

## AR TARGET SHEET

The following document was too large to scan as one unit, therefore, it has been broken down into sections.

EDMC#: 0057160  
SECTION: 3 OF 4

DOCUMENT #: DOE/RL 2002-21 Rev 000

TITLE: CY 2001 Hanford Site Mixed  
Waste Land Disposal Restrictions  
Report Volumes 1 and 2

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Plant/unit name:** T Plant Complex/Batteries, Pb & Cd      **Waste stream** Storage-Lead acid and cadmium batteries
- Treatability/aggregated group identifier: MLLW-09
- Treatability/aggregated group name: Lead acid and cadmium batteries

**1.2 Applicable profile number(s) for this waste stream:**

830

**1.3 Waste stream source information**

**1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Lead acid batteries, etc.

**1.3.2 History of how and where the waste was/is generated:**

Generated at T Plant during routine maintenance and treatment activities and from other onsite and offsite generators

**1.3.3 Source of the hazardous constituents:**

See 1.3.1 and 1.3.2

**1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Process knowledge

**1.3.5 Additional notes:**

None.

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

**2.1 Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)
- Tank                       DST                       SST

Other (explain): T Plant Complex has a combination of covered and uncovered storage areas to support various waste management operations/activities. Depending upon the type of waste being managed the waste can be stored in covered or uncovered storage locations. As an example: If the waste is bulk liquid, this waste might be stored in a storage building equipped with HVAC to prevent freezing.

**2.1.1 How was the waste managed prior to storage?**

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Generated as part of routine maintenance and treatment activities and from other onsite and offsite generators

### 2.1.2 Timeframe when waste was placed into storage:

1995 to present.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
T PLANT COMPLEX	1

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 0.208

Date of inventory values: 12/28/01

Comments on waste inventory: Inventory will fluctuate as T Plant Complex generates waste or performs treatment/verification of onsite/offsite generated waste.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list: NA

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.010		
2003	0.010		
2004	0.010		
2005	0.010		
2006	0.010		
Totals	0.050		

### 2.7 DOE Storage Compliance Assessment information:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Assessment has been completed. Reference to most recent assessment: Oct. 2000, A&E-00-ASS-072

Assessment has been scheduled. Scheduled date: Assessment currently scheduled for July 2003

Other. Explain: NA

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

NA

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain:

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

NA

If yes, provide Tri-Party Agreement milestone number(s): NA

**2.12 Other key assumptions related to storage, inventory, and generation information:**

Projection volumes for this waste stream are expected to fluctuate as operations, maintenance, and repackaging of other generators waste and canyon deck/cell cleanout continues. The generation rates will be updated as necessary.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted: See Section 3.3.3 for discussion on waste min.

If yes, provide document number or other identification:

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA:

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**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

Waste minimization techniques are used in maintenance planning processes and during treatment activities to the extent practical.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

The T Plant Complex has submitted a P2/Wmin fiscal year 2002 goal to reduce, where possible, mixed waste generation. For FY 2002 to 2006, new goals will be evaluated and identified on a year-by-year basis. The T Plant Complex does not track waste reduction by treatability groups. Routine and non-routine generated waste is reported quarterly to the Waste Minimization/Pollution Prevention Group. This information is available on the following URL: <http://apsql05.rl.gov/polprev/default.asp>

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION

- 1.1 Treatability group/aggregated stream identifier** MLLW-10  
**Treatability group/aggregated stream name:** Reactive metals
- 1.2 Description of waste (list WSRd numbers for this waste stream, as applicable):**  
 ENA, 44A, 44B, 820, 822, 82A. This waste consists of water-reactive metals and compounds, typically including sodium metal. May also consist of water-reactive cyanides.

### 2.0 WASTE STREAM INVENTORY AND GENERATION

- 2.1 Current total inventory for this stream (stored waste only, not accumulation areas)**  
 Total volume (cubic meters): 25.000
- 2.2 Estimated generation projection by calendar year**

Year	m3	and/or	kg
2002	0.301		
2003	0.301		
2004	0.301		
2005	0.301		
2006	0.301		
Totals	1.505		

### 3.0 WASTE STREAM CHARACTERIZATION

- 3.1 Radiological characteristics**
- 3.1.1 Mixed waste type**       High-level     Transuranic     Low-level
- 3.1.2 Handling (as currently packaged/stored)**     Contact-handled     Remote-handled
- 3.1.3 Comments on radiological characteristics (e.g., more specific content, treatment concerns caused by radiation, confidence level):**  
 Since the waste is a general category based on dangerous waste physical characteristics, the radiological characteristics are expected to vary greatly. There is a high confidence that the waste is CH-MLLW.
- 3.2 Matrix characteristics (physical content)**
- 3.2.1 Matrix constituent table (each constituent listed should constitute at least 1% of the total volume or mass)**
- 3.2.2 Confidence level for matrix characteristic data in Section 3.2.1:**  
 Low     Medium     High
- 3.2.3 Comments on matrix characteristics and/or confidence level:**  
 A typical container consists of waste contaminated with reactive components.

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 3.3 Regulated contaminated characteristics

#### 3.3.1 Wastewater/non-wastewater under RCRA

Wastewater     Non-wastewater     Unknown

#### 3.3.2 Regulated contaminant table including treatment requirements and UHCs, if applicable

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable	Low TOC	***	***	DEACT and meet 268.48 standards
D002	Corrosive	Corrosive Charac.	***	***	DEACT and meet 268.48 standards
D003	Reactive	Other Reactives	NA	Process Knowledge	DEACT and meet 268.48 standards
D003	Reactive	Water Reactive	NA	Process Knowledge	DEACT and meet 268.48 standards
D003	Reactive	Reactive Cyanides	NA	Process Knowledge	590/30 mg/kg
D005	TC-Barium	NA	***	***	21 mg/l TCLP & meet 40 CFR 268.48
D007	TC-Chromium	NA	***	***	0.60 mg/l TCLP & meet 40 CFR 268.48
WSC2	Solid Corrosive	NA	***	***	Remove Solid Acid Charac.
WT02	Toxic, DW	NA	***	***	None

\*LDR subcategory marked NA if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

\*\*If the waste is not consistent in concentration or the concentration is unknown, this may not apply. Describe in Section 3.3.6.

\*\*\* The concentration varies and is based on process knowledge and/or analytical data.

#### 3.3.3 List any waste numbers from Section 3.3.2 for which the stream already meets established LDR treatment standards

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- List:  
 No LDR treatment required (e.g., TRUM waste destined for WIPP, exclusion, etc.)  
 None (i.e., all constituents/waste numbers of this waste stream still require treatment)

### 3.3.4 Does this waste stream contain PCBs?

- Yes  No  Unknown If no or unknown, skip to Section 3.3.5

#### 3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

- Yes  No  Unknown

#### 3.3.4.2 Indicate the PCB concentration range (ppm)

- <50  ≥ 50  Unknown

### 3.3.5 What is the confidence level for the regulated contaminant characteristic data?

- Low  Medium  High

### 3.3.6 Comments on regulated contaminant characteristics and/or confidence level:

Confidence is high that the waste package contains reactive waste contamination.

## 4.0 WASTE STREAM TREATMENT

### 4.1 Is this stream currently being treated? Yes No

If yes, provide details: NA

### 4.2 Planned treatment

Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- No treatment required (skip to Section 5.0)  Treating or plan to treat off site  
 Treating or plan to treat on site  Treatment options still being assessed

### 4.3 Planned treatment method, facility, extent of treatment capacity available:

No treatment plans for this waste stream have been completed.

### 4.4 Treatment schedule information:

Treatment will be performed as necessary to support the results of the active M-91 TPA negotiations.

### 4.5 Applicable Tri-Party Agreement milestone numbers (including permitting):

None.

### 4.6 Proposed new Tri-Party Agreement treatment milestones:

An M-91 TPA change request was submitted to Ecology on 2/13/02.

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**4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?**

Yes  No  Unknown

If yes, describe: NA

**4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment:**

None.

**4.9 Key assumptions:** None.

### 5.0 WASTE STREAM DISPOSAL

**After treatment, how will the waste stream be disposed of (include description, locations, milestone numbers, variances required, etc., as applicable)?**

Treated waste will be disposed of in mixed waste trenches located on the Hanford Site.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Plant/unit name:** 222-S/Reactive Metals and Metal Compounds, Dangerous Mixed Waste Storage Area (DMWSA), Reactive metals      **Waste stream** Reactive Metals and Metal Compounds
- Treatability/aggregated group identifier: MLLW-10  
Treatability/aggregated group name: Reactive metals

**1.2 Applicable profile number(s) for this waste stream:**

None

**1.3 Waste stream source information**

**1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Solid waste from unused or expired standards and reagents used in laboratory operations (chemical used in an analytical procedure performed in the hood of the lab or hot cell analytical procedures).

**1.3.2 History of how and where the waste was/is generated:**

222S generates waste during laboratory activities ( e.g. analytical procedures and hot cell operations).

**1.3.3 Source of the hazardous constituents:**

222-S Laboratory use standards and reagents to perform analytical operations.

**1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Material safety data sheets are used primarily to designate standard and reagents.

**1.3.5 Additional notes:**

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

**2.1 Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                 DST                                 SST  
 Other (explain):

**2.1.1 How was the waste managed prior to storage?**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Waste was managed per the Hanford Facility Dangerous Waste Permit Application, 222-S Laboratory Complex (DOE/ RL-91-27 Revision 1)

### 2.1.2 Timeframe when waste was placed into storage:

08/11/95-12/31/2000

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
----------------------	----------------------------

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 0

Date of inventory values: 1/14/02

Comments on waste inventory: This data is from Solid Waste Information and Tracking System (SWITS) specific to 222S Laboratory.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? n/a

When is this capacity expected to be reached n/a

Bases and assumptions used: n/a

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.300		
2003	0.300		
2004	0.300		
2005	0.300		
2006	0.300		
Totals	1.500		

### 2.7 DOE Storage Compliance Assessment information:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- Assessment has been completed. Reference to most recent assessment: A&E-SEC-01-018
- Assessment has been scheduled. Scheduled date:
- Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

None

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

- Yes  No

If yes, summarize releases and quantities and provide date:

n/a

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

- Yes  No

If yes, explain: n/a

**2.11 Is further characterization necessary?**

- Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

n/a

If yes, provide Tri-Party Agreement milestone number(s): n/a

**2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

- Yes  No

If yes, provide date assessment conducted: 9/2000

If yes, provide document number or other identification: Operating and analytical procedures at 222S Laboratory.

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA:

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

222-S personnel minimize waste through proper planning during Automated Job Hazard Analysis

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

(AJHA) and pre-jobs and optimizing use of lab ware. 222-S seek innovative technology that will allow waste minimization.

### 3.3 Waste minimization schedule

**3.3.1 Reduction achieved during calendar year (volume or mass):** 7.3 m3

### 3.3.2 Projected future waste volume reductions:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 3.3.3 Bases and assumptions used in above estimates:

DOE/RL-2000-79 - "Pollution Prevention Accomplishments" document reported waste reductions for CY 2000. The waste reduction volume reported above in Section 3.3.1 is a total waste minimization volume for similar waste streams across the 222-S Laboratory; this waste stream may be a portion of what was reported. 222-S has no waste minimization goals for this waste stream; therefore, no projected future waste volume reduction are reported above in Section 3.3.2. However, the analytical process generating this stream is continuously evaluated for waste minimization opportunities.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Plant/unit name:** CWC/CWC, Reactive metals      **Waste stream** Alkali metals  
    **Treatability/aggregated group identifier:** MLLW-10  
    **Treatability/aggregated group name:** Reactive metals

1.2 **Applicable profile number(s) for this waste stream:**

NA

1.3 **Waste stream source information**

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Reactive Metal Waste - Reactive metal (e.g. sodium, lithium, calcium), metal hydrides, borohydrides and related compounds packaged in a form that is sufficiently stable for extended storage.

1.3.2 **History of how and where the waste was/is generated:**

The waste was generated at various onsite locations.

1.3.3 **Source of the hazardous constituents:**

See 1.3.1 and 1.3.2

1.3.4 **Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Process knowledge

1.3.5 **Additional notes:**

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

2.1 **Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                 DST                                 SST  
 Other (explain):

2.1.1 **How was the waste managed prior to storage?**

Accumulated and packaged by waste generators prior to storage at CWC.

2.1.2 **Timeframe when waste was placed into storage:**

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Waste storage at CWC began in 1987 and has continued since then.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
CWC	58

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 25  
 Date of inventory values: 12/31/01  
 Comments on waste inventory: Inventory based on data for containers residing at the CWC as reported in the Solid Waste Information Tracking System (SWITS) for WSRds 44A, 44B, 820, 822, 82A, and ENA.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: No issues with CWC storage based on 20 year waste generation forecast.

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment

A&E-SEC-02-001

Assessment has been scheduled. Scheduled date:

Other. Explain:

### 2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

M-20-12

- 2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

- 2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

If necessary, waste will be re-characterized just prior to treatment for most efficient use of resources to meet current disposal requirements. Characterization will be performed as necessary to support the results of the active M-91 TPA negotiations.

If yes, provide Tri-Party Agreement milestone number(s): None

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

- 3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: None planned - waste not generated at CWC

- 3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

These activities occur before the wastes are shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

- 3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):**

0 m<sup>3</sup>

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### 3.3.2 Projected future waste volume reductions:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 3.3.3 Bases and assumptions used in above estimates:

There is no projected generation by CWC.

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### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

**1.1 Plant/unit name:** FFTF/FFTF, Reactive Metals      **Waste stream** FFTF  
**Treatability/aggregated group identifier:** MLLW-10  
**Treatability/aggregated group name:** Reactive metals

**1.2 Applicable profile number(s) for this waste stream:**

H599

**1.3 Waste stream source information**

**1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Small pieces of metallic sodium collected during refueling and maintenance activities. The size of each piece usually range from tablespoon size to 1/4 cup. The volume generated depends on the amount of refueling and maintenance actives that are taking place.

**1.3.2 History of how and where the waste was/is generated:**

Generated during refueling activities

**1.3.3 Source of the hazardous constituents:**

Small pieces of sodium from the system may be attached to components during maintenance and refueling activities. The sodium needs to be removed before Maintenance/Refueling activities can continue. Refueling activities also include removing non-fuel components from storage in sodium.

**1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Process knowledge

**1.3.5 Additional notes:**

The waste that is being reported is in a satellite accumulation area.

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

**2.1 Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                 DST                                 SST  
 Other (explain): NA

**2.1.1 How was the waste managed prior to storage?**

NA

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.1.2 Timeframe when waste was placed into storage:**

NA

**2.2 Inventory locations:**

Building/room number	Number of containers/tanks
NA	NA

**2.3 Current inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 0

Date of inventory values: 12/31/01

Comments on waste inventory: NA

**2.4 Is storage capacity at this location potentially an issue for this waste stream?**

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

**2.5 Planned management areas for storage of this waste:**  Current location  CWC

DST  Other area(s) list: NA

None

**2.6 Estimated generation projection by calendar year:**

Year	m3	and/or	kg
2002	0.001		
2003	0.001		
2004	0.001		
2005	0.001		
2006	0.001		
Totals	0.005		

**2.7 DOE Storage Compliance Assessment information:**

Assessment has been completed. Reference to most recent assessment

Assessment has been scheduled. Scheduled date:

Other. Explain: NA

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

NA

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

NA

If yes, provide Tri-Party Agreement milestone number(s): NA

**2.12 Other key assumptions related to storage, inventory, and generation information:**

The final disposition of the 260,000 gallons of FFTF sodium has not been determined but the present plans are to use this sodium as a product and not as a waste.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: February 2003

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

The waste stream is of such insignificant volume that any further minimization is not required. The refueling equipment is designed to minimize the waste generated. In addition, sodium is collected in drip pots, then heated and returned to the system.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):**

0 kg

**3.3.2 Projected future waste volume reductions:**

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<u>Year</u>	<u>m3</u>	<u>and/or</u>	<u>kg</u>
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		<u>          </u>
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

None

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION

**1.1 Treatability group/aggregated stream identifier** PNNL-HWTU Waste  
**Treatability group/aggregated stream name:** PNNL Laboratory Waste

**1.2 Description of waste (list WSRd numbers for this waste stream, as applicable):**

This waste stream consists of many different inorganic and organic solids and liquids that are contaminated with inorganic and organic regulated dangerous waste constituents, including PCBs. This waste stream also includes hazardous debris. WSRds in this waste stream: 400, 401, 402, 403, 404, 420, 421, 422, 500, 501, 503, 504, 505, 521, 523, 524, 525, 627, 647, 800, 820, 822, 830, 923, 930.

### 2.0 WASTE STREAM INVENTORY AND GENERATION

**2.1 Current total inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 2.254

**2.2 Estimated generation projection by calendar year**

Year	m3	and/or	kg
2002	31.100		
2003	25.000		
2004	25.000		
2005	25.000		
2006	25.000		
Totals	131.100		

### 3.0 WASTE STREAM CHARACTERIZATION

**3.1 Radiological characteristics**

**3.1.1 Mixed waste type**       High-level     Transuranic     Low-level

**3.1.2 Handling (as currently packaged/stored)**     Contact-handled     Remote-handled

**3.1.3 Comments on radiological characteristics (e.g., more specific content, treatment concerns caused by radiation, confidence level):**

The majority of these wastes are Contact Handled, thus CH is chosen above. Some items may be Remote handled within containers that are packaged to meet contact handled limits, thus only CH is indicated. The radiological constituents are characterized using methods approved in PNNL's Waste stream profiles for the waste currently being stored.

**3.2 Matrix characteristics (physical content)**

**3.2.1 Matrix constituent table (each constituent listed should constitute at least 1% of the total volume or mass)**

**3.2.2 Confidence level for matrix characteristic data in Section 3.2.1:**

## LDR REPORT TREATABILITY GROUP DATA SHEET

Low    Medium    High

### 3.2.3 Comments on matrix characteristics and/or confidence level:

There is high confidence that the subject waste stream will not contain physical matrix characteristics that do not meet the waste stream description.

### 3.3 Regulated contaminated characteristics

#### 3.3.1 Wastewater/non-wastewater under RCRA

Wastewater    Non-wastewater    Unknown

#### 3.3.2 Regulated contaminant table including treatment requirements and UHCs, if applicable

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable	Low TOC	***	***	DEACT & meet 268.48
D001	Ignitable	High TOC	***	***	RORFA; CMBST; POLYM
D002	Corrosive	Corrosive Charac.	***	***	DEACT & meet 268.48
D003	Reactive	multiple	***	***	DEACT & meet 268.48
D004	TC-Arsenic	NA	***	***	5.0 mg/L TCLP
D005	TC-Barium	NA	***	***	100 mg/L TCLP
D006	TC-Cadmium	Cadmium Charac.	***	***	1.0 mg/L TCLP
D007	TC-Chromium	NA	***	***	5.0 mg/L TCLP
D008	TC-Lead	Lead Charac.	***	***	5.0 mg/L TCLP
D009	TC-Mercury	Low Mercury	<260 mg/kg	***	0.2 mg/L TCLP
D010	TC-Selenium	NA	***	***	5.7 mg/L TCLP
D011	TC-Silver	NA	***	***	5.0 mg/L TCLP
D018	Benzene	NA	***	***	10 mg/kg & meet 268.48
D019	Carbon Tetrachloride	NA	***	***	6.0 mg/kg & meet 268.48
D021	Chlorobenzene	NA	***	***	6.0 mg/kg & meet 268.48
D022	Chloroform	NA	***	***	6.0 mg/kg & meet 268.48

**LDR REPORT TREATABILITY GROUP DATA SHEET**

<b>EPA/ State number</b>	<b>Waste description</b>	<b>LDR sub- category*</b>	<b>Concentration (typical or range)**</b>	<b>Basis</b>	<b>LDR Treatment Concentration Standard or Technology Code</b>
D027	p-Dichlorobenzene	NA	***	***	6.0 mg/kg & meet 268.48
D028	1,2-Dichlorethane	NA	***	***	6.0 mg/kg & meet 268.48
D029	1,1-Dichloroethylene	NA	***	***	6.0 mg/kg & meet 268.48
D030	2,4-Dinitrotoluene	NA	***	***	140.0 mg/kg & meet 268.48
D033	Hexachlorobutadiene	NA	***	***	5.6 mg/kg & meet 268.48
D035	Methyl Ethyl Ketone	NA	***	***	36 mg/kg & meet 268.48
D038	Pyridine	NA	***	***	16 mg/kg & meet 268.48
D039	Tetrachloroethane	NA	***	***	6.0 mg/kg & meet 268.48
D040	Trichloroethylene	NA	***	***	6.0 mg/kg & meet 268.48
D043	Vinyl Chloride	NA	***	***	6.0 mg/kg & meet 268.48
F001	1,1,1-Trichloroethane	Spent Solvent	***	***	6.0 mg/kg
F002	Methylene Chloride	Spent Solvent	***	***	30 mg/kg
F003	Acetone & Hexone	Spent Solvent	***	***	160 mg/kg
F004	o-Cresol & p-Cresol	Spent Solvent	***	***	5.6 mg/kg
F005	Methyl Ethyl Ketone	Spent Solvent	***	***	36 mg/kg
WP01	Persistent, EHW	NA	***	***	None (1)
WP02	Persistent, DW	NA	***	***	None
WP03	Persistent, EHW	NA	***	***	None
WSC2	Solid Corrosive	NA	***	***	Remove solid- acid char
WT02	Toxic, DW	NA	***	***	None

## LDR REPORT TREATABILITY GROUP DATA SHEET

\*LDR subcategory marked NA if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

\*\*If the waste is not consistent in concentration or the concentration is unknown, this may not apply. Describe in Section 3.3.6.

\*\*\* The concentration varies and is based on process knowledge and/or analytical data.

**3.3.3 List any waste numbers from Section 3.3.2 for which the stream already meets established LDR treatment standards**

List:

No LDR treatment required (e.g., TRUM waste destined for WIPP, exclusion, etc.)

None (i.e., all constituents/waste numbers of this waste stream still require treatment)

**3.3.4 Does this waste stream contain PCBs?**

Yes  No  Unknown If no or unknown, skip to Section 3.3.5

**3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?**

Yes  No  Unknown

**3.3.4.2 Indicate the PCB concentration range (ppm)**

<50  ≥ 50  Unknown

**3.3.5 What is the confidence level for the regulated contaminant characteristic data?**

Low  Medium  High

**3.3.6 Comments on regulated contaminant characteristics and/or confidence level:**

The subject waste has been characterized as prescribed in the waste profiles for the various WSRds listed in Section 1.2 of this data sheet. Some of the waste does contain PCBs subject to TSCA regulation. If a waste package is regulated by TSCA, it is identified as such on the storage records. In Section 3.3.4.2 of this data sheet, the PCB concentration range is marked as "Unknown" because concentrations occur below and above 50 ppm. In Section 3.3.1 of this data sheet, waste may be either wastewater or non-wastewater at the point of generation but is most likely to be non-wastewater at the time of shipment.

### 4.0 WASTE STREAM TREATMENT

**4.1 Is this stream currently being treated?  Yes  No**

If yes, provide details: Some of the contents of individual waste containers will be treated to meet acceptance criteria for other Hanford waste management units and /or to allow for bulking and absorbing larger volumes of waste into each container.

## LDR REPORT TREATABILITY GROUP DATA SHEET

Occasionally the results of this treatment produce waste that meets all LDR treatment standards.

### 4.2 Planned treatment

Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- No treatment required (skip to Section 5.0)  Treating or plan to treat off site  
 Treating or plan to treat on site  Treatment options still being assessed

### 4.3 Planned treatment method, facility, extent of treatment capacity available:

Some of the individual wastes will be treated to meet acceptance criteria for other Hanford Site waste management units. Occasionally the results of this treatment will be a waste that meets all LDR treatment standards.

### 4.4 Treatment schedule information:

Treatment will be performed in the 325 Hazardous Waste Treatment Units before shipment to CWC for further treatment and/or disposal. Waste treatment done at the HWTU is typically done on an as needed basis to facilitate transfer to CWC. In addition, treatment will be performed as necessary to support the results of the active M-91 TPA negotiations.

### 4.5 Applicable Tri-Party Agreement milestone numbers (including permitting):

Has met milestone M-20-20.

### 4.6 Proposed new Tri-Party Agreement treatment milestones:

An M-91 TPA Change request was submitted to Ecology on 2/13/02.

### 4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

- Yes  No  Unknown

If yes, describe: The 325 HWTU follows PNNL's Pollution Prevention Program. Staff requirements for pollution prevention and waste minimization are detailed in PNNL's program entitled "Waste Minimization and Pollution Prevention".

### 4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment:

NA

### 4.9 Key assumptions: NA

## 5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include description, locations, milestone numbers, variances required, etc., as applicable)?

Waste from PNNL (treated or untreated) is transferred to other Hanford waste management units (CWC, LLBG) for further treatment/disposal.

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## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- Tank             DST             SST  
 Other (explain):

### 2.1.1 How was the waste managed prior to storage?

The waste was managed in 90 day or Satellite Accumulation areas prior to being transferred to this storage facility.

### 2.1.2 Timeframe when waste was placed into storage:

The waste currently stored here was placed in storage between 05/07/1993 and 12/31/2001.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
325/520	279
325/528	50

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 2.254  
Date of inventory values: 1/3/02  
Comments on waste inventory: None.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

- Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

### 2.5 Planned management areas for storage of this waste: Current location CWC

- DST  Other area(s) list:  
 None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	31.100		
2003	25.000		
2004	25.000		
2005	25.000		
2006	25.000		
Totals	131.100		

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 2.7 DOE Storage Compliance Assessment information:

- Assessment has been completed. Reference to most recent assessment: 1/4/2002. Report not yet received.
- Assessment has been scheduled. Scheduled date:
- Other. Explain:

### 2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

May include waste items where M-91-10, M-91-11-T01, and M-91-15 apply.

### 2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?

- Yes  No

If yes, summarize releases and quantities and provide date:

NA

### 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

- Yes  No

If yes, explain: NA

### 2.11 Is further characterization necessary?

- Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

PNNL Waste Management requests full chemical and radiological characterization from the laboratory generators prior to receiving the waste into the HWTU.

If yes, provide Tri-Party Agreement milestone number(s): NA

### 2.12 Other key assumptions related to storage, inventory, and generation information:

The inventory information is for what is currently in storage in the specified HWTU Location(s). This includes current generation and/or M-91 wastes. The projections in Section 2.6 of this data sheet include current generation and M-91 volumes.

## 3.0 WASTE MINIMIZATION

### 3.1 Has a waste minimization assessment been completed for this stream?

- Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: To be determined.

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

Laboratory staff routinely evaluate their processes to determine if less reagent volume or a less hazardous reagent can be used in the process. The Radioactive Waste Operations Group routinely assesses the possibility of bulking and absorbing wastes to minimize the number of containers shipped to CWC. Additionally, some tank waste contaminated debris streams have been compacted to minimize the number of containers shipped to CWC.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 1 m3

**3.3.2 Projected future waste volume reductions:**

Year	m3	and/or	kg
2002	6.000		
2003	6.000		
2004	6.000		
2005	6.000		
2006	6.000		
Totals	30.000		

**3.3.3 Bases and assumptions used in above estimates:**

Reductions indicated reflect only those achieved prior to shipment to CWC, not minimization efforts done in the laboratory prior to packaging. Thus the reduction is in shipping volume, not generation volume. The reductions projected are based upon historical reductions achieved through unit operations.

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION

- 1.1 Treatability group/aggregated stream identifier** PUREX Containment Bldg. Waste  
**Treatability group/aggregated stream name:** PUREX containment building
- 1.2 Description of waste (list WSRd numbers for this waste stream, as applicable):**  
 Concrete rubble contaminated with trace chromium as a corrosion product. No additional waste will be stored at this location, as the facility is under long term surveillance and maintenance.

### 2.0 WASTE STREAM INVENTORY AND GENERATION

- 2.1 Current total inventory for this stream (stored waste only, not accumulation areas)**  
 Total volume (cubic meters): 1.000
- 2.2 Estimated generation projection by calendar year**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 3.0 WASTE STREAM CHARACTERIZATION

- 3.1 Radiological characteristics**
- 3.1.1 Mixed waste type**       High-level     Transuranic     Low-level
- 3.1.2 Handling (as currently packaged/stored)**     Contact-handled     Remote-handled
- 3.1.3 Comments on radiological characteristics (e.g., more specific content, treatment concerns caused by radiation, confidence level):**  
 The waste was generated during decontamination activities performed at PUREX and placed in E Cell of the facility. The work done in E Cell was primarily removal of fuel cladding hulls, which does not meet the definition of high-level waste. Based on the radiological characteristics of the waste (emits approximately 500 rad/hr), this waste is categorized as remote-handled TRU. The confidence level is high.
- 3.2 Matrix characteristics (physical content)**
- 3.2.1 Matrix constituent table (each constituent listed should constitute at least 1% of the total volume or mass)**
- 3.2.2 Confidence level for matrix characteristic data in Section 3.2.1:**  
 Low     Medium     High

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 3.2.3 Comments on matrix characteristics and/or confidence level:

None

### 3.3 Regulated contaminated characteristics

#### 3.3.1 Wastewater/non-wastewater under RCRA

Wastewater  Non-wastewater  Unknown

#### 3.3.2 Regulated contaminant table including treatment requirements and UHCs, if applicable

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D007	Chromium	Chromium	~1000 ppm	Analytical results	DEBRIS STANDARD

\*LDR subcategory marked NA if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

\*\*If the waste is not consistent in concentration or the concentration is unknown, this may not apply. Describe in Section 3.3.6.

#### 3.3.3 List any waste numbers from Section 3.3.2 for which the stream already meets established LDR treatment standards

List:

No LDR treatment required (e.g., TRUM waste destined for WIPP, exclusion, etc.)

None (i.e., all constituents/waste numbers of this waste stream still require treatment)

#### 3.3.4 Does this waste stream contain PCBs?

Yes  No  Unknown If no or unknown, skip to Section 3.3.5

##### 3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

Yes  No  Unknown

##### 3.3.4.2 Indicate the PCB concentration range (ppm)

<50  ≥ 50  Unknown

#### 3.3.5 What is the confidence level for the regulated contaminant characteristic data?

Low  Medium  High

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 3.3.6 Comments on regulated contaminant characteristics and/or confidence level:

Based on laboratory analysis

### 4.0 WASTE STREAM TREATMENT

4.1 Is this stream currently being treated?  Yes  No

If yes, provide details: NA

#### 4.2 Planned treatment

Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- No treatment required (skip to Section 5.0)  Treating or plan to treat off site  
 Treating or plan to treat on site  Treatment options still being assessed

#### 4.3 Planned treatment method, facility, extent of treatment capacity available:

Until a final decision is made on the Canyon Disposition Initiative, no commitments will be made for waste disposal

#### 4.4 Treatment schedule information:

Will be established after final decision is made on the Canyon Disposition Initiative

#### 4.5 Applicable Tri-Party Agreement milestone numbers (including permitting):

PUREX is under long term surveillance and maintenance in accordance with Section 8.0, Facility Decommissioning Process, of the Tri-Party Agreement

#### 4.6 Proposed new Tri-Party Agreement treatment milestones:

None

#### 4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

- Yes  No  Unknown

If yes, describe: NA

#### 4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment:

Unknown

#### 4.9 Key assumptions: Decommissioning of PUREX is addressed under Chapter 8 of the Tri-Party Agreement

### 5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include description, locations, milestone numbers, variances required, etc., as applicable)?

A decision on the Canyon Disposition Initiative will be made by 2005. Results of that decision will affect the

## LDR REPORT TREATABILITY GROUP DATA SHEET

final disposition of the PUREX facility and its contents.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Plant/unit name:** PUREX/202-A, Containment      **Waste stream** 202-A  
Treatability/aggregated group identifier:      PUREX Containment Bldg. Waste  
Treatability/aggregated group name:      PUREX containment building

**1.2 Applicable profile number(s) for this waste stream:**

NA

**1.3 Waste stream source information**

**1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Concrete rubble from the E-Cell canyon floor was placed in a metal box during the floor renovation.

**1.3.2 History of how and where the waste was/is generated:**

Waste was generated from renovation of the E-Cell floor

**1.3.3 Source of the hazardous constituents:**

E-Cell was used when removing fuel cladding hulls

**1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Analytical data

**1.3.5 Additional notes:**

Waste was generated in September, 1989

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

**2.1 Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                 DST                         SST  
 Other (explain): PUREX Containment Building

**2.1.1 How was the waste managed prior to storage?**

Unknown

**2.1.2 Timeframe when waste was placed into storage:**

Waste was generated in September 1989

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.2 Inventory locations:**

Building/room number	Number of containers/tanks
202A/ F-CELL	1 cell

**2.3 Current inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 1  
 Date of inventory values: 12/31/01  
 Comments on waste inventory: Waste is located in a single metal box on the F-Cell Canyon Floor

**2.4 Is storage capacity at this location potentially an issue for this waste stream?**

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

**2.5 Planned management areas for storage of this waste:**  Current location  CWC

DST  Other area(s) list:

None

**2.6 Estimated generation projection by calendar year:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**2.7 DOE Storage Compliance Assessment information:**

Assessment has been completed. Reference to most recent assessment

Assessment has been scheduled. Scheduled date:

March 2003

Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

PUREX is under Long Term Surveillance and Maintenance under Section 8 of the TPA

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

Additional characterization may be required for treatment or disposal of the waste located in the facility. Milestones will be established in accordance with Section 8.7 of the Tri-Party Agreement Action Plan.

If yes, provide Tri-Party Agreement milestone number(s): None

**2.12 Other key assumptions related to storage, inventory, and generation information:**

No additional waste will be stored at this location.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: NA

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

NA - no longer generated.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

Year      m3      and/or      kg

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2002	0.000	
2003	0.000	
2004	0.000	
2005	0.000	
2006	<u>0.000</u>	<u>                    </u>
Totals	0.000	

### 3.3.3 Bases and assumptions used in above estimates:

None

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION

- 1.1 **Treatability group/aggregated stream identifier** PUREX Storage Tunnel Waste  
**Treatability group/aggregated stream name:** PUREX storage tunnels
- 1.2 **Description of waste (list WSRd numbers for this waste stream, as applicable):**  
Varies from very large equipment vessels with lead counterweights to very fine mixed waste powder in canisters.

### 2.0 WASTE STREAM INVENTORY AND GENERATION

- 2.1 **Current total inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 2,800.000

- 2.2 **Estimated generation projection by calendar year**

<u>Year</u>	<u>m3</u>	<u>and/or</u>	<u>kg</u>
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		<u>          </u>
Totals	0.000		

### 3.0 WASTE STREAM CHARACTERIZATION

- 3.1 **Radiological characteristics**

3.1.1 **Mixed waste type**       High-level     Transuranic     Low-level

3.1.2 **Handling (as currently packaged/stored)**     Contact-handled     Remote-handled

3.1.3 **Comments on radiological characteristics (e.g., more specific content, treatment concerns caused by radiation, confidence level):**

Varies from medium (~1 rad/hr) to very high(>1000 rad/hr).

- 3.2 **Matrix characteristics (physical content)**

3.2.1 **Matrix constituent table (each constituent listed should constitute at least 1% of the total volume or mass)**

3.2.2 **Confidence level for matrix characteristic data in Section 3.2.1:**

Low     Medium     High

3.2.3 **Comments on matrix characteristics and/or confidence level:**

There are a number of items in the tunnels with different types of waste, but the large failed stainless steel and iron vessels and equipment constitute the bulk of the waste.

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 3.3 Regulated contaminated characteristics

#### 3.3.1 Wastewater/non-wastewater under RCRA

Wastewater  Non-wastewater  Unknown

#### 3.3.2 Regulated contaminant table including treatment requirements and UHCs, if applicable

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Oxidizer	Low TOC	**	Process knowledge	Deact 40 CFR 268.48 ***
D005	Barium	Barium	100-1000 ppm **	Analytical/ Process knowledge	21 mg/l TCLP & Deact 40 CFR 268.48 ***
D006	Cadmium	Cadmium	**	Analytical/Proce ss knowledge	0.11 mg/l TCLP & Deact 40 CFR 268.48 ***
D007	Chromium	Chromium	5-1000 ppm **	Analytical/procc ess knowledge	0.60 mg/l TCLP & Deact 40 CFR 268.48 ***
D008	lead	Rad lead solids	**	Process knowledge	MACRO
D009	Mercury	High Hg Inorganic	**	Process knowledge	RMERC
D010	Selenium	Selenium	**	Process knowledge	5.7 mg/l TCLP & Deact 40 CFR 268.48 ***
D011	Silver	Silver	5-1000 ppm **	Process knowledge	0.14 mg/l TCLP & Deact 40 CFR 268.48 ***
WT02	Toxic (mineral oil)		**	Process knowledge	NONE

\*LDR subcategory marked NA if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

\*\*If the waste is not consistent in concentration or the concentration is unknown, this may not apply. Describe in Section 3.3.6.

\*\*\* UHCs must be determined for the PUREX tunnel waste unless managed as hazardous debris. DOE expects most of the waste to be managed as hazardous debris.

#### 3.3.3 List any waste numbers from Section 3.3.2 for which the stream already meets established LDR treatment standards

**LDR REPORT TREATABILITY GROUP DATA SHEET**

- List:
- No LDR treatment required (e.g., TRUM waste destined for WIPP, exclusion, etc.)
- None (i.e., all constituents/waste numbers of this waste stream still require treatment)

**3.3.4 Does this waste stream contain PCBs?**

- Yes  No  Unknown If no or unknown, skip to Section 3.3.5

**3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?**

- Yes  No  Unknown

**3.3.4.2 Indicate the PCB concentration range (ppm)**

- <50  ≥ 50  Unknown

**3.3.5 What is the confidence level for the regulated contaminant characteristic data?**

- Low  Medium  High

**3.3.6 Comments on regulated contaminant characteristics and/or confidence level:**

Confidence varies depending on waste item. Contaminants vary with different containers/equipment. (Not all of the waste would have all waste codes). D001 nitrate residue is from nitric acid. The Cd, Pb and Hg are largely present as pure materials and maybe separated and recycled when the waste is dispositioned.

**4.0 WASTE STREAM TREATMENT****4.1 Is this stream currently being treated?  Yes  No**

If yes, provide details: NA

**4.2 Planned treatment**

Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- No treatment required (skip to Section 5.0)  Treating or plan to treat off site
- Treating or plan to treat on site  Treatment options still being assessed

**4.3 Planned treatment method, facility, extent of treatment capacity available:**

NA

**4.4 Treatment schedule information:**

NA

**4.5 Applicable Tri-Party Agreement milestone numbers (including permitting):**

NA

## LDR REPORT TREATABILITY GROUP DATA SHEET

- 4.6 Proposed new Tri-Party Agreement treatment milestones:**  
None
- 4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?**  
 Yes  No  Unknown  
If yes, describe: NA
- 4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment:**  
None
- 4.9 Key assumptions:** Closure of the PUREX Storage Tunnels will be coordinated with disposition of the PUREX plant as well as the PUREX containment building waste.

### 5.0 WASTE STREAM DISPOSAL

**After treatment, how will the waste stream be disposed of (include description, locations, milestone numbers, variances required, etc., as applicable)?**

Unknown, however the most likely disposal location is the LLBG subtitle-C or LLBG LLW trenches.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

**1.1 Plant/unit name:** PUREX/Storage Tunnels 1 and 2      **Waste stream** Storage Tunnels 1 and 2  
Treatability/aggregated group identifier: PUREX Storage Tunnel Waste  
Treatability/aggregated group name: PUREX storage tunnels

**1.2 Applicable profile number(s) for this waste stream:**

NA

**1.3 Waste stream source information**

**1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Failed rail cars are in the tunnels. Material varies from very large equipment vessels with lead counterweights to very fine mixed waste powder in canisters from B-Cell in the 324 Building.

**1.3.2 History of how and where the waste was/is generated:**

The bulk of the waste is failed equipment from the PUREX facility. However, waste from other Hanford Facility locations, including 324 and 327 research and development laboratories, has been placed in the tunnels because it is so highly radioactive.

**1.3.3 Source of the hazardous constituents:**

The bulk of the waste is failed equipment from the PUREX facility. However, waste from other Hanford Facility locations, including 324 and 327 research and development laboratories, has been placed in the tunnels

**1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Analytical data and process knowledge.

**1.3.5 Additional notes:**

None.

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

**2.1 Current storage method**

Container (pad)     Container (covered)     Container (retrievably buried)

Tank                       DST                       SST

Other (explain): On rail cars in underground tunnel; permit issued as a final status miscellaneous TSD unit.

**2.1.1 How was the waste managed prior to storage?**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

The equipment pieces in the PUREX canyon failed and were moved to the tunnel. The waste from the 324 Building was removed from B-Cell and sent to waste storage.

### 2.1.2 Timeframe when waste was placed into storage:

June 1960 to June 1996

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
PUREX TUNNEL #1	8 rail cars
PUREX TUNNEL #2	28 rail cars

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 2800

Date of inventory values: 3/1/01

Comments on waste inventory: Volume is estimated.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 2.7 DOE Storage Compliance Assessment information:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Assessment has been completed. Reference to most recent assessment: A&E-SEC-01-016, Oct 2001 (DOE assessment)

Assessment has been scheduled. Scheduled date:

Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

None

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

NA

If yes, provide Tri-Party Agreement milestone number(s): NA

**2.12 Other key assumptions related to storage, inventory, and generation information:**

Waste in the tunnels mainly came from the PUREX canyon/plant. The waste from the tunnels will be handled at the same time and in the same manner as the vessels and materials (including containment building waste) in the PUREX canyon/plant will be handled during final disposition.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: NA

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

NA

### 3.3 Waste minimization schedule

#### 3.3.1 Reduction achieved during calendar year (volume or mass):

#### 3.3.2 Projected future waste volume reductions:

Year	m <sup>3</sup>	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

#### 3.3.3 Bases and assumptions used in above estimates:

No waste is expected to be generated. However, the tunnels do remain active as a final status TSD unit and may receive additional waste in the future.

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION

- 1.1 **Treatability group/aggregated stream identifier** Purgewater Storage and Treatment Facility  
**Treatability group/aggregated stream name:** PSTF
- 1.2 **Description of waste (list WSRd numbers for this waste stream, as applicable):**  
Groundwater contaminated with uranium, technetium, carbon tetrachloride, and nitrates.

### 2.0 WASTE STREAM INVENTORY AND GENERATION

- 2.1 **Current total inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 0.000

- 2.2 **Estimated generation projection by calendar year**

Year	m3	and/or	kg
2002	2,500.000		
2003	2,500.000		
2004	2,500.000		
2005	2,500.000		
2006	2,500.000		
Totals	12,500.000		

### 3.0 WASTE STREAM CHARACTERIZATION

- 3.1 **Radiological characteristics**

3.1.1 **Mixed waste type**  High-level  Transuranic  Low-level

3.1.2 **Handling (as currently packaged/stored)**  Contact-handled  Remote-handled

3.1.3 **Comments on radiological characteristics (e.g., more specific content, treatment concerns caused by radiation, confidence level):**

None

- 3.2 **Matrix characteristics (physical content)**

3.2.1 **Matrix constituent table (each constituent listed should constitute at least 1% of the total volume or mass)**

3.2.2 **Confidence level for matrix characteristic data in Section 3.2.1:**

Low  Medium  High

3.2.3 **Comments on matrix characteristics and/or confidence level:**

Waste stream is generated from groundwater sampling, well maintenance, well drilling, and pump and treat operations

- 3.3 **Regulated contaminated characteristics**

## LDR REPORT TREATABILITY GROUP DATA SHEET

- 3.3.1 Wastewater/non-wastewater under RCRA**  
 Wastewater    Non-wastewater    Unknown

- 3.3.2 Regulated contaminant table including treatment requirements and UHCs, if applicable**

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D019	Carbon Tetrachloride	NA	**	analytical data	0.057 mg/l
F001	Carbon Tetrachloride	Spent Solvent	**	analytical data	0.057 mg/l
F003	Methanol	Spent Solvent	**	analytical data	5.6 mg/l

\*LDR subcategory marked NA if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

\*\*If the waste is not consistent in concentration or the concentration is unknown, this may not apply. Describe in Section 3.3.6.

Waste codes are assigned based on designations made in the CERCLA Records of Decision for the 200-ZP-1 and the 100-NR-2 Operable Units.

- 3.3.3 List any waste numbers from Section 3.3.2 for which the stream already meets established LDR treatment standards**

- List:  
 No LDR treatment required (e.g., TRUM waste destined for WIPP, exclusion, etc.)  
 None (i.e., all constituents/waste numbers of this waste stream still require treatment)

- 3.3.4 Does this waste stream contain PCBs?**  
 Yes    No    Unknown   If no or unknown, skip to Section 3.3.5

- 3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?**

- Yes    No    Unknown

- 3.3.4.2 Indicate the PCB concentration range (ppm)**

- <50    ≥ 50    Unknown

- 3.3.5 What is the confidence level for the regulated contaminant characteristic data?**

- Low    Medium    High

- 3.3.6 Comments on regulated contaminant characteristics and/or confidence level:**

## LDR REPORT TREATABILITY GROUP DATA SHEET

Analytical data is available for all groundwater activities being performed on the Hanford Site. Groundwater from all across the site is discharged at this facility

### 4.0 WASTE STREAM TREATMENT

- 4.1 **Is this stream currently being treated?**  Yes  No  
If yes, provide details: Treated via solar evaporation
- 4.2 **Planned treatment**  
Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.
- No treatment required (skip to Section 5.0)  Treating or plan to treat off site  
 Treating or plan to treat on site  Treatment options still being assessed
- 4.3 **Planned treatment method, facility, extent of treatment capacity available:**  
Treated via solar evaporation at the Purgewater Storage and Treatment Facility
- 4.4 **Treatment schedule information:**  
Treatment is ongoing
- 4.5 **Applicable Tri-Party Agreement milestone numbers (including permitting):**  
NA
- 4.6 **Proposed new Tri-Party Agreement treatment milestones:**  
NA
- 4.7 **If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?**
- Yes  No  Unknown  
If yes, describe: NA
- 4.8 **List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment:**  
NA
- 4.9 **Key assumptions:** The Hanford Site purgewater management plan is being re-negotiated, as a result of the negotiations, codes applied to this waste may be updated.

### 5.0 WASTE STREAM DISPOSAL

**After treatment, how will the waste stream be disposed of (include description, locations, milestone numbers, variances required, etc., as applicable)?**

As a result of solar evaporation, only residues and sludges remain in the modular tanks. When the PSTF is taken out of service, the residues/ sludges remaining in the modular tanks will be removed, treated as necessary to meet the ERDF Waste Acceptance Criteria and disposed of at ERDF.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Plant/unit name:** Purgewater Storage and Treatment Waste stream Modu-Tanks  
Facility/PSTF  
Treatability/aggregated group identifier: Purgewater Storage and Treatment Facility  
Treatability/aggregated group name: PSTF
- 1.2 Applicable profile number(s) for this waste stream:**  
Waste Profile Sheet, ERC CCN # 084622
- 1.3 Waste stream source information**
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**  
Purgewater
- 1.3.2 History of how and where the waste was/is generated:**  
Purgewater generated from pump and treat operations, well drilling, groundwater sampling activities, and well maintenance
- 1.3.3 Source of the hazardous constituents:**  
Groundwater is contaminated with organics, metals, and radionuclides from process water discharged to the soil during past Hanford operations
- 1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**  
Analytical data and process knowledge
- 1.3.5 Additional notes:**  
Purgewater accounted for in this stream is collected from all across the Hanford Site

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

- 2.1 Current storage method**
- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank     DST     SST  
 Other (explain): Above ground modular containment units open to the atmosphere, permitted under interim status as S99 (other storage)
- 2.1.1 How was the waste managed prior to storage?**  
Waste is generated, placed into containers or directly into tanker trucks, and transferred to the PSTF

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 2.1.2 Timeframe when waste was placed into storage:

The facility is a solar evaporation unit that has been in service since 1991.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
PSTF UNIT #1	1

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 0

Date of inventory values: 12/31/01

Comments on waste inventory: Waste is directly discharged to the purgewater storage and treatment facility.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: None

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	2,500.000		
2003	2,500.000		
2004	2,500.000		
2005	2,500.000		
2006	2,500.000		
Totals	12,500.000		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment Aug. 2000, A&E-00-ASS-068

Assessment has been scheduled. Scheduled date:

Other. Explain:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

None

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

NA

If yes, provide Tri-Party Agreement milestone number(s): NA

**2.12 Other key assumptions related to storage, inventory, and generation information:**

Project is evaluating sending purgewater to ETF for treatment and closing the PSTF. However, for this report it is assumed that the PSTF operations will continue.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: 2003

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

Hanford contractors are currently evaluating zero purge and near zero purge sampling techniques to minimize the amount of waste that is generated during well sampling activities. There are several regulatory and technical issues that must be addressed to assess the applicability.

**3.3 Waste minimization schedule**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m<sup>3</sup>

**3.3.2 Projected future waste volume reductions:**

<u>Year</u>	<u>m<sup>3</sup></u>	<u>and/or</u>	<u>kg</u>
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		<u>          </u>
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

No projections at this time

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## LDR REPORT TREATABILITY GROUP DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION

- 1.1 Treatability group/aggregated stream identifier** SST Waste  
**Treatability group/aggregated stream name:** Single-shell tank system
- 1.2 Description of waste (list WSRd numbers for this waste stream, as applicable):**  
 Basic Aqueous Slurry with layers of saltcake and/or sludge. Sludge is defined a solids (i.e., hydrous metal oxides) precipitated from the neutralization of acid wastes. Saltcake is defined as the various salts formed from the evaporation of water.

### 2.0 WASTE STREAM INVENTORY AND GENERATION

- 2.1 Current total inventory for this stream (stored waste only, not accumulation areas)**  
 Total volume (cubic meters): 127,000.000
- 2.2 Estimated generation projection by calendar year**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 3.0 WASTE STREAM CHARACTERIZATION

- 3.1 Radiological characteristics**
- 3.1.1 Mixed waste type**     High-level     Transuranic     Low-level
- 3.1.2 Handling (as currently packaged/stored)**     Contact-handled     Remote-handled
- 3.1.3 Comments on radiological characteristics (e.g., more specific content, treatment concerns caused by radiation, confidence level):**  
 SST System wastes contain the following major radionuclides: 3H, 14C, 90SR, 90Y, 129I, 137Cs, 137mBa, 151Sm, 238Pu, 240Pu, 241Pu, 241Am, and 242Am.
- 3.2 Matrix characteristics (physical content)**
- 3.2.1 Matrix constituent table (each constituent listed should constitute at least 1% of the total volume or mass)**
- 3.2.2 Confidence level for matrix characteristic data in Section 3.2.1:**  
 Low     Medium     High
- 3.2.3 Comments on matrix characteristics and/or confidence level:**  
 The major constituents are water and sodium salts of aluminate, nitrate, nitrite, phosphate,

## LDR REPORT TREATABILITY GROUP DATA SHEET

hydroxide, carbonate, and sulfate. Some calcium and potassium salts are also present. Chemically complexed waste in the DSTs contain sodium salts of chelating agents ethylenediamine-tetraacetic acid and n-hydroxyethylenediamine-tetraacetic acid. There may also be detectable concentrations of halogenated and nonhalogenated organic compounds and heavy metals such as lead, chromium and cadmium.

### 3.3 Regulated contaminated characteristics

#### 3.3.1 Wastewater/non-wastewater under RCRA

Wastewater  Non-wastewater  Unknown

#### 3.3.2 Regulated contaminant table including treatment requirements and UHCs, if applicable

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitability	Low TOC ignitable Char. Liquid	(4)	(4)	DEACT (2); RORGS; COMBST
D002	Corosivity	(1)	(4)	(4)	HLVIT
D003	Reactivity	Reactive Cyanides	(4)	(4)	590/30 mg/kg
D004	Arsenic	(1)	(4)	(4)	HLVIT
D005	Barium	(1)	(4)	(4)	HLVIT
D006	Cadmium	(1)	(4)	(4)	HLVIT
D007	Chromium	(1)	(4)	(4)	HLVIT
D008	Lead	(1)	(4)	(4)	HLVIT
D009	Mercury	(1)	(4)	(4)	HLVIT
D010	Selenium	(1)	(4)	(4)	HLVIT
D011	Silver	(1)	(4)	(4)	HLVIT
D018	Benzene	NA	(4)	(4)	10 mg/kg (2)
D019	Carbon Tetrachloride	NA	(4)	(4)	6.0 mg/kg (2)
D022	Chloroform	NA	(4)	(4)	6.0 mg/kg (2)
D028	1,2-Dichloroethane	NA	(4)	(4)	6.0 mg/kg (2)
D029	1,1-Dichloroethylene	NA	(4)	(4)	6.0 mg/kg (2)
D030	2,4-Dinitrotoluene	NA	(4)	(4)	140 mg/kg (2)
D033	Hexachlorobutadiene	NA	(4)	(4)	5.6 mg/kg (2)
D034	Hexachloroethane	NA	(4)	(4)	30 mg/kg (2)
D035	Methyl Ethyl Ketone	NA	(4)	(4)	36 mg/kg (2)

## LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D036	Nitrobenzene	NA	(4)	(4)	14 mg/kg (2)
D038	Pyridine	NA	(4)	(4)	16 mg/kg (2)
D039	Tetrachloroethylene	NA	(4)	(4)	6.0 mg/kg (2)
D040	Trichloroethylene	NA	(4)	(4)	6.0 mg/kg (2)
D041	2,4,5-Trichlorophenol	NA	(4)	(4)	7.4 mg/kg (2)
D043	Vinyl Chloride	NA	(4)	(4)	6.0 mg/kg (2)
F001	1,1,1-Trichloroethane	Spent Solvent	(4)	(4)	6.0 mg/kg
F002	Methylene Chloride	Spent Solvent	(4)	(4)	30 mg/kg
F003	Acetone	Spent Solvent	(4)	(4)	160 mg/kg
F003	Methyl Isobutyl Ketone	Spent Solvent	(4)	(4)	33 mg/kg
F004	Cresols	Spent Solvent	(4)	(4)	5.6 mg/kg (o, m, &p); 11.2 mg/kg (mixed)
F005	Methyl Ethyl Ketone	Spent Solvent	(4)	(4)	36 mg/kg
WP01	Persistent wastes, Extremely hazardous wastes	NA	(4)	(4)	NONE (3)
WP02	Persistent Dangerous wastes	NA	(4)	(4)	NONE
WT01	Toxic Dangerous Wastes, Extremely Hazardous Wastes	NA	(4)	(4)	NONE (3)
WTO2	Toxic Dangerous Wastes, Dangerous Wastes	NA	(4)	(4)	NONE

\*LDR subcategory marked NA if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

\*\*If the waste is not consistent in concentration or the concentration is unknown, this may not apply. Describe in Section 3.3.6.

- 1) Radioactive high-level wastes generated during the reprocessing of fuel rods.
- 2) and meet 40CFR268.48
- 3) Mixed extremely hazardous wastes can be land-disposed in Washington State in DOE facilities in accordance with RCW 70.105.050 (2)
- 4) See Section 3.3.6

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 3.3.3 List any waste numbers from Section 3.3.2 for which the stream already meets established LDR treatment standards

- List:
- No LDR treatment required (e.g., TRUM waste destined for WIPP, exclusion, etc.)
- None (i.e., all constituents/waste numbers of this waste stream still require treatment)

### 3.3.4 Does this waste stream contain PCBs?

- Yes  No  Unknown If no or unknown, skip to Section 3.3.5

#### 3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

- Yes  No  Unknown

#### 3.3.4.2 Indicate the PCB concentration range (ppm)

- <50  ≥ 50  Unknown

### 3.3.5 What is the confidence level for the regulated contaminant characteristic data?

- Low  Medium  High

### 3.3.6 Comments on regulated contaminant characteristics and/or confidence level:

The wastes in the SSTs continue to be sampled, analyzed, and characterized. Waste was sent to the SST System prior to the enactment of LDR requirements, so pertinent LDR requirements were not documented. When SST System waste is transferred to the DST System, known LDR requirements are documented on profile sheets based on the Part A, Form 3 Permit Application for the SST System. Small amounts of PCBs have been detected in some SSTs. Per the guidance in the Toxic Substance Control Act Polychlorinated Biphenyls Hanford Site Users Guide (DOE/RL-2001-50, Rev. 0), the SSTs are not considered to be subject to TSCA at this time.

## 4.0 WASTE STREAM TREATMENT

### 4.1 Is this stream currently being treated? Yes No

If yes, provide details:

### 4.2 Planned treatment

Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- No treatment required (skip to Section 5.0)  Treating or plan to treat off site
- Treating or plan to treat on site  Treatment options still being assessed

### 4.3 Planned treatment method, facility, extent of treatment capacity available:

Wastes in the SST System will undergo retrieval, treatment, and will be sent to disposal through the

## LDR REPORT TREATABILITY GROUP DATA SHEET

DST System. This may include pretreatment, and vitrification, which will destroy or extract organic and cyanide constituents to below treatment standards, neutralize or deactivate dangerous waste, and immobilize toxic metals.

**4.4 Treatment schedule information:**

The SST waste will be transferred to the DST system and eventually be treated and disposed of as DST waste, per TPA milestones.

**4.5 Applicable Tri-Party Agreement milestone numbers (including permitting):**

M-45-00, SST Retrieval; M-44-00, Characterization

**4.6 Proposed new Tri-Party Agreement treatment milestones:**

None

**4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?**

Yes  No  Unknown

If yes, describe: Waste minimization will be addressed during the retrieval process.

**4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment:**

None at this time.

**4.9 Key assumptions:** None

### 5.0 WASTE STREAM DISPOSAL

**After treatment, how will the waste stream be disposed of (include description, locations, milestone numbers, variances required, etc., as applicable)?**

In accordance with current plans, after transfer to the DST System and subsequent treatment as DST waste, the low-activity waste fraction will be disposed of onsite in a retrievable form. The vitrified HLW fraction will be stored onsite until the Geologic Repository Program is available to receive wastes for disposal.

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## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 2.1.1 How was the waste managed prior to storage?

Wastes were managed at the specific contributing operating facility.

### 2.1.2 Timeframe when waste was placed into storage:

From 1945 to 1980.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
241-A	6 Tanks
241-AX	4 Tanks
241-B	16 Tanks
241-BX	12 Tanks
241-BY	12 Tanks
241-C	16 Tanks
241-S	12 Tanks
241-SX	15 Tanks
241-T	16 Tanks
241-TX	18 Tanks
241-TY	6 Tanks
241-U	12 Tanks
244-AR	4 Tanks
244-CR	4 Tanks
IMUSTS	8 Tanks
SST SYSTEM	Diversion Boxes Valve Pits Catch Tanks Receiving Vault Excess Buildings

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 127000

Date of inventory values: 12/31/01

Comments on waste inventory: The volume is rounded to the nearest 1,000 cubic meter. Tank volumes are determined by waste level measurements, which are then converted to volumes. Actual tank volume measurements at any given time may differ from the reported values due to factors such as instrumentation errors, uneven surfaces, and calculation rounding errors.



## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

Is unknown if further information will be needed for disposal. Awaiting information such as, variances and delisting petitions. Waste is sampled and characterized per RPP-8093, Fiscal Year 2002 Tank Characterization Technical Sampling Basis and Waste Information Requirements Document, 8/2001 (WIRD document), and the Regulatory Data Quality Objectives, PNNL-12040, Rev 0, 12/1998. Waste from SST retrievals must meet DST Waste Acceptance Criteria.

If yes, provide Tri-Party Agreement milestone number(s): M-44-00

**2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification: N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: NA

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

N/A

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

None

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION

- 1.1 Treatability group/aggregated stream identifier** T Plant EC-1 Condenser  
**Treatability group/aggregated stream name:** T Plant complex EC-1 condenser
- 1.2 Description of waste (list WSRd numbers for this waste stream, as applicable):**  
 Large piece of steel equipment (condenser) contaminated with listed mixed waste. This is the old condenser from the 242-A Evaporator. The condenser was received at T Plant in 1995.

### 2.0 WASTE STREAM INVENTORY AND GENERATION

- 2.1 Current total inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 32.110

- 2.2 Estimated generation projection by calendar year**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
<b>Totals</b>	0.000		

### 3.0 WASTE STREAM CHARACTERIZATION

- 3.1 Radiological characteristics**

**3.1.1 Mixed waste type**       High-level     Transuranic     Low-level

**3.1.2 Handling (as currently packaged/stored)**     Contact-handled     Remote-handled

**3.1.3 Comments on radiological characteristics (e.g., more specific content, treatment concerns caused by radiation, confidence level):**

Dose rate is 6.0 mrem per hour.

- 3.2 Matrix characteristics (physical content)**

**3.2.1 Matrix constituent table (each constituent listed should constitute at least 1% of the total volume or mass)**

**3.2.2 Confidence level for matrix characteristic data in Section 3.2.1:**

Low     Medium     High

**3.2.3 Comments on matrix characteristics and/or confidence level:**

None

- 3.3 Regulated contaminated characteristics**

**LDR REPORT TREATABILITY GROUP DATA SHEET****3.3.1 Wastewater/non-wastewater under RCRA**

Wastewater  Non-wastewater  Unknown

**3.3.2 Regulated contaminant table including treatment requirements and UHCs, if applicable**

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
F001	1,1,1-Trichloroethane	Spent Solvent	Unknown	Process knowledge	Debris standards, 40 CFR 268.45
F002	Methylene Chloride	Spent Solvent	Unknown	Process knowledge	Debris standards, 40 CFR 268.45
F003	Acetone	Spent Solvent	Unknown	Process knowledge	Debris standards, 40 CFR 268.45
F003	Methyl Isobutyl Ketone (1)	Spent Solvent	Unknown	Process knowledge	Debris standards, 40 CFR 268.45
F004	Cresol/Cresylic Acid	Spent Solvent	Unknown	Process knowledge	Debris standards, 40 CFR 268.45
F005	Methyl Ethyl Ketone	Spent Solvent	Unknown	Process knowledge	Debris standards, 40 CFR 268.45

\*LDR subcategory marked NA if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

\*\*If the waste is not consistent in concentration or the concentration is unknown, this may not apply. Describe in Section 3.3.6.

NA

**3.3.3 List any waste numbers from Section 3.3.2 for which the stream already meets established LDR treatment standards**

List: NA

No LDR treatment required (e.g., TRUM waste destined for WIPP, exclusion, etc.)

None (i.e., all constituents/waste numbers of this waste stream still require treatment)

**3.3.4 Does this waste stream contain PCBs?**

Yes  No  Unknown If no or unknown, skip to Section 3.3.5

**3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?**

Yes  No  Unknown

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 3.3.4.2 Indicate the PCB concentration range (ppm)

<50  ≥ 50  Unknown

### 3.3.5 What is the confidence level for the regulated contaminant characteristic data?

Low  Medium  High

### 3.3.6 Comments on regulated contaminant characteristics and/or confidence level:

None

## 4.0 WASTE STREAM TREATMENT

### 4.1 Is this stream currently being treated? Yes No

If yes, provide details: NA

### 4.2 Planned treatment

Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

No treatment required (skip to Section 5.0)  Treating or plan to treat off site  
 Treating or plan to treat on site  Treatment options still being assessed

### 4.3 Planned treatment method, facility, extent of treatment capacity available:

Treatment in accordance with alternative debris standards for macroencapsulation or microencapsulation is likely. Also, attempts to have this equipment recycled are being pursued.

### 4.4 Treatment schedule information:

NA

### 4.5 Applicable Tri-Party Agreement milestone numbers (including permitting):

NA

### 4.6 Proposed new Tri-Party Agreement treatment milestones:

NA

### 4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

Yes  No  Unknown

If yes, describe: NA

### 4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment:

NA

### 4.9 Key assumptions: None

## 5.0 WASTE STREAM DISPOSAL

## LDR REPORT TREATABILITY GROUP DATA SHEET

**After treatment, how will the waste stream be disposed of (include description, locations, milestone numbers, variances required, etc., as applicable)?**

Disposal to the LLBG Subtitle-C or LLBG LLW trenches, depending on the type of treatment performed.



**LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET**

The condenser was placed in storage in 1995.

**2.2 Inventory locations:**

Building/room number	Number of containers/tanks
T PLANT COMPLEX	1

**2.3 Current inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 32.11  
 Date of inventory values: 12/28/01  
 Comments on waste inventory: NA

**2.4 Is storage capacity at this location potentially an issue for this waste stream?**

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

**2.5 Planned management areas for storage of this waste:**  Current location  CWC

DST  Other area(s) list: NA

None

**2.6 Estimated generation projection by calendar year:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		
Totals	0.000		

**2.7 DOE Storage Compliance Assessment information:**

Assessment has been completed. Reference to most recent assessment Oct. 2000, A&E-00-ASS-072

Assessment has been scheduled. Scheduled date: Assessment currently scheduled for July 2003

Other. Explain: NA

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

NA

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

NA

If yes, provide Tri-Party Agreement milestone number(s): NA

**2.12 Other key assumptions related to storage, inventory, and generation information:**

NA

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: NA

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

NA

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):**

0 m<sup>3</sup>

**3.3.2 Projected future waste volume reductions:**

Year      m<sup>3</sup>      and/or      kg

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2002	0.000
2003	0.000
2004	0.000
2005	0.000
2006	0.000
Totals	0.000

### 3.3.3 Bases and assumptions used in above estimates:

NA

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION

- 1.1 Treatability group/aggregated stream identifier** TRUM-BOX  
**Treatability group/aggregated stream name:** M-91 T Plant TRUM, large boxed
- 1.2 Description of waste (list WSRd numbers for this waste stream, as applicable):**  
 TRUM waste from various generating activities around the Hanford Site. The waste contains metals including steel shielding, plastic/polyurethane, wood, paper/cardboard, glass, filters, soil, miscellaneous/unknown/other, rags, lead and lead shielding, Plexiglas, Styrofoam, asbestos, rubber, glass, sorbents/kitty litter, cement and concrete.

### 2.0 WASTE STREAM INVENTORY AND GENERATION

- 2.1 Current total inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 161.572

- 2.2 Estimated generation projection by calendar year**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 3.0 WASTE STREAM CHARACTERIZATION

- 3.1 Radiological characteristics**

**3.1.1 Mixed waste type**       High-level     Transuranic     Low-level

**3.1.2 Handling (as currently packaged/stored)**     Contact-handled     Remote-handled

**3.1.3 Comments on radiological characteristics (e.g., more specific content, treatment concerns caused by radiation, confidence level):**

Each container of waste has more than 100 nCi/g of TRU nuclide activity. The waste as packaged is considered contact handled (i.e. less than or equal to 200 mrem/hr on the outside of the package surface), however, the dose rate of some waste inside the package may exceed 200 mrem/hr.

- 3.2 Matrix characteristics (physical content)**

**3.2.1 Matrix constituent table (each constituent listed should constitute at least 1% of the total volume or mass)**

**3.2.2 Confidence level for matrix characteristic data in Section 3.2.1:**

Low     Medium     High

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 3.2.3 Comments on matrix characteristics and/or confidence level:

Waste in boxes typically contains metal debris as the primary physical form. The metal will need to be cut into smaller pieces to fit in a container acceptable to the Waste Isolation Pilot Plant. Most of the waste is TRU contaminated metals which are also contaminated with di-n-octyl phthalate.

### 3.3 Regulated contaminated characteristics

#### 3.3.1 Wastewater/non-wastewater under RCRA

Wastewater     Non-wastewater     Unknown

#### 3.3.2 Regulated contaminant table including treatment requirements and UHCs, if applicable

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D002	Corrosive Charac.	NA	***	***	Remove characteristic (1)
D005	Barium	NA	***	***	Exempt (61 FR 60704)
D006	Cadmium	NA	***	***	Exempt (61 FR 60704)
D007	Chromium	NA	***	***	Exempt (61 FR 60704)
D008	Lead	NA	***	***	Exempt (61 FR 60704)
D009	Mercury	NA	***	***	Exempt (61 FR 60704)
D009	Mercuric Oxide	NA	***	***	Exempt (61 FR 60704)
D011	Silver	NA	***	***	Exempt (61 FR 60704)
D019	Carbon Tetrachloride	NA	***	***	Exempt (61 FR 60704)
F003	Methyl Isobutyl Ketone	Spent Solvent	***	***	Exempt (61 FR 60704)
F005	Methyl Ethyl Ketone	Spent solvent	***	***	Exempt (61 FR 60704)
WP02	Persistent, DW	NA	***	***	NA
WSC2	Solid Corrosive	NA	***	***	NA
WT01	Toxic, EHW	NA	***	***	NA

## LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
WT02	Toxic, DW	NA	***	***	NA

\*LDR subcategory marked NA if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

\*\*If the waste is not consistent in concentration or the concentration is unknown, this may not apply. Describe in Section 3.3.6.

\*\*\* The concentration varies and is based on process knowledge and/or analytical data.

**3.3.3 List any waste numbers from Section 3.3.2 for which the stream already meets established LDR treatment standards**

List: N/A

No LDR treatment required (e.g., TRUM waste destined for WIPP, exclusion, etc.)

None (i.e., all constituents/waste numbers of this waste stream still require treatment)

**3.3.4 Does this waste stream contain PCBs?**

Yes  No  Unknown If no or unknown, skip to Section 3.3.5

**3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?**

Yes  No  Unknown

**3.3.4.2 Indicate the PCB concentration range (ppm)**

<50  ≥ 50  Unknown

**3.3.5 What is the confidence level for the regulated contaminant characteristic data?**

Low  Medium  High

**3.3.6 Comments on regulated contaminant characteristics and/or confidence level:**

The number and concentration of contaminants varies greatly among the boxes. Most of the boxes contain di-n-octyl phthalate as the single contaminant, and are not regulated by WAC 173-303. One box contains F003 and F005 listed contaminants because it contains the remains of HLW tank core samples. One box contains trace quantities of carbon tetrachloride and several metals. A few boxes contain substantial quantities of lead.

### 4.0 WASTE STREAM TREATMENT

## LDR REPORT TREATABILITY GROUP DATA SHEET

- 4.1 **Is this stream currently being treated?**  Yes  No  
If yes, provide details: NA
- 4.2 **Planned treatment**  
Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.
- No treatment required (skip to Section 5.0)  Treating or plan to treat off site  
 Treating or plan to treat on site  Treatment options still being assessed
- 4.3 **Planned treatment method, facility, extent of treatment capacity available:**  
Waste is planned to be treated at the proposed M91 facility. The primary objective of treatment is to cut metal debris into smaller pieces so that it can be placed in a smaller box. WIPP can currently only accept a box up to a size of approximately 1.9 cu m. If larger containers are accepted at WIPP in the future, size reduction might not be required.
- 4.4 **Treatment schedule information:**  
Treatment will be performed as necessary to support the results of active M-91 TPA negotiations.
- 4.5 **Applicable Tri-Party Agreement milestone numbers (including permitting):**  
M-91-01
- 4.6 **Proposed new Tri-Party Agreement treatment milestones:**  
The applicable milestones are addressed in the active M-91 TPA negotiations.
- 4.7 **If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?**  
 Yes  No  Unknown  
If yes, describe: As the M-91 mission develops, T Plant Complex will evaluate, where possible, waste minimization techniques.
- 4.8 **List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment:**  
Waste disposed of at WIPP is exempt from the LDR treatment standards
- 4.9 **Key assumptions:** None

### 5.0 WASTE STREAM DISPOSAL

**After treatment, how will the waste stream be disposed of (include description, locations, milestone numbers, variances required, etc., as applicable)?**

TRUM is disposed of at WIPP.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Plant/unit name:** CWC/CWC, TRUM Boxes      **Waste stream** TRUM Boxes  
    **Treatability/aggregated group identifier:** TRUM-BOX  
    **Treatability/aggregated group name:** M-91 T Plant TRUM, large boxed

- 1.2 **Applicable profile number(s) for this waste stream:**

NA

- 1.3 **Waste stream source information**

- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

The waste consists of metals, plastic, lead shielding, steel shielding, glass, paper/cardboard, cement, and sorbents. The material was contaminated with TRU isotopes from facility operations and R&D processes. The primary component in the boxes is metal that will probably need to be cut in order to fit in containers destined for WIPP.

- 1.3.2 **History of how and where the waste was/is generated:**

The waste was generated from the Plutonium Finishing Plant, PUREX Canyon and Service Facility, Radiochemistry Building, Critical Mass Storage, and Materials Engineering Laboratory.

- 1.3.3 **Source of the hazardous constituents:**

Radiochemical operations around the site and D&D activities.

- 1.3.4 **Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Analytical data and process knowledge

- 1.3.5 **Additional notes:**

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

- 2.1 **Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                 DST                         SST  
 Other (explain):

- 2.1.1 **How was the waste managed prior to storage?**

Accumulated and packaged by waste generators prior to storage.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 2.1.2 Timeframe when waste was placed into storage:

The waste has been generated intermittently and placed into storage since 1989.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
CWC	39

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 161.572

Date of inventory values: 12/31/01

Comments on waste inventory: Inventory based on data for containers residing at the CWC as reported in the Solid Waste Information Tracking System (SWITS).

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: No issues with CWC storage based on 20 year waste generation forecast.

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		
Totals	0.000		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment

A&E-SEC-02-001

Assessment has been scheduled. Scheduled date:

Other. Explain:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

M-20-12

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

Waste that is to be sent to WIPP will need to be characterized to assure it meets the WIPP Waste Acceptance Criteria. Characterization will be performed as necessary to support the results of the active M-91 TPA negotiations.

If yes, provide Tri-Party Agreement milestone number(s): None

**2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: None planned - waste not generated at CWC

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

These activities occur before the wastes are shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

**3.3 Waste minimization schedule**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

<u>Year</u>	<u>m3</u>	<u>and/or</u>	<u>kg</u>
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

There is no projected generation by CWC.

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION

1.1 **Treatability group/aggregated stream identifier** TRUM-CH  
**Treatability group/aggregated stream name:** WRAP TRUM

1.2 **Description of waste (list WSRd numbers for this waste stream, as applicable):**

The waste came from various facilities on and off the Hanford Site. The waste contains plastic/polyurethane, rubber, iron-based metal, soil, paper, cardboard, lead, rags, cement, stainless steel, wood, styrofoam, glass, absorbent/kitty litter, filters, lead shielding, carbon steel, fiberglass, brick/firebrick, plastic liner, shielding, concrete, animal waste, paints, ceramics, sludges, asbestos, aluminum, diatomaceous earth, resins, copper metal, lead, water, floor sweepings, batteries, leather, liquid, teflon, cork, cotton, light bulbs, urethane and wax.

### 2.0 WASTE STREAM INVENTORY AND GENERATION

2.1 **Current total inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 357.362

2.2 **Estimated generation projection by calendar year**

Year	m3	and/or	kg
2002	175.274		
2003	233.596		
2004	300.592		
2005	413.752		
2006	<u>248.580</u>		
Totals	1,371.794		

### 3.0 WASTE STREAM CHARACTERIZATION

3.1 **Radiological characteristics**

3.1.1 **Mixed waste type**       High-level     Transuranic     Low-level

3.1.2 **Handling (as currently packaged/stored)**     Contact-handled     Remote-handled

3.1.3 **Comments on radiological characteristics (e.g., more specific content, treatment concerns caused by radiation, confidence level):**

Each container of waste has more than 100 nCi/g of TRU nuclide activity. Non-TRU activity is either not reported or in trace quantities.

3.2 **Matrix characteristics (physical content)**

3.2.1 **Matrix constituent table (each constituent listed should constitute at least 1% of the total volume or mass)**

3.2.2 **Confidence level for matrix characteristic data in Section 3.2.1:**

Low     Medium     High

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 3.2.3 Comments on matrix characteristics and/or confidence level:

While the physical characteristics of any drum vary substantially, TRU waste in drums typically contains organic debris or heterogeneous debris. TRU waste in drums has a higher percentage of combustible waste than TRU waste in boxes. A number of drums are mixed because they contain lead-lined gloves.

### 3.3 Regulated contaminated characteristics

#### 3.3.1 Wastewater/non-wastewater under RCRA

Wastewater     Non-wastewater     Unknown

#### 3.3.2 Regulated contaminant table including treatment requirements and UHCs, if applicable

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable Charac.	NA	***	***	Remove characteristic (1)
D002	Corrosive Charac.	NA	***	***	Remove characteristic (1)
D004	Arsenic	NA	***	***	Exempt (61 FR 60704)
D005	Barium	NA	***	***	Exempt (61 FR 60704)
D006	Cadmium	NA	***	***	Exempt (61 FR 60704)
D007	Chromium	NA	***	***	Exempt (61 FR 60704)
D008	Lead	NA	***	***	Exempt (61 FR 60704)
D009	Mercury	NA	***	***	Exempt (61 FR 60704)
D010	Selenium	NA	***	***	Exempt (61 FR 60704)
D011	Silver	NA	***	***	Exempt (61 FR 60704)
D014	Methoxychlor	NA	***	***	Exempt (61 FR 60704)
D018	Benzene	NA	***	***	Exempt (61 FR 60704)
D019	Carbon Tetrachloride	NA	***	***	Exempt (61 FR 60704)

**LDR REPORT TREATABILITY GROUP DATA SHEET**

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D027	1,4-Dichlorobenzene	NA	***	***	Exempt (61 FR 60704)
D028	1,2-Dichloroethane	NA	***	***	Exempt (61 FR 60704)
D029	1,1-Dichlorethylene	NA	***	***	Exempt (61 FR 60704)
D030	2,4-Dinitrotoluene	NA	***	***	Exempt (61 FR 60704)
D031	Heptachlor	NA	***	***	Remove characteristic (1)
D033	Hexachlorobutadiene	NA	***	***	Remove characteristic (1)
D034	Hexachloroethane	NA	***	***	Exempt (61 FR 60704)
D035	Methyl Ethyl Ketone	NA	***	***	Exempt (61 FR 60704)
D036	Nitrobenzene	NA	***	***	Exempt (61 FR 60704)
D040	Trichloroethylene	NA	***	***	Exempt (61 FR 60704)
D043	Vinyl chloride	NA	***	***	Exempt (61 FR 60704)
F001	1,1,1-Trichloroethane	Spent Solvent	***	***	Exempt (61 FR 60704)
F001	Trichloroethylene	Spent Solvent	***	***	Exempt (61 FR 60704)
F002	Trichloroethylene	Spent Solvent	***	***	Exempt (61 FR 60704)
F003	Acetone	Spent Solvent	***	***	Exempt (61 FR 60704)
F003	Xylene	Spent Solvent	***	***	Exempt (61 FR 60704)
F004	Cresol	Spent Solvent	***	***	Exempt (61 FR 60704)
F005	Methyl Ethyl Ketone	Spent Solvent	***	***	Exempt (61 FR 60704)
P015	Beryllium	NA	***	***	Exempt (61 FR 60704)

## LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
WP01	Persistent, EHW	NA	***	***	NA
WP02	Persistent, DW	NA	***	***	NA
WSC2	Solid Corrosive	NA	***	***	NA
WT01	Toxic, EHW	NA	***	***	NA
WT02	Toxic, DW	NA	***	***	NA

\*LDR subcategory marked NA if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

\*\*If the waste is not consistent in concentration or the concentration is unknown, this may not apply. Describe in Section 3.3.6.

\*\*\* The concentration varies and is based on process knowledge and/or analytical data.

**3.3.3 List any waste numbers from Section 3.3.2 for which the stream already meets established LDR treatment standards**

List:

No LDR treatment required (e.g., TRUM waste destined for WIPP, exclusion, etc.)

None (i.e., all constituents/waste numbers of this waste stream still require treatment)

**3.3.4 Does this waste stream contain PCBs?**

Yes  No  Unknown If no or unknown, skip to Section 3.3.5

**3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?**

Yes  No  Unknown

**3.3.4.2 Indicate the PCB concentration range (ppm)**

<50  ≥ 50  Unknown

**3.3.5 What is the confidence level for the regulated contaminant characteristic data?**

Low  Medium  High

**3.3.6 Comments on regulated contaminant characteristics and/or confidence level:**

The number and concentration of contaminants in TRUM drums varies substantially. Over all drums, the predominant contaminants, listed in descending order of weight quantity, are lead, silver chloride, carbon tetrachloride, lithium, cadmium, and potassium/sodium hydroxide.

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 4.0 WASTE STREAM TREATMENT

- 4.1 Is this stream currently being treated?**  Yes  No  
 If yes, provide details: The waste is processed at the WRAP facility. Unit operations include assay, X-ray examination and repackaging. Future unit operations will include solidification. The unit operations are performed as necessary for the waste to meet the WIPP waste acceptance criteria.
- 4.2 Planned treatment**  
 Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.  
 No treatment required (skip to Section 5.0)  Treating or plan to treat off site  
 Treating or plan to treat on site  Treatment options still being assessed
- 4.3 Planned treatment method, facility, extent of treatment capacity available:**  
 The waste will continue to be processed at WRAP, as described in Sec 4.1 WRAP has a design capacity of 4725 drums (983 cu m) per year on a single shift.
- 4.4 Treatment schedule information:**  
 Treatment will be performed as necessary to support the results of active M-91 TPA negotiations.
- 4.5 Applicable Tri-Party Agreement milestone numbers (including permitting):**  
 M-91-01
- 4.6 Proposed new Tri-Party Agreement treatment milestones:**  
 The applicable milestones are addressed in the active M-91 TPA negotiations.
- 4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?**  
 Yes  No  Unknown  
 If yes, describe: Best management practices.
- 4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment:**  
 None planned.
- 4.9 Key assumptions:** None

### 5.0 WASTE STREAM DISPOSAL

**After treatment, how will the waste stream be disposed of (include description, locations, milestone numbers, variances required, etc., as applicable)?**

TRUM is disposed of at WIPP.

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## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Plant/unit name:** 200 Area Investigation/200 Area Investigation      **Waste stream** 200 Area Investigation

Treatability/aggregated group identifier:

TRUM-CH

Treatability/aggregated group name:

WRAP TRUM

1.2 **Applicable profile number(s) for this waste stream:**

NA. Waste has not been generated.

1.3 **Waste stream source information**

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Soil and miscellaneous solid waste generated during planned site investigations in the 200 Area of the Hanford Site.

1.3.2 **History of how and where the waste was/is generated:**

Waste will be generated in the 200 East and West Areas of the Hanford Site during remedial investigation activities

1.3.3 **Source of the hazardous constituents:**

Hazardous constituents were discharged to the soil via ponds, ditches, cribs, and trenches during past Hanford operations

1.3.4 **Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Analytical data and process knowledge

1.3.5 **Additional notes:**

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

2.1 **Current storage method**

Container (pad)       Container (covered)       Container (retrievably buried)

Tank       DST       SST

Other (explain):

2.1.1 **How was the waste managed prior to storage?**

NA

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 2.1.2 Timeframe when waste was placed into storage:

NA

### 2.2 Inventory locations:

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 0  
Date of inventory values: 12/31/01  
Comments on waste inventory: No waste has been generated to date

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	1.000		
2003	0.500		
2004	0.000		
2005	0.000		
2006	0.300		
Totals	1.800		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment:

Assessment has been scheduled. Scheduled date:

Other. Explain: NA

### 2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

NA

### 2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?

Yes  No

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

Waste stream will be characterized as it is generated. Sampling is being performed in support of Central Plateau remediation.

If yes, provide Tri-Party Agreement milestone number(s): Central Plateau Negotiations are underway

**2.12 Other key assumptions related to storage, inventory, and generation information:**

The forecast waste volumes are subject to change upon approval of the Operable Unit Work Plans. This waste stream only addresses the projected CH-TRUM. Low level waste meeting the ERDF Waste Acceptance Criteria will be disposed of at ERDF, and is reported in the ERDF Direct Disposal location specific data sheet.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted: NA

If yes, provide document number or other identification: NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: Prior to initiation of field work.

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

Waste segregation will be used to minimize TRUM contaminated waste generated during investigation activities.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

Year m3 and/or kg

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2002	0.000
2003	0.000
2004	0.000
2005	0.000
2006	0.000
Totals	0.000

### 3.3.3 Bases and assumptions used in above estimates:

None



## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 2.1.2 Timeframe when waste was placed into storage:

Calendar Year 2000

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
6 CONEX BOXES	17 drums
2 WASTE TENTS	40 drums
	5 SWB

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 21.52

Date of inventory values: 12/31/01

Comments on waste inventory: TRU waste with PCB contamination

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	20.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	20.000		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment

Assessment has been scheduled. Scheduled date:

Other. Explain: Not scheduled at this time

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

DOE is completing D&D of this facility under an Action Memorandum from EPA.

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

Characterization is ongoing and will be completed in early 2002.

If yes, provide Tri-Party Agreement milestone number(s): Performed under an Action Memorandum

**2.12 Other key assumptions related to storage, inventory, and generation information:**

This phase of the D&D project is scheduled to be completed by June 2002.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: Ongoing

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

Waste is segregated to minimize the volume of TRUM waste generated.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m<sup>3</sup>

**3.3.2 Projected future waste volume reductions:**

Year            m<sup>3</sup>            and/or            kg

### LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2002	0.000	
2003	0.000	
2004	0.000	
2005	0.000	
2006	0.000	
Totals	0.000	

**3.3.3 Bases and assumptions used in above estimates:**

None

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Plant/unit name:** CWC/CWC, CH TRUM                      **Waste stream** CH TRUM  
    **Treatability/aggregated group identifier:** TRUM-CH  
    **Treatability/aggregated group name:** WRAP TRUM

1.2 **Applicable profile number(s) for this waste stream:**  
NA

#### 1.3 Waste stream source information

##### 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

The waste is generated from facility or equipment operation and maintenance waste, R&D laboratory waste, remediation D&D waste, and analytical laboratory waste. The waste matrix is primarily debris material such as plastic, rubber, metal, paper, cardboard, rags, cement, stainless steel, wood, Styrofoam, glass, ceramics, asbestos, and batteries. Other components of the waste include: soil, absorbent/kitty litter, filters, animal waste, paints, sludges, sand, diatomaceous earth, resins, and floor sweepings.

##### 1.3.2 History of how and where the waste was/ls generated:

The waste was generated from the Plutonium Finishing Plant, PUREX plant, Critical Mass Laboratory, Materials Engineering Laboratory, Kerr-McGee, the Chemical Engineering Building, Post-Irradiation Test Facility, REDOX facility, Radiochemistry Building, the Semi-works D&D, Radiological Calibrations Laboratory, research laboratories, and the Fuels Development Laboratory.

##### 1.3.3 Source of the hazardous constituents:

Hazardous constituents used during radiochemical operations around the site and D&D.

##### 1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data and process knowledge.

##### 1.3.5 Additional notes:

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

#### 2.1 Current storage method

Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                       DST                       SST

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Other (explain):

### 2.1.1 How was the waste managed prior to storage?

Accumulated and packaged by waste generators prior to storage.

### 2.1.2 Timeframe when waste was placed into storage:

Waste storage in CWC began in 1987 and it has continued since then.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
CWC	1408

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 299.24

Date of inventory values: 12/31/01

Comments on waste inventory: Inventory based on data for containers residing at the CWC as reported in the Solid Waste Information Tracking System (SWITS).

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: No issues with CWC storage based on 20 year waste generation forecast.

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 2.7 DOE Storage Compliance Assessment information:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Assessment has been completed. Reference to most recent assessment: A&E-SEC-02-001

Assessment has been scheduled. Scheduled date:

Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

M-20-12

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

Waste that is sent to WIPP will need to be characterized to assure it meets the WIPP Waste Acceptance Criteria.

If yes, provide Tri-Party Agreement milestone number(s): None

**2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted: NA

If yes, provide document number or other identification: NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: None planned - waste not generated at CWC

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

These activities occur before the wastes are shipped to CWC. There are few opportunities to reduce

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

waste volumes placed into storage.

### 3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year (volume or mass): 0 m3

### 3.3.2 Projected future waste volume reductions:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 3.3.3 Bases and assumptions used in above estimates:

There is no projected generation by CWC.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Plant/unit name:** HWTU-TRU/TRUM-CH Contact    **Waste stream** TRU  
Handled
- Treatability/aggregated group identifier: TRUM-CH  
Treatability/aggregated group name: WRAP TRUM

**1.2 Applicable profile number(s) for this waste stream:**

PNNL-201-0001-02, PNNL-203-0001-00

**1.3 Waste stream source information**

**1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Subject waste was generated from PNNL laboratory operations.

**1.3.2 History of how and where the waste was/is generated:**

Waste is continually generated from routine laboratory operations at PNNL.

**1.3.3 Source of the hazardous constituents:**

Waste stream may consist of different inorganic and organic solids and liquids that are contaminated with inorganic and organic regulated dangerous waste constituents, including PCBs. This waste stream also includes hazardous debris.

**1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Wastes are characterized as specified in PNNL Waste Stream Profiles.

**1.3.5 Additional notes:**

NA

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

**2.1 Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank     DST     SST  
 Other (explain):

**2.1.1 How was the waste managed prior to storage?**

The waste was managed in 90 day or Satellite Accumulation areas prior to being transferred to this storage facility.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 2.1.2 Timeframe when waste was placed into storage:

The wastes currently stored at HWTU were placed in storage between 05/07/1993 and 12/31/2001.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
325/520	34
325/528	41

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 1.013

Date of inventory values: 1/3/02

Comments on waste inventory: This represents the TRU mixed waste currently in these storage locations. TRU wastes that fit under a separate profile may be stored in these locations in the future. Their profiles will need to be written at the time they are prepared for shipment.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: Na

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m <sup>3</sup>	and/or	kg
2002	2.600		
2003	1.800		
2004	1.800		
2005	1.800		
2006	1.800		
Totals	9.800		

### 2.7 DOE Storage Compliance Assessment information:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Assessment has been completed. Reference to most recent assessment: 1/4/2002 - Report not yet received.

Assessment has been scheduled. Scheduled date:

Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

M-20-20

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

PNNL Waste Management requests full chemical and radiological characterization from the laboratory generators prior to receiving the waste into the HWTU. However, further confirmatory NDA may be performed on TRUM packages that are consolidated at the HWTU.

If yes, provide Tri-Party Agreement milestone number(s): NA

**2.12 Other key assumptions related to storage, inventory, and generation information:**

The inventory information is for what is currently in storage in the specified HWTU location(s). This includes current generation and/or M-91 wastes. The projections in section 2.6 of this data sheet include current generation and M-91 volumes.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted: NA

If yes, provide document number or other identification: NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: Assessment date to be determined.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

Laboratory staff routinely evaluate their processes to determine if less reagents or less hazardous reagents can be used in the process. The Radioactive Waste Operations Group routinely assesses the possibility of bulking and absorbing wastes to minimize the number of containers shipped to CWC. Additionally, some tank waste contaminated debris streams have been compacted to minimize the number of containers shipped to CWC.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0.8 m<sup>3</sup>

**3.3.2 Projected future waste volume reductions:**

Year	m <sup>3</sup>	and/or	kg
2002	1.800		
2003	1.800		
2004	1.800		
2005	1.800		
2006	1.800		
Totals	9.000		

**3.3.3 Bases and assumptions used in above estimates:**

Any reductions indicated reflect only those achieved prior to shipment to CWC, not minimization efforts done in the laboratory prior to packaging. Thus the reduction is in shipping volume, not generation. The reductions projected are based upon historical reductions achieved through unit operations.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Plant/unit name:** LLBG/TRU Retrieval                      **Waste stream** TRU Retrieval  
    **Treatability/aggregated group identifier:** TRUM-CH  
    **Treatability/aggregated group name:** WRAP TRUM

1.2 **Applicable profile number(s) for this waste stream:**  
NA

#### 1.3 Waste stream source information

##### 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

This waste is generated from retrieval activities in the Low-Level Burial Grounds. Waste is expected to be similar to waste already in inventory in the CWC, i.e., facility or equipment operation and maintenance waste, R&D laboratory waste, remediation D&D waste, analytical laboratory waste. The waste matrix is primarily debris material such as plastic, rubber, metal, paper, cardboard, rags, cement, stainless steel, wood, Styrofoam, glass, ceramics, asbestos, and batteries. Other components of the waste include: soil, absorbent/kitty litter, filters, animal waste, paints, sludges, sand, diatomaceous earth, resins, floor sweepings.

##### 1.3.2 History of how and where the waste was/is generated:

The waste was generated from the Plutonium Finishing Plant, PUREX plant, Critical Mass Laboratory, Materials Engineering Laboratory, Kerr-McGee, the Chemical Engineering Building, Post-Irradiation Test Facility, REDOX facility, Radiochemistry Building, the Semi-works D&D, Radiological Calibrations Laboratory, research laboratories, and the Fuels Development Laboratory. The waste was generated and retrievably buried between 1970 and 1987.

##### 1.3.3 Source of the hazardous constituents:

Hazardous constituents used during onsite and offsite radiochemical operations and D&D.

##### 1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data and process knowledge

##### 1.3.5 Additional notes:

None.

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

#### 2.1 Current storage method

Container (pad)     Container (covered)     Container (retrievably buried)

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- Tank                       DST                       SST  
 Other (explain):

**2.1.1 How was the waste managed prior to storage?**

NA. Waste is currently disposed of.

**2.1.2 Timeframe when waste was placed into storage:**

NA. Disposed of between 1970-1987.

**2.2 Inventory locations:**

Building/room number	Number of containers/tanks
NA	NA

**2.3 Current inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 0

Date of inventory values: 12/31/01

Comments on waste inventory: Waste inventory is currently disposed of.

**2.4 Is storage capacity at this location potentially an issue for this waste stream?**

- Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

**2.5 Planned management areas for storage of this waste:**  Current location  CWC

DST  Other area(s) list:

None

**2.6 Estimated generation projection by calendar year:**

Year	m3	and/or	kg
2002	94.000		
2003	156.000		
2004	273.000		
2005	382.000		
2006	234.000		
Totals	1,139.000		

**2.7 DOE Storage Compliance Assessment information:**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- Assessment has been completed. Reference to most recent assessment
- Assessment has been scheduled. Scheduled date:
- Other. Explain: NA

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

NA

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

- Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

- Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

- Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

Waste will be assayed as it is retrieved to verify that it is TRU. Waste that is sent to WIPP will need to be characterized to ensure that it meets the WIPP Waste Acceptance Criteria.

If yes, provide Tri-Party Agreement milestone number(s): M-91-07

**2.12 Other key assumptions related to storage, inventory, and generation information:**

Waste generation projections are based on current baseline retrieval rates and assumptions of what percentage of suspect-TRU drums will be classified as TRU Mixed after assay.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

- Yes  No

If yes, provide date assessment conducted:

If yes, provide document number or other identification:

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: None planned.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

No waste minimization assessment is planned because the process is not generating and packaging new waste, it is retrieving waste that already exists. TRU waste will be minimized by assaying the suspect-TRU drums in the trench. Those that are low-level will remain disposed of in the LLBG.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

<u>Year</u>	<u>m3</u>	<u>and/or</u>	<u>kg</u>
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		<u>          </u>
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

None



## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

October 28, 1999 (per correspondence 00-OSS-273, dated April 3, 2000, S. H. Wisness, DOE to M. A. Wilson, Washington Department of Ecology)

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
2736-Z	20
234-5Z	33

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 6.884  
 Date of inventory values: 12/31/01  
 Comments on waste inventory: 10 containers will remain in 2736-Z for confirmatory sampling. 169 containers were repackaged into Pipe Overpack Containers (POCs) since the 2000 report. 33 containers remain in 234-5Z as of 12/31/01.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list: 2736-Z

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	6.874		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	6.874		

### 2.7 DOE Storage Compliance Assessment information:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Assessment has been completed. Reference to most recent assessment: PFP Compliance Assessment, A&E-SEC-01-015

Assessment has been scheduled. Scheduled date:

Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

Milestone M-83-09

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

The Hanford Ash Change Request, Number M-83-01-01A states sampling and analysis of the 10 remaining containers will be performed for confirmation sampling for WIPP. Also See Section 2.3 (above).

If yes, provide Tri-Party Agreement milestone number(s): M-83-09 (See above)

**2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation  
for LDR Report Waste Streams, Letter #  
M2100-02-016

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA:

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

PFM is no longer generating this waste stream, only repackaging them into pipe overpack containers (POCs). The POCs will be loaded so as to minimize the number of POCs of waste to be disposed.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

NA

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Plant/unit name:** PFP/234-5Z, Solutions Stabilized Solids      **Waste stream** Solutions Stabilized Solids  
Treatability/aggregated group identifier: TRUM-CH  
Treatability/aggregated group name: WRAP TRUM

- 1.2 Applicable profile number(s) for this waste stream:**  
WSRd 230-00. Profile not yet developed.

**1.3 Waste stream source information**

**1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Unusable Product Receiver (PR) containers.

**1.3.2 History of how and where the waste was/is generated:**

PFP has approximately 90 lead-lined PR containers that hold or held plutonium-bearing solutions to be processed through the magnesium hydroxide or oxalic precipitation processes to recover the plutonium or, for low-plutonium solutions, to be solidified and disposed of as waste. The emptied lead-lined PR containers will be retained for reuse during the facility's D&D activities to collect flush solutions from the cleanout of pipes and tanks for further processing or solidification. At such time as the PR containers are no longer required for use during cleanout activities, they will be declared TRUMW and disposed of at WIPP. (Approximately 510 non-lead-lined containers will be disposed of as LLW or TRU waste when no longer needed.)

**1.3.3 Source of the hazardous constituents:**

Lead in the container liners.

**1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Analytical data, process knowledge.

**1.3.5 Additional notes:**

None.

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

**2.1 Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                 DST                         SST  
 Other (explain): The waste is not yet generated and, therefore, is not in storage.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.1.1 How was the waste managed prior to storage?**

The containers are being retained for reuse during cleanout activities to hold flush solutions

**2.1.2 Timeframe when waste was placed into storage:**

The waste is not yet generated and, therefore, is not in storage.

**2.2 Inventory locations:**

Building/room number	Number of containers/tanks
-------------------------	-------------------------------

**2.3 Current inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 0

Date of inventory values: 12/31/01

Comments on waste inventory: The waste is not yet generated and, therefore, is not in storage.

**2.4 Is storage capacity at this location potentially an issue for this waste stream?**

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

**2.5 Planned management areas for storage of this waste:**  Current location  CWC

DST  Other area(s) list:

None

**2.6 Estimated generation projection by calendar year:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	3.120		
2006	0.000		
Totals	3.120		

**2.7 DOE Storage Compliance Assessment information:**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Assessment has been completed. Reference to most recent assessment: PFP Compliance Assessment, A&E-SEC-01-015

Assessment has been scheduled. Scheduled date:

Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

None

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

NDA will be required to determine radiological content

If yes, provide Tri-Party Agreement milestone number(s): NA

**2.12 Other key assumptions related to storage, inventory, and generation information:**

Waste is not yet generated, therefore it is not in storage.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation  
for LDR Report Waste Streams, Letter #  
M2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**  
 PFP will attempt to reuse these containers and will dispose of them only when no longer usable.

### 3.3 Waste minimization schedule

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

PFP is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PFP has a waste minimization program and is currently undergoing a Site Strategic Pollution Prevention Opportunity Assessment, which will identify if there are further opportunities to reduce waste production or produce waste in a less hazardous form.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Plant/unit name:** PFP/234-5Z, O/MO Residues      **Waste stream** Pu Oxides/Mixed Oxides Residues
- Treatability/aggregated group identifier: TRUM-CH  
Treatability/aggregated group name: WRAP TRUM

1.2 **Applicable profile number(s) for this waste stream:**

WSRd 20L-01. Profile not yet developed.

1.3 **Waste stream source information**

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Plutonium-bearing oxide and mixed oxide material that has previously undergone thermal treatment and contains very little moisture and no organics.

1.3.2 **History of how and where the waste was/is generated:**

Plutonium-bearing oxide and mixed oxide material that has previously undergone thermal treatment and contains very little moisture and no organics. There are three sub-categories: 1. PFP generated oxide residues - a low-grade plutonium oxide material recovered from the RMC and PRF processes. All material was thermally stabilized prior to storage in the vaults. 2. Rocky Flats oxide - plutonium oxide residues recovered from various pyrochemical operations. Materials have been thermally stabilized to remove moisture and reactive or gas generating components. 3. Mixed oxide and alloys - scrap materials resulting from 300 Area fuel fabrication research. The material varies widely in composition. Material was originally generated as product and then later declared waste by the DOE. See section 2.1.2.

1.3.3 **Source of the hazardous constituents:**

Feed stock contained hazardous constituents. See above.

1.3.4 **Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Process knowledge.

1.3.5 **Additional notes:**

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

2.1 **Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)

**LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET**

- Tank                       DST                       SST  
 Other (explain):

**2.1.1 How was the waste managed prior to storage?**

Product in vaults or vault-like rooms as material.

**2.1.2 Timeframe when waste was placed into storage:**

October 28, 1999 (per correspondence 00-OSS-273, dated April 3, 2000, S. H. Wisness, DOE to M. A. Wilson, Washington Department of Ecology)

**2.2 Inventory locations:**

Building/room number	Number of containers/tanks
2736-Z	471

**2.3 Current inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 4.47

Date of inventory values: 12/31/01

Comments on waste inventory:

**2.4 Is storage capacity at this location potentially an issue for this waste stream?**

- Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: None

**2.5 Planned management areas for storage of this waste:**  Current location  CWC

- DST  Other area(s) list: 234-5Z (Storage pursuant to the TPA)  
2736-Z (Storage pursuant to the TPA)

- None

**2.6 Estimated generation projection by calendar year:**

Year	m3	and/or	kg
2002	0.000		
2003	47.216		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	47.216		

**2.7 DOE Storage Compliance Assessment information:**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 2.7 DOE Storage Compliance Assessment Information:

- Assessment has been completed. Reference to most recent assessment: PFP Compliance Assessment, A&E-SEC-01-015
- Assessment has been scheduled. Scheduled date:
- Other. Explain:

### 2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

None

### 2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?

- Yes  No

If yes, summarize releases and quantities and provide date:

NA

### 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

- Yes  No

If yes, explain: NA

### 2.11 Is further characterization necessary?

- Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

A commitment for characterization is not necessary because it will be addressed as part of the PFP TPA negotiations.

If yes, provide Tri-Party Agreement milestone number(s): See above

### 2.12 Other key assumptions related to storage, inventory, and generation information:

None

## 3.0 WASTE MINIMIZATION

### 3.1 Has a waste minimization assessment been completed for this stream?

- Yes  No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation  
for LDR Report Waste Streams, Letter#  
M2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

PFM is no longer generating this waste stream, only repackaging them into pipe overpack containers (POCs). The POCs will be loaded so as to minimize the number of POCs of waste to be disposed.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

<u>Year</u>	<u>m3</u>	<u>and/or</u>	<u>kg</u>
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

NA

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

**1.1 Plant/unit name:** PFP/234-5Z, Pu Misc.  
Combustibles **Waste stream** Pu Miscellaneous Residues,  
Combustibles  
**Treatability/aggregated group identifier:** TRUM-CH  
**Treatability/aggregated group name:** WRAP TRUM

**1.2 Applicable profile number(s) for this waste stream:**

WSRd 20L-01 (profile not yet developed)

**1.3 Waste stream source information**

**1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Combustibles from plutonium processing at 234-5Z. Further characterization of these combustibles is needed.

**1.3.2 History of how and where the waste was/is generated:**

Combustibles from plutonium processing at 234-5Z. Material was originally generated as product and then later declared waste by the DOE. See section 2.1.2.

**1.3.3 Source of the hazardous constituents:**

Items used in plutonium processing became hazardous by contamination during processing.

**1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Process knowledge

**1.3.5 Additional notes:**

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

**2.1 Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank     DST     SST  
 Other (explain):

**2.1.1 How was the waste managed prior to storage?**

Product in vaults or vault-like rooms as material.

**2.1.2 Timeframe when waste was placed into storage:**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

October 28, 1999 (per correspondence 00-OSS-273, dated April 3, 2000, S. H. Wisness, DOE to M. A. Wilson, Washington Department of Ecology)

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
2736-ZB, 234-5Z	12 containers

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 0.012  
 Date of inventory values: 12/31/01  
 Comments on waste inventory: None

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: None

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list: 234-5Z (Storage pursuant to the TPA)

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.000		
2003	2.500		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	2.500		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment

PFM Compliance  
Assessment, A&E-SEC-01-  
015

Assessment has been scheduled. Scheduled date:

Other. Explain:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

None

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

A commitment for characterization is not necessary because it will be addressed as part of the PFP TPA negotiations.

If yes, provide Tri-Party Agreement milestone number(s): See above.

**2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation  
for LDR Report Waste Streams, Letter #  
M-2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA:

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

PFP is no longer generating this waste stream, only repackaging them into pipe overpack containers (POCs). The POCs will be loaded so as to minimize the number of POCs of waste to be disposed.

**3.3 Waste minimization schedule**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

<u>Year</u>	<u>m3</u>	<u>and/or</u>	<u>kg</u>
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		<u>          </u>
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

PFP is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PFP has a waste minimization program and is currently undergoing a Site Strategic Pollution Prevention Opportunity Assessment, which will identify if there are further opportunities to reduce waste production or produce waste in a less hazardous form.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Plant/unit name:** PFP/234-5Z, Pu Misc. Residues      **Waste stream** Plutonium-Bearing Misc. Residues
- Treatability/aggregated group identifier: TRUM-CH  
Treatability/aggregated group name: WRAP TRUM

**1.2 Applicable profile number(s) for this waste stream:**

WSRd 20L-01. Profile not yet developed.

**1.3 Waste stream source information**

**1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Plutonium-bearing materials from plutonium recovery processes at PFP. Items that include compounds and combustibles, grinding medium, grinding wheels, grit, graphite and Pu foil.

**1.3.2 History of how and where the waste was/is generated:**

Plutonium bearing materials from plutonium recovery processes at PFP. Material was originally generated as product and then later declared waste by the DOE. See section 2.1.2.

**1.3.3 Source of the hazardous constituents:**

Introduced during processing of material as part of process feed.

**1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Process knowledge

**1.3.5 Additional notes:**

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

**2.1 Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                     DST                             SST  
 Other (explain):

**2.1.1 How was the waste managed prior to storage?**

Product in vaults or vault-like rooms as material.

**2.1.2 Timeframe when waste was placed into storage:**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

October 28, 1999 (per correspondence 00-OSS-273, dated April 3, 2000, S. H. Wisness, DOE to M. A. Wilson, Washington Department of Ecology)

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
2736-Z	221 Containers

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 0.221  
 Date of inventory values: 12/31/01  
 Comments on waste inventory: None

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: None

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list: 234-5Z (Storage pursuant to the TPA)

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.000		
2003	10.400		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	10.400		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment

PFM Compliance  
Assessment, A&E-SEC-01--  
015

Assessment has been scheduled. Scheduled date:

Other. Explain:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

None

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

A commitment for characterization is not necessary because it will be addressed as part of the PFP TPA negotiations.

If yes, provide Tri-Party Agreement milestone number(s): See above.

**2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation  
for LDR Report Waste Streams, Letter #  
M2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA:

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

PFP is no longer generating this waste stream, only repackaging them into pipe overpack containers (POCs). The POCs will be loaded so as to minimize the number of POCs to be disposed.

**3.3 Waste minimization schedule**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

<u>Year</u>	<u>m3</u>	<u>and/or</u>	<u>kg</u>
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

NA

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Plant/unit name:** PFP/234-5Z, RF Ash      **Waste stream** Rocky Flats Ash Residues  
**Treatability/aggregated group identifier:** TRUM-CH  
**Treatability/aggregated group name:** WRAP TRUM

1.2 **Applicable profile number(s) for this waste stream:**

PFPX-20L-0001-00

1.3 **Waste stream source information**

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Ash residue from Rocky Flats incinerator

1.3.2 **History of how and where the waste was/is generated:**

Incinerator ash from Rocky Flats was originally sent to Hanford for plutonium recovery, but was later declared waste. See section 2.1.2.

1.3.3 **Source of the hazardous constituents:**

Feed stock contained hazardous constituents.

1.3.4 **Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Analytical data, process knowledge

1.3.5 **Additional notes:**

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

2.1 **Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                 DST                         SST  
 Other (explain):

2.1.1 **How was the waste managed prior to storage?**

Product in vaults or vault-like rooms

2.1.2 **Timeframe when waste was placed into storage:**

October 28, 1999 (per correspondence 00-OSS-273, dated April 3, 2000, S. H. Wisness, DOE to

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

M. A. Wilson, Washington Department of Ecology)

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
2736-Z	10

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 0.01  
 Date of inventory values: 12/31/01  
 Comments on waste inventory: 10 containers will remain in 2736-Z for confirmatory sampling.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: None

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment

PFM Compliance  
Assessment, A&E-SEC-01-  
015

Assessment has been scheduled. Scheduled date:

Other. Explain:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

Milestone M-83-07

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

Rocky Flats Ash Change Request M-83-00-01 states sampling and analysis of the 10 remaining containers will be performed for confirmation sampling for WIPP. See Section 2.3 (above).

If yes, provide Tri-Party Agreement milestone number(s): M-83-08

**2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation  
for LDR Report Waste Streams, Letter# M-  
2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA:

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

PFP is no longer generating this waste stream, and has repackaged them into pipe overpack containers (POCs).

**3.3 Waste minimization schedule**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

<u>Year</u>	<u>m3</u>	<u>and/or</u>	<u>kg</u>
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		<u>          </u>
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

NA



## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 2.1.2 Timeframe when waste was placed into storage:

October 28, 1999 (per correspondence 00-OSS-273, dated April 3, 2000, S. H. Wisness, DOE to M. A. Wilson, Washington Department of Ecology)

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
2736-Z	210
234-5Z	4

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 5.392  
 Date of inventory values: 12/31/01  
 Comments on waste inventory: None

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: None

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list: 234-5Z (Storage pursuant to the TPA)  
 2736-Z (Storage pursuant to the TPA)

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	46.800		
2003	15.180		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	61.980		

### 2.7 DOE Storage Compliance Assessment information:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Assessment has been completed. Reference to most recent assessment: PFP Compliance Assessment, A&E-SEC-01-015

Assessment has been scheduled. Scheduled date:

Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

Milestone M-83-11

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

NDA will be required to determine radiological content

If yes, provide Tri-Party Agreement milestone number(s):

**2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation  
for LDR Report Waste Streams, Letter #  
M-2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA:

**LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET**

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

PFP is no longer generating this waste stream, only repackaging them into pipe overpack containers (POCs). The POCs will be loaded so as to minimize the number of POCs of waste to be disposed.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

PFP is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PFP has a waste minimization program and is currently undergoing a Site Strategic Pollution Prevention Opportunity Assessment, which will identify if there are further opportunities to reduce waste production or produce waste in a less hazardous form.



## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

September 2001

**2.2 Inventory locations:**

Building/room number	Number of containers/tanks
234-5Z, RM. 235	49

**2.3 Current inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 10.2  
 Date of inventory values: 12/31/01  
 Comments on waste inventory:

**2.4 Is storage capacity at this location potentially an issue for this waste stream?**

Yes  No

If yes, what is the total estimated storage capacity? \_\_\_\_\_

When is this capacity expected to be reached \_\_\_\_\_

Bases and assumptions used:

**2.5 Planned management areas for storage of this waste:**  Current location  CWC

DST  Other area(s) list:

None

**2.6 Estimated generation projection by calendar year:**

Year	m3	and/or	kg
2002	4.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		<u>                    </u>
Totals	4.000		

**2.7 DOE Storage Compliance Assessment information:**

Assessment has been completed. Reference to most recent assessment

PFP Compliance  
Assessment, A&E-SEC-01-  
015

Assessment has been scheduled. Scheduled date:

Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

M-083-10, "Complete Solidification of Selected Plutonium-Bearing Solutions Currently Located in PFP and Shipment to the Central Waste Complex for Storage"

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain:

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

NDA is required to determine concentration of plutonium is too low to recover and, thus, selected for solidification and disposal. Also, some sampling and analysis was done in 2002.

If yes, provide Tri-Party Agreement milestone number(s): M-083-10

**2.12 Other key assumptions related to storage, inventory, and generation information:**

TPA Milestone M-083-10 has a due date of 03/31/2002 .

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation  
for LDR Report Waste Streams, Letter #  
M2100-02-016.

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA:

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

PFP has a waste minimization program. A heirarchical approach to environmental management is applied to all types of pollution and waste generating activities. Pollution prevention and waste minimization, through source reduction, is the preferred option, followed by environmentally safe recycling. Treatment to reduce the quantity, toxicity, and/or mobility will be considered only when

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

prevention or recycling is not possible or practical. Environmentally safe disposal is the last option. Segregation is applicable to all these activities.

### 3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year (volume or mass): 0 m3

### 3.3.2 Projected future waste volume reductions:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 3.3.3 Bases and assumptions used in above estimates:

PFP is currently in a clean-up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PFP has a waste minimization program and is currently undergoing a Site Strategic Pollution Prevention Opportunity Assessments which will identify if there are further opportunities to reduce waste production or produce waste in a less hazardous form.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Plant/unit name:** PFP/PFP, Legacy Holdup      **Waste stream** Legacy Holdup Waste  
    **Treatability/aggregated group identifier:** TRUM-CH  
    **Treatability/aggregated group name:** WRAP TRUM

1.2 **Applicable profile number(s) for this waste stream:**  
Not yet developed

#### 1.3 Waste stream source information

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Plutonium-bearing holdup consists of materials that have gradually accumulated as a result of facility operations and operational upsets.

1.3.2 **History of how and where the waste was/is generated:**

Plutonium in ductwork, process vacuum system piping, gloveboxes/hoods, and on the PRF canyon floor that is readily removable will be removed and evaluated for retention or disposal as waste.

1.3.3 **Source of the hazardous constituents:**

Introduced during processing of material as part of process feed.

1.3.4 **Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Analytical data, process knowledge

1.3.5 **Additional notes:**

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

#### 2.1 Current storage method

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                 DST                         SST  
 Other (explain):

2.1.1 **How was the waste managed prior to storage?**

NA

2.1.2 **Timeframe when waste was placed into storage:**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

NA

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
<hr/>	
PFP	

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 0

Date of inventory values: 12/31/01

Comments on waste inventory: None

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: None

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	25.792		
2005	26.832		
2006	<u>12.480</u>		
Totals	65.104		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment:

Assessment has been scheduled. Scheduled date:

Other. Explain:

### 2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

None

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

- 2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

No schedule is needed because this is being discussed as part of PFP TPA negotiations.

If yes, provide Tri-Party Agreement milestone number(s): NA

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

- 3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: See 3.2 below.

- 3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

PFP has a waste minimization program. A hierarchical approach to environmental management is applied to all types of pollution and waste generating activities. Pollution prevention and waste minimization, through source reduction, is the preferred option, followed by environmentally safe recycling. Treatment to reduce the quantity, toxicity, and/or mobility will be considered only when prevention or recycling is not possible or practical. Environmentally safe disposal is the last option. Segregation is applicable in all of these activities.

- 3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):**

0 m3

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 3.3.2 Projected future waste volume reductions:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 3.3.3 Bases and assumptions used in above estimates:

PFP is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PFP has a waste minimization program and is currently undergoing a Site Strategic Pollution Prevention Opportunity Assessment, which will identify if there are further opportunities to reduce waste production or produce waste in a less hazardous form.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Plant/unit name:** WRAP/2336-W, CH TRUM      **Waste stream** TRUM-CH  
     **Treatability/aggregated group identifier:** TRUM-CH  
     **Treatability/aggregated group name:** WRAP TRUM

1.2 **Applicable profile number(s) for this waste stream:**

WSRds 20D, 200, 201, and 203

1.3 **Waste stream source information**

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Waste is drummed CH TRUM that consists of plastics, paper/cardboard, filters, rubber, wood, cloth/rags, metal, soil/rocks, chemicals, and glass.

1.3.2 **History of how and where the waste was/is generated:**

The waste was generated from the Plutonium Finishing Plant, PUREX plant, Critical Mass Laboratory, Materials Engineering Laboratory, Kerr-McGee, the Chemical Engineering Building, Post-Irradiation Test Facility, REDOX facility, Radiochemistry Building, the Semi-works D&D, Radiological Calibrations Laboratory, research laboratories, and the Fuels Development Laboratory. The waste was generated and placed into storage from 1987-1999. In addition, some waste in this stream will be from future 200 Area D&D activities (has yet to be generated). This waste is in WRAP for certification to be sent to WIPP.

1.3.3 **Source of the hazardous constituents:**

Radiochemical operations around the site using hazardous chemicals, and D&D of such operations as noted in Section 1.3.2 of this data sheet.

1.3.4 **Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Analytical data, process knowledge.

1.3.5 **Additional notes:**

Waste at WRAP comes from various generators and generating processes around the Hanford Site due to WRAP's verification and repackaging mission. LDR waste destined for WIPP is exempt from LDRs.

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

2.1 **Current storage method**

Container (pad)     Container (covered)     Container (retrievably buried)

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- Tank                       DST                       SST  
 Other (explain):

### 2.1.1 How was the waste managed prior to storage?

Waste was generated and packaged at various locations around the Hanford Site.

### 2.1.2 Timeframe when waste was placed into storage:

Waste was placed into storage between 1987 and present. Drums at WRAP are undergoing verification and repackaging to meet WIPP WAC.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
2336W	42

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 8.4

Date of inventory values: 12/26/01

Comments on waste inventory: Inventory fluctuates on a daily basis to support WRAP's mission of waste verification and repackaging. Inventory based on Drum Management System (DMS) printout dated 12/26/2001.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: Due to proximity to and interchange with CWC, there is no storage capacity issue at WRAP.

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year      m<sup>3</sup>      and/or      kg

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2002	0.000
2003	0.000
2004	0.000
2005	0.000
2006	0.000
Totals	0.000

### 2.7 DOE Storage Compliance Assessment information:

- Assessment has been completed. Reference to most recent assessment DOE# A&E-DWR-01-011  
July 2001
- Assessment has been scheduled. Scheduled date:
- Other. Explain:

### 2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

None

### 2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?

- Yes  No

If yes, summarize releases and quantities and provide date:

NA

### 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

- Yes  No

If yes, explain: NA

### 2.11 Is further characterization necessary?

- Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

The waste at WRAP is processed through WRAP and transferred on to another TSD unit or Atomic Energy Act disposal location. A commitment is not necessary to complete this characterization because it is part of WRAP's ongoing activities.

If yes, provide Tri-Party Agreement milestone number(s): None

### 2.12 Other key assumptions related to storage, inventory, and generation information:

None

## 3.0 WASTE MINIMIZATION

### 3.1 Has a waste minimization assessment been completed for this stream?

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Yes  No

If yes, provide date assessment conducted: NA

If yes, provide document number or other identification: NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: None currently scheduled -- see Section 3.2

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

This is waste generated by other facilities. However, to the extent practical, all mixed waste is segregated and packaged separately from LLW or TRU wastes. To minimize the generation of mixed waste, generators actively seek nondangerous alternatives for the dangerous constituents in their processes. Minimization goals are set annually and tracked quarterly, and waste treatment is used to destroy the hazardous constituents, as allowable.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

Since subject waste has already been generated, no additional waste minimization activities are planned.

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION

- 1.1 Treatability group/aggregated stream identifier** TRUM-RH  
**Treatability group/aggregated stream name:** M-91 T Plant TRUM, RH
- 1.2 Description of waste (list WSRd numbers for this waste stream, as applicable):**

The waste consists of inner container, iron-based metals, lead, soil, lead shielding, and steel shielding. Waste is from the clean-out of hot cells from research/development laboratories. The relative waste quantity is small, because the waste matrix contains a large percentage of lead and steel shielding materials.

### 2.0 WASTE STREAM INVENTORY AND GENERATION

- 2.1 Current total inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 45.380

- 2.2 Estimated generation projection by calendar year**

Year	m3	and/or	kg
2002	7.600		
2003	3.600		
2004	2.600		
2005	2.600		
2006	2.600		
Totals	19.000		

### 3.0 WASTE STREAM CHARACTERIZATION

- 3.1 Radiological characteristics**

**3.1.1 Mixed waste type**       High-level     Transuranic     Low-level

**3.1.2 Handling (as currently packaged/stored)**     Contact-handled     Remote-handled

**3.1.3 Comments on radiological characteristics (e.g., more specific content, treatment concerns caused by radiation, confidence level):**

The waste contains TRU nuclides greater than 100 nCi/g. The waste also contain non-TRU radioactivity. Typical concentrations exceed 1000 Ci/m<sup>3</sup> for Sr90, 1000 Ci/m<sup>3</sup> for Y90, 1000 Ci/m<sup>3</sup> for Cs137, and 950 Ci/m<sup>3</sup> for Ba137m.

- 3.2 Matrix characteristics (physical content)**

**3.2.1 Matrix constituent table (each constituent listed should constitute at least 1% of the total volume or mass)**

**3.2.2 Confidence level for matrix characteristic data in Section 3.2.1:**

Low     Medium     High

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 3.2.3 Comments on matrix characteristics and/or confidence level:

Waste is from the clean-out of hot cells from research/development laboratories. The relative waste quantity is small, because the waste matrix contains a large percentage of shielding materials.

### 3.3 Regulated contaminated characteristics

#### 3.3.1 Wastewater/non-wastewater under RCRA

Wastewater     Non-wastewater     Unknown

#### 3.3.2 Regulated contaminant table including treatment requirements and UHCs, if applicable

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D004	Arsenic	NA	***	***	Exempt (61 FR 60704)
D005	Barium	NA	***	***	Exempt (61 FR 60704)
D006	Cadmium	NA	***	***	Exempt (61 FR 60704)
D007	Chromium	NA	***	***	Exempt (61 FR 60704)
D008	Lead	NA	***	***	Exempt (61 FR 60704)

\*LDR subcategory marked NA if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

\*\*If the waste is not consistent in concentration or the concentration is unknown, this may not apply. Describe in Section 3.3.6.

\*\*\* The concentration varies and is based on process knowledge and/or analytical data.

#### 3.3.3 List any waste numbers from Section 3.3.2 for which the stream already meets established LDR treatment standards

List:

No LDR treatment required (e.g., TRUM waste destined for WIPP, exclusion, etc.)

None (i.e., all constituents/waste numbers of this waste stream still require treatment)

#### 3.3.4 Does this waste stream contain PCBs?

## LDR REPORT TREATABILITY GROUP DATA SHEET

Yes  No  Unknown If no or unknown, skip to Section 3.3.5

**3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?**

Yes  No  Unknown

**3.3.4.2 Indicate the PCB concentration range (ppm)**

<50  ≥ 50  Unknown

**3.3.5 What is the confidence level for the regulated contaminant characteristic data?**

Low  Medium  High

**3.3.6 Comments on regulated contaminant characteristics and/or confidence level:**

None

### 4.0 WASTE STREAM TREATMENT

**4.1 Is this stream currently being treated?**  Yes  No

If yes, provide details: NA

**4.2 Planned treatment**

Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

No treatment required (skip to Section 5.0)  Treating or plan to treat off site  
 Treating or plan to treat on site  Treatment options still being assessed

**4.3 Planned treatment method, facility, extent of treatment capacity available:**

Wastes are planned to be treated under the proposed M-91 capability, as needed to meet the applicable waste acceptance criteria at WIPP. The extent of the treatment and technologies has yet to be determined, but the techniques will likely include segregation, decontamination, solidification, and repackaging. The treatment technologies and capacity of M-91 have yet to be determined.

**4.4 Treatment schedule information:**

Treatment will be performed as necessary to support the results of active TPA negotiations.

**4.5 Applicable Tri-Party Agreement milestone numbers (including permitting):**

M-91-01

**4.6 Proposed new Tri-Party Agreement treatment milestones:**

The applicable milestones are addressed in the active M-91 TPA negotiations.

**4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?**

Yes  No  Unknown

If yes, describe: NA

## LDR REPORT TREATABILITY GROUP DATA SHEET

**4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment:**

None are planned.

**4.9 Key assumptions: None.**

### 5.0 WASTE STREAM DISPOSAL

**After treatment, how will the waste stream be disposed of (include description, locations, milestone numbers, variances required, etc., as applicable)?**

TRUM is disposed of at WIPP.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Plant/unit name:** CWC/CWC, RH TRUM      **Waste stream** RH TRUM  
**Treatability/aggregated group identifier:** TRUM-RH  
**Treatability/aggregated group name:** M-91 T Plant TRUM, RH

1.2 **Applicable profile number(s) for this waste stream:**

NA

1.3 **Waste stream source information**

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

The waste consists of plastics, metals, lead shielding, steel shielding, glass, paper/cardboard, cement, and absorbents that are contaminated with hazardous constituents. The current RH waste is packaged in shielded containers, so that it can be stored as CH waste.

1.3.2 **History of how and where the waste was/is generated:**

The waste was generated from the Plutonium Finishing Plant, PUREX plant, Critical Mass Laboratory, Materials Engineering Laboratory, Kerr-McGee, the Chemical Engineering Building, Post-Irradiation Test Facility, REDOX facility, Radiochemistry Building, the Semi-works D&D, Radiological Calibrations Laboratory, research laboratories, and the Fuels Development Laboratory.

1.3.3 **Source of the hazardous constituents:**

See 1.3.1 and 1.3.2

1.3.4 **Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Analytical data and process knowledge.

1.3.5 **Additional notes:**

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

2.1 **Current storage method**

Container (pad)     Container (covered)     Container (retrievably buried)

Tank                     DST                     SST

Other (explain):

2.1.1 **How was the waste managed prior to storage?**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Accumulated and packaged at various Hanford locations prior to storage.

### 2.1.2 Timeframe when waste was placed into storage:

Waste storage in CWC began in 1987 and it has continued since then.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
CWC	9

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 44.964

Date of inventory values: 12/31/01

Comments on waste inventory: Inventory based on data for containers residing at the CWC as reported in the Solid Waste Information Tracking System (SWITS).

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: No issues with CWC storage based on 20 year waste generation forecast.

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.000		
2003	1.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	1.000		

### 2.7 DOE Storage Compliance Assessment information:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Assessment has been completed. Reference to most recent assessment: A&E-SEC-02-001

Assessment has been scheduled. Scheduled date:

Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

M-20-12

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

Waste that is sent to WIPP will need to be characterized to assure that it meets the WIPP Waste Acceptance Criteria. Characterization will be performed as necessary to support the results of the active M-91 TPA negotiations.

If yes, provide Tri-Party Agreement milestone number(s): none

**2.12 Other key assumptions related to storage, inventory, and generation information:**

The waste generation projections are for waste expected to be received from Battelle Columbus Labs.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted: NA

If yes, provide document number or other identification: NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: None planned - waste not generated at CWC

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**  
These activities occur before the wastes are shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

There is no projected waste generation by CWC.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Plant/unit name:** HWTU/HWTU, TRUM-RH      **Waste stream** TRUM-RH  
    **Treatability/aggregated group identifier:** TRUM-RH  
    **Treatability/aggregated group name:** M-91 T Plant TRUM, RH

1.2 **Applicable profile number(s) for this waste stream:**

PNNL-201-0001-02, PNNL-203-0001-00

1.3 **Waste stream source information**

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Subject waste was generated from PNNL laboratory operations.

1.3.2 **History of how and where the waste was/is generated:**

Waste is generated from routine laboratory operations and hot cell clean outs at PNNL.

1.3.3 **Source of the hazardous constituents:**

Waste stream may consist of different inorganic and organic solids and liquids that are contaminated with inorganic and organic regulated dangerous waste constituents. This waste stream also includes hazardous debris.

1.3.4 **Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Wastes are characterized as specified in PNNL Waste Stream Profiles.

1.3.5 **Additional notes:**

NA.

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

2.1 **Current storage method**

Container (pad)     Container (covered)     Container (retrievably buried)

Tank                     DST                     SST

Other (explain):

2.1.1 **How was the waste managed prior to storage?**

The waste was managed in 90 day or Satellite Accumulation areas prior to being transferred to this storage facility.

2.1.2 **Timeframe when waste was placed into storage:**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

The wastes currently stored at HWTU were placed in storage between 5/7/1993 and 12/30/2001.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
325/SAL	3

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 0.416  
 Date of inventory values: 1/14/02  
 Comments on waste inventory: This represents the remote handled TRU mixed wastes currently in this storage location.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	7.600		
2003	2.600		
2004	2.600		
2005	2.600		
2006	2.600		
Totals	18.000		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment: 1/4/2002 - Report not yet received.

Assessment has been scheduled. Scheduled date:

Other. Explain:

### 2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

M-20-20

- 2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

- 2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

PNNL Waste Management requests full chemical and radiological characterization from the laboratory generators prior to receiving the waste into the HWTU.

If yes, provide Tri-Party Agreement milestone number(s): NA

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

The inventory information is for what is currently in storage in the specified HWTU location(s). This includes current generation and/or M-91 wastes. The projections in section 2.6 of this data sheet include current generation and M-91 volumes.

### 3.0 WASTE MINIMIZATION

- 3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: Assessment Date to be determined.

- 3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

Laboratory staff routinely evaluate their processes to determine if less reagents or less hazardous reagents can be used in the process. The Radioactive Waste Operations Group routinely assess the possibility of consolidating items for shipment to CWC.

- 3.3 Waste minimization schedule**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

**3.3.2 Projected future waste volume reductions:**

<u>Year</u>	<u>m3</u>	<u>and/or</u>	<u>kg</u>
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		<u>          </u>
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

Projects generating wastes usually have strict requirements for process outcomes. Hence, it is not possible to project specific volume reductions. As noted in Section 3.2, each project generating this type of waste is reviewed to assure that waste volumes generated are minimized.

## LDR REPORT TREATABILITY GROUP DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION

1.1 **Treatability group/aggregated stream identifier** TRU-PCB  
**Treatability group/aggregated stream name:** PCB TRUM and/or PCB TRU, CH

1.2 **Description of waste (list WSRd numbers for this waste stream, as applicable):**  
 The waste contains metal, plastic, wood, lead, oils (hydraulic fluid), paper, sorbents, glass (crushed fluorescent tubes), concrete, rags, absorbent/kitty litter, rubber, soil, and tape/rope that have been contaminated with PCBs. The light ballasts are typically in large boxes and the hydraulic fluid is typically in drums.

### 2.0 WASTE STREAM INVENTORY AND GENERATION

2.1 **Current total inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 80.412

2.2 **Estimated generation projection by calendar year**

Year	m3	and/or	kg
2002	0.000		
2003	15.000		
2004	16.910		
2005	20.000		
2006	0.000		
<b>Totals</b>	<b>51.910</b>		

### 3.0 WASTE STREAM CHARACTERIZATION

3.1 **Radiological characteristics**

3.1.1 **Mixed waste type**       High-level     Transuranic     Low-level

3.1.2 **Handling (as currently packaged/stored)**     Contact-handled     Remote-handled

3.1.3 **Comments on radiological characteristics (e.g., more specific content, treatment concerns caused by radiation, confidence level):**

The waste contain more than 100 nCi/g of TRU nuclides. The concentration of non-TRU nuclides is either very low or zero.

3.2 **Matrix characteristics (physical content)**

3.2.1 **Matrix constituent table (each constituent listed should constitute at least 1% of the total volume or mass)**

3.2.2 **Confidence level for matrix characteristic data in Section 3.2.1:**

Low     Medium     High

3.2.3 **Comments on matrix characteristics and/or confidence level:**

## LDR REPORT TREATABILITY GROUP DATA SHEET

Matrix characteristics vary significantly from package to package. High confidence that PCB contamination is present.

### 3.3 Regulated contaminated characteristics

#### 3.3.1 Wastewater/non-wastewater under RCRA

Wastewater     Non-wastewater     Unknown

#### 3.3.2 Regulated contaminant table including treatment requirements and UHCs, if applicable

EPA/ State number	Waste description	LDR sub- category*	Concentration (typical or range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable Charac.	NA	***	***	Remove characteristic (1)
D004	Arsenic	NA	***	***	Exempt (61 FR 60704)
D005	Barium	NA	***	***	Exempt (61 FR 60704)
D006	Cadmium	NA	***	***	Exempt (61 FR 60704) D005
D007	Chromium	NA	***	***	Exempt (61 FR 60704)
D008	Lead	NA	***	***	Exempt (61 FR 60704)
D009	Mercury	NA	***	***	Exempt (61 FR 60704)
D010	Selenium	NA	***	***	Exempt (61 FR 60704)
D011	Silver	NA	***	***	Exempt (61 FR 60704)
WT01	Toxic, EHW	NA	***	***	NA
WT02	Toxic, DW	NA	***	***	NA

\*LDR subcategory marked NA if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

\*\*If the waste is not consistent in concentration or the concentration is unknown, this may not apply. Describe in Section 3.3.6.

\*\*\* The concentration varies and is based on process knowledge and/or analytical data.

## LDR REPORT TREATABILITY GROUP DATA SHEET

**3.3.3 List any waste numbers from Section 3.3.2 for which the stream already meets established LDR treatment standards**

List:

No LDR treatment required (e.g., TRUM waste destined for WIPP, exclusion, etc.)

None (i.e., all constituents/waste numbers of this waste stream still require treatment)

**3.3.4 Does this waste stream contain PCBs?**

Yes  No  Unknown If no or unknown, skip to Section 3.3.5

**3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?**

Yes  No  Unknown

**3.3.4.2 Indicate the PCB concentration range (ppm)**

<50  ≥ 50  Unknown

**3.3.5 What is the confidence level for the regulated contaminant characteristic data?**

Low  Medium  High

**3.3.6 Comments on regulated contaminant characteristics and/or confidence level:**

None

### 4.0 WASTE STREAM TREATMENT

**4.1 Is this stream currently being treated?**  Yes  No

If yes, provide details: NA

**4.2 Planned treatment**

Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

No treatment required (skip to Section 5.0)  Treating or plan to treat off site

Treating or plan to treat on site  Treatment options still being assessed

**4.3 Planned treatment method, facility, extent of treatment capacity available:**

Waste is planned to be treated under the proposed M-91 capability. Possible treatment techniques include thermal treatment (e.g. molten salt oxidation, vitrification, pyrolysis) or chemical treatment (e.g. chemical oxidation, chemical reduction, or dechlorination) or none if not required by WIPP.

**4.4 Treatment schedule information:**

Treatment will be performed as necessary to support the results of active TPA negotiations.

**4.5 Applicable Tri-Party Agreement milestone numbers (including permitting):**

M-91-01

**LDR REPORT TREATABILITY GROUP DATA SHEET****4.6 Proposed new Tri-Party Agreement treatment milestones:**

The applicable milestones are addressed in the active M-91 TPA negotiations.

**4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?**

Yes  No  Unknown

If yes, describe: One treatment operation will likely consist of box opening and sorting of the ballasts into separate containers. This action alone will substantially reduce the PCB waste volume.

**4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment:**

Waste disposed of at WIPP is exempt from the LDR treatment standards

**4.9 Key assumptions: None****5.0 WASTE STREAM DISPOSAL**

**After treatment, how will the waste stream be disposed of (include description, locations, milestone numbers, variances required, etc., as applicable)?**

TRUM is disposed of at WIPP.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

**1.1 Plant/unit name:** CWC/CWC, TRUM PCBs      **Waste stream** TRUM PCBs  
**Treatability/aggregated group identifier:** TRU-PCB  
**Treatability/aggregated group name:** PCB TRUM and/or PCB TRU, CH

**1.2 Applicable profile number(s) for this waste stream:**

NA

**1.3 Waste stream source information**

**1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

The waste stream consists of metals, wood, lead, glass, concrete, absorbed organic liquids, cloth/rags, absorbents, and absorbed liquids. All contain residues of hydraulic fluids contaminated with PCBs.

**1.3.2 History of how and where the waste was/is generated:**

The waste was generated from facility or equipment operation and maintenance waste.

**1.3.3 Source of the hazardous constituents:**

Hydraulic fluids containing PCBs.

**1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Analytical data and process knowledge.

**1.3.5 Additional notes:**

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

**2.1 Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                 DST                                 SST  
 Other (explain):

**2.1.1 How was the waste managed prior to storage?**

Accumulated and packaged by waste generator prior to storage at CWC.

**2.1.2 Timeframe when waste was placed into storage:**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1988-1989

**2.2 Inventory locations:**

Building/room number	Number of containers/tanks
CWC	59

**2.3 Current inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 79.8444

Date of inventory values: 12/31/01

Comments on waste inventory: Inventory based on data for containers residing at the CWC as reported in the Solid Waste Information Tracking System (SWITS).

**2.4 Is storage capacity at this location potentially an issue for this waste stream?**

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: No issues with CWC storage based on 20 year waste generation forecast.

**2.5 Planned management areas for storage of this waste:**  Current location  CWC

DST  Other area(s) list:

None

**2.6 Estimated generation projection by calendar year:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		<u>                    </u>
Totals	0.000		

**2.7 DOE Storage Compliance Assessment information:**

Assessment has been completed. Reference to most recent assessment

A&E-SEC-02-001

Assessment has been scheduled. Scheduled date:

Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

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- 2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

- 2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

Waste sent to WIPP will need to be characterized to assure that it meets the WIPP Waste Acceptance Criteria. Characterization will be performed as necessary to support the results of the active M-91 TPA negotiations.

If yes, provide Tri-Party Agreement milestone number(s): None

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

Additional TRUM PCB waste is not expected to be generated in the future.

### 3.0 WASTE MINIMIZATION

- 3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: None planned - waste not generated at CWC

- 3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

Minimization activities occur before the waste is shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

- 3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):**

0 m3

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 3.3.2 Projected future waste volume reductions:

<u>Year</u>	<u>m3</u>	<u>and/or</u>	<u>kg</u>
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	<u>0.000</u>		<u>          </u>
Totals	0.000		

### 3.3.3 Bases and assumptions used in above estimates:

There is no projected generation from CWC.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

**1.1 Plant/unit name:** HWTU/HWTU, TRU-PCB      **Waste stream** TRU-PCB  
**Treatability/aggregated group identifier:** TRU-PCB  
**Treatability/aggregated group name:** PCB TRUM and/or PCB TRU, CH

**1.2 Applicable profile number(s) for this waste stream:**

NA

**1.3 Waste stream source information**

**1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Subject waste was generated from PNNL laboratory operations

**1.3.2 History of how and where the waste was/is generated:**

Waste is generated from routine laboratory operations at PNNL.

**1.3.3 Source of the hazardous constituents:**

Waste stream may consist of different inorganic and organic solids and liquids that are contaminated with inorganic and organic regulated dangerous waste constituents, including PCBs. This waste stream also includes hazardous debris.

**1.3.4 Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Wastes are characterized as specified in PNNL Waste Stream Profiles.

**1.3.5 Additional notes:**

NA

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

**2.1 Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                 DST                                 SST  
 Other (explain):

**2.1.1 How was the waste managed prior to storage?**

Waste was managed in 90 day or Satellite Accumulation areas prior to being transferred to this storage facility.

**2.1.2 Timeframe when waste was placed into storage:**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

The wastes currently stored at HWTU were placed in storage between 05/07/1993 and 12/30/2001.

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
325/SAL	1
325/528	1

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 0.208  
 Date of inventory values: 1/14/02  
 Comments on waste inventory: This represents the TRU mixed wastes containing PCBs currently in these storage locations.

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: NA

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment 1/4/2002 - Report not yet received.

Assessment has been scheduled. Scheduled date:

Other. Explain:

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

No TPA milestone is directly associated with storage of this waste stream.

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

PNNL Waste Management requests full chemical and radiological characterization from the laboratory generators prior to receiving the waste into the HWTU. However, further confirmatory NDA may be performed on TRU packages that are consolidated at the HWTU.

If yes, provide Tri-Party Agreement milestone number(s): NA

**2.12 Other key assumptions related to storage, inventory, and generation information:**

NA

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

NA

If yes, provide document number or other identification:

NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: Assessment date to be determined.

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

Laboratory staff routinely evaluate their processes to determine if less reagents or less hazardous reagents can be used in the process. The Radioactive Waste Operations Group routinely assess the possibility of bulking and absorbing wastes to minimize the number of containers shipped to CWC.

**3.3 Waste minimization schedule**

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m<sup>3</sup>

**3.3.2 Projected future waste volume reductions:**

Year	m <sup>3</sup>	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

Projects generating wastes usually have strict requirements for process outcomes. Hence, it is not possible to project specific volume reductions. As noted in Section 3.2, each project generating this type of waste is reviewed to assure the waste volumes generated are minimized.

## LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Plant/unit name:** K Basin/K Basin **Waste stream** K Basin Sludge  
**Treatability/aggregated group identifier:** TRU-PCB  
**Treatability/aggregated group name:** PCB TRUM and/or PCB TRU, CH

1.2 **Applicable profile number(s) for this waste stream:**

NA

1.3 **Waste stream source information**

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Approximately 50 cubic meters of layered particulate material, which is generally called "sludge", is currently stored in two spent nuclear fuel (SNF) basins. The term "sludge" is used here in its commonly understood meaning, and is not based on the definition in WAC-173-303-040. Several different types of sludge exist in the basin, depending on canister type and pit location where the particular sludge is found. Each type of sludge is a unique, non-homogeneous mixture possibly containing corroded fuel (i.e. uranium oxides, hydrates, hydride), cladding pieces, debris such as wind blown sand or insects, rack and canister corrosion products, ion exchange resin beads, polychlorinated biphenyls, and/or fission products. The sludge in the basins is commingled with SNF and is not considered a waste, however, when the sludge is separated from the SNF and removed from the basins, it will be generated as remote-handled transuranic waste and will also be TSCA regulated. For more info see, HNF-2367 (Supplementary Information on K-Basin Sludges) and/or DOE/RL 98-66 (Focused Feasibility Study for the K Basins Interim Remedial Action).

1.3.2 **History of how and where the waste was/is generated:**

The basins were originally used to store spent nuclear fuel from the KE and KW Reactors until the early 1970's, when these reactors were removed from service and the fuel removed from the basins. The basins subsequently have been used to store SNF from the Hanford N Reactor. Associated with this fuel is sludge which consists of various proportions of fuel, structural corrosion products, wind blown materials and miscellaneous constituents. See HNF-6495 (Sampling and Analysis Plan for K Basins Debris) and/or HNF-2367.

1.3.3 **Source of the hazardous constituents:**

The source of the PCB's is unknown but is attributed to past 105-KE Reactor Operations

1.3.4 **Source of information (e.g., analytical data, process knowledge, document number, etc.)**

See HNF-2367 and/or DOE/RL 98-66

1.3.5 **Additional notes:**

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None

**2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION****2.1 Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)  
 Tank                     DST                                     SST  
 Other (explain): None

**2.1.1 How was the waste managed prior to storage?**

The sludge will be generated as waste when the sludge is removed from the basins.

**2.1.2 Timeframe when waste was placed into storage:**

NA

**2.2 Inventory locations:**

Building/room number	Number of containers/tanks
100KE BASIN	NA
100KW BASIN	NA

**2.3 Current inventory for this stream (stored waste only, not accumulation areas)**

Total volume (cubic meters): 0

Date of inventory values: \_\_\_\_\_

Comments on waste inventory: As per DOE/RL-98-66, the last time the sludge volume was estimated was in 1998. However since the sludge is not yet a waste, the inventory for the stored waste is zero.

**2.4 Is storage capacity at this location potentially an issue for this waste stream?**

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: No additional material will be managed in this location

**2.5 Planned management areas for storage of this waste:**  Current location  CWC

DST  Other area(s) list: Plans are for temporary storage at the T Plant Complex.

None

**2.6 Estimated generation projection by calendar year:**

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Year	m3	and/or	kg
2002	0.000		
2003	15.000		
2004	15.000		
2005	20.000		
2006	0.000		
Totals	50.000		

**2.7 DOE Storage Compliance Assessment information:**

Assessment has been completed. Reference to most recent assessment

Assessment has been scheduled. Scheduled date:

4th Quarter CY 2004

Other. Explain:

**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

None

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

NA

If yes, provide Tri-Party Agreement milestone number(s): NA

**2.12 Other key assumptions related to storage, inventory, and generation information:**

The sludge is at the bottom of the two basins pools at 105-KE and 105-KW. The sludge is not containerized but covers the bottom of the basin pools.

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

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Yes  No

If yes, provide date assessment conducted: NA

If yes, provide document number or other identification: NA

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA: No assessment projected for this waste stream.

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

Established Waste Minimization techniques will be utilized to include segregation and avoidance of commingling of waste streams.

**3.3 Waste minimization schedule**

**3.3.1 Reduction achieved during calendar year (volume or mass):**

**3.3.2 Projected future waste volume reductions:**

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

**3.3.3 Bases and assumptions used in above estimates:**

None

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### 1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Plant/unit name:** PFP/234-5Z, Org Non-debris      **Waste stream** Hydraulic Fluids contaminated with PCBs/Rad
- Treatability/aggregated group identifier: TRU-PCB
- Treatability/aggregated group name: PCB TRUM and/or PCB TRU, CH

1.2 **Applicable profile number(s) for this waste stream:**

PFPX-20H-0001-00, PFPX-20H-0001-01

1.3 **Waste stream source information**

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Radiologically contaminated spent polychlorinated biphenyl (PCB) hydraulic oil and capacitor fluid

1.3.2 **History of how and where the waste was/is generated:**

PCB oil was used in PFP for hydraulic systems and as a conductive medium in electrical capacitors for induction furnaces.

1.3.3 **Source of the hazardous constituents:**

Intrinsically hazardous.

1.3.4 **Source of information (e.g., analytical data, process knowledge, document number, etc.)**

Analytical data, process knowledge

1.3.5 **Additional notes:**

None

### 2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

2.1 **Current storage method**

- Container (pad)     Container (covered)     Container (retrievably buried)
- Tank                 DST                         SST
- Other (explain):

2.1.1 **How was the waste managed prior to storage?**

Contained within the original system where originally used as hydraulic fluid.

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### 2.1.2 Timeframe when waste was placed into storage:

6/01/00

### 2.2 Inventory locations:

Building/room number	Number of containers/tanks
234-5Z	15

### 2.3 Current inventory for this stream (stored waste only, not accumulation areas)

Total volume (cubic meters): 0.36  
Date of inventory values: 12/31/01  
Comments on waste inventory: None

### 2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes  No

If yes, what is the total estimated storage capacity? NA

When is this capacity expected to be reached NA

Bases and assumptions used: None

### 2.5 Planned management areas for storage of this waste: Current location CWC

DST  Other area(s) list:

None

### 2.6 Estimated generation projection by calendar year:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	1.910		
2005	0.000		
2006	0.000		
Totals	1.910		

### 2.7 DOE Storage Compliance Assessment information:

Assessment has been completed. Reference to most recent assessment

PFM Compliance  
Assessment, A&E-SEC-01-  
015

Assessment has been scheduled. Scheduled date:

Other. Explain:

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**2.8 Applicable Tri-Party Agreement milestones related to storage at this location:**

None

**2.9 Has there ever been any non-permitted, unauthorized release of this stream to the environment?**

Yes  No

If yes, summarize releases and quantities and provide date:

NA

**2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

Yes  No

If yes, explain: NA

**2.11 Is further characterization necessary?**

Yes  No  Unknown at this time

If yes, provide details and schedule (also see treatment/characterization plan volume for further information):

Will be characterized when disposed.

If yes, provide Tri-Party Agreement milestone number(s): NA

**2.12 Other key assumptions related to storage, inventory, and generation information:**

None

### 3.0 WASTE MINIMIZATION

**3.1 Has a waste minimization assessment been completed for this stream?**

Yes  No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation  
for LDR Report Waste Streams, Letter #  
M2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated then indicate NA:

**3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials, etc.):**

PFP has a waste minimization program. A hierarchical approach to environmental management is applied to all types of pollution and waste generating activities. Pollution prevention and waste minimization, through source reduction, is the preferred option, followed by environmentally safe recycling. Treatment to reduce the quantity, toxicity, and/or mobility will be considered only when

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prevention or recycling is not possible or practical. Environmentally safe disposal is the last option. Segregation is applicable in all of these activities.

### 3.3 Waste minimization schedule

**3.3.1 Reduction achieved during calendar year (volume or mass):** 0 m3

### 3.3.2 Projected future waste volume reductions:

Year	m3	and/or	kg
2002	0.000		
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
Totals	0.000		

### 3.3.3 Bases and assumptions used in above estimates:

PPF is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PPF has a waste minimization program and is currently undergoing a Site Strategic Pollution Prevention Opportunity Assessment, which will identify if there are further opportunities to reduce waste production or produce waste in a less hazardous form.