



WASTE ACCEPTANCE CRITERIA

MIXED WASTE OPERATIONS

Perma-Fix Northwest Richland, Inc. (PFNW)

Prepared By:

A handwritten signature in black ink, appearing to read "Chuck White", written over a horizontal line.

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Approved By:

A handwritten signature in black ink, appearing to read "Jamie Granger", written over a horizontal line.

Jamie Granger, Regulatory Compliance Officer

WASTE ACCEPTANCE CRITERIA

PFNW Mixed Waste Facility (MWF) can receive and manage mixed waste carrying a dangerous or hazardous waste code, except for mixed waste carrying the listed non-specific source waste codes F020 through F023 and F026 through F028. Typical waste types may include bulk solids (soil, gravel, granular solids, filter cake, tank heels, etc.), debris, bulk liquids (organic and inorganic), bulk metals (sheet metal, pipes, lead, etc.), and heterogeneous solids (personal protective equipment, spill clean up kits, etc.).

GENERAL OUTLINE FOR PRE-ACCEPTANCE AND WASTE RECEIPT

- PFWN reviews/approves waste profile record submitted by generator.
- Inform generator in writing that PFWN can receive the waste stream (e.g., approve the waste profile).
- In accordance with Permit Number WAR000010355 Permit Condition II.B.2 for out-of-state shipments, PFWN notifies the Washington State Department of Ecology (Ecology), in writing, at least four (4) weeks in advance of the date scheduled to receive the waste.
- Generator notifies PFWN of intent to ship mixed waste by providing anticipated volume of waste and anticipated shipping schedule.
- PFWN works with the generator to establish a tentative shipment schedule.
- PFWN reviews the final shipping papers to verify that the waste will be shipped in accordance with DOT regulations.
- PFWN realizes that many of its customers possess very small quantities of mixed wastes and may only have one shipment to make. Mixed waste acceptance may be significantly different and more difficult than low-level waste acceptance. PFWN has the personnel and experience to both guide you through the process and perform the service for you. Contact your Sales Manager should you need any assistance.

RESTRICTED WASTES

Certain waste cannot be stored and/or treated at the MWF. Table 1.0 identifies the waste restricted from the MWF.

Table 1.0 Waste Restricted from MWF¹	
Restricted Waste	Rationale
Forbidden explosives as defined by 49 CFR 173.51, or Class A explosives as defined by 49 CFR 173.53, or Class B explosives as defined by 49 CFR 173.88. (WAC 173-303-090(7)(a)(viii)).	No treatment capability for forbidden Class A or Class B explosives.
Waste carrying a waste code not listed in the Part A Application.	Regulatory Restriction
Waste classified as explosive or shock sensitive as defined by WAC 173-303-090(7)(a)(vii)-(viii)	No management capability for these waste types.
Waste classified as dioxin waste (F020-F023 and F026-F028).	Regulatory Restriction
Containers holding a containerized gas at pressures greater than 25 psi ² or larger than 18" ² .	No treatment capability for containers of containerized gas above 25 psi ² or larger than 18".
Waste that would cause the MWF to exceed the possession requirements listed in the MWF radioactive material license. (RML #WN-I0508-1)	MWF cannot exceed the possession limits stipulated in the MWF radioactive materials license.
Liquid waste received in greater than 55-gallon containers with a flash point less than 100°F.	No storage capability for these waste types.

¹If it is determined that a waste listed on this table is received, the restricted waste may be stored separately in the waste storage building until arrangements are completed to return the waste to the generator or to forward the waste to a facility authorized and capable to receive the waste.

²These values are established from the manufacturer's specifications of the containerized gas treatment equipment.

ANALYTICAL AND WRITTEN INFORMATION

The following written and analytical information will be used to evaluate waste for management at the MWF:

- Pertinent chemical, radiological and physical data on the waste profile.
- A sample, if necessary. A sample may not be required by PFNW if: (1) the pre-acceptance documentation gives sufficient information to maintain compliance with the permit and operational constraints and (2) the submittal of a sample would not materially aid in the treatment decision process. If necessary, the sample may be obtained by PFNW on receipt of the initial shipment of the waste prior to formal acceptance (or re-evaluation of waste profile).
- Land Disposal Restriction (LDR) notification and certification information and/or data as required in Washington Administrative Code (WAC) 173-303-140 (40 CR 268.7), if applicable.
- Other supporting documentation such as Material Safety Data Sheets (MSDS) and product ingredients, when appropriate.

The waste profile record identifies the minimum informational requirements that must be supplied for PFNW to properly evaluate the waste stream and approve the waste profile. PFNW may request additional information not included on the waste profile record.

Waste Profile forms and other required forms may be found at our website at www.permafix.com.

DECISION EVALUATION LOGIC

PFNW may require additional parameter analyses to screen sample contaminants and/or properties, based on the following:

- Waste profile record description of the wastes' chemical, radiological and physical properties.
- Waste profile record description of the process generating the waste.
- Any additional documentation, including information that the waste is subject to LDR of 40 CFR Part 268 or WAC 173-303-140.
- Results of any parameter analyses.

- Experience and judgment of PFNW management.

The pre-acceptance evaluation concludes with documenting whether the waste is accepted and the proposed method of management. Acceptance decisions are based on:

- Conditions or limitations of existing licenses, permits and regulations.
- Capability to manage the waste in a safe and environmentally sound manner.
- Waste profile record description of the process generating the waste.
- Waste profile record description of the chemical and physical properties of the waste.
- Any additional documentation, including information that the waste is subject to LDR of 40 CFR Part 268 or WAC 173-303-140.
- Results of the parameter analyses.

A waste may be rejected during the pre-acceptance process for any of the following reasons:

- Significant discrepancy or discrepancies between pre-acceptance sample analysis results and analytical information provided by the generator.
- Incomplete or outdated information provided by the waste generator.
- The waste category is specifically excluded from acceptance at the MWF.
- The waste cannot be safely and/or effectively treated, processed, or stored at the MWF.
- There is no outlet for disposal.
- Radioactive License Condition (activity levels) will be exceeded, if received.

WASTE PROFILE RE-EVALUATION

PFNW will re-evaluate a waste profile if:

- The process generating the waste has changed or

- Inspection or analysis indicates that the waste received at the MWF does not match the waste identified on the accompanying manifest or shipping paper or pre-acceptance documentation.

When a waste profile is re-evaluated, PFNW may request the generator do one of the following:

- Verify that the current waste profile is accurate.
- Supply a new waste profile and/or
- Submit a sample for parameter analysis.

In addition, an annual review will be performed on each waste profile to verify the analytical data is accurate, current, and sufficient to properly manage the waste as intended.

GENERAL WASTE MANAGEMENT

Before receiving a waste from a particular off-site source, PFNW shall inform the generator in writing that PFNW has the appropriate permits and licenses and can accept the mixed waste and mixed- TSCA regulated PCB waste the generator is shipping as required by WAC 173-303-290 (3) and Permit Condition II.A.2. PFNW shall keep a copy of this written notice as part of the operating record.

MANAGEMENT OF FOREIGN AND OUT-OF-STATE MIXED WASTE

PFNW shall notify the Director and/or Regional Administrator, as applicable, in writing at least four (4) weeks in advance of the date PFNW expects to receive mixed waste from a foreign source, as required by WAC 173-303-290 (1) and 40 CFR §264.12 (a) respectively. Additionally, PFNW shall notify Ecology in writing at least four (4) weeks in advance of the date scheduled to receive an out-of-state waste in accordance with Permit Number WAR000010355 Permit Condition II.B.2. Notice of subsequent shipments of the same waste, from the same foreign or an out-of-state source, in the same calendar year is not required. Pursuant to 40 CFR §761.93, PFNW shall not import PCBs or PCB items from outside of the customs territory of the United States as defined in 40 CFR §720.3, without an exemption issued under the authority of TSCA Section 6 (e) (3).

PFNW shall notify the Director, in writing, at least four (4) weeks in advance of the date that PFNW expects to receive any mixed waste from an out-of-state generator.

- This notification must include the name and address of the generator, the expected total volume of mixed waste to be received by PFNW, the disposal site and the waste shipment schedule.

- PFNW shall certify in this notification that the generator will be shipping the waste in compliance with the applicable state and federal transportation requirements.

REQUIRED LAND DISPOSAL RESTRICTIONS FORMS

All wastes subject to the Land Disposal Restrictions (LDR) of 40 CFR Part 268 and that meet the appropriate treatment or variance, or that meet the appropriate treatment standard or prohibition without treatment, must be accompanied by a form from the generator certifying that the treated, exempted, or variance waste meets the appropriate treatment standards. This form must include the applicable analytical data or reference to such data or documentation to support the certification in accordance with 40 CFR Part 268.

All wastes subject to LDR and that require treatment must be accompanied by a form from the generator notifying PFNW of the appropriate treatment standards and all applicable prohibitions in accordance with 40 CFR Part 268.

ACTIVITY LIMITS PER SHIPMENT

Volume and mass reduction are to be anticipated for wastes sent to PFNW for processing. Special consideration must be given in pre-shipment analysis to ensure the final processed product is acceptable for disposal.

In accordance with 10 CFR 30, licensees are required to verify the consignee's ability to receive radioactive materials. While all shipments require prior notification and approval, additional approvals may be required to exceed the activity/concentration limits listed in Table 2.0 below.

Table 2.0
Activity / Concentration Limits

- Any container in which the waste activity of atomic numbers 84-103 is greater than or equal to 100mCi requires Washington Department of Health (WDOH) approval prior to receipt.
- Any discrete source greater than or equal to 10 mCi requires WDOH approval prior to receipt.
- 75% of current expected disposal site license limits as received if the waste is to be non-thermally treated.
- 5% of current expected disposal site license limits as received if the waste is to be thermally treated.
- 20% of DOT Type A quantity limits, per container, as received if the waste is to be non-thermally treated.
- 5% of DOT Type A quantity limits, per container, as received if the waste is to be thermally treated.
- Any waste container that exceeds LSA II limits for solids, as received. Solids limits should be applied to liquids for purposes of this requirement. If LSA II limits for liquids are not exceeded, the solids limits will not be exceeded.

SHIPMENT REQUIREMENTS

In order to maintain an up-to-date receiving schedule of shipments to the MWF, the PFNW Transportation Department must be informed of all waste shipments to the PFNW Site regardless of the carrier. The following conditions apply to each waste shipment:

- A one-time approval of each profile, and
- A per-shipment approval notification (Attachment 2)
- All generators shall receive approval from PFNW prior to shipment. In addition, notification from Ecology must be received at least a minimum of four (4) weeks in advance of the shipment arriving at PFNW.
- Drums weighing 2,500 pounds or less must be loaded so that they can be off-loaded using a mechanical lifter.
- Drums may be double-stacked, provided that no drums heavier than 400 pounds are placed on top.

- Drums may be palletized provided that they are secured to the pallet and the gross weight of the pallet does not exceed 4,200 pounds.
- Boxes and liners shall be elevated from the van floor and accessible with a forklift.
- Each package shall have a top clearance of at least 18 inches in a closed van.
- Packages weighing more than 4,200 pounds shall not be shipped in a closed, hardtop trailer.
- Liners, boxes and/or palletized drums shipped on flatbed trailers must be loaded in such a manner that they may be off-loaded from the side using a forklift.
- Items heavier than 12,500 pounds must have at least 6 inches of bottom clearance, or be accessible from the top with approved lifting mechanisms.
- Typically, PFNW accepts radioactive waste/material shipments by highway. PFNW does have the capability to transfer waste onto a tractor/trailer from a nearby rail spur and transport waste to the facility.
- All shipments shall meet all the applicable US DOT and NRC transportation requirements.

MANIFEST REQUIREMENTS

An advance copy of the information below must be provided with each Pre-Shipments Notification Form.

- An EPA or equivalent State Hazardous Waste Manifest must accompany each shipment of mixed waste.
- An NRC Form 540, 541, and 542, as appropriate, must accompany each shipment of mixed waste.
- The following information must be provided for each waste container in the shipment, either on the manifest or on separate cover (typically PFNW would prefer the following information be included in the pre-notification):
 - Container identification number
 - Profile number for each container
 - Hazardous waste codes applicable to each container
 - Physical form (solid or liquid)

- A notation if the container is a "labpack"
- Gross volume of each container (ft³)
- Net weight of each container (lbs)
- Requested process, by billing category, for each container
- Requested disposal site for each container
- Total chlorine/chloride for each container (mg/kg)
- Total mg/kg concentration for the chemical constituents listed on Attachment 4, Page 3 of 3.

NOTE: If separate containers are packed within an outer container, the above information must be provided for each inner container.

INCOMING SHIPMENT DECISION EVALUATION LOGIC

PFNW will accept or reject each waste shipment utilizing the following major decision points:

Waste Identification: Waste received will be inspected and sampled to verify that it meets the physical and chemical characteristics approved by the waste profile. The effectiveness of the waste identification step is dependent on the information provided during pre-acceptance. Additional factors also may influence the effectiveness of the waste identification process (e.g., waste sampling, analytical results, Land Disposal Restriction (LDR) forms, etc).

Additional Analysis (if necessary): Additional sampling and analysis may be required if the verification results indicate discrepancies with respect to pre-acceptance information, or if PFWN management has reason to suspect that the waste composition has changed.

Waste Non-conformance: A waste shipment will be classified as "non-conforming" if it is different in chemical or physical properties from the information on the waste profile, pre-acceptance information, or manifest. In addition, it is classified as a significant discrepancy if it were "significantly" different in quantity or type than that shown on the manifest as defined by 40 CFR 264.72.

Four (4) major criteria are used to classify "non-conformance". The criteria are:

- For bulk wastes, variations greater than 10 percent in weight.
- For containerized wastes, (e.g., drums, boxes) any variation in piece counts.
- If inspection or parameter analysis of any waste shipment determines differences in waste type or code (e.g., organic waste substituted for acidic waste or toxic constituents not reported on the manifest or shipping paper).
- If the non-conformance changes the originally approved method of management.

Non-conformance Waste Disposition: Non-conforming waste may be rejected or the waste may be re-evaluated for possible acceptance. PFWN' re-evaluation process determines whether

a waste in the form identified by PFNW (i.e., not consistent with the waste profile, and/or manifest) can be managed at the MWF and whether or not the generator concurs with the PFNW identification. This process prevents the unnecessary transportation of waste back and forth between the generator and the MWF when the waste can be managed by the facility. By eliminating this unnecessary movement, PFNW is attempting to minimize potential exposure, during transportation, to human health or the environment. Re-evaluation is based on the following criteria:

- Discussions with, or information from, the generator.
- Facility conditions for storage and treatment.
- Additional parameter analyses will be performed as deemed appropriate by facility management.
- Whether the waste can be managed under another profile approved for the generator.
- Permit and license requirements.
- PFNW management judgment.

The waste is accepted if evaluation, based on the above criteria, indicates the waste can be accepted and the generator concurs with the PFNW waste identification. PFNW management will discuss and attempt to resolve with the generator any discrepancies between the received waste and the manifest. If the discrepancy cannot be resolved within 15 days after receiving the waste, PFNW notifies the Ecology in writing of the discrepancy and the attempt to reconcile the discrepancy. PFNW provides Ecology with a copy of the manifest at issue (WAC 173-303-370 and 40 CFR 761.208).

A waste may be rejected during the incoming waste shipment process for any of the following reasons:

- Paperwork provided by the generator or transporter is not in order.
- A manifest discrepancy cannot be resolved to the satisfaction of the generator and PFNW.
- Regulatory requirements (e.g., specific permit conditions).
- A bulk liquid shipment is incompatible (i.e., fails a liquid waste compatibility determination) with wastes stored in the bulk liquid feed tank and no other management method is available.
- Adequate segregated space is not available for containerized liquid wastes and special handling cannot be used to correct the deficiency.

Rejected wastes will be moved and segregated as soon as such a discrepancy is discovered. The rejected waste will be stored in the "container reject" area. PFNW management will have 15 days to complete the resolution process. This will include notifying the generator and attempting to resolve the discrepancy. If it becomes evident that the waste cannot be processed at the MWF,

arrangements will be made for returning the waste to the generator or another facility, as authorized by the generator, before the 15-day resolution period expires. If the waste discrepancy is successfully resolved, the waste will be formally accepted and will be moved to the appropriate designated storage areas.

The final decision to reject all or part of a waste shipment is made by PFNW management. Decisions are made as soon as PFNW has collected and considered all of the applicable information listed above. PFNW will strive to complete these decisions as early as practicable, but circumstances may cause delays in obtaining the information necessary to make an informed decision on the acceptability of the waste. Under such circumstances, PFNW will take appropriate action to facilitate the decision process. During this time, proper segregated staging locations are determined using available information (e.g., MSDS, waste profile) to ensure the waste is staged with compatible wastes.

REFERENCED REQUIREMENTS FOR ALL PFNW CUSTOMERS

All customers shipping radioactive waste to PFNW shall comply with the requirements contained in the documents listed in Table 3.0, as applicable:

Table 3.0 Requirements
PFNW Inc., Richland Washington, Department of Health Radioactive Materials License WN-I0508-1
Washington Administrative Codes
U.S. Department of Transportation (DOT) Code of Federal Regulations (CFR) Title 49
U.S. Nuclear Regulatory Commission (NRC) CFR Title 10
U.S. Ecology Low Level Radioactive Waste Disposal License
CNSI Barnwell Waste Management Facility Site Disposal Criteria
Energy Solutions of Utah Site Criteria
Nevada Test Site Acceptance Criteria
DOE – Hanford Waste Acceptance Criteria

PFNW GENERAL FACILITY INFORMATION

Address:

2025 Battelle Boulevard
Richland, WA 99354

Telephone:

(509) 375-5160 (24 hours a day)

FAX:

(509) 375-0613 (24 hours a day)

Emergency:

(509) 375-7066
(24 hours a day)

Normal hours:

Monday through Friday
7:00 a.m. - 4:30 p.m. PST

Observed Company Holidays:

Memorial Day Observance
Independence Day Observance
Labor Day
Thanksgiving and the following
Friday
Christmas and the day before or
after
New Years Day

Mixed Waste Pre-Shipment Notification Form

PFNW

Shipment Approval Number							
1. Broker/Shipper				7. Shipper Telephone			
2. Client				8. Client Contact			
3. Carrier				9. Client Telephone			
4. Manifest Number				10. Client Fax Number			
5. Ship Date				11. Proper Shipping Name:			
6. Arrival Date							
11. Hazardous Waste Description (Include all hazardous waste codes applicable to the shipment.)							
13. List All Isotopes and Total Activity of Each Shipment: (Computer-generated shipment summary sheet may be used.)							
Isotope	Activity		Isotope	Activity		Isotope	Activity
		mCi			mCi		mCi
		mCi			mCi		mCi
		mCi			mCi		mCi
		mCi			mCi		mCi
		mCi			mCi		mCi
		mCi			mCi		mCi
		mCi			mCi		mCi
		mCi			mCi		mCi
		mCi			mCi	Total	mCi
14. Total SNM for Shipment (Grams)				15. Total Source for Shipment (Kgs)			
16. Shipment Net Volume (Ft³)				17. Shipment Gross Weight (Lbs.)			
18. Complete the attached container information sheets (WAC Attachment 4) or provide an advance manifest with the requested information.							
19. Special processing or billing instructions							
20. PFNW Acceptance of Pre-Shipment Information							
PFNW Materials Control Manager or Designee _____				Date _____			
21. Has a Waste Profile Sheet been submitted?						<input type="checkbox"/> Yes <input type="checkbox"/> No	
22. Waste Profile Number:						WP: _____	
23. Has Four Week Advance Notice been provided for receipt of out-of-state waste?						<input type="checkbox"/> Yes <input type="checkbox"/> No	
24. Has Written Notification of Authorization to Ship Waste been received?						<input type="checkbox"/> Yes <input type="checkbox"/> No	
25. Are you exporting from the Rocky Mountain Compact?						<input type="checkbox"/> Yes Permit # _____ <input type="checkbox"/> No	
26. If block 26 is yes, do you have an export permit?						<input type="checkbox"/> Yes <input type="checkbox"/> No	
27. Are you declaring any part of this waste to be NORM, NARM or exempt?						<input type="checkbox"/> Yes <input type="checkbox"/> N/A <input type="checkbox"/> No	
28. If block 26 is yes, do you have a determination letter?						<input type="checkbox"/> Yes <input type="checkbox"/> No	
29. Have you completed a Washington State RHF-31 form?						<input type="checkbox"/> Yes <input type="checkbox"/> N/A <input type="checkbox"/> No	
30. Container Activity Atomic #'s 84-103 greater than or equal to 100 mCi?						<input type="checkbox"/> Yes <input type="checkbox"/> N/A <input type="checkbox"/> No	
31. Discrete Source greater than or equal to 10 mCi?						<input type="checkbox"/> Yes <input type="checkbox"/> N/A <input type="checkbox"/> No	
32. End Disposition (Circle one or more. If more than one, specify in space provided)							
DOE Burial:		Hanford, MWT		ERDF		NTS	
US Ecology		Energy Solutions		Return		Other	

Notice: The material you are expecting to ship to PFNW, Richland, WA, must enter the state at one of two entry points. The driver will be required to stop for an inspection of the vehicle to insure compliance with the State of Washington and Department of Transportation requirements for vehicles carrying hazardous materials. The Transport vehicle will not be allowed entry into the state until the vehicle passes this inspection. The shipment cannot be accepted at PFNW without a certificate of inspection from one of these checkpoints:

- 1.) Weigh Station at Plymouth (I-82)
- 2.) Weigh Station at Spokane (I-90)

Phone (509) 734-7043
Phone (509) 226-3366

The driver must notify one of these checkpoints by phone 4 hours prior to entering the state. A personal monetary fine of \$100 can be levied for failure to stop at one of the above checkpoints. A lengthy delay may also be expected in addition to the \$100 fine. Please make all drivers aware of these requirements before leaving your facility.

33. I hereby certify this form is complete to the best of my knowledge and the waste meets the requirements of the PFNW Mixed Waste Acceptance Criteria, Rev. 02. For waste that does not meet those criteria, variance approval has been received. Name of PFNW Representative approving the variance or N/A.

Shipper Signature: _____

Date: _____

Name (Print): _____

Phone: _____

This form is to be completed and sent to PFNW, Richland, WA, at least 5 days but no later than 48 hours prior to departure of your shipment. If a shipment arrives without a shipment approval number, it may result in excessive delays and demurrage charges or possible return of the shipment to the generator.

Instruction Sheet for Mixed Waste Pre-Shipment Notification Form

The Pre-Shipment Notification Form provides Perma-Fix Northwest Richland, Inc. (PFNW) with the information needed to properly receive and process generators waste without costly time delays. It also allows PFNW to resolve any questions before waste arrives.

Data Entry Instructions

1. Enter the name of the company that is brokering the shipment or company shipping the load.
2. Enter the name of the facility that waste originated from.
3. Enter the name of the transporting company.
4. Enter the manifest number if known. If the manifest number is not available until the day of the shipment then leave blank.
5. Enter the anticipated date of shipment from your facility.
6. Enter anticipated date of shipment arrival at PFNW.
7. Enter the telephone number of the shipping or brokering company.
8. Enter the contact name for a person knowledgeable of the shipment information.
9. Enter the telephone number for the individual listed in block 8.
10. Enter the fax number for the individual listed in block 8.
11. Enter proper shipping name of material abbreviations accepted.
12. Write a brief description of the material type in the shipment (e.g., 7 drums liquid glycol and water, 2 c-vans of compactible trash). Be sure to include all applicable hazardous waste codes. The material described should match the contract category descriptions.
13. List all isotopes to be in the shipment and the totals of each for the shipment. This is vital in approving the shipment. These isotopes and activities will be checked against the current onsite inventory and PFNW's radioactive material license. A shipment summary sheet may be attached in lieu of completing this section.
14. Enter the total grams of SNM for the shipment.
15. Enter the total kilograms of source material for the shipment.
16. Enter the shipment net volume in cubic feet. If it is an estimate write "est." after the volume.
17. Enter the gross weight of the shipment in pounds. If it is an estimate write "est." after the weight.
18. Complete as requested. This information is critical to allow acceptance of the shipment.
19. If there is a need to give specific instructions concerning the process of a container, write it in this block. Also reference any special billing agreement as applicable.
20. **Reserved for PFNW.**
21. Check the appropriate answer.
22. Input the Waste Profile Number assigned to the described waste.
23. Check the appropriate answer. Must be a YES prior to shipment approval. (If out-of-state mixed waste)
24. Check the appropriate answer. Must be a YES prior to shipment approval.
25. Check the appropriate answer.
26. Check the appropriate answer. An export permit must be in place before shipment can be made and a copy must be included with the shipping papers.
27. Check the appropriate answer.
28. Check the appropriate answer. A copy of the determination letter should accompany the shipment.
29. Check the appropriate answer. The State of Washington requires an RHF-31 form for waste transported in the state and must be part of the shipping papers.
30. Check the appropriate answer. Yes required WDOH approval prior to receipt.
31. Check the appropriate answer. Yes requires WDOH approval prior to receipt.
32. This is to be signed by the party responsible for the shipment. They will be the first point of contact if there are any questions concerning the shipment.

After review of the Pre-Shipment Notification Form, a shipment approval number will be issued for that shipment. This number is entered on the top of the form and then the completed signed form sent with the shipment. PFNW requests that a copy of the finished manifest be faxed or e-mailed to the Richland facility the date of the shipment. This is not a requirement to acceptance, but expedites the offload of the shipment.

NOTE: It is imperative that the shipper supply PFNW with all tare weights to containers that are not to be part of the waste stream.

The following list of chemicals is to be specifically considered when completing Attachment 4 of the Mixed Waste Acceptance Criteria:

Metals

Antimony	Lead
Arsenic	Mercury
Barium	Nickel
Beryllium	Selenium
Cadmium	Silver
Chromium	Thallium
	Total Chlorine/Chloride

Organics

Benzene	Hexachlorobenzene
Carbon Tetrachloride	Hezachlorobutadiene
Chlordance	Hexachloroethane
Chlorobenzene	Lindane
Chloroform	Methoxychlor
o-Cresol	Methyl Ethyl Ketone
m-Cresol	Nitrobenzene
p-Cresol	Pentachlorophenol
2,4-D	Pyridine
1,4-Dichlorobenzene	Tetrachloroethylene
1,2-Dichlorethane	2,4,5-Trichlorophenol
1,1-Dichloroethylene	2,4,6-Trichlorophenol
2,4-Dinitrotoluene	2,4,5-TP (Silvex)
Endrin	Vinyl Chloride
Heptachlor	

Other

Cyanides
Sulfides
PCBs
Other (list all other known chemical constituents)

NOTE: Enter all constituents and their concentrations known to be present. The generator/shipper signifies, by signature on the Pre-Shipment Notification Form, that to the best of their knowledge, the constituents listed are the only constituents present.

WASTE PROFILE

Perma-Fix Nuclear Services: DSSI * M&EC * Perma-Fix of Florida * Perma-Fix Northwest

Profile Number

Generator Information:

EPA ID#	
Generator Name	
Generator Address	
City/State/Zip	
Telephone	
Fax	

Billing Information:

Electronic users: check here to copy Generator info, if same.

Broker/Site	
Address	
City/ST/Zip	
Telephone	
Fax	

Check all that apply

- | | | | |
|---|--|--|--|
| <input type="checkbox"/> Hazardous Waste - Include LDR-UHC Constituent Form | <input type="checkbox"/> TSCA Regulated PCB | <input type="checkbox"/> Radioactive Waste | <input type="checkbox"/> Non-Hazardous Waste |
| <input type="checkbox"/> Mercury >260 PPM | <input type="checkbox"/> PCB Bulk Products | | <input type="checkbox"/> Universal Waste |
| <input type="checkbox"/> Oxidizers | <input type="checkbox"/> PCB Remediation Waste | | <input type="checkbox"/> Used Oil Filter |
| <input type="checkbox"/> Elemental Mercury | <input type="checkbox"/> PCB Articles | | <input type="checkbox"/> Used Oil |
| <input type="checkbox"/> Reactives - specify: <input type="text"/> | | | |

Please provide a detailed description of the process that generated this waste. Attach additional sheets if needed.

Note: for a line break, press alt-return.

Characterization Method: (check ONE only)

- Laboratory Analysis MSDS Generator Knowledge

Physical Description: (check all that apply)

- Solid Liquid Sludge Debris Labpack (add inventory form)

Other:

Volume: <input type="text"/>	Gross Weight: <input type="text"/>	Container Type: <input type="text"/>	Total Number of Containers: <input type="text"/>
<small>(include units: 30 liters, 5 gal., etc.)</small>	<small>(include units: 75 lbs, 10 kg, etc.)</small>		

Overpacked: <input type="checkbox"/> Yes <input type="checkbox"/> No	US DOT Hazardous Material: <input type="checkbox"/> Yes <input type="checkbox"/> No	Proper Shipping Name: <input type="text"/>
DOT Hazard Class: <input type="text"/>	<input type="text"/>	
<small>primary</small>	<small>subsidiary</small>	

- This waste stream is subject to the Land Disposal Restriction of 40 CFR 268.
(If checked, complete a Land Disposal Restriction Notification form)
- This waste stream contains Benzene.
(If checked, complete the Benzene NESHAP Worksheet)
- This waste stream consists of off-spec used oil.
- This is a CERCLA waste.

For Broker Use Only

I certify the following:
The packages used to ship this material meet the requirements of 49 CFR 173 Subpart B (HazMat). This material will be inspected for consistency with the preapproved profile at the time of transportation.

<input type="text"/>	<input type="text"/>
Name	Date

CHEMICAL PROPERTIES AND COMPOSITION:

Percent Free Liquid: <input type="text"/> % (None=0%, all=100%)	Percent Settled Solids: <input type="text"/> % (None=0%, all=100%)	Viscosity: <input type="text"/> Centistokes
pH Actual: <input type="text"/> OR Range: <input type="text"/> to <input type="text"/>	Specific Gravity Actual: <input type="text"/> OR Range: <input type="text"/> to <input type="text"/>	

CERTIFICATION

I certify that all hazards, known or suspected, have been disclosed on this profile. Further I understand that a surcharge may be imposed for any material which is rejected or requires additional handling due to the material being inconsistent with the profile, improper or damaged containers, or improper shipping documents.

- Any sample submitted is representative as defined in 40 CFR 261-Appendix I or is obtained using an equivalent method.
- I authorize Perma-Fix to obtain a sample from any waste shipment for purposes of verification.

<input type="text"/>	<input type="text"/>	<input type="text"/>
Name	Title	Date

Perma-Fix Use Only

- Accepted Accepted with the following conditions:
- Rejected for the following reasons:

Designated Facility:

- DSSI
 M&EC
 PF Florida
 PFNW

Perma-Fix has all of the necessary permits and licenses for the waste that has been characterized and identified by this approved profile and accepted by Perma-Fix.

<input type="text"/>	<input type="text"/>	<input type="text"/>
Name	Title	Date

**PERMA-FIX ENVIRONMENTAL SERVICES
WASTE CODE INFORMATION**

Please list all D,F,K,P, U and WA State codes that this waste carries. WA state codes for PFNW only.

EPA Hazardous Waste Codes				

ADDITIONAL CHEMICAL CONSTITUENT DISCLOSURE

List any known chemical components that are not reported elsewhere in the profile.
 Attach additional sheets if necessary.
(Constituents should add up to 100%)

Chemical Constituents	Concentration	(Units)

Chemical Constituents	Concentration	(Units)

LAND DISPOSAL RESTRICTION & CERTIFICATION FORM

DSSI • M&EC • Perma-Fix of Florida • Perma-Fix Northwest

Generator Name

Generator Address

State Manifest No.

Generator USEPA ID No.

City/ST/Zip

Manifest Doc. No.

Instructions

- In Column 1 identify all USEPA hazardous waste codes that apply to this waste shipment.
- In Column 2, choose the appropriate treatability group: Non-Wastewater (NWW) or Wastewater (WW).
- In Column 3, enter the appropriate Subcategory, if applicable, and also enter "Contaminated Soil" or "Debris" if the waste can be treated using one of the alternative treatment technologies provided by 268.49(c) (soil) or 268.45 (debris).
- In Column 4, circle the letter of the appropriate LDR management categories on the back of this form.
- In Column 5, enter the Reference Number(s) from the LDR-UHC Constituent Table for any constituents subject to treatment in your waste stream.

Go to LDR-UHC Constituent Table

Manifest Line Item #	1. USEPA HAZARDOUS WASTE CODES	2. NWW or WW	3. SUBCATEGORY	4. HOW MUST THE WASTE BE MANAGED (Check one)											5. REFERENCE NUMBER(S) of Hazardous Constituents contained in the waste.			
				A	B	C	D	E	F	G	H	Soil Only						
11.A		NWW													Does		is subject to	
		WW													Does Not		complies with	
11.B		NWW													Does		is subject to	
		WW													Does Not		complies with	
11.C		NWW													Does		is subject to	
		WW													Does Not		complies with	
11.D		NWW													Does		is subject to	
		WW													Does Not		complies with	

I hereby certify that all information submitted on this and all associated documents is complete and accurate to the best of my knowledge and information.

<input type="text"/>	<input type="text"/>	<input type="text"/>
Generator Name	Title	Date

- THIS RESTRICTED WASTE REQUIRES TREATMENT TO THE APPLICABLE STANDARD. This waste must be treated to the applicable performance based treatment standard set forth in 40CFR Part 268 Subpart C, 268.32, Subpart D, 268.40 or RCRA Section 3004(d) prior to land disposal.
- THIS HAZARDOUS DEBRIS MAY BE TREATED USING THE DEBRIS ALTERNATIVE TREATMENT STANDARDS OF 40 CFR 268.45. I certify under penalty of law that I personally have examined and am familiar with the waste and that the statement above is true and that this waste meets the definition of debris and can be treated using the alternate methods specified in 40 CFR 268.45. I am aware that there are significant penalties for submitting a false certification including possibility of fine or imprisonment.
- THIS RESTRICTED WASTE HAS BEEN TREATED TO THE APPLICABLE TREATMENT STANDARD(S). I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR 268 Subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.
- THIS RESTRICTED DEBRIS HAS BEEN TREATED IN ACCORDANCE WITH 40 CFR 268.45. I certify under penalty of law that the debris has been treated in accordance with the requirements of 40 CFR 268.45. I am aware that there are significant penalties for making false certification, including the possibility of a fine and imprisonment.
- THIS LAB PACK DOES NOT CONTAIN ANY WASTES IDENTIFIED AT APPENDIX IV TO PART 268. I certify under penalty of law that I personally have examined and am familiar with the waste and that the statement above is true and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification including possibility of fine or imprisonment.
- THIS RESTRICTED WASTE HAS BEEN TREATED TO REMOVE THE HAZARDOUS CHARACTERISTIC. I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.
- THIS RESTRICTED WASTE HAS BEEN TREATED TO REMOVE THE HAZARDOUS CHARACTERISTIC AND BEEN TREATED FOR UNDERLYING HAZARDOUS CONSTITUENTS. I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic, and that underlying hazardous constituents, as defined in 268.48 Universal Treatment Standards. I am aware that there are significant penalties for submitting false certification, including the possibility of fine and imprisonment.
- THIS RESTRICTED WASTE IS SUBJECT TO AN EXEMPTION FROM LAND DISPOSAL. (Please include the date the waste is subject to the prohibitions in Column 5) This waste is subject to an exemption from a prohibition on the type of land disposal method utilized for the waste (such as, but not limited to, a case-by-case extension under 40 CFR Part 268.5, or an exemption under 40 CFR 268.6).
- THIS CONTAMINATED SOIL (DOES / DOES NOT) CONTAIN LISTED HAZARDOUS WASTE AND (DOES / DOES NOT) EXHIBIT A CHARACTERISTIC OF HAZARDOUS WASTE AND (IS SUBJECT TO / COMPLIES WITH) THE SOIL TREATMENT STANDARDS AS PROVIDED BY 268.49(c) OR THE UNIVERSAL TREATMENT STANDARDS. I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

Resource Guide
Underlying Hazardous Constituent (UHC)
Land Disposal Restriction (LDR) Constituents

Ref #:	Hazardous Constituent	CAS NO.	NWW (mg/kg)	WW (mg/kg)	Concentration			
					11a	11b	11c	11d
1	Acenaphthene	83-32-9	3.4	0.059				
2	Acenaphthylene	208-96-8	3.4	0.059				
3	Acetone	67-64-1	160	0.28				
4	Acetonitrile	75-05-8	38	5.6				
5	Acetophenone	96-86-2	9.7	0.01				
6	2-Acetylaminofluorene	53-96-3	140	0.059				
7	Acrolein	107-02-8	NA	0.29				
8	Acrylonitrile	107-13-1	84	0.24				
9	Acrylamide	79-06-1	23	19				
10	Aldrin	309-00-2	0.066	0.021				
11	4-Aminobiphenyl	92-67-1	NA	0.13				
12	Aniline	62-53-3	14	0.81				
13	Anthracene	120-12-7	3.4	0.059				
14	Aramite	140-57-8	NA	0.36				
15	alpha-BHC	319-84-6	0.066	0.00014				
16	beta-BHC	319-85-7	0.066	0.00014				
17	delta-BHC	319-86-8	0.066	0.023				
18	gamma-BHC (Lindane)	58-89-9	0.066	0.0017				
19	Benz(a)anthracene	56-55-3	3.4	0.059				
20	Benzal chloride	98-87-3	6	0.055				
21	Benzene	71-43-2	10	0.14				
22	Benzo(a)pyrene	50-32-8	3.4	0.061				
23	Benzo(b)fluoranthene	205-99-2	6.8	0.11				
24	Benzo(k)fluoranthene	207-08-9	6.8	0.11				
25	Benzo(g,h,i)perylene	191-24-2	1.8	0.0055				
26	bis(2-Chloroethoxy)methane	111-91-1	7.2	0.036				
27	bis(2-Chloroethyl)ether	111-44-4	6	0.033				
28	bis(2-Chloroisopropyl) ether	39638-32-9	7.2	0.055				
30	Bromodichloromethane	75-27-4	15	0.35				
31	Bromomethane (Methyl bromide)	74-83-9	15	0.11				
32	4-Bromophenyl phenyl ether	101-55-3	15	0.055				
33	n-Butyl alcohol	71-36-3	2.6	5.6				
34	Butyl benzyl phthalate	85-68-7	28	0.017				
35	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	2.5	0.066				
36	Carbon disulfide	75-15-0	4.8*	3.8				
37	Carbon tetrachloride	56-23-5	6	0.057				
38	Chlordane (alpha and gamma isomers)	57-74-9	0.26	0.0033				
39	p-Chloroaniline	106-47-8	16	0.46				
40	Chlorobenzene	108-90-7	6	0.057				
41	Chlorobenzilate	510-15-6	NA	0.1				
42	2-Chloro-1, 3-butadiene (Chloroprene)	126-99-8	0.28	0.057				
43	Chlorodibromomethane	124-48-1	15	0.057				
44	Chloroethane	75-00-3	6	0.27				
45	Chloroform	67-66-3	6	0.046				
46	p-Chloro-m-cresol	59-50-7	14	0.018				
47	2-Chloroethyl vinyl ether	110-75-8	NA	0.062				
48	Chloromethane (Methyl chloride)	74-87-3	30	0.19				
49	2-Chloronaphthalene	91-58-7	5.6	0.055				
50	2-Chlorophenol	95-57-8	5.7	0.044				
51	3-Chloropropylene (Allyl Chloride)	107-05-1	30	0.036				

Ref #:	Hazardous Constituent	CAS NO.	NWW (mg/kg)	WW (mg/kg)	Concentration			
					11a	11b	11c	11d
52	Chrysene	218-01-9	3.4	0.059				
53	o-Cresol (2-Methyl phenol)	95-48-7	5.6	0.11				
54	m-Cresol (3-Methyl phenol)	108-39-4	5.6	0.77				
55	p-Cresol (4-Methyl phenol)	106-44-5	5.6	0.77				
56	Cyclohexanone	108-94-1	0.75 *	0.36				
57	o,p'-DDD	53-19-0	0.087	0.023				
58	p,p'-DDD	72-54-8	0.087	0.023				
59	o,p'-DDE	3424-82-6	0.087	0.031				
60	p,p'-DDE	72-55-9	0.087	0.031				
61	o,p'-DDT	789-02-6	0.087	0.0039				
62	p,p'-DDT	50-29-3	0.087	0.0039				
63	Dibenz(a,h)anthracene	53-70-3	8.2	0.055				
64	Dibenz(a,e)pyrene	192-65-4	NA	0.061				
65	1,2-Dibromo-3-chloropropane	96-12-8	15	0.11				
66	1,2-Dibromoethane (Ethylene dibromide)	106-93-4	15	0.028				
67	Dibromomethane	74-95-3	15	0.11				
68	m-Dichlorobenzene (1,3-Dichlorobenzene)	541-73-1	6	0.036				
69	o-Dichlorobenzene (1,2-Dichlorobenzene)	95-50-1	6	0.088				
70	p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	6	0.09				
71	Dichlorodifluoromethane	75-71-8	7.2	0.23				
72	1,1-Dichloroethane	75-34-3	6	0.059				
73	1,2-Dichloroethane	107-06-2	6	0.21				
74	1,1-Dichloroethylene	75-35-4	6	0.025				
75	trans-1,2-Dichloroethylene	156-60-5	30	0.054				
76	2,4-Dichlorophenol	120-83-2	14	0.044				
77	2,6-Dichlorophenol	87-65-0	14	0.044				
78	2,4-Dichlorophenoxyacetic acid (2,4-D)	94-75-7	10	0.72				
79	1,2-Dichloropropane	78-87-5	18	0.85				
80	cis-1,3-Dichloropropylene	10061-01-5	18	0.036				
81	trans-1,3-Dichloropropylene	10061-02-6	18	0.036				
82	Dieldrin	60-57-1	0.13	0.017				
83	Diethyl phthalate	84-66-2	28	0.2				
84	p-Dimethylaminoazobenzene	60-11-7	NA	0.13				
85	2,4-Dimethyl phenol	105-67-9	14	0.036				
86	Dimethyl phthalate	131-11-3	28	0.047				
87	Di-n-butyl phthalate	84-74-2	28	0.057				
88	1,4-Dinitrobenzene	100-25-4	2.3	0.32				
89	4,6-Dinitro-o-cresol	534-52-1	160	0.28				
90	2,4-Dinitrophenol	51-28-5	160	0.12				
91	2,4-Dinitrotoluene	121-14-2	140	0.32				
92	2,6-Dinitrotoluene	606-20-2	28	0.55				
93	Di-n-octyl phthalate	117-84-0	28	0.017				
94	Di-n-propylnitrosamine	621-64-7	14	0.4				
95	1,4-Dioxane	123-91-1	170	12				
96	Diphenylamine	122-39-4	13	0.92				
97	Diphenylnitrosamine	86-30-6	13	0.92				
98	1,2-Diphenylhydrazine	122-66-7	NA	0.087				
99	Disulfoton	298-04-3	6.2	0.017				
100	Endosulfan I	959-98-9	0.066	0.023				
101	Endosulfan II	33213-65-9	0.13	0.029				
102	Endosulfan sulfate	1031-07-8	0.13	0.029				
103	Endrin	72-20-8	0.13	0.0028				
104	Endrin aldehyde	7421-93-4	0.13	0.025				
105	2-Ethoxyethanol (FO05)+			INCIN				

Ref #:	Hazardous Constituent	CAS NO.	NWW (mg/kg)	WW (mg/kg)	Concentration			
					11a	11b	11c	11d
106	Ethyl acetate	141-78-6	33	0.34				
107	Ethyl benzene	100-41-4	10	0.057				
108	Ethyl ether	60-29-7	160	0.12				
109	Ethyl methacrylate	97-63-2	160	0.14				
110	Ethylene oxide	75-21-8	NA	0.12				
111	Famphur	52-85-7	15	0.017				
112	Fluoranthene	206-44-0	3.4	0.068				
113	Fluorene	86-73-7	3.4	0.059				
114	Heptachlor	76-44-8	0.066	0.0012				
115	Heptachlor epoxide	1024-57-3	0.066	0.016				
116	Hexachlorobenzene	118-74-1	10	0.055				
117	Hexachlorobutadiene	87-68-3	5.6	0.055				
118	Hexachlorocyclopentadiene	77-47-4	2.4	0.057				
119	HxCDDs (All Hexachlorodibenzo-p-dioxin)	NA	0.001	0.000063				
120	HxCDFs (All Hexachlorodibenzofurans)	NA	0.001	0.000063				
121	Hexachloroethane	67-72-1	30	0.055				
122	Hexachloropropylene	1888-71-7	30	0.035				
123	Indeno (1,2,3-c,d) pyrene	193-39-5	3.4	0.0055				
124	Iodomethane	74-88-4	65	0.19				
125	Isobutyl alcohol (Isobutanol)	78-83-1	170	5.6				
126	Isodrin	465-73-6	0.066	0.021				
127	Isosafrole	120-58-1	2.6	0.081				
128	Kepone	143-50-0	0.13	0.0011				
129	Methacrylonitrile	126-98-7	84	0.24				
130	Methanol	67-56-1	0.75 *	5.6				
131	Methapyrilene	91-80-5	1.5	0.081				
132	Methoxychlor	72-43-5	0.18	0.25				
133	3-Methylchloroanthrene	56-49-5	15	0.0055				
134	4,4-Methylene bis (2-chloroaniline)	101-14-4	30	0.5				
135	Methylene chloride	75-09-2	30	0.089				
136	Methyl ethyl ketone	78-93-3	36	0.28				
137	Methyl isobutyl ketone	108-10-1	33	0.14				
138	Methyl methacrylate	80-62-6	160	0.14				
139	Methyl methanesulfonate	66-27-3	NA	0.018				
140	Methyl parathion	298-00-0	4.6	0.014				
141	Naphthalene	91-20-3	5.6	0.059				
142	2-Naphthylamine	91-59-8	N/A	0.52				
143	o-Nitroaniline	88-74-4	14	0.27				
144	p-Nitroaniline	100-01-6	28	0.028				
145	Nitrobenzene	98-95-3	14	0.068				
146	5-Nitro-o-toluidine	99-55-8	28	0.32				
147	o-Nitrophenol	88-75-5	13	0.028				
148	p-Nitrophenol	100-02-7	29	0.12				
149	2-Nitropropane (FO05)+			INCIN				
150	N-Nitrosodiethylamine	55-18-5	28	0.4				
151	N-Nitrosodimethylamine	62-75-9	2.3	0.4				
152	N-Nitroso-di-n-butylamine	924-16-3	17	0.4				
153	N-Nitrosomethylethylamine	10595-95-6	2.3	0.4				
154	N-Nitrosomorpholine	59-89-2	2.3	0.4				
155	N-Nitrosopiperidine	100-75-4	35	0.013				
156	N-Nitrosopyrrolidine	930-55-2	35	0.013				
157	Parathion	56-38-2	4.6	0.014				
158	Total PCBs	1336-36-3	10	0.1				
159	Pentachlorobenzene	608-93-5	10	0.055				

Ref #:	Hazardous Constituent	CAS NO.	NWW (mg/kg)	WW (mg/kg)	Concentration			
					11a	11b	11c	11d
160	PeCDDs (All Pentachlorodibenzo-p-dioxin)	NA	0.001	0.000063				
161	PeCDFs (All Pentachlorodibenzofurans)	NA	0.001	0.000035				
162	Pentachloroethane	76-01-7	6	0.055				
163	Pentachloronitrobenzene	82-68-8	4.8	0.055				
164	Pentachlorophenol	87- 86-5	7.4	0.089				
165	Phenacetin	62-44-2	16	0.081				
166	Phenanthrene	85-01-8	5.6	0.059				
167	Phenol	108-95-2	6.2	0.039				
168	Phorate	298-02-2	4.6	0.021				
169	Phthalic acid	100-21-0	28	0.055				
170	Phthalic anhydride	85-44-9	28	0.055				
171	Pronamide	23950-58-5	1.5	0.093				
172	Propanenitrile (Ethyl cyanide)	107-12-0	360	0.24				
173	Pyrene	129-00-0	8.2	0.067				
174	Pyridine	110-86-1	16	0.014				
175	Safrole	94-59-7	22	0.081				
176	Silvex (2,4,5-TP)	93-72-1	7.9	0.72				
177	1,2,4,5-Tetrachlorobenzene	95-94-3	14	0.055				
178	TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.001	0.000063				
179	TCDFs (All Tetrachlorodibenzofurans)	NA	0.001	0.000063				
180	1,1,1,2-Tetrachloroethane	630-20-6	6	0.057				
181	1, 1,2,2-Tetrachloroethane	79-34-5	6	0.057				
182	Tetrachloroethylene	127-18-4	6	0.056				
183	2,3,4,6-Tetrachlorophenol	58-90-2	7.4	0.03				
184	Toluene	108-88-3	10	0.08				
185	Toxaphene	8001-35-2	2.6	0.0095				
186	Tribromomethane (Bromoform)	75-25-2	15	0.63				
187	1,2,4-Trichlorobenzene	120-82-1	19	0.055				
188	1, 1, 1 -Trichloroethane	71-55-6	6	0.054				
189	1, 1,2-Trichloroethane	79-00-5	6	0.054				
190	Trichloroethylene	79-01-6	6	0.054				
191	Trichloromonofluoromethane	75-69-4	30	0.02				
192	2,4,5-Trichlorophenol	95-95-4	7.4	0.18				
193	2,4,6-Trichlorophenol	88-06-2	7.4	0.035				
194	2,4,5-Trichlorophenoxyacetic acid/2,4,5-T	93-76-5	7.9	0.72				
195	1,2,3-Trichloropropane	96-18-4	30	0.85				
196	1,1,2-Trichloro- 2,2,2-trifluoroethane	76-13-1	30	0.057				
197	Iris-(2,3-Dibromopropyl) phosphate	126-72-7	0.1	0.011				
198	Vinyl chloride	75-01-4	6	0.27				
199	Xylenes	1330-20-7	30	0.32				
200	Antimony	7440-36-0	1.15*	1.9				
201	Arsenic	7440-38-2	5.0 *	1.4				
202	Barium	7440-39-3	21 *	1.2				
203	Beryllium	7440-41-7	1.22 *	0.82				
204	Cadmium	7440-43-9	0.11 *	0.69				
205	Chromium (Total)	7440-47-3	0.60 *	2.77				
206	Cyanides (Total)	57-12-5	590	1.2				
207	Cyanides (Amenable)	57-12-5	30	0.86				
208	Fluoride	16984-48-8	NA	35				
209	Lead	7439-92-1	0.75 *	0.69				
210	Mercury (retort residues)	7439-97-6	0.2 *	NA				
211	Mercury (all others)	7439-97-6	0.025 *	0.15				
212	Nickel	7440-02-0	11 *	3.98				
213	Selenium	7782-49-2	5.7 **, **	0.82				

Ref #:	Hazardous Constituent	CAS NO.	NWW (mg/kg)	WW (mg/kg)	Concentration			
					11a	11b	11c	11d
214	Silver	7440-22-4	0.14	0.43				
215	Sulfide	18496-25-8	NA	14				
216	Thallium	7440-28-0	0.2	1.4				
217	Vanadium	7440-62-2	1.6**,**	4.3				
218	Zinc	7440-66-6	4.3**,**	2.61				
220	Aldicarb sulfone	1646-88-4	0.28	0.056				
221	Barban	101-27-9	1.4	0.056				
222	Bendiocarb	22781-23-3	1.4	0.056				
224	Benomyl	17804-35-2	1.4	0.056				
225	Butylate	2008-41-5	1.4	0.042***				
226	Carbaryl	63-25-2	0.14	0.006				
227	Carbenzadim	10605-21-7	1.4	0.056				
228	Carbofuran	1563-66-2	0.14	0.006				
229	Carbofuran phenol	1563-38-8	1.4	0.056				
230	Carbosulfan	55285-14-8	1.4	0.028				
231	m-Cumenyl methylcarbamate	64-00-6	1.4	0.056				
233	Diethylene glycol, dicarbamate	5952-26-1	1.4	0.056				
235	Dithiocarbarnates (total)	137-30-4	28	0.028				
236	EPTC	759-94-4	1.4	0.042				
237	Formetanate hydrochloride	23422-53-9	1.4	0.056				
241	Methiocarb	2032-65-7	1.4	0.056				
242	Methomyl	16752-77-5	0.14	0.028				
243	Metolcarb	1129-41-5	1.4	0.056				
244	Mexacarbale	315-18-4	1.4	0.056				
245	Molinate	2212-67-1	1.4	0.042				
246	Oxarnyl	23135-22-0	0.28	0.056				
247	Pebulate	1114-71-2	1.4	0.042				
249	Physostigmine	57-47-6	1.4	0.056				
250	Physostigmine salicylate	57-64-7	1.4	0.056				
251	Pronecarb	2631-37-0	1.4	0.056				
252	Propharn	122-42-9	1.4	0.056				
253	Propoxur	114-26-1	1.4	0.056				
254	Prosulfocarb	52888-80-9	1.4	0.042				
255	Thiodicarb	59669-26-0	1.4	0.019				
256	Thiophanate-methyl	23564-05-8	1.4	0.056				
258	Triallate	2303-17-5	1.4	0.042				
259	Triethylamine	101-44-8	1.5	0.081				
260	Vernolate	1929-77-7	1.4	0.042				

* "Concentration in mg/l TCLP"

** Not Underlying Hazardous Constituents. (See 60 FR, Jan. 3,1995)

*** The preamble to the final rule (61 FR 15584) clearly indicates that the wastewater treatment standard for thiocarbamate constituents has been revised to 0.042mg/l. However, the '268.48 universal treatment standards table still shows 0.003 mg/l.

These UTS levels are effective on August 24, 1998 as established in 63 FIR 28556-28753, the finalized Phase IV-Part 2 land disposal restrictions (LDR) rule.

BENZENE NESHP QUESTIONNAIRE

DSSI • M&EC • Perma-Fix of Florida • Perma-Fix Northwest

Generator:

Profile Number:

1. Does the waste stream come from a facility with one of the following SIC codes listed under the NESHP?

NESHP SIC Codes		
2812	2813	2816
2819	2821	2822
2823	2824	2833
2834	2835	2836
2841	2842	2843
2844	2851	2861
2865	2869	2873
2874	2875	2879
2891	2892	2893
2895	2899	2911
3087	3312	3861
3952	3999	4923
4924	4925	4931
4932	4939	4953
4959	7389	9511

- Yes Please go to the next question.
 No STOP. Please fill in your Name, Title and Date at the end of this form.

2. What is your facility's total annual benzene (TAB) quantity generated? (lb/yr)

3. For what calendar year was the TAB calculated?

4. What is the total Benzene concentration in your waste?

_____ percent _____ ppm weight _____ Unknown
 Please attach analytical.

What acceptable EPA SW-846 or Water methods were used to analyze this waste?

- EPA SW-846 Method _____ or,
 Water Method _____, or
 Generator Knowledge, if generator knowledge, please attach a brief description.

5. Does this waste stream contain greater than 10% water?

- Yes
 No This waste stream is exempt.
 If yes, what is the average concentration? _____ %

Certification

I hereby certify, under penalty of law, that the above information is true, complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I will notify Perma-Fix if any of the information above changes.

<input type="text"/>	<input type="text"/>	<input type="text"/>
Name	Title	Date

PCB ADDENDUM

DSSI • M&EC • Perma-Fix of Florida • Perma-Fix Northwest

Generator:

Profile Number:

Waste Description

Please complete all sections of the table for each PCB waste stream

Physical Description of Waste (e.g., sludge, dielectric fluid)	Number/Type of Containers	Total PCB Waste Weight	Date Article Removed from Service for Disposal	Total PCB Concentration

Certification

I hereby certify, under penalty of law, that the above information is true, accurate and complete to the best of my knowledge.

<input type="text"/>	<input type="text"/>	<input type="text"/>
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Name

Title

Date