). The facility contains three batteries: West (Zone A), Central (Zone B), and East (Zone C). A list of the storage tanks present at the Pompano Beach location is presented in Table 1.

Table 1

**West Tank Battery
Summary of Aboveground Storage Tanks
USFilter Recovery Services – Pompano Beach, Florida, Oil Plant
Pompano Beach, Florida**

Tank Number	Volume (Gallons)	Material Stored in Tank	Installation Date	Containment Displacement (Gallons) *
18	12,000	Used Oil	06/01/99	2,860
19	25,000	Used Oil	06/01/99	3,971
22	15,000	Used Oil	06/01/99	2,444
23	20,000	Used Oil	06/01/99	3,166
24	20,000	Used Oil	06/01/99	3,166
25	20,000	Used Oil	06/01/99	3,166
26	20,000	Used Oil	06/01/99	3,166
27	20,000	Used Oil	06/01/99	3,166
Piping	N/A	N/A	N/A	2,095
Total	152,000			25,105

*There is a 5-inch gap between the containment floor and the tank bottom. Tank displacement was measured as if there were 27.0 inches in the tanks. The two total the 32-inch height of the secondary containment area.

Table 1 (continued)

**Central Tank Battery (Zone B)
Summary of Aboveground Storage Tanks
USFilter Recovery Services – Pompano Beach, Florida, Oil Plant
Pompano Beach, Florida**

Tank Number	Volume (Gallons)	Material Stored in Tank	Installation Date	Containment Displacement (Gallons) *
1	25,000	Process waters	06/01/93	3971
2	25,000	Process waters	06/01/93	3971
3	25,000	Used Oil	06/01/93	3971
4	10,000	Oily Water	06/01/93	1628
5	10,000	Antifreeze	06/01/93	1628
6	10,000	PCW	06/01/93	1628
7	10,000	PCW	06/01/93	1628
8	10,000	Oily Water	06/01/93	1628
9	10,000	Oily Water	06/01/93	1628
10	10,000	Used Oil	06/01/93	1628
11	10,000	Used Oil	06/01/93	1628
12	10,000	Used Oil	06/01/93	1628
13	10,000	Used Oil	06/01/93	1628
14	10,000	Used Oil	06/01/93	1628
15	10,000	Used Oil	06/01/93	1628
16	25,000	On-Spec Oil	06/01/93	3971
17	25,000	On-Spec Oil	06/01/93	3971
23D	1,500	Diesel	06/01/93	603
22PCW	3,000	PCW	06/01/93	1,047
Piping	N/A	N/A	N/A	3,765
Total	249,500			44806

*There is a 5-inch gap between the containment floor and the tank bottom. Tank displacement was measured as if there were 27.0 inches in the tanks. The two total the 32-inch height of the secondary containment area.

Table 1 (continued)

**East Tank Battery (Zone C)
Summary of Aboveground Storage Tanks
USFilter Recovery Services – Pompano Beach, Florida, Oil Plant
Pompano Beach, Florida**

Tank Number	Volume (Gallons)	Material Stored In Tank	Installation Date	Containment Displacement (Gallons) *
20	15,000	Water (Feeder tank)	06/01/93	2,444
21D	15,000	Diesel	06/01/93	2,444
Piping	N/A	N/A	N/A	400
Total	30,000			5,288

*There is a 5-inch gap between the containment floor and the tank bottom. Tank displacement was measured as if there were 27.0 inches in the tanks. The two total the 32-inch height of the secondary containment area.

Containment Zone A Storage Capacity

Length (ft.) 66
Width (ft.) 100
Height (ft.) 2.67

Volume (gal) 131,812
Displacement 27,615
Available Volume (gal) **104,197**

Containment Zone B Storage Capacity

Length (ft.) 147
Width (ft.) 70-118
Height (ft.) 2.67

Volume (gal) 234,268
Displacement 49,286
Available Volume (gal) **184,982**

Containment Zone C Storage Capacity

Length (ft.) 21
Width (ft.) 70
Height (ft.) 2.67

Volume (gal) 29,358
Displacement 5,816
Available Volume (gal) **23,542**

Upon closure, all tanks will be emptied. Any inventory that meets or can be processed to meet marketing specifications for used oil will be processed and marketed as such. All material will be characterized in accordance with 40 CFR 279.54(h) and Part 261. Characterization will be based on process knowledge and chemical analysis for TCLP constituents. Upon closure of the tank system in accordance with 40 CFR Part 279, USFRSMA will remove or decontaminate used oil residues in tanks, contaminated secondary containment system components, contaminated soils, structures, and

equipment. USFRSMA will manage these materials as hazardous waste, unless the materials are not hazardous waste as determined by chemical analysis. The wastes will be properly contained and shipped to a permitted disposal facility.

Liquid wastes will be removed via the tank piping system and handled as an oily waste. Material that cannot be removed via the piping system will be accessed via the tank manways or hatches. Confined space entry procedures will be followed. Residual liquid and sludge material at the bottom of each tank will be removed via pumping and handled as an oily sludge. Solid material at the bottom of the tank that cannot be removed as sludge will be removed and handled as an oily solid.

After the tanks are emptied, they will be first saturated with steam for up to 24 hours to loosen any hardened material. The steam condensate and generated solids will be handled as an oily sludge. Manual scraping will be performed to remove any remaining hardened material. The tanks will then be pressure-washed until the visual inspection performance standard is achieved. Final rinsate samples will be collected as QA/QC confirmation of decontamination status.

As a contingent measure, if the tanks cannot be successfully decontaminated in place, the tanks will be cut up and further decontamination will be attempted. Upon achievement of the decontamination standard, the tanks would then be disposed as scrap. If decontamination cannot be successfully achieved, it would then be necessary to appropriately dispose the tanks as a solid waste. Ancillary piping within the tank farm will be decontaminated in a complementary manner.

As part of an orderly shutdown procedure, oily water will be processed through the facility treatment system. Oily sludges and solids will be placed in appropriate containers and shipped off site for proper disposal.

CLOSURE OF TANK FARM CONTAINMENT

Once tanks within the tank farm have been successfully decontaminated, the containment area will be addressed. Manual scraping will be performed to remove any hardened material. The containment area will then be pressure-washed until the visual inspection performance standard is achieved. Final rinsate samples will be collected as QA/QC confirmation of decontamination status to ensure that all hazardous compounds have been removed.

CLOSURE OF CONTAINER STORAGE AREA

Maximum container storage:	non-hazardous drums:	1000
	hazardous drums:	60
	30-yard roll-off boxes:	1
	20-yard roll-off boxes	5

Upon closure, containers in storage will be tested as necessary to confirm hazardous waste classification status, removed, and shipped to a proper disposal facility. Once all containers are removed, decontamination of the container storage will take place. Manual scraping will be performed to remove any hardened material. Mechanical scrubbing will be used if necessary. The containment area will then be pressure-washed until the visual inspection performance standard is achieved. Final rinsate samples will be collected as QA/QC confirmation of decontamination status to ensure that all hazardous compounds have been removed. Any remaining oil bleed stains on concrete will be wipe tested for PCBs.

All materials used in the decontamination will be either processed through the facility waste treatment system, or contained and shipped off site to the proper disposal facility.

DECONTAMINATION OF WASTE TREATMENT SYSTEM

Once wastewater generated by the decontamination of the tanks and containment areas has been processed, the waste treatment system will be decontaminated. Tanks will be decontaminated in a manner similar to the storage tanks. Manual scraping will be performed to remove any hardened material. The waste treatment equipment and associated containment areas will then be pressure-washed until the visual inspection performance standard is achieved. Final rinsate samples will be collected as QA/QC confirmation of decontamination status to ensure that all hazardous compounds have been removed.

VISUALLY CONTAMINATED SOILS

The facility is designed to prevent the contamination of surrounding soils. At the time of the closure, any surficial soils exhibiting obvious contamination will be excavated and tested prior to appropriate disposal.

CLOSURE ASSESSMENT

Rule 761.800(4) requires the completion of a Closure Assessment. The closure assessment may be implemented either in parallel with or at the conclusion of the general decontamination of the facility. Waste material generated through investigation will be managed to the maximum possible extent through the facility waste management and treatment systems. Otherwise, investigative wastes will be separately managed, tested, and appropriately disposed.

The Closure Assessment is based upon a reconnaissance-level soil and groundwater investigation to determine whether the facility has impacted soils and groundwater. As such, the initial Closure Assessment will not provide a complete horizontal and vertical characterization of any discovered contamination. The comprehensive development of a

Site Conceptual Model and Site Characterization would be addressed as a contingent item.

A specific investigation plan will be developed at the time of closure. A Site-Specific Health and Safety Plan will be developed in accordance with OSHA 1910.120. The Florida One-Call utility notification procedure will be followed. Requirements for the use of Florida registered Professional Engineers, Geologists, and Certified Laboratories will be addressed. The intent will be to generate information that will meet the Florida Brownfields Program information requirements.

The reconnaissance Closure Assessment investigative procedure is based on the use of Geoprobe techniques where groundwater is above the soil/bedrock interface. If groundwater is below the soil/bedrock interface, other drilling techniques appropriate to the site geology will be required.

Soil sampling will be accomplished by either grab samples from Geoprobe liners or samples from auger split-spoon sampling. Soils samples will be selected for testing based upon visual and field meter evidence of contamination status. Samples will be obtained from the 0- to 2-foot Direct Contact interaction zone. If obvious contamination extends to the soil/bedrock interface, samples will be obtained at the interface. Additional samples will also be collected at other depth intervals based on observed site conditions.

Groundwater status will be determined by installing temporary monitoring wells in the Geoprobe or auger test borings. Test borings will not be completed as permanent monitoring wells unless site-specific conditions observed during the investigation warrant.

Petroleum product contaminants of concern are defined in Table A of 62-770 FAC. Soil and groundwater samples will be tested for the specified constituents using the specified or any proposed alternative analytical methods. At a minimum, Florida pre-burn constituents defined in FAC 62-713 will be used as the minimal basis for selecting constituents. The regulations at 40 CFR 279.54(h)(1)(i) require facility decontamination and management of wastes. For the purposes of this closure plan, a determination of whether soil and/or groundwater contamination is present will be made by reference to Florida Clean-up Target Levels as defined at 62-777-170 FAC. Additional samples may be analyzed for a broader range of constituents to evaluate the site status with respect to Soil Clean-up Target Levels under both the residential and commercial/industrial land use scenarios. For initial estimation purposes, approximately twenty soil and groundwater samples will be evaluated. The exact number of samples will be determined at the time of closure activities and will be reflective of actual site conditions at that time. Sufficient samples will be collected to ensure statistical significance. Additional TCLP analysis may be required for the D-listed constituents, as per 40 CFR Part 261.

If soil and/or groundwater are determined to be contaminated by the reconnaissance Closure Assessment, it will be necessary to implement a more comprehensive Site Characterization and Groundwater Quality Assessment Plan as required by 40 CFR 265.93 utilizing the administrative procedures of the Florida Brownfields Program. A Site Investigation Plan to establish the horizontal and vertical extent of contamination will be prepared and submitted to FDEP for approval. The Groundwater Quality Assessment Plan will include the number, location, and depth of wells; sampling and analytical methods for those hazardous wastes or hazardous waste constituents in the facility; evaluation procedures, including any use of previously-gathered groundwater quality information; and a schedule of implementation. The resulting Site Characterization Report will include, at a minimum, the calculated or measured rate of migration of hazardous waste or hazardous waste constituents in the groundwater. If necessary, a Corrective Action Program will be proposed and implemented to achieve the soil and groundwater Clean-up Target Levels. If it proves to be impractical to satisfactorily decontaminate the site, then the Closure and Post-Closure Care requirements of 40 CFR 265.310 will apply. These include requirements for any long-term soil and groundwater monitoring.

If groundwater is monitored, USFRSMA will keep records throughout the closure and post-closure period. In addition, USFRSMA will submit to the Regional Administrator an annual report containing the results of the groundwater assessment and/or monitoring program that will include, at a minimum, the calculated or measured rate of migration of hazardous waste or hazardous waste constituents in the groundwater during the reporting period. This information will be submitted no later than March 1 following each calendar year.

Facility closure will be performed in a timely fashion. All accumulated materials will be characterized for proper disposal. Material shipments will take place within 10 working days of final characterization. Tanks and equipment will be decontaminated within 60 calendar days.

CLOSURE COST ESTIMATE

The Closure Plan is based on an orderly planned shutdown of the facility by USFRSMA. FDEP requires, however, that the Closure Cost Estimate be based on a worst-case scenario. That scenario is generally considered to be an unplanned situation in which the State will be responsible for implementing site closure using contractors hired by the State. It assumes that all tanks are full of material and that all contents of all tanks must be characterized to determine hazardous waste classification status. It also assumes that the on-site treatment processing equipment is not operational and that all materials must be transported off site for processing and appropriate disposal. The demolition of facilities is not considered to be a requirement for decontamination.

Two Closure Cost Estimates are presented. Table 2 is the Closure Cost Estimate for the solid waste operations for which there is a financial assurance requirement. As requested by FDEP on October 23, 2002, for this application, Table 3 contains an overall facility-wide Closure Cost Estimate for which financial assurance is not presently required. FDEP indicated that a requirement for an overall Closure Cost Estimate and financial assurance is anticipated in the near future. The Solid Waste Closure Cost Estimate presented as Table 2 is incorporated into the overall estimates of Table 3. The cost estimate utilizes Year 2001 Florida Prevailing Wage Rates with typical Contractor Billing Rate Multipliers. The Cost Estimate includes the Closure Assessment reconnaissance soil and groundwater investigation. A cost allowance is included for the clean-up of areas of surficially stained soil as part of the basic site decontamination. The cost estimate includes a Contingency of 15 percent and an Administrative Cost of 10 percent. Should contamination be discovered, the Cost Estimate does not include any costs for a more comprehensive Site Characterization, Groundwater Assessment, Corrective Action, or long-term monitoring.

The Solid Waste Closure Cost Estimate for which financial assurance is required is \$76,149 (say \$76,000). The total closure Decontamination Cost Estimate for the USFRSMA Pompano Beach facility is \$416,289 (say \$416,000).

**USFILTER RECOVERY SERVICES MID-ATLANTIC
POMPAÑO BEACH, FLORIDA FACILITY**

**TABLE 2
SOLID WASTE CLOSURE DECONTAMINATION COST ESTIMATE**

Unit Transportation and Disposal Costs

Oily water	\$0.16	\$/Gal
Oily Sludge Liquid	\$1.44	\$/Gal
Oily Solids (Non-Haz)	\$42.00	\$/Ton
Oily liquids (Haz)	\$1.25	\$/Gal
Oily Solids (Haz)	\$350.00	\$/Ton
Virgin vehicle fuels	\$0.00	\$/Gal (may assume zero cost with salvage value)

**NOTE:
ALL COSTS REPRESENT COMMERCIAL
THIRD PARTY COSTS FOR SITE AT
FULL CAPACITY**

Site Safety and Operations Plan

2500

Lump Sum

\$2,500

TANKS - DISPOSAL OF INVENTORY AND DECONTAMINATION

Total Number of Tanks

0

\$/Sample Florida pre-burn

Tank Content Characterization TCLP+PCB

\$385

\$0

Maximum Inventory**Tank Liquids**

Total Number of Tanks

0

Total tank volume, gal

0

% vol. Pumpable Pump volume

90

vehicle diesel, gal

0

95

\$/Gal

Total

Disposal cost
as oily water

0

\$0.16

\$0

0

\$0.00

\$0

Liquid/sludge by Vac Truck

Total Number of Tanks

0

Total tank volume, gal

0

% vol. Vac Truck Vac volume

31

vehicle diesel, gal

0

5

\$/Gal

Total

Disposal cost
as oily sludge

0

\$1.44

\$0

0

\$1.44

\$0

Note: Confined Space Procedures for Tank Entry-PPE Level C if Required

Solids Removal

Total Number of Tanks

0

Total tank volume, gal

0

% vol. Solids

7

vehicle diesel, gal

0

0

Tons

Solids volume

\$/Ton

Total

Disposal cost
as oily solids

0

\$42.00

\$0

0

\$42.00

\$0

Initial Tank Cleaning for 24 Hours with**Steam Condensate (as % tank volume)**

Total Number of Tanks

0

Total tank volume, gal

0

% vol. Vac Truck Vac Volume

2

vehicle diesel, gal

0

0

Gal

\$/Gal

Total

Disposal cost
as oily sludge

0

\$1.44

\$0

0

\$1.44

\$0

High Pres. Steam Clean (as % tank volume)

Total Number of Tanks

0

Total tank volume, gal

0

% vol. Vac Truck Vac Volume

3

vehicle diesel, gal

0

2

Gal

\$/Gal

Total

Disposal cost
as oily water

0

\$0.16

\$0

0

\$0.16

\$0

(includes associated piping, appurtenances, etc)

Containment Steam Clean (as % tank volume)

Total Number of Tanks

0

Total tank volume, gal

0

% vol. Vac Truck Vac Volume

2

vehicle diesel, gal

0

0

Gal

\$/Gal

Total

Disposal cost
as oily water

0

\$0.16

\$0

0

\$0.16

\$0

Container Storage Areas	Number Units	Gal or Tons total volume	Gal or Tons \$/Unit T&D)	
Non-Haz Drums, solids	750	195	\$42.00	\$8,190
Non-Haz Drums, liquids	250	13750	\$0.16	\$2,200
Haz Drums, Liquids	0	0	\$1.25	\$0
Haz Drums, solids	0	0	\$350.00	\$0
Roll-off boxes (@20cy/box)	5	130	\$42.00	\$5,460
Surficial stained soil boxes	21	52	\$42.00	\$2,184
General cleanup				
Container Characterization - 5% of Drums + rolloff boxes				analysis cost
Number analytical samples	57 (Florida Pre-Burn Analysis)		\$385.00	\$21,945

Inventory & Decontamination Manpower Costs

Classification	Florida 2001 Prevailing Wage Rate	Contractor Billing Rate Multiplier	Total Cost for 8-hr day
Engineer, Manager	33.76	3.5	945.28
Project Engineer	21.46	3.5	600.88
Haz Waste Laborer	13.35	3.2	341.76

Assume 5 Work Days for Disposal of Material Inventory and
 Labor Crew Size 3 Decontamination of Tanks and Site Equipment

Classification	Man-days	Daily Cost	Total Cost
Engineer, Mgr @33%time	2	945.28	\$1,560
Project Engineer, Site Supervisor	5	600.88	\$3,004
Haz Waste Laborer	15	341.76	\$5,126
			\$9,691

Summary Report of Decontamination Activities Lump Cost **\$5,000**

	Number	Cost	Unit
Equipment Rental Costs, Supplies, Safety, Etc.	5	\$500	Per day
Cleanup Verification Samples (#tanks + 30%)	5	\$250	Per sample

Soil and Groundwater Site Assessment

	Lump Costs	(Initial Phase II Reconnaissance Level)
Drilling (Geoprobe)	\$0	(includes investigative material disposal)
Analytical (10 samples)	\$0	(PPE at Level D)
Geoscience Labor	\$0	
Total	\$0	\$0

Note: This item required for Used Oil Permit Decommissioning, not for Solid Waste Permit

Total Decommissioning Cost	\$60,920
Contingency %	15
Administrative %	10
TOTAL SOLID WASTE PERMIT CLOSURE DECONTAMINATION COST ESTIMATE	\$76,149

NOTE: Cost Estimate is based upon removal of inventory and the decontamination of the facility to a safe clean condition suitable for further ordinary business usage of the facility or disposition of the facility through ordinary bankruptcy proceedings. The Cost Estimate does not include demolition of any tanks or structures to a greenfield condition.

**USFILTER RECOVERY SERVICES MID-ATLANTIC
POMPANO BEACH, FLORIDA FACILITY
TABLE 3
OVERALL CLOSURE DECONTAMINATION COST ESTIMATE**

Unit Transportation and Disposal Costs

Oily water	\$0.16	\$/Gal
Oily Sludge Liquid	\$1.44	\$/Gal
Oily Solids (Non-Haz)	\$42.00	\$/Ton
Oily liquids (Haz)	\$1.25	\$/Gal
Oily Solids (Haz)	\$350.00	\$/Ton
Virgin vehicle fuels	\$0.00	\$/Gal (may assume zero cost with salvage value)

**NOTE:
ALL COSTS REPRESENT COMMERCIAL
THIRD PARTY COSTS FOR SITE AT
FULL CAPACITY**

Site Safety and Operations Plan	10000	Lump Sum	\$10,000
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TANKS - DISPOSAL OF INVENTORY AND DECONTAMINATION

Total Number of Tanks	29	\$/Sample Florida pre-burn	
Tank Content Characterization TCLP+PCB		\$385	\$11,165

Maximum Inventory

Tank Liquids	% vol. Pumpable	Pump volume	\$/Gal	Total
			Disposal cost	Disposal Cost
Total Number of Tanks	29		as oily water	
Total tank volume, gal	415,000	90	373500 \$0.16	\$59,760
vehicle diesel, gal	16500	95	15675 \$0.00	\$0

Liquid/sludge by Vac Truck

	% vol. Vac Truck	Vac volume	\$/Gal	Total
			Disposal cost	Disposal Cost
Total Number of Tanks	29		as oily sludge	
Total tank volume, gal	415000	31	12450 \$1.44	\$17,928
vehicle diesel, gal	16500	5	825 \$1.44	\$1,188

Note: Confined Space Procedures for Tank Entry-PPE Level C if Required

Solids Removal

	% vol. Solids	Tons	\$/Ton	Total
			Disposal cost	Disposal Cost
Total Number of Tanks	29		as oily solids	
Total tank volume, gal	415000	7	142.345 \$42.00	\$5,978
vehicle diesel, gal	16500	0	\$42.00	\$0

Initial Tank Cleaning for 24 Hours with

Steam Condensate (as % tank volume)	% vol. Vac Truck	Gal	\$/Gal	Total
			Disposal cost	Disposal Cost
Total Number of Tanks	29		as oily sludge	
Total tank volume, gal	415000	2	8300 \$1.44	\$11,952
vehicle diesel, gal	16500	0	\$1.44	\$0

High Pres. Steam Clean (as % tank volume)

	% vol. Vac Truck	Gal	\$/Gal	Total
			Disposal cost	Disposal Cost
Total Number of Tanks	29		as oily water	
Total tank volume, gal	415000	3	12450 \$0.16	\$1,992
vehicle diesel, gal	16500	2	330 \$0.16	\$53

(includes associated piping, appurtances, etc)

Containment Steam Clean (as % tank volume)

	% vol. Vac Truck	Gal	\$/Gal	Total
			Disposal cost	Disposal Cost
Total Number of Tanks	29		as oily water	
Total tank volume, gal	415000	2	8300 \$0.16	\$1,328
vehicle diesel, gal	16500	0	\$0.16	\$0

Container Storage Areas	Number Units	Gal or Tons total volume	Gal or Tons \$/Unit T&D)	
Non-Haz Drums, solids	750	195	\$42.00	\$8,190
Non-Haz Drums, liquids	250	13750	\$0.16	\$2,200
Haz Drums, Liquids	48	2640	\$1.25	\$3,300
Haz Drums, solids	48	12.48	\$350.00	\$4,368
Roll-off boxes (@20cy/box)	5	130	\$42.00	\$5,460
Surficial stained soil boxes	21	52	\$42.00	\$2,184
Container Characterization - 5% of Drums + rolloff boxes		analysis cost		
Number analytical samples	62 (Florida Pre-Burn Analysis)	\$385.00		\$23,870

Inventory & Decontamination Manpower Costs

Classification	Florida 2001 Prevailing Wage Rate	Contractor Billing Rate Multiplier	Total Cost for 8-hr day
Engineer, Manager	33.76	3.5	945.28
Project Engineer	21.46	3.5	600.88
Haz Waste Laborer	13.35	3.2	341.76

Assume 40 Work Days for Disposal of Material Inventory and
Labor Crew Size 5 Decontamination of Tanks and Site Equipment

Classification	Man-days	Daily Cost	Total Cost
Engineer, Mgr @33%time	13	945.28	\$12,478
Project Engineer, Site Supervisor	40	600.88	\$24,035
Haz Waste Laborer	200	341.76	\$68,352
			\$104,865

Summary Report of Decontamination Activities Lump Cost \$10,000 \$10,000

	Number	Cost	Unit
Equipment Rental Costs, Supplies, Safety, Etc.	40	\$500	Per day
Cleanup Verification Samples (#tanks + 30%)	5	\$250	Per sample

Soil and Groundwater Site Assessment	Lump Costs	(Initial Phase II Reconnaissance Level)
Drilling (Geoprobe)	\$5,000	(includes investigative material disposal)
Analytical (10 samples)	\$9,000	(PPE at Level D)
Geoscience Labor	\$12,000	
Total	\$26,000	\$26,000

Note: This item required for Used Oil Permit Decommissioning, not for Solid Waste Permit

Total Decommissioning Cost	\$333,031
Contingency % 15	\$49,955
Administrative % 10	\$33,303
TOTAL SOLID WASTE PERMIT CLOSURE DECONTAMINATION COST ESTIMATE	\$416,289

NOTE: Cost Estimate is based upon removal of inventory and the decontamination of the facility to a safe clean condition suitable for further ordinary business usage of the facility or disposition of the facility through ordinary bankruptcy proceedings. The Cost Estimate does not include demolition of any tanks or structures to a greenfield condition.