

0094250

DOE/RL-88-30 REVISION 20

HANFORD SITE WASTE MANAGEMENT UNITS REPORT

SECTION

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and moisture was visible on the pipes and valves inside the pit and closest to the lid. At least three valves and five pipes were observed inside the structure. Also visible was an underground area that opens up to the east of the inlet. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.38 liters per minute (0.1 gallons per minute) of steam condensate only.

Site Code: 300-119

Classification: Accepted

Site Names: 300-119, 3621D HVAC Condensate, Miscellaneous Stream #401, 3621D Air/Condensate Blowdown Drain

ReClassification: Rejected (12/15/1998)

Site Type: Injection/Reverse Well

Start Date:

Site Status: Active

End Date:

Site Description: The drain is an open corrugated metal pipe filled with rocks. The source pipe exits the building wall and has a 90 degree elbow to connect the pipe to the french drain. The building wall and the french drain rocks are stained with rust.

Waste Type: Water

Waste Description: According to the "Inventory of Miscellaneous Streams", Revision 3, the site has potentially received hydrocarbons. The report documented the flow rate as less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-120

Classification: Accepted

Site Names: 300-120, 3621D Building Diesel Generator Cooling System Condensate, Miscellaneous Stream #402, 3621D Air Driven Starter Motor Discharge Drain

ReClassification: Rejected (12/15/1998)

Site Type: Injection/Reverse Well

Start Date:

Site Status: Active

End Date:

Site Description: The site is a 0.9 meter (2.9 feet) diameter concrete structure with a metal grate cover. The unit is filled with rocks. Four pipes, one for each air starter motor, exit the west wall of the 3621D building near the foundation. The pipes tee into a larger aboveground line that runs south, parallel to the building wall. The line elbows to the west and then down where it is attached to the grate. The grate and the rocks are stained with a black, oily substance.

Waste Type: Water

Waste Description: The site receives air and small amounts of condensate from the air starter motors in the 3621D Building. The air and condensate may contain small quantities of oil.

Site Code: 300-121

Classification: Accepted

Site Names: 300-121, 3621D Building Stormwater Runoff, Miscellaneous Stream #403, Injection Well #26 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is a french drain with a concrete base. The site is on a slope so the top of the drain rises between 8 to 27 centimeters (3.1 to 10.6 inches) above the ground surface. Approximately 20 centimeters (7.9 inches) from its top, the drain starts to narrow. The drain is covered by a 1.37 meter (4.49 foot) metal lid. The lid appears to fit flush with the concrete base. The lid is labeled "Confined Space" and has "FD 26" written on it. The site is surrounded by sandy soil and rocks.

Waste Type: Water

Waste Description: The site received condensate from the air receivers inside the 3621D Building. It may also have received any spills that reached the floor drains. There is a potential for contamination from petroleum and from ethylene glycol.

Site Code: 300-122 **Classification:** Accepted

Site Names: 300-122, 366 Building Fuel Oil Bunker Loading Station Steam Condensate, Miscellaneous Stream #344 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:** 1998

Site Description: The site is a french drain that received steam condensate from the 366 Building fuel oil bunker loading station. Only a small portion of the french drain's pipe is exposed. It could not be ascertained whether the pipe was composed of clay or discolored concrete. The drain is covered with a 0.65 meter (2.13 foot) rusted metal cover and the soil and gravel surrounding the site appears to be discolored by rust. The top of the lid is 5 to 8 centimeters (2 to 3.1 inches) above ground surface. There are also granular ash deposits on the ground in the general area east/northeast of the 384 powerhouse. The ground surface surrounding the site is slightly depressed which could allow the pooling of stormwater. The site is less than a meter (3.3 feet) south of a line of posts labeled "Radiologically Controlled Area" that appears to surround the 3715 and 303E buildings. LPD-TRP-053, -057 and -058 are on a concrete pad at the northwest corner of the 366 Building. There is a black, tar-like residue on this pad. According to the "Inventory of Miscellaneous Streams," Revision 3, there was a potential for fuel oil to contaminate the discharge. The document also states the site is inactive, source abandoned.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the site has the potential to be contaminated with fuel oil. When this site was active, the flow rate was less than 0.38 liters per minute (0.1 gallons per minute).

DynCorp has reviewed the site and stated the following. The dark stains in the photo appear to correlate to coal powder left over from the powerhouse. There were small piles of this material throughout the area. There was a potential for runoff of fuel oil because of the proximity of the fuel bunkers. However, no fuel oil stained soil was observed near the drain and there is no evidence of discharges to this site.

Site Code: 300-123 **Classification:** Accepted

Site Names: 300-123, 366 Building Fuel Oil Bunker Loading Station Steam Condensate French Drain, Miscellaneous Stream #342 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is a french drain that received steam condensate from the 366 Building fuel oil bunker loading station. The french drain is a metal culvert that is covered with a 0.69 meter (2.25 foot) diameter diamond plate metal cover with four 1.9 centimeter (0.75 inch) holes in the cover. The lid is discolored by rust. Inside the french drain, there is soil and rock about 1.4 meters (4.5 feet) from the top of the culvert. There are also granular ash deposits on the ground in the general area east northeast of the 384 powerhouse. The soil on the south side of the French Drain has eroded into the excavation for 300-6 exposing the metal culvert.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the site has the potential to be contaminated with fuel oil. When this site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

As part of the DynCorp review, Michelle Gunter was contacted. She recalled a spill to one of the injection wells. Documentation was found for a small spill (less than one gallon) into injection well #342 (300-123). Historical documentation for changes to the "Inventory of Miscellaneous Steams" was reviewed. It was found that streams 653 (300-124), 342, and 344 (300-122) all have the same comment. This may be a mistake in the report. No evidence of discharges to streams 653 and 344 have been found.

Site Code: 300-124 **Classification:** Accepted

Site Names: 300-124, 366 Building Fuel Oil Bunker Steam Condensate, Miscellaneous Stream #653 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:** 1998

Site Description: The site is a french drain that received steam condensate from steam lines on top of the 366 Building fuel oil bunker. The french drain's metal cover is the only part of the site that is visible; it is 0.33 meters (1.08 foot) in diameter. The top of the cover is approximately 5 centimeters (2 inches) above the ground surface. There is a slight depression on the southwest side of the site where stormwater could collect. The gravel and soil surrounding the site appears to be discolored by rust. LPD-TRP-054 is on a concrete pad by the southwest corner of 366 Building. There is a black, tar-like residue on this pad. According to the "Inventory of Miscellaneous Streams," Revision 3, there was a potential for fuel oil to contaminate the steam condensate. The document also states the site is inactive, source abandoned.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, there is a potential for fuel oil to contaminate the steam condensate. When this site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

DynCorp has reviewed the site and stated the following. The dark stains in the photo appear to correlate to coal powder left over from the powerhouse. There were small piles of this material throughout the area. There was a potential for runoff of fuel oil because of the proximity of the fuel bunkers. However, no fuel oil stained soil was observed near the drain and there is no evidence of discharges to this site.

Site Code: 300-125 **Classification:** Accepted
Site Names: 300-125, 3702 Building Steam Condensate, Miscellaneous Stream #346 **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site was a french drain that collected steam condensate. The previous location for the 3702 Building is currently a cobble-covered field. No evidence of the site remains. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive.
Waste Type: Steam Condensate
Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-126 **Classification:** Accepted
Site Names: 300-126, 3703 Building Steam Condensate, Miscellaneous Stream #431 **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site was a french drain that collected steam condensate. The previous location of the 3703 Building is currently a cobble and gravel covered field. No evidence of a french drain was visible during the site walkdown. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source permanently abandoned.
Waste Type: Steam Condensate
Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-127 **Classification:** Not Accepted (12/15/1998)
Site Names: 300-127, 3705 Building Stormwater Runoff, Miscellaneous Stream #410 **ReClassification:**
Site Type: French Drain **Start Date:**
Site Status: Active **End Date:**
Site Description: The site is a french drain located in a soil and gravel covered area. Nearby, a roof drain pipe can be seen extending down the outer wall of the 3705 Building into the ground. According to the "Inventory of Miscellaneous Streams," Revision 3, this french drain does not have surface access. No drain was visible during the site walkdown.

Waste Type: Stormwater Runoff
Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-128 **Classification:** Not Accepted (12/15/1998)

Site Names: 300-128, 3705 Building Stormwater Runoff, Miscellaneous Stream #411 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:** 1997

Site Description: The site is a french drain that collected stormwater runoff. According to the "Inventory of Miscellaneous Streams," Revision 3, the stream is "Not Active" and the "Disposal Site Permanently Abandoned." A roof drain was visible nearby which appeared to enter the 3705 Building; however, no french drain was visible during the site walkdown that could be associated with this roof drain.

Waste Type: Stormwater Runoff
Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of stormwater runoff.

Site Code: 300-129 **Classification:** Not Accepted (12/15/1998)

Site Names: 300-129, 3705 Building Stormwater Runoff, Miscellaneous Stream #412 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain located in a cobble-covered area. A roof drain is visible nearby. According to the "Inventory of Miscellaneous Streams," Revision 3, this french drain does not have surface access. No drain was visible during the site walkdown.

Waste Type: Stormwater Runoff
Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-130 **Classification:** Not Accepted (12/15/1998)

Site Names: 300-130, 3705 Building Stormwater Runoff, Miscellaneous Stream #413 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain that collects stormwater runoff. A roof drain is visible nearby. According to the "Inventory of Miscellaneous Streams," Revision 3, the french drain does not have surface access. No drain was visible during the site walkdown.

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-131

Classification: Accepted

Site Names: 300-131, 3706 Fire Sprinkler System Water, Miscellaneous Stream #515

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Active

End Date:

Site Description: The site is a french drain that is the discharge point for fire sprinkler system water. The drain is a clay pipe with the outer diameter of 0.42 meters (1.38 feet) and is not covered by a lid. The top of the clay pipe is above grade except where moss is encroaching. The pipe appears to be filled with cobbles and rocks to within 0.3 meters (0.98 feet) of its top. The rocks and cobbles inside the drain appear rusty. Above the site are two capped metal ports labeled "Fire Department Connection." Below these ports, two metal pipes extend from the building and terminate with open ends above the drain. One of these pipes is approximately 5 centimeters (2 inches) in diameter and the other is approximately 2 centimeters (0.8 inches) in diameter. During the October 26, 1998, walkdown, an opening in the side of the building for a third pipe was observed; this opening has not been plugged. The site is surrounded by sand, gravel and moss. The south side of the drain abuts the 3706 Building, which is posted "Fixed Contamination Area." The site falls within WIDS site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Water

Waste Description: The site receives drainage from the fire sprinkler system at a rate of less than 3.8 liters per minute (1 gallon per minute). Fire sprinkler water is exempt from permitting. However, based on past practice activities at the 3706 Building and potential releases to the soil column, the disposal structure and soil should be surveyed to determine if radioactive contamination is present. The disposal structure is immediately adjacent to the 3706 Building.

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-132

Classification: Accepted

Site Names: 300-132, 3706 Building Steam Condensate, Miscellaneous Stream #368

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site has been described as a french drain that received steam condensate. During the November 18, 1998, walkdown, there did not appear to be an engineered structure at the site's location. The site appears to be a rock and cobble filled depression next to the 3706 Building. The depression is surrounded by soil-covered asphalt. The rocks and cobbles in the depression

as well as the side of the 3706 Building appear to be rust stained. On the south side of Door #02, an approximately 10 centimeter (4 inch) diameter metal pipe exits the east side of the 3706 Building, turns and enters the ground. Forty centimeters (1.3 feet) to the east of this pipe is a concrete structure with a 0.66 meter (2.17 feet) by 0.66 meter (2.17 feet) metal cover. In addition to steam condensate, the site also appears to have received fire sprinkler system water. Four metal pipes terminate over the depression. Three of these four pipes exit the east side of the 3706 Building near a Fire Department Connection. An approximately 2 centimeter (0.8 inch) diameter metal pipe extends from the building 0.95 meters (3.1 feet) above the ground surface; an approximately 6 centimeter (2.4 inch) diameter metal pipe extends from the building 0.90 meters (3 feet) above the ground surface and an approximately 4 centimeter (1.6 inch) metal pipe extends from the building 0.8 meters (2.6 feet) above the ground surface. These three pipes terminate open-ended over the depression. The fourth pipe is approximately 8 centimeters (3.1 inches) in diameter and exits the building 3 to 4 meters (9.8 to 13.1 feet) above the ground surface. It could not be ascertained whether this pipe is still open or whether it had been plugged. There is a U-shaped section of 8 centimeter (3.1 inches) pipe attached to the east wall of the 3706 Building just below the Fire Department Connection; this section of pipe has open ends. According to John Remaize, the steam and fire water for the building are still active. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-133

Classification: Accepted

Site Names: 300-133, 3706 Building Steam Condensate, Miscellaneous Stream #367, Injection Well #27

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a french drain that used to receive steam condensate. The drain has a square concrete base with a 0.66 meter (2.17 foot) by 0.66 meter (2.17 foot) metal lid. What appear to be rust stains are on the lid and surrounding concrete. The remains of "FD 27" written in paint can be seen on the side of the building next to the site. There is also writing on the metal lid but it is illegible due to age. Two metal pipes, both approximately 3.5 centimeters (1.4 inches) in diameter, extend from the east side of the 3706 Building and enter the lid. A metal pipe elbow extends from the ground between the site and 3706. This pipe is approximately 5 centimeters (2 inches) in diameter and terminates open ended. A third steam pipe extends from the east side of the 3706 Building approximately 2.5 meters (8.2 feet) north of the site. This pipe terminates approximately 0.5 meters (1.6 feet) above the ground surface and appears to have been plugged. The site is surrounded by concrete and sand. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium,

transuranic and chemical contamination of the 3706 Building and the surrounding area. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-134

Classification: Accepted

Site Names: 300-134, 3706 Building Steam Condensate, Miscellaneous Stream #362

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a french drain that received steam condensate. The drain has a concrete base and is covered by a 0.66 meter (2.17 foot) by 0.66 meter (2.17 foot) metal lid. The site is surrounded by gravel and weeds. An approximately 2.5 centimeter (1 inch) diameter metal pipe extends from the east wall of the courtyard, makes a 90 degree turn and enters the ground approximately 0.5 meters (1.6 feet) from the site. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-135

Classification: Accepted

Site Names: 300-135, 3706 Building Steam Condensate, Miscellaneous Stream #365

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a french drain that received steam condensate. The drain is a clay pipe that abuts the north wall of the 3706 Building. The top of the clay pipe ranges from 2 to 4 centimeters (0.8 to 1.6 inches) above the ground surface, except on its southwest side where the pipe is broken. Stormwater runoff may be able to enter the drain through this break. The drain is covered by a 0.77 meter (2.53 foot) metal lid with two handles and an opening that could allow condensate pipes to enter. Any lines that may have entered the drain have been removed; no lines were visible during the November 20, 1998, walkdown. However, there are at least three plugged holes visible in the building wall above the site. These holes are 0.75 meters (2.5 feet), 1.52 meters (5 feet) and 1.7 meters (5.6 feet) above the ground surface. The drain is next to an HVAC unit with a label that reads "RM 13 HVAC MAIN DISC." The site is surrounded by sand, gravel and cobbles. Moss is growing along the north wall of the building and between the drain and the building. Standing water was visible inside the drain during the November 20, 1998, walkdown. Approximately 1 meter (3.2 feet) of the drain was visible above the water. No pipes or openings were visible inside the drain. John Remaize believes this stream is actually the site just west of Door #06. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-136

Classification: Accepted

Site Names: 300-136, 3706 Building Steam Condensate, Miscellaneous Stream #366

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a french drain that received steam condensate. The drain is a clay pipe with an outer diameter of 0.85 meters (2.79 feet). The drain is covered by a metal lid with some perforations. The site is surrounded by sand and gravel, some of which partially covers the lid. The upper lip of the clay pipe is breaking up. The top of the pipe is flush with the ground surface for approximately half of its circumference; the rest is 1 to 2 centimeters (0.4 - 0.8 inches) above the ground surface. Two roof drains are visible nearby; some stormwater runoff may be able to enter the drain. Two metal pipes extend from the 3706 Building approximately 3 meters (9.8 feet) west of the site and enter the ground. One pipe is approximately 5 centimeters (2 inches) in diameter and the other is approximately 12 centimeters (4.7 inches) in diameter. The "Inventory of Miscellaneous Streams," Revision 3, lists the site as inactive, source abandoned. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

The Site Was Consolidated With:

Site Code: 300-46
Site Names: 300-46, Soil Contamination Surrounding 3706 Building
Reason: Within Boundary Of Larger Site

Site Code: 300-137 **Classification:** Accepted
Site Names: 300-137, 3706 Building Steam Condensate, Miscellaneous Stream #440 **ReClassification:** Consolidated (1/19/1999)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**

Site Description: The site has been described as a french drain that received steam condensate. During the November 20, 1998, walkdown, an engineered structure could not be discerned. It could not be ascertained whether or not the condensate stream was active or not, but the overhead steam line from 3706-BA, which is on the opposite side of Apple Street, to the 3706 Building did appear to be active - water was dripping from a valve labeled MSS-V-3706. The overhead steam line splits in two outside the 3706 Building. One of the lines enters the north side of the building and the other disappears into the sand. The latter is approximately 9 centimeters (3.6 inches) in diameter. There are pipes extending from the 3706 Building on either side of this site. John Remaize believes this site is actually located just west of the third window west of Door #06. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

The Site Was Consolidated With:

Site Code: 300-46
Site Names: 300-46, Soil Contamination Surrounding 3706 Building
Reason: Within Boundary Of Larger Site

Site Code: 300-138 **Classification:** Accepted
Site Names: 300-138, 3706 Building Steam Condensate, Miscellaneous Stream #360 **ReClassification:** Consolidated (1/19/1999)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**

Site Description: The site is a french drain that received steam condensate. The drain has a concrete base and is covered by a 0.66 meter (2.17 feet) by 0.66 meter (2.17 feet) metal lid. The site is surrounded by

gravel. An approximately 2.5 centimeter (1 inch) diameter metal pipe extends from the north wall of the courtyard, makes a 90 degree turn and enters the ground approximately 0.5 meters (1.6 feet) from the site. This pipe has had a section removed from it. The area between the site and the north wall of the courtyard appears to be discolored by rust. The "Inventory of Miscellaneous Streams," Revision 3, lists the site as inactive, source abandoned. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-139

Classification: Accepted

Site Names: 300-139, 3706 Building Steam Condensate, Miscellaneous Stream #357

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a french drain that received steam condensate. The drain is a clay pipe covered by a 0.77 meter (2.53 foot) diameter metal lid. The lid has perforations in it. The top of the clay pipe ranges from approximately 1 to 5 centimeters (0.4 to 2 inches) above grade. Inside, a metal pipe enters the north side of the drain and another enters the west side of the drain. There also appear to be unattached segments of pipe resting on the floor of the drain. What appears to be a green garden hose enters the drain through a break in the clay pipe. This hose is not connected to any source. There is not any discoloration on the outside of the drain or the surrounding area, but the interior of the drain and the pipes found there appear to be discolored by rust. During the November 11, 1998, walkdown, the interior of the drain appeared to be dry. The site is surrounded by gravel. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.19 liters per minute (0.05 gallons per minute) of steam condensate only.

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-140 **Classification:** Accepted
Site Names: 300-140, 3706 Building Steam Condensate, Miscellaneous Stream #356 **ReClassification:** Consolidated (1/19/1999)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**

Site Description: The site is a french drain that received steam condensate. The drain is a concrete structure with the inner dimensions of 0.82 meters (2.69 feet) by 0.60 meters (1.97 feet) and is covered by a metal grate. The drain abuts the north wall of the 3706 Building. A second concrete structure abuts the drain to the north. This second structure is covered by a 0.66 meter (2.17 feet) by 0.66 meter (2.17 feet) metal lid. An approximately 10 centimeter (4 inch) diameter opening is visible on the north side of the drain, almost 0.6 meters (2 feet) from its top. Access to the process sewer is approximately 3.5 meters (11.5 feet) to the northeast of the site. It appears as though the drain received fire sprinkler system water in addition to steam condensate. Four metal pipes terminate open-ended over the drain's grate. An approximately 6 centimeter (2.4 inch) pipe extends from the north side of the 3706 Building 0.95 meters (3.1 feet) above the ground surface; an approximately 4 centimeter (1.6 inch) pipe extends from the building 0.6 meters (2 feet) above the ground surface; an approximately 2 centimeter (0.8 inch) pipe extends from the building 0.52 meters (1.7 feet) above the ground surface, and an approximately 3 centimeter (1.2 inch) pipe extends from the building 0.15 meters (0.5 feet) above the ground surface. All four pipes exit the building near a Fire Department Connection. The pipes entering the drain and the grate covering the drain appear to be discolored by rust. Approximately a meter to the east of the site, what appears to be an approximately 15 centimeter (5.9 inch) diameter steam pipe enters the ground. The lower 1.2 meters (3.9 feet) of this pipe appear to be of newer construction than the upper section; the upper section has rust marks from the wires that encircle it while the lower section doesn't. During the November 18, 1998, walkdown, there was standing water in the drain. The surface of the water was approximately 0.6 meters (2 feet) from the top of the drain. There had not been any rainfall for almost 2 weeks at that time. According to John Remaize, the steam and fire water for the building are still active. There is a 30 centimeter (11.8 inches) diameter clay pipe 4.3 meters (14.1 feet) east of the site. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.19 liters per minute (0.05 gallons per minute).

The Site Was Consolidated With:

Site Code: 300-46
Site Names: 300-46, Soil Contamination Surrounding 3706 Building
Reason: Within Boundary Of Larger Site

Site Code: 300-141 **Classification:** Accepted
Site Names: 300-141, 3706 Building Steam Condensate, Miscellaneous Stream #439, Injection Well #29 **ReClassification:** Consolidated (1/19/1999)

Site Type: French Drain**Start Date:****Site Status:** Inactive**End Date:**

Site Description: The site is a french drain that received steam condensate. The drain appears to be a concrete pipe with a 0.91 meter (3 foot) metal lid at grade level; however, the site is well obscured by sand and gravel. During the October 26, 1998, walkdown, the metal lid appeared to be ajar. There are two steam pipes entering the ground approximately 3 meters (9.8 feet) west of the site. One of these pipes is approximately 7 centimeters (2.8 inches) in diameter and the other is approximately 8 centimeters (3.1 inches) in diameter. There is also a metal pipe extending from the south side of the building next to the site. This pipe terminates approximately 1.8 meters (5.9 feet) above the ground surface and has been plugged. This third pipe is approximately 5 centimeters (2 inches) in diameter. The site is surrounded by sand and gravel. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

The Site Was Consolidated With:**Site Code:** 300-46**Site Names:** 300-46, Soil Contamination Surrounding 3706 Building**Reason:** Within Boundary Of Larger Site

Site Code: 300-142**Classification:** Accepted

Site Names: 300-142, 3706 Building Steam Condensate, Miscellaneous Stream #369, Injection Well #30

ReClassification: Consolidated (1/19/1999)**Site Type:** French Drain**Start Date:****Site Status:** Inactive**End Date:**

Site Description: The site is a french drain that received steam condensate. The drain is an open clay pipe that abuts the south wall of the 3706 Building and is surrounded by asphalt and sand. The inner diameter of the top 7 centimeters (2.8 inches) of the pipe is 0.55 meter (1.80 feet). Below the top 7 centimeters (2.8 inches), the inner diameter is reduced to 0.44 meters (1.4 feet). The top of the pipe rises approximately 0.35 meters (1.1 feet) above the ground surface. The bottom of the drain is covered by debris. The top of the debris is approximately 0.7 meters (2.3 feet) below the top of the pipe. No pipes are visible entering the drain. However, there are two approximately 2.5 centimeter (1 inch) holes drilled into the side of the pipe. The clay around these holes as well as the interior of the pipe appear to be rust stained. An approximately 3 centimeter (1.2 inches) metal pipe exits the building 0.6 meters (2 feet) above the ground surface, makes a 90 degree turn and enters the ground approximately 0.6 meters (2 feet) east of the drain. Further east, on the opposite side of a wall extension, there is an approximately 5 centimeter (2 inch) metal pipe that exits the building approximately 0.45 meter (1.5 feet) above the ground surface and enters the ground. This second pipe is approximately 1.8 meters (5.9 feet) from the site and approximately 1 meter (3.2 feet) from a second clay pipe. This second clay pipe is approximately 0.75 meters (2.5 feet) in diameter. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned. The 3706 Building is posted "Fixed Contamination Area."

The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-143

Classification: Accepted

Site Names: 300-143, 3706 Building Steam Condensate, Miscellaneous Stream #361

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Active

End Date:

Site Description: The site is a french drain that receives steam condensate. The drain has a concrete base and is covered by a 0.66 meter (2.17 foot) by 0.66 meter (2.17 foot) metal lid. The site is surrounded by gravel and weeds. During the November 11, 1998, walkdown, the lid could not be removed. From the outside, there are no apparent steam lines entering the site. There are pipes extending from the south wall of the courtyard, but none near the drain. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow is less than 0.038 liters per minute (0.01 gallons per minute).

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-144

Classification: Accepted

Site Names: 300-144, 3706 Building Steam Condensate, Miscellaneous Stream #358

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a french drain that received steam condensate. The drain is a clay pipe covered by a 0.85 meter (2.79 foot) diameter metal lid. The top of the clay pipe is approximately 0.3 meters (1

foot) above the ground surface. The lid has an opening allowing pipes to enter the drain. An approximately 2.5 centimeter (1 inch) metal pipe and an approximately 1.3 centimeter (0.5 inch) diameter clear, plastic hose enter the drain through this opening. The plastic hose is attached to what appears to be a steam line extending through an old window or other former opening in the west wall of the courtyard. This opening is 2 to 3 meters (6.6 to 9.8 feet) north of the site and is currently boarded up. An approximately 5 centimeter (2 inch) diameter metal pipe exits the west wall of the courtyard, makes a 90 degree turn and enters the ground near the pipe. The clay pipe is broken, making removal of the lid unsafe. During the November 11, 1998, walkdown, the interior appeared dry when viewed through a break in the clay pipe. The site is surrounded by sand. The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.19 liters per minute (0.05 gallons per minute) of steam condensate only.

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-145

Classification: Accepted

Site Names: 300-145, 3706 Building Steam Condensate, Miscellaneous Stream #438, Injection Well #25

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a french drain that received steam condensate. The drain is a clay pipe covered by a 0.78 meter (2.56 foot) metal cover. The lid is posted "Confined Space." The lip of the pipe is broken on its northeast side; this could allow stormwater runoff to enter. "FD 25" is written on the wall of the 3706 Building above the site. A metal pipe approximately 2.5 centimeters (1 inch) in diameter extends from the west side of 3706 just south of the site. This pipe exits the building approximately 3 meters (10 feet) above the ground surface and terminates approximately 15 centimeters (5.9 inches) after leaving the building. It was difficult to ascertain whether the pipe was plugged or not. The side of the building below this pipe appears to have rust stains. A second metal pipe approximately 2.5 centimeters (1 inch) in diameter extends from the south side of 3706, just around the corner from the site. This pipe leaves the building approximately 0.9 meters (3 feet) above the ground surface and disappears into the ground. The site is surrounded by soil and gravel. Moss is growing on the south side of the drain. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

The Site Was Consolidated With:

Site Code: 300-46
Site Names: 300-46, Soil Contamination Surrounding 3706 Building
Reason: Within Boundary Of Larger Site

Site Code: 300-146 **Classification:** Accepted
Site Names: 300-146, 3706 Building Stormwater Runoff, Miscellaneous Stream #364 **ReClassification:** Consolidated (1/19/1999)
Site Type: French Drain **Start Date:**
Site Status: Active **End Date:**

Site Description: The site is a french drain that receives stormwater runoff. The drain is made of concrete and is covered by a 0.90 meter (2.95 foot) by 0.45 meter (1.48 foot) metal grate. An approximately 0.3 meter (1 foot) diameter metal pipe enters the east side of the drain. The site is surrounded by gravel and weeds. During the November 11, 1998, walkdown, standing water was visible through the grate; it had rained over the past week. The standing water made it difficult to estimate the depth of the drain, but it appears to be at least 0.9 meters (3 feet) deep. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Stormwater Runoff
Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow is less than 0.01 gallons per minute.

The Site Was Consolidated With:

Site Code: 300-46
Site Names: 300-46, Soil Contamination Surrounding 3706 Building
Reason: Within Boundary Of Larger Site

Site Code: 300-147 **Classification:** Accepted
Site Names: 300-147, 3706 Building Stormwater Runoff, Miscellaneous Stream #363 **ReClassification:** Consolidated (1/19/1999)
Site Type: French Drain **Start Date:**
Site Status: Active **End Date:**

Site Description: The site is a french drain that receives stormwater runoff. The drain is made of concrete and is covered by a 0.90 meter (2.95 foot) by 0.45 meter (1.48 foot) metal grate. The drain appears to be approximately 0.9 meters (3 feet) deep. An approximately 0.3 meter (1 foot) diameter metal pipe enters the eastern side of the drain. The site is surrounded by gravel and weeds. During the November 11, 1998, walkdown, the drain appeared to be dry, its bottom covered by debris. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46

which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow is less than 0.038 liters per minute (0.01 gallons per minute).

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-148

Classification: Accepted

Site Names: 300-148, 3706 Building Stormwater Runoff, Miscellaneous Stream #359, Injection Well #22

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Active

End Date:

Site Description: The site is described by the "Inventory of Miscellaneous Streams," Revision 3, as a french drain that collects stormwater runoff. The drain is an uncovered concrete pipe with an outer diameter of 0.9 meters (2.95 feet). The top of the pipe is flush with the ground surface on its southeast side while the northwest side is 7 centimeters (2.8 inches) above grade. The pipe appears to be filled with gravel and large rocks to within centimeters of its top. The drain is surrounded by gravel and soil. There is no evidence of a roof drain at this site. A 2.5 centimeter (1 inch) diameter metal pipe exits the west side of the building approximately 1.8 meters (5.9 feet) above the ground surface, makes a 90 degree turn towards the ground and terminates open-ended approximately 0.75 meters (2.5 feet) above the ground. The side of the drain closest to the 3706 Building, the gravel and rock between the building and the drain, as well as the side of the 3706 Building adjacent to the site all appear to be discolored by rust. The 3706 Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area.

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow is less than 0.038 liters per minute (0.01 gallons per minute). During the October 26, 1998, walkdown, the site appeared to be a steam condensate site as opposed to a stormwater site.

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-149

Classification: Accepted

Site Names: 300-149, 3706A Building Steam Condensate, Miscellaneous Stream #432, Injection Well #28

ReClassification: Consolidated (1/19/1999)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a french drain that received steam condensate. The french drain is a concrete pipe covered with a 0.88 meter (2.89 foot) perforated metal lid. The lid is posted "Confined Space." The top of the pipe is 5 to 9 centimeters (2 to 3.5 inches) above the ground surface. A steam pipe enters the ground approximately 0.4 meters (1.31 feet) south of the site. The pipe is labeled "HPD-TRP-024" and "HPD-TRP-025." A 2.5 centimeter (1 inch) metal pipe is visible under the cover; it extends approximately 20 centimeters (7.9 inches) from the side of the concrete pipe and is in line with the steam pipe. The concrete pipe is 0.98 meters (3.2 feet) in length. The space below the concrete pipe appears to be filled with rocks and cobbles. During the October 27, 1998, walkdown, there was no evidence that the site was in use. The site is surrounded by asphalt, soil and gravel. The 3706A Building is posted "Fixed Contamination Area." The site falls within WIDS Site 300-46 which estimates the extent of extensive uranium, transuranic and chemical contamination of the 3706 Building and the surrounding area. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

The Site Was Consolidated With:

Site Code: 300-46

Site Names: 300-46, Soil Contamination Surrounding 3706 Building

Reason: Within Boundary Of Larger Site

Site Code: 300-150

Classification: Accepted

Site Names: 300-150, 3706 Building Steam Condensate, Miscellaneous Stream #430

ReClassification: Consolidated (12/15/1998)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a french drain that is a clay pipe. The outer diameter of the pipe is 1.25 meters (4.10 feet). The pipe is covered by a metal lid which is labeled "Danger - Confined Space." The upper lip of the pipe is breaking up. The top of the pipe is flush with the ground surface for approximately one half of its circumference. The other half is 1 to 2 centimeters (0.4 to 0.8 inches) above the ground. The pipe is surrounded by soil and gravel. A pipe from the overhead steam line enters the ground nearby. This pipe is labeled "HPD-TRP-021." According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned. Because of the broken lip on the pipe, the site may collect stormwater from the roadway.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

The Site Was Consolidated With:

Site Code: 300-46
Site Names: 300-46, Soil Contamination Surrounding 3706 Building
Reason: Within Boundary Of Larger Site

Site Code: 300-151 **Classification:** Accepted
Site Names: 300-151, 3707B Building Steam Condensate, Miscellaneous Stream #327 **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:**
Site Status: Active **End Date:**

Site Description: The site is a french drain that is a clay pipe 0.86 meters (2.82 feet) in diameter. The pipe is surrounded by asphalt and cobbles. The drain has an inset metal lid. A small diameter (approximately 2.5 centimeters or 1 inch) metal pipe enters the lid through an opening. Water was observed through this opening on a 10/13/98 visit to the site. At the time of the walkdown, the site was surrounded by a metal barricade. The label "HDP-TRP-009" mentioned in the "Inventory of Miscellaneous Streams," Revision 3, was not observed. The former location of the 3707B Building is currently home to electrical equipment and a Johnson Controls, Inc., air compressor. The "Inventory of Miscellaneous Streams," Revision 3, states that this site previously received steam condensate from the main steam line at pit U57 (300-152, stream #326), but now receives condensate from a Johnson Controls, Inc. air compressor.

Waste Type: Steam Condensate
Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-152 **Classification:** Accepted
Site Names: 300-152, 3707B Building Steam Condensate, Miscellaneous Stream #326, U57 **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:** 1996

Site Description: The site is a french drain. The base of this drain is constructed of corrugated metal and is covered by a 1.3 meter (4.27 foot) metal lid. The lid is labeled "Confined Space" and "U-57." The top of the lid ranges from 5 to 15 centimeters (2 to 6 inches) above grade. The site is surrounded by soil and gravel. The former location of the 3707B Building is currently home to electrical equipment and a Johnson Controls, Inc., air compressor. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned.

Waste Type: Steam Condensate
Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-153 **Classification:** Accepted

Site Names: 300-153, 3707B Building Steam
Condensate, Miscellaneous Stream #328

ReClassification: Rejected (12/15/1998)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date: 1996

Site Description: The site is a french drain which received steam condensate. According to the "Inventory of Miscellaneous Streams," Revision 3, the stream status is inactive, source abandoned. The former location of the 3707B Building is currently home to electrical equipment and a Johnson Controls, Inc., air compressor. No evidence of the site was visible during the site walkdown.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-154

Classification: Accepted

Site Names: 300-154, 3707B Building Steam
Condensate, Miscellaneous Stream #325

ReClassification: Rejected (12/15/1998)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date: 1998

Site Description: The site is not an engineered structure. No pipe or lid was evident during the 10/13/98 walkdown. The ground surface is covered with soil and gravel. A pipe descending from the overhead steam line discharged directly onto the ground. At the time of the walkdown, the site was not labeled "HPD-V-015C" as described in the "Inventory of Miscellaneous Streams," Revision 3. However, the site is below a valve labeled "MSS-V-015." A small, shallow natural depression was observed just southwest of the discharge point. Stormwater runoff could collect in this depression. The former location of the 3707B Building is currently home to electrical equipment and a Johnson Controls, Inc., air compressor. The "Inventory of Miscellaneous Streams," Revision 3, says the site is inactive, source abandoned.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-155

Classification: Accepted

Site Names: 300-155, 3707C Building Steam
Condensate, Miscellaneous Stream #179,
Injection Well #24

ReClassification: Rejected (12/15/1998)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date: 1996

Site Description: The site is a french drain that received steam condensate. The former location of the 3707C Building is currently a cobble-covered field. No evidence of the site remains. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.38 liters per minute (0.1 gallons per minute) of steam condensate only.

Site Code: 300-156 **Classification:** Accepted
Site Names: 300-156, 3707C Building Steam Condensate, Miscellaneous Stream #178, Injection Well #23 **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:** 1996

Site Description: The site is a french drain covered by a 1.1 meter (3.61 foot) metal lid. The lid is labeled "Confined Space." The drain itself appears to be approximately half the diameter of the lid. Because of the size difference between the lid and the drain, it was difficult to get a good look inside the drain. The upper part of the drain appears to be made of bricks. The site is surrounded by gravel. A manhole labeled "Caution, Radioactive Material, Internally Contaminated" is approximately 2 meters (6.6 feet) to the northwest. This manhole is related to the 300 Area Process Sewer System (WIDS Site 300-15). According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.38 liters per minute (0.1 gallons per minute) of steam condensate only.

Site Code: 300-157 **Classification:** Accepted
Site Names: 300-157, 3707C Building Steam Condensate, Miscellaneous Stream #337 **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:** 1996

Site Description: The site is a french drain that is a clay pipe. The upper lip of the clay pipe is breaking up. The drain is covered by a 0.76 meter (2.49 foot) metal lid. The drain is surrounded by a metal safety barricade and the area around the it is covered with cobbles. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-158 **Classification:** Accepted
Site Names: 300-158, 3707C Building Steam Condensate, Miscellaneous Stream #336, F.D. #31 **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:** 1996

Site Description: The site is a french drain that received steam condensate. The former location of the 3707C Building is currently a cobble-covered field. No evidence of the site remains. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-159

Classification: Accepted

Site Names: 300-159, 3707C Building Steam Condensate, Miscellaneous Stream #335, F.D. #4

ReClassification: Rejected (12/15/1998)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date: 1996

Site Description: The site is a french drain that received steam condensate. The former location of the 3707C Building is currently a cobble-covered field. There is no evidence of a french drain in the location described for this site. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-160

Classification: Accepted

Site Names: 300-160, 3707D Building Steam Condensate, Miscellaneous Stream #443, Injection Well #10

ReClassification: Rejected (12/15/1998)

Site Type: Injection/Reverse Well

Start Date:

Site Status: Active

End Date:

Site Description: The site is a rectangular concrete structure. It is painted yellow and is marked with "Confined Space" signs.

Waste Type: Steam Condensate

Waste Description: The site receives less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate.

Site Code: 300-161

Classification: Accepted

Site Names: 300-161, 3707D Building Stormwater Runoff, Miscellaneous Stream #441

ReClassification: Rejected (12/15/1998)

Site Type: Injection/Reverse Well

Start Date:

Site Status: Active

End Date:

Site Description: The site is a 68 centimeter (27 inch) drain with a perforated metal cover. It is marked with a "Confined Space" sign.

Waste Type: Stormwater Runoff

Waste Description: The site receives surface runoff from a paved area adjacent to the 3707D building. According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-162 **Classification:** Accepted

Site Names: 300-162, 3707D Building Stormwater Runoff, Miscellaneous Stream #442 **ReClassification:** Rejected (12/15/1998)

Site Type: Injection/Reverse Well **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a 68 centimeter (27 inch) drain with a perforated metal cover.

Waste Type: Stormwater Runoff

Waste Description: The site receives surface runoff from a paved area adjacent to the 3707D building. According to the "Inventory of Miscellaneous Streams," Revision 3, the flow is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-163 **Classification:** Accepted

Site Names: 300-163, 3708 Building Steam Condensate, Miscellaneous Stream #423 **ReClassification:** Rejected (9/2/1998)

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The french drain is a vitrified clay pipe buried vertically. The top is even with the ground surface and is covered with a metal lid. Two lines discharge into the drain.

Waste Type: Steam Condensate

Waste Description: The unit received steam condensate from the 3708 building.

Site Code: 300-164 **Classification:** Accepted

Site Names: 300-164, 3709 Building Steam Condensate, Miscellaneous Stream #338, F.D. #3 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:** 1998

Site Description: The site is a french drain that appears to be a concrete pipe and is covered by a 1.46 meter (4.79 foot) metal lid. The lid is labeled "Confined Space." The lid was not labeled "F.D. #3" as described by the "Inventory of Miscellaneous Streams," Revision 2. The lid is almost flush with the ground surface and is surrounded by asphalt. A metal pipe approximately 4 centimeters (1.6 inches) in diameter extends from the north side of the 3709 building and enters the ground

approximately 1 meter (3.5 feet) from the edge of the drain.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-165 **Classification:** Accepted

Site Names: 300-165, 3709A Building Condensate, Miscellaneous Stream #347 **ReClassification:** Rejected (12/15/1998)

Site Type: Injection/Reverse Well **Start Date:**

Site Status: Inactive **End Date:** 1996

Site Description: The site is an injection well that received air compressor condensate. The site is a 0.5 meter (1.64 foot) diameter concrete structure with a heavy metal cover. There are two holes in the cover. During the 10/9/98 walkdown, there did not appear to be any water in the drain (observed through one of the holes in the cover).

Waste Type: Water

Waste Description: The site received air compressor condensate. The "Inventory of Miscellaneous Streams," Revision 1, lists the flow rate as less than 0.038 liters per minute (0.01 gallons per minute). Revisions 2 and 3 of the document list the flow as 0 liters per minute (0 gallons per minute) because the stream was discontinued.

Site Code: 300-166 **Classification:** Accepted

Site Names: 300-166, 3709A Building Steam Trap, Miscellaneous Stream #355 **ReClassification:** Rejected (12/15/1998)

Site Type: Injection/Reverse Well **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is an injection well that was originally used as a steam trap and later used for stormwater. The top of the drain is flush with the asphalt parking area. The site is covered with a 1.47 meter (4.82 foot) diameter steel lid with four holes in the cover. The lid is labeled "U-40" and "Confined Space."

Waste Type: Steam Condensate

Waste Description: When the site was originally used, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Waste Type: Stormwater Runoff

Waste Description: In 2008, the stormwater from the roof of 3709A was rerouted to this drain.

Site Code: 300-167 **Classification:** Accepted

Site Names: 300-167, 3711 Building Steam Condensate, **ReClassification:** Rejected (12/15/1998)

Miscellaneous Stream #343

Site Type: French Drain**Start Date:****Site Status:** Inactive**End Date:** 1997

Site Description: The site is a french drain that received steam condensate. A pipe from the overhead steam line enters the ground in the location described for this site. During the 10/14/98 site walkdown, no evidence of a drain was visible. Tags labeling the valves HPD-V-1001, HPD-V-5001, HPD-V-2001, and HPD-V-3001 were observed. There was not a tag for HPD-TRP-001, which was described in the "Inventory of Miscellaneous Streams," Revision 3. The area surrounding the descending steam pipe is covered with soft sand, which is deep in places. The sand could be obscuring evidence of the site.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-168

Classification: Accepted

Site Names: 300-168, 3711 Building Steam Condensate, Miscellaneous Stream #433

ReClassification: Rejected (12/15/1998)**Site Type:** French Drain**Start Date:****Site Status:** Inactive**End Date:**

Site Description: The site is a french drain that is a concrete pipe. The pipe does not have a lid and appears to be filled with sand, cobbles and broken bricks. The top of the pipe, which is breaking up, ranges from 1 centimeter (0.4 inches) to 10 centimeters (4 inches) above grade. Three metal pipes approximately 2.5 centimeters (1 inch) in diameter extend from the 3711 Building. The open ends of these three pipes are poised over the top of the drain. A "Radioactive Material Area" is located approximately 5 meters (16.4 feet) to the east.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-169

Classification: Accepted

Site Names: 300-169, 3712 Building Steam Condensate, Miscellaneous Stream #351

ReClassification: Rejected (1/19/1999)**Site Type:** French Drain**Start Date:****Site Status:** Inactive**End Date:**

Site Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the site is a french drain that receives steam condensate at a flow rate of less than 0.38 liters (0.01 gallons) per minute. Based on a site inspection in June of 1997, the drain is composed of a 0.48 meter (1.57 foot) diameter metal culvert that abuts the east side of the 3712 Building. The culvert is uncovered and appears to be rust stained. The culvert appears to be filled with sand or other soil to within 0.50 meters (1.6 feet) of its top. A 3 centimeter (1.2 inch) diameter metal pipe enters the top of the culvert and intersects a horizontal pipe, making a T-intersection. This second pipe is oriented north-south. One end has a valve. The other end makes a 90 degree turn towards the 306 Building.

The vertical pipe that enters the top of the culvert rises to just under the roof line of the 3712 Building where it continues north along the east side of the building, turns and travels west. At another T-intersection near the center of the north side, a short pipe extends downward and appears to be capped. The other segment continues in the towards the northwest corner of the building where it drops towards the ground surface. This pipe terminates open-ended 0.20 meters (0.66 feet) above the ground surface.

During a November 1998 site inspection, the source of the steam condensate for this french drain came into question. Tracing out the lines, and verifying with drawing M-3901, Sheet 2, Revision 30, it was determined that the line into the french drain is actually a line from an abandoned helium system that ran between the 306 and 3712 Buildings. This line terminates open-ended. The drawing shows a gate valve to the atmosphere at the culvert on the east side of the building and at the northwest corner of 3712, plus a 2.5 centimeter (1 inch) gate valve near the center of the north side of 3712.

It is believed that this site was mistakenly included in the miscellaneous streams inventory, and that is was in fact a purge point for the helium system.

This site is located within a "Radiologically Controlled Area" posted around the 3712 Building. The 3712 Building is an active uranium metal storage unit, documented as WIDS Site 3712 USSA, and posted as "Caution Fissile Materials" and "Radiation Area and Contamination Area".

Waste Type: Water

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the site received steam condensate with a flow rate less than 0.01 gallons per minute. According to technical personnel responsible for the site, this site was mistakenly identified as a miscellaneous stream site.

Waste Type: Chemicals

Waste Description: According to M-3901, sheet 2, revision 30, an abandoned helium line travels through this site, not a steam condensate line.

Site Code: 300-170

Classification: Accepted

Site Names: 300-170, 3712 Building Steam Condensate, Miscellaneous Stream #437

ReClassification: Rejected (2/24/1999)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the site was a french drain that received steam condensate. The report identified the location as the north side of the 3712 Building directly next to the building.

During the October 27, 1998 walkdown, a concrete pipe with a 1.0 meter (3.3 foot) metal lid was found at the top of a small slope approximately 13 meters (42.7 feet) northwest of the roll up door on the north side of 3712. The metal lid is not labeled. Based on previous experience with the location descriptions and coordinates in the "Inventory of Miscellaneous Streams," this structure seems to fit the description for this stream.

The top of the concrete is above grade except where the surrounding cobbles are spilling over and partially covering the lid.

Two metal pipes extend horizontally from the north side of 3712 Building 6 to 9 meters (20 to 30 feet) above the ground surface. One of these pipes appears to be capped; the other appears to be open-ended and approximately half the diameter of the capped pipe. Drawing M-3800, sheet 2, revision 20, shows a steam line running from approximately the center of the north side of the 3712 Building north to 3710A, which has since been demolished. A Johnson Controls, Inc., boiler house has been built north of the northeast corner of 3712. During the October 27, 1998, walkdown, the lid could not be lifted in order to verify whether or not this stream is still active.

Another walkdown was done on February 17, 1999 for the purpose of lifting the lid on the site and taking a photograph. There are no pipes visible inside the drain. There is no evidence the drain is active. The concrete pipe is filled with large rocks to within a few inches below the metal cover. Nat Harden, DynCorp Electrical System Specialist was visited. He looked through the available service drawings for the location. Nat stated that he was fairly sure that this waste site was the french drain for the steam condensate from the 3710A Building (now demolished). He said that the 3710A Building steam supply was an overhead line that ran from the north side of the 3712 Building. Nat noticed that the steam line is shown as dashed (denoting an underground) line on the as-built drawings whereas it should be shown as an above ground line that has been removed. The waste site is not shown on any of the utility drawings that Nat had.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow was less than 0.038 liters (0.01 gallons) per minute.

Site Code: 300-171

Classification: Accepted

Site Names: 300-171, 3713 Building Steam Condensate and Stormwater Runoff, Miscellaneous Stream #333, F.D. #7

ReClassification: Rejected (12/15/1998)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a french drain that currently receives only stormwater. It is a clay pipe covered by a 0.32 meter (1.05 foot) metal lid. The lid is perforated. The lid was not labeled F.D. #7 as described in the "Inventory of Miscellaneous Streams," Revision 2. The top of the drain is flush with the ground surface. The drain appears to be filled with soil to within 30 centimeters (11.8 inches) of the top of the pipe. The site is surrounded by soil and gravel. Soil is subsiding around the drain (see photos). According to the "Inventory of Miscellaneous Streams," Revision 3, the steam source has been shut off.

Waste Type: Steam Condensate

Waste Description: When the site was active, the flow rate for both steam condensate and stormwater runoff was listed in the "Inventory of Miscellaneous Streams" as less than 0.076 liters per minute (0.02 gallons per minute).

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 0.076 liters per minute (0.02 gallons per minute)

Site Code: 300-172 **Classification:** Accepted

Site Names: 300-172, 3713 Building Steam Condensate, Miscellaneous Stream #435 **ReClassification:** Rejected (12/15/1998)

Site Type: Injection/Reverse Well **Start Date:**

Site Status: Inactive **End Date:** 1998

Site Description: The site has been described as an injection well. The site is not covered by a lid and no engineered structure is evident. The surface is covered with cobbles and larger rocks. A portion of the cobbled area, approximately 0.4 meters (1.31 feet) in diameter, appears to be depressed. Stormwater runoff may be able to collect in this depression. The site is surrounded by soil and gravel. A pipe from the overhead steam line labeled "HPD-TRP-018" enters the ground just north of the site.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-173 **Classification:** Accepted

Site Names: 300-173, 3713 Building Steam Condensate, Miscellaneous Stream #512 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:** 1998

Site Description: The site is a french drain covered by a 1.14 meter (3.74 foot) metal lid. The lid is flush with the ground surface and is labeled "Confined Space." A pipe extending from the overhead steam line enters the ground near the lid. The site is surrounded by soil and gravel.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 3.8 liters per minute (1.0 gallon per minute) of steam condensate only.

Site Code: 300-174 **Classification:** Accepted

Site Names: 300-174, 3713 Building Stormwater Runoff and Steam Condensate, Miscellaneous Stream #544 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain that currently receives stormwater. It is covered by a 0.94 meter (3.08 foot) metal lid. The lid is flush with the ground surface and is surrounded by gravel. A small diameter (< 2.5 centimeters [< 1 inch]) metal pipe extends from the building in line with the drain's lid. The pipe extends from the building approximately 1.75 meters (5.7 feet) above the ground surface, makes a 90 degree turn towards the ground, extends to within 0.25 meters (9.8 inches) of the ground surface and stops. The end of this pipe is open.

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 3.8 liters per minute (1 gallon per minute)

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate was less than 3.8 liters per minute (1 gallon per minute).

Site Code: 300-175 **Classification:** Accepted

Site Names: 300-175, 3714 Building Steam Condensate, Miscellaneous Stream #434 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:** 1995

Site Description: The site is a 36 centimeter (14.2 inch) diameter, concrete french drain with a metal cover. The inside is dry and filled with cobbles. There are no steam lines entering the site, and no steam lines are visible inside the drain.

Waste Type: Steam Condensate

Waste Description: The waste was nondangerous/nonradioactive steam condensate only. The flow rate when the site was active was less than 0.038 liters (0.01 gallons) per minute.

Site Code: 300-176 **Classification:** Accepted

Site Names: 300-176, 3715 Building Steam Condensate, Miscellaneous Stream #678 **ReClassification:** Rejected (12/15/1998)

Site Type: Valve Pit **Start Date:**

Site Status: Inactive **End Date:** 1998

Site Description: The site is a rectangular valve pit with a dirt floor. Steam condensate was discharged onto the floor of the pit. The top of the concrete base is 5 to 15 centimeters (1.97 to 5.91 inches) above grade. The valve pit is covered by a metal lid 1.30 meters (4.27 feet) by 1.11 meters (3.64 feet). The lid is labeled "Confined Space" and "U-49." A steam pipe from the overhead line enters the ground just east of the site. The pipe is labeled "HPD-TRP-005." The site is surrounded by sand and asphalt.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-177 **Classification:** Accepted

Site Names: 300-177, 3717 Building Steam Condensate, Miscellaneous Stream #330 **ReClassification:** Rejected (12/15/1998)

Site Type: Injection/Reverse Well **Start Date:**

Site Status: Inactive **End Date:** 1998

Site Description: The site is an injection well that received steam condensate. The site is a 90 centimeter (2.95 foot) diameter, concrete structure with a perforated metal cover. It is located adjacent to an overhead steam line, but there is no visible evidence of a steam pipe connecting to this drain. The drain is in a slight depression from the surrounding grade.

Waste Type: Steam Condensate

Waste Description: When the site was active, it received less than 0.038 liters per minute (0.01 gallons per minute) of steam condensate only.

Site Code: 300-178 **Classification:** Accepted

Site Names: 300-178, 3717 Building Steam Condensate, Miscellaneous Stream #329 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is a french drain that is a clay pipe. The top of the clay pipe is 5 centimeters (2 inches) above grade. The drain appears to be filled with sand or soil to within 0.35 meters (1.15 feet) of the top of the pipe. The drain is covered by a 0.25 meter (0.82 foot) metal lid with perforations. There was no evidence of use observed during the 10/08/98 walkdown. The site is surrounded by soil and gravel.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-179 **Classification:** Accepted

Site Names: 300-179, 3717 Building Steam Condensate, Miscellaneous Stream #324 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain that is a clay pipe. The upper lip on half of the pipe is broken; therefore, the 0.39 meter (1.28 foot) metal lid doesn't seat properly. During the 10/8/98 walkdown, the site was surrounded by a metal safety barricade. During the same walkdown, it was observed that the pipe that descended from the overhead steam line was not labeled. The "Inventory of Miscellaneous Streams," Revision 3, states "HPD-TRP-022" is the steam trap associated with this french drain. The broken lip may allow stormwater runoff to enter this drain. The site is surrounded by soil and gravel.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-180 **Classification:** Not Accepted (12/15/1998)

Site Names: 300-180, 3717 Building Stormwater Runoff, Miscellaneous Stream #545 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain that is a clay pipe covered by a perforated metal lid. The lid is 0.77 meters (2.53 feet) in diameter and is missing a rectangular-shaped section along its edge. The pipe is surrounded by soil, gravel and concrete. The top of the pipe is approximately 1 centimeter (0.4 inches) above the ground surface. The pipe is filled with soil and cobbles to within approximately 0.4 meters (1.3 feet) of the top of the pipe.

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 3.8 liters per minute (1.00 gallon per minute).

Site Code: 300-181 **Classification:** Accepted

Site Names: 300-181, 3717 Building Steam Condensate, Miscellaneous Stream #180 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain covered by an eight-sided metal lid. The diameter of the lid ranges from 0.60 meters (1.97 feet) to 0.66 meters (2.17 feet) and it appears to have been welded shut on one side. The site is surrounded by asphalt and concrete. A small area of concrete on the west side of the lid appears to have been excavated.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams." Revision 3, the flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-182 **Classification:** Accepted

Site Names: 300-182, 3717B Building Steam Condensate, Miscellaneous Stream #323 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain with a square concrete base. The top of the base ranges from approximately 1 centimeter (0.4 inches) to 5 centimeters (2 inches) above grade. The drain is covered by a 0.66 meter (2.17 foot) by 0.66 meter (2.17 foot) square metal lid. The lid has the remains of a "Confined Space" label. The site is surrounded by gravel where it doesn't abut 3717B. Two pipes from the overhead steam line enter through the lid. A row of "Radiologically Controlled Area" signs run east to west approximately 5 meters (16.4 feet) north of the site. These signs seem to refer to the area around the 304 Building, which is immediately north of the site, and the 303A Building, which is northwest of the site. The door and concrete pad on the south side of 304 are labeled "Fixed Contamination." Although the ground between 3717B and 304 is fairly level, there appears to be enough of a slope to prevent water flowing from the 304 Building towards the site.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-183

Classification: Accepted

Site Names: 300-183, 3718 Building Steam Condensate, Miscellaneous Stream #340, F.D. #40

ReClassification: Rejected (12/15/1998)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date: 1998

Site Description: The site is a french drain that received steam condensate. The drain is a clay pipe with an outer diameter of 0.89 meters (2.92 feet) and is covered by a metal lid. The top of the clay pipe is approximately 14 centimeters (5.5 inches) above grade. During the site walkdown, the site was surrounded by a metal safety barricade. It was also observed that the lid has some sort of white powdery buildup. The drain was not labeled "F.D. #40" as described in the "Inventory of Miscellaneous Streams," Revision 2. The site is surrounded by asphalt. It appears as though a section of asphalt between the site and the 3718 Building has been excavated. Four metal pipes extend from the south wall of the 3718 Building near the site. Two of these pipes, which are approximately 10 centimeters (3.9 inches) and 12 centimeters (4.7 inches) in diameter, exit the building within 1 meter (3.3 feet) of the ground surface make a 90 degree and disappear into the asphalt. The other two pipes exit the building approximately 3.0 meters (10 feet) above the ground surface. One makes a 90 degree turn towards the roof and the other makes a 90 degree turn towards the ground. Both appear to terminate open-ended above the ground.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 2, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-184

Classification: Not Accepted (9/2/1998)

Site Names: 300-184, 3718A Building Stormwater Runoff, Miscellaneous Stream #270

ReClassification:

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: Twin 10-centimeter (4-inch) galvanized pipes drain each of two roofs that slope into each other in the center of the building. The pipes are joined about 0.7 meters (2 feet) above the ground in a Y, and empty into a 14-centimeter (6-inch) PVC pipe. This pipe travels just under the ground surface for about 12.2 meters (40 feet) and exits from a railroad tie retaining wall. The stormwater then spills onto the ground between the road and retaining wall. The soils are very sandy and the water probably infiltrates without overland flow. While the miscellaneous streams report (Rev. 3) says that it is an injection well, there is no injection well; the stormwater runoff ultimately empties into a "non-engineered structure" (the bare ground).

Waste Type: Stormwater Runoff

Waste Description: The waste is stormwater runoff only.

Site Code: 300-185 **Classification:** Accepted

Site Names: 300-185, 3722 Building Steam Condensate, Miscellaneous Stream #436, Injection Well #6 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:** 1998

Site Description: The site is a french drain that is a metal pipe 0.74 meters (2.43 feet) in diameter. The top of the pipe is uncovered and flush with the ground surface. The pipe appears to be filled with gravel to within centimeters of the top. Stormwater runoff may be able to enter this drain from the surrounding area. Two lines from the overhead steam line enter the ground nearby. One line is associated with HPD-TRP-013 and the other is associated with HPD-TRP-014. The site is surrounded by gravel.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 2, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-186 **Classification:** Accepted

Site Names: 300-186, 3730 Building Steam Condensate, Miscellaneous Stream #383 **ReClassification:** Rejected (9/2/1998)

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is a steel grate 48.3 centimeters (19 inches) square with two pipes emptying into it. The pipes are uninsulated and are 3.2 centimeters (1.25 inches) and 4.4 centimeters (1.75 inches) outside diameter. The grate covers a sump that is approximately 0.76 meters (2.5 feet) deep. The apparent drain is approximately 0.46 meters (1.5 feet) from the bottom and leads back into the building (east). A cast iron elbow, 10.2 centimeters (4 inches) outside diameter, in the bottom of the sump does not appear to relate to the drainage.

Note that "Inventory of Miscellaneous Streams", Revision 3 (Final Draft) lists the site "Active". According to the responsible contractor, the document is not correct, as the site is inactive.

Waste Type: Steam Condensate

Waste Description:

Site Code: 300-187 **Classification:** Accepted

Site Names: 300-187, 3730 Building Steam Condensate, Miscellaneous Stream #421 **ReClassification:** Rejected (9/2/1998)

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is two pipes coming out of ground, with valves near each. The pipes are connected with a tee in the middle leading to a pipe that goes into the 3730 Building. The pipes are covered with asbestos-free insulation. The pipes are approximately 10.2 centimeters (4 inches) in diameter,

including the insulation.

Note that "Inventory of Miscellaneous Streams", Revision 3 (Final Draft) lists the site "Active". According to the responsible contractor, the document is not correct, as the site is inactive.

Waste Type: Steam Condensate

**Waste
Description:**

Site Code: 300-188 **Classification:** Accepted
Site Names: 300-188, 3730 Building Steam Condensate, **ReClassification:** Rejected (9/2/1998)
 Miscellaneous Stream #420
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is covered by a rusted steel plate, 0.84 meters (2.75 feet) in diameter, and with a 10.2 centimeter (4 inch) diameter asbestos-free insulated steam pipe running into the northeast part of plate. Four 2.54 centimeter (1 inch) diameter holes are cut into the plate. A label on top of the plate reads "DANGER LIMITED ACCESS/CONFINED SPACE, ENTRY BY PERMIT ONLY."

Waste Type: Steam Condensate

**Waste
Description:**

Site Code: 300-189 **Classification:** Accepted
Site Names: 300-189, 3731 Building Steam Condensate, **ReClassification:** Rejected (9/2/1998)
 Miscellaneous Stream #269
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is a french drain that is a 10 centimeter (4 inch) metal pipe through the asphalt that surrounds the building. The pipe is about 0.75 meters (2.5 feet) deep. The downspout that enters it comes from the top half of the building, about 0.6 meters (2 feet) south of the swamp cooler. The "Inventory of Miscellaneous Streams", Revision 3, says the stream is active, but the building is posted as closed, and the drain is dry at the bottom.

Note that "Inventory of Miscellaneous Streams", Revision 3 (Final Draft) lists the site as an active steam condensate drain. According to the responsible contractor, the document is not correct, as the site should be listed as an inactive steam condensate site.

Waste Type: Steam Condensate

**Waste
Description:**

Site Code: 300-190 **Classification:** Not Accepted (9/2/1998)
Site Names: 300-190, 3731 Building Stormwater **ReClassification:**
 Runoff, Miscellaneous Stream #517

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain that is a 17.8 centimeter (7 inch) PVC pipe through the asphalt paving against the 3731 Building. The drain receives only stormwater from the roof of the 3731 Building, which is a closed facility. The downspout is almost the same diameter as the french drain, so the depth was not determined. The french drain pipe is cracked.

Waste Type: Stormwater Runoff

Waste Description:

Site Code: 300-191 **Classification:** Not Accepted (9/2/1998)

Site Names: 300-191, 3731 Building Stormwater Runoff, Miscellaneous Stream #518 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain that is an 18 centimeter (7 inch) PVC pipe through the asphalt that surrounds the building. The drain receives only roof stormwater runoff. The 3731 facility is closed. The roof downspout is almost the same diameter as the french drain, so the depth of the drain was not determined.

Waste Type: Stormwater Runoff

Waste Description:

Site Code: 300-192 **Classification:** Accepted

Site Names: 300-192, 3732 Building Steam Condensate, Miscellaneous Stream #349 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:** 1997

Site Description: The site is a french drain that received steam condensate from a quench tank. The drain appears to be made of concrete and is covered by a lid. The foundation of the 3732 Building has been posted "Fixed Contamination Area." Details of this drain have been obscured by the paint applied for this posting. The outer perimeter of the drain measures 1.2 meters (3.9 feet) by 1.2 meters (3.9 feet) and rises approximately 10 centimeters (3.9 inches) above grade. The lid measures 0.98 meters (3.22 feet) by 0.98 meters (3.22 feet). Where the edges of the lid are visible, it appears as though it has been sealed by the paint. A sign on the lid has been obscured by paint. The site is surrounded by gravel. While visiting an adjacent site on 11/2/98, it was noticed that the 3732 pad had been surrounded by post and chain since the previous walkdown. The barricade was labeled "Radiological Buffer Area" and "Radiologically Controlled Area."

Waste Type: Steam Condensate

Waste Description: When this stream was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-193 **Classification:** Accepted
Site Names: 300-193, 3732 Building Steam Condensate, Miscellaneous Stream #419, Injection Well #15 **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:** 1997
Site Description: The site is a french drain that received steam condensate. The drain is a concrete pipe which rises approximately 5 centimeters (1.97 inches) above grade. The pipe is covered by a 0.98 meter (3.22 foot) metal lid. The foundation of the 3732 Building is posted "Fixed Contamination Area." The roof of the adjacent 303B Building is posted "Contamination Area." The site is surrounded by gravel.
Waste Type: Steam Condensate
Waste Description: When this stream was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-194 **Classification:** Accepted
Site Names: 300-194, 3734 Building Steam Condensate, Miscellaneous Stream #334, F.D. #8 **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:** 1997
Site Description: The site is a french drain. The site is associated with the 3734 Building, which has been demolished. The 3734 Building's concrete pad is still in place and is surrounded by soil and gravel. There are two small areas of Fixed Contamination adjacent to the pad. No drain was visible during the site walkdown.
Waste Type: Steam Condensate
Waste Description: When this stream was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-195 **Classification:** Accepted
Site Names: 300-195, 3734A Building Steam Condensate, Miscellaneous Stream #519 **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is a french drain that received steam condensate. The previous location of the 3734A Building is currently a cobble-covered area on the east side of the 3705 Building. No drain was visible during the site walkdown.
Waste Type: Steam Condensate
Waste Description: When this stream was active, the flow rate was less than 3.8 liters per minute (1 gallon per minute).

Site Code: 300-196 **Classification:** Accepted
Site Names: 300-196, 3745 Building Steam Condensate, **ReClassification:** Rejected (9/2/1998)
Miscellaneous Stream #399
Site Type: Sump **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is a condensate sump constructed of concrete, 96.5 centimeters square (38 inches square), with a 66 centimeter (26 inch) diameter access cover.

Waste Type: Steam Condensate
Waste Description: The waste is steam condensate that has a flow rate of less than 0.19 liters (0.05 gallons) per minute.

Site Code: 300-197 **Classification:** Accepted
Site Names: 300-197, 3745 Building Steam Condensate, **ReClassification:** Rejected (9/2/1998)
Miscellaneous Stream #398, Injection Well
#5
Site Type: Injection/Reverse Well **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is covered with a 147.3 centimeter (58 inch) diameter steel cover. Two pipes exit the 3745 Building and enter the site. One of the pipes appears to be condensate from steam and the other pipe is unknown.

Waste Type: Steam Condensate
Waste Description: The waste was steam condensate that had a flow rate of less than 0.19 liters (0.05 gallons) per minute.

Site Code: 300-198 **Classification:** Accepted
Site Names: 300-198, 3745 Building Steam Condensate, **ReClassification:** Rejected (9/2/1998)
Miscellaneous Stream #397, Injection Well
#1
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is a vertical vitrified clay pipe with a steel lid. An eye bolt is fastened to the center of the lid. The cover needs to be removed to confirm the function of the site.

Waste Type: Steam Condensate
Waste Description: The waste is steam condensate that has a flow rate of 0.19 liters (0.05 gallons) per gallon.

Site Code: 300-199 **Classification:** Accepted

Site Names: 300-199, 3745A Building Steam
Condensate, Miscellaneous Stream #380

ReClassification: Rejected (9/2/1998)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The french drain is a 0.6 meter by 0.45 meter (2 foot by 1.5 foot) rectangular concrete pit with a perforated steel cover. About 15 centimeters (6 inches) from the top, a 10 centimeter (4 inch) pipe enters from the direction of the 3745A Building. The drain is at least 0.6 meters (2 feet) deep, with the bottom 15 centimeters full of water. The site will also act as a storm drain for the surrounding compacted graveled area and the nearby roof runoff drainspout. Old wiring conduit rises from the ground next to the drain and enters the drain on the east side. The drain is protected by a yellow steel pipe barricade. The "Inventory of Miscellaneous Streams", Revision 3 lists this stream as eliminated. The lines have been capped. The source has been routed to the process sewer. It is still active as a stormwater drain.

Waste Type: Steam Condensate

Waste Description: Site appears to still receive storm water runoff.

Site Code: 300-200

Classification: Accepted

Site Names: 300-200, 3745B Building Steam
Condensate, Miscellaneous Stream #379

ReClassification: Rejected (9/2/1998)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a square concrete pit, 1.2 meters (4 feet) on a side, covered with a solid steel plate. The site appears to be about 1 meter (3 feet) deep, with the bottom covered in water. A 10-centimeter (4-inch) iron pipe enters from the south side (from the 3745B Building) and another 10-centimeter (4-inch) pipe is lower, on the west side of the drain, barely extending into the drain. The "Inventory of Miscellaneous Streams", Revision 3 says the stream is eliminated. The pipes have capped. The source has been routed to the process sewer. The water in the bottom is probably old, as there is no air circulation to evaporate the water. The site appears to be a concrete box with a concrete bottom and the steel lid would prevent evaporation.

Waste Type: Steam Condensate

Waste Description:

Site Code: 300-201

Classification: Accepted

Site Names: 300-201, 3762 Building Steam Condensate,
Miscellaneous Stream #491, Injection Well
#42

ReClassification: Rejected (9/2/1998)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a 1 meter (3 foot) diameter concrete pipe in the gravel roadway. A 5 centimeter (2 inch) steel pipe comes in at the bottom, from the direction of the 3762 Building. The bottom of the drain is 0.5 meters (1.5 feet) deep, and covered with small rocks and sand. The drain is protected by a yellow steel barrier made of pipes, which has been bent by traffic over the years.

The drain is covered by a galvanized steel plate with 4 vent holes. The "Inventory of Miscellaneous Streams", Revision 3, says the site is active. However, the 3762 Building is posted as a closed facility, and most (or all) of the old steam lines in the area have been abandoned, so the site may actually be inactive. The site status has been changed to inactive to reflect information provided by the responsible contractor.

Waste Type: Steam Condensate

**Waste
Description:**

Site Code:	300-202	Classification:	Accepted
Site Names:	300-202, 3765 Building HVAC Condensate, Miscellaneous Stream #345	ReClassification:	Rejected (12/15/1998)
Site Type:	Injection/Reverse Well	Start Date:	
Site Status:	Inactive	End Date:	1997
Site Description:	The drain is not visible. The 3765 Building has been demolished. A gravel parking lot has been placed on the location where the building once stood.		

Waste Type: Water

**Waste
Description:** The Inventory of Miscellaneous Streams Report states the drain received HVAC condensate. When this stream was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

Site Code:	300-203	Classification:	Accepted
Site Names:	300-203, 377 Building Steam Condensate, Miscellaneous Stream #446, Injection Well #36	ReClassification:	Rejected (9/2/1998)
Site Type:	French Drain	Start Date:	
Site Status:	Inactive	End Date:	
Site Description:	This drain is visible as an iron plate 0.66 meters (2.17 feet) in diameter, exclusive of the frame. The site is located in a graveled lot. The plate is stuck closed from rust and sand wedged between it and its frame. The plate is flush with the ground, but it does not appear that stormwater would drain into it because the ground tilts slightly away from it, and the surrounding ground is not sealed and will let rainwater infiltrate. Site drawings H-3-42084 Sheet 1 and H-3-42085 Sheet 1 show the facility to drain from the valve pit on the east side of the 377 Building, where the steam lines enter. While the "Inventory of Miscellaneous Streams", Revision 3, lists the drain as active, the former facilities manager, Burke Neuman of DynCorp., said that the steam lines have been disconnected and thus the drain is inactive. The facility is closed, and other utilities, such as water and electricity, are also off.		

Waste Type: Steam Condensate

**Waste
Description:**

Site Code:	300-204	Classification:	Not Accepted (12/15/1998)
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Site Names: 300-204, 3790 Building Stormwater Runoff, Miscellaneous Stream #378, F.D. #19, Injection Well #19 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain constructed of concrete pipe. The site is covered with a 0.77 meter (2.53 foot) steel lid. The lid is posted with a "Confined Space" warning. This french drain is surrounded by asphalt.

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-205 **Classification:** Not Accepted (12/15/1998)

Site Names: 300-205, 3790 Building Stormwater Runoff, Miscellaneous Stream #377, F.D. #18, Injection Well #18 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain constructed of concrete pipe and covered with a 1.16 meter (3.80 foot) steel lid. A roof drain pipe is visible near the french drain. The lid is labeled "FD 18" and "Confined Space." This site is surrounded by cobbles.

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-206 **Classification:** Not Accepted (12/15/1998)

Site Names: 300-206, 3790 Building Stormwater Runoff, Miscellaneous Stream #373 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a french drain constructed of concrete pipe and covered with a 1.14 meter (3.75 foot) steel lid. The lid is labeled "Confined Space." The site is surrounded by cobbles. A roof drain pipe is visible near the french drain.

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-207 **Classification:** Not Accepted (12/15/1998)

Site Names: 300-207, 3790 Building Stormwater Runoff, Miscellaneous Stream #375, F.D. #16, Injection Well #16

ReClassification:

Site Type: French Drain

Start Date:

Site Status: Active

End Date:

Site Description: The site is a french drain constructed of concrete pipe and covered with a 1.15 meter (3.77 foot) steel lid. The lid is labeled "FD 16" and "Confined Space." This french drain is surrounded by cobbles. A roof drain pipe is visible near the french drain. Two metal pipes extending from the side of the building were also observed. A metal pipe approximately 1.83 meters (6 feet) in length runs parallel to the ground surface, approximately 0.3 meters (1 foot) above the surface. This pipe is part of the fire water test system. A small diameter, short, metal pipe elbow also extends from the building at the same level as the fire water test pipe.

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-208

Classification: Not Accepted (12/15/1998)

Site Names: 300-208, 3790 Building Stormwater Runoff, Miscellaneous Stream #376, F.D. #17, Injection Well #17

ReClassification:

Site Type: French Drain

Start Date:

Site Status: Active

End Date:

Site Description: The site is a french drain constructed of concrete pipe and covered with a 1.15 meter (3.77 foot) steel lid. The lid is labeled "FD 17" and "Confined Space." A roof drain pipe is visible entering the french drain. This french drain is behind two bushes and is surrounded by cobbles.

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-209

Classification: Not Accepted (12/15/1998)

Site Names: 300-209, 3790 Building Stormwater Runoff, Miscellaneous Stream #374

ReClassification:

Site Type: French Drain

Start Date:

Site Status: Active

End Date: 1998

Site Description: The site is a drain that receives stormwater runoff. It is located at the bottom of a covered stairwell. The drain is covered by a 0.31 meter (1.02 foot) metal grid and is surrounded by concrete.

Waste Type: Stormwater Runoff

Waste Description: The flow rate to the stairwell drain is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-210 **Classification:** Not Accepted (12/15/1998)
Site Names: 300-210, 3790 Building Stormwater Runoff, Miscellaneous Stream #514 **ReClassification:**
Site Type: French Drain **Start Date:**
Site Status: Active **End Date:**
Site Description: The site is a drain that received stormwater. The site is located at the bottom of a covered stairwell. The drain is covered by a 0.30 meter (0.98 foot) metal grate and is surrounded by concrete.
Waste Type: Stormwater Runoff
Waste Description: The flow rate to the stairwell drain is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-211 **Classification:** Accepted
Site Names: 300-211, 382 Building Steam Condensate, Miscellaneous Stream #429 **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:**
Site Status: Active **End Date:**
Site Description: The site is a french drain that receives steam condensate. The drain is a clay pipe covered by a 1.12 meter (3.67 foot) metal lid. The top of the clay pipe is a few centimeters above grade. The lid has three holes cut into it and is labeled "Confined Space." A metal pipe approximately 2.5 centimeters (1 inch) in diameter and labeled "LPD-TRP-016" enters the drain through one of these holes. During the site walkdown, steam could be seen rising from the drain and the sound of a liquid being discharged into the drain could be heard.
Waste Type: Steam Condensate
Waste Description: When this site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 300-212 **Classification:** Accepted
Site Names: 300-212, MO010 Building Steam Condensate Sump, Miscellaneous Stream #400 **ReClassification:** Rejected (9/2/1998)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is a 121.9 centimeter (48 inch) condensate sump, constructed of concrete and covered with a steel plate. There are no postings.
Waste Type: Steam Condensate
Waste Description: Steam was produced from sanitary water that had been sent through a water softener system to remove minerals (calcium and magnesium). The treated water was introduced into boilers to produce steam. This steam was superheated before distribution to facilities for heating and process use. Disposal sites received steam condensate from the steam distribution lines. When

used for heating purposes, this was a seasonal discharge. Non-regulated chemicals were added to dechlorinate the water, prevent scale, and control corrosion.

Site Code:	300-213	Classification:	Accepted
Site Names:	300-213, West High Tank (Water Tower) Overflow and Steam Condensate, Miscellaneous Stream #332	ReClassification:	Rejected (12/15/1998)
Site Type:	French Drain	Start Date:	
Site Status:	Inactive	End Date:	
Site Description:	The site is a french drain that received steam condensate and overflow from a water tower. The drain has a square concrete base covered by two metal grates. The concrete base is approximately 1 meter (3.3 feet) deep. At the bottom of this reservoir is an opening approximately 11 centimeters (4.3 inches) in diameter. Inside the reservoir is a square metal plate held at an angle by two metal rods extending through the grates. Without this support, it appears as though the metal sheet would lay flat at the bottom of the reservoir and block the outlet pipe at the bottom. A metal pipe approximately 11 centimeters (4.3 inches) in diameter extends from the top of the water tower to just above the grates. Three pipes enter the northeast side of the reservoir approximately 0.4 meters (1.31 feet) from its top. The pipes terminate open-ended inside the reservoir. The site is surrounded by sand and cobbles.		
Waste Type:	Steam Condensate		
Waste Description:	When this site was active, the flow rate was less than 0.038 liters per minute (0.01 gallons per minute).		
Waste Type:	Water		
Waste Description:	The site received sanitary water from the water tower.		

Site Code:	300-214	Classification:	Accepted
Site Names:	300-214, 300 Area Retention Process Sewer, 300 RPS	ReClassification:	
Site Type:	Radioactive Process Sewer	Start Date:	1953
Site Status:	Active	End Date:	
Site Description:	The site is an underground carbon steel and polyvinyl chloride pipeline connecting the 300 Area laboratory facilities (308, 324, 325, 326, 327, and 329 buildings) to the 307 Retention Basins. The Retention Process Sewer (RPS) provides radioactive monitoring and transport of nonhazardous, potentially radioactive process waste.		
Waste Type:	Process Effluent		
Waste Description:	The waste discharged to the Retention Process Sewer (RPS) is nonhazardous, potentially radioactive waste (not to exceed 5,000 picocuries per liter) from the 300 Area Laboratory facilities. In FY1998, approximately 12 million liters (3 million gallons) flowed through the RPS to the 307 Retention Basins.		

Site Code: 300-215 **Classification:** Accepted

Site Names: 300-215, 300 Area South **ReClassification:** Rejected (1/27/1999)

Site Type: Dumping Area **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is very large and includes many different features. Much of the site is covered with vegetation such as cheatgrass and sagebrush. Two major roads cross the site: George Washington Way Extension and George Washington Way to Stevens Drive. Many old road traces exist and one major gravel road bisects the site. A gravel pit, and construction materials dumping ground are located in the north section of the site, south of the 300 Area fence, and west of the George Washington Way extension. Vestiges of irrigation canals are found throughout the site. Groundwater monitoring wells are found throughout the site. There is also a drywell (purpose unknown) in the area. Recent debris includes windblown garbage and tumbleweeds. Some older material near an irrigation canal may pre-date Hanford (e.g. porcelain china, battery cores, cans, and glass). A large diameter buried water line installed in the early 1990s is present in the southern part of the site. Underground electrical, water, and telephone lines are present on the site.

Waste Type: Construction Debris

Waste Description: There is some construction debris in a dumping area. However, there does not appear to be any hazardous waste dumped in the area. Photograph #1 shows some small battery cores. This was a concern to the EPA and asked that they be picked up. As of February 9, 1999, the "Battery Cores" had been picked up and sent to the Centralized Consolidation/Recycling Center.

Site Code: 300-217 **Classification:** Not Accepted (1/27/1999)

Site Names: 300-217, 300 Area Laydown Yard **ReClassification:**

Site Type: Storage **Start Date:**

Site Status: Active **End Date:**

Site Description: The area is currently in use as a laydown area for construction materials. Construction materials observed at the site included Connex boxes, steel pipe, ladders, steel, plastic pipe, wood pallets, insulation material, and railroad ties. Several vehicles were also stored at the site. No wood utility poles were observed and no stains were observed on the soil from temporary storage of wood utility poles. Most material is stored off the ground on racks. An electrical structure is located in the northwest part of the site. The numbers on the structure are: C3X483 on the west side, C3X481 on the north side, and C3-24 on the south side. Four access manholes are present south of the structure. Three of the manholes are 1.22 meters (4 feet) in diameter and the fourth is 0.91 meters (3 feet) in diameter. A 1.22-meter (4-foot) square concrete structure with a metal lid is present about 15.24 meters (50 feet) south of the north side fence. Well 399-04-01 is present on the northeast corner of the site. A minor amount of blown-in paper was observed. A large borrow pit is found south of the site.

Waste Type: Equipment

Waste Description: There is no waste at this site. Waste that had been a concern to Ecology had been removed prior to the time that the site was entered into WIDS.

Site Code: 300-218 **Classification:** Accepted

Site Names:	300-218, 314, 314A and 314B Buildings, Engineering Development Laboratory	ReClassification:	
Site Type:	Fabrication Shop	Start Date:	1943
Site Status:	Inactive	End Date:	1996

Site Description: The site consists of the 314 Building and the associated 314A and 314B Buildings. Both the 314A and 314B buildings were attached to the 314 Building. Because the 314A building was demolished some time ago, the remaining 314 and 314B buildings are often referred to as the 314 facilities, or collectively as the 314 Building. This site has been demolished down to the slab. This building was one of the original World War II era 300 Area, MED/DuPont structures. Several rectangular additions were constructed along the north and south sides of the 314 building. The building frame work was bolted steel. The gable roof was constructed of corrugated asbestos. Exterior walls and partitions were concrete block. The floor was reinforced concrete with test pits and a basement room at the west end. A small second floor or mezzanine existed at the west end of the building.

The principal utilities were sanitary water and sewer, steam, normal building power, compressed air and process sewer. The building had a wet sprinkler system. Air conditioning and heating was provided in the office areas along the north side of the building and in the second floor mezzanine through the use of heat pump systems. Evaporative cooling and heating by steam space heaters was provided within the high/open bay area. Electric service was provided from a 1000 KVA transformer outside the building. Service voltage is 480/277 V. Distribution voltage within the building from dry transformers, is 120/208 V and 120/240 V. A 7.5 ton bridge crane serves the high bay on the south side.

The 314A Autoclave Pit was attached on the northeast corner of the 314 Building. The 314A Building included a basement which became radiologically contaminated by the autoclave operations. The above ground portion of the building was demolished, probably sometime in the 1950s, but the history and details of the 314A Building are not well documented. The basement was left in place, filled with dirt, concreted over and the resulting concrete slab was fenced off.

The 314B Stress Rupture Test Facility was attached to the northwest corner of the building and consisted of eight small rooms with blow out roof panels and blast doors for the purpose of conducting high pressure experiments. The facility was placed in standby in June of 1996. The water and sprinkler systems were drained, and the ventilation was shutdown and capped where needed. The facility was cleaned out with the exception of a few large pieces of equipment, which were excessed in place or have storage agreements with the owners.

Power remains connected to the facility. Some interest in leasing the facility to a private enterprise has existed, but this may be impractical because of the legacy contamination remaining in the high bay. Permanent equipment for processing, storing and disposing of material or waste consists of pits, sumps, drywells, tanks, trenches, airshafts, and the soil column. All are suspected of being contaminated.

Smoke from a fire in the 1950's permanently contaminated surfaces inside the 314 Building, which were painted over to fix the contamination. Water used to fight the fire was at least partially responsible for transporting uranium dust from the milling operation and uranium oxide ash from an oxide burner into the soils surrounding the facility.

Waste Type: Sludge

Waste Description: After the facility demolition in 2006 the pits and trenches were filled with soil. In 1997 sludge and dust residue was observed in the building. Sludge was retrieved from a pit and a trench inside the 314 building in 1996. The sludge contained PCB's, lead and mercury at regulated

levels. Other contaminants included uranium, thorium, cadmium, bismuth, aluminum and barium. Contaminated soil is likely to be found around the building exterior.

Waste Type: Equipment

Waste Description: The building had contaminated duct work that was posted and contained a large inventory of fixed uranium contamination. The HEPA filtered exhaust system had the potential for radiological contamination and was posted. There was also contaminated equipment and items that were being stored or had been excessed in place. All equipment was disposed during facility demolition in 2006.

Waste Type: Asbestos (non-friable)

Waste Description: The 314 Building was over 50 years old, and as such, its construction materials contained asbestos, mercury switches, light fixtures containing PCB's, and possibly lead based paints. Asbestos may be found in tile, insulation, and transite. Significant amounts of asbestos exist in the materials of construction such as the roof, pipe insulation, etc. During the facility demolition in 2006 all the materials were removed and disposed of.

Waste Type: Equipment

Waste Description: The building was likely to have contained contaminated floor drains, both chemical and radioactive. There was a potential that mercury could exist in some of the older drains and sewer lines. No known inventory (mercury) was found during the facility characterization.

Site Code: 300-219

Classification: Accepted

Site Names: 300-219, 300 Area Waste Acid Transfer Line

ReClassification:

Site Type: Process Sewer

Start Date:

Site Status: Inactive

End Date:

Site Description: This site includes the transfer lines connecting the various components of the 300 Area Waste Acid Treatment System (WATS) and the 300 Area Uranium Recovery Operations. The piping, located in the Pipe Trench (300-224), includes: (1) the 333 N Fuels process transfer lines to the process acid waste solution storage tanks in the 333 and 334-A Facilities, (2) the waste transfer lines to the waste treatment facilities in the 313 Uranium Recovery/WATS Neutralization Room, (3) the transfer lines to/from the 313 Building to the neutralized acid waste storage tanks in the 311 Tank Farm, (4) ethylene glycol supply and return lines in the Pipe Trench between the 333 Building and the 313 Building used to heat this portion of the Pipe Trench, (5) fresh acid (nitric and sulfuric) lines from the 334 Tank Farm to the 333 Building, and (6) caustic lines from the Tank Farm to the 313 WATS/URO Room. As of 11/1/98, all process and waste piping inside the associated facilities had been disconnected from the Pipe Trench; only the piping inside the Pipe Trench or outside the facilities (e.g. tank farm piping) remains for pipes associated with the 300 Area Waste Acid Treatment System or the 300 Area U-Bearing Acid Treatment System.

Site Code: 300-220

Classification: Not Accepted (1/27/1999)

Site Names: 300-220, Gravel Pit #7, Pit 7

ReClassification:

Site Type: Depression/Pit (nonspecific)

Start Date:

Site Status: Inactive**End Date:**

Site Description: The site is a manmade depression identified as Gravel Pit #7. The surface consists of sand and gravel with some cobbles, and a light vegetation cover of bunch grass and small sage. Trace fragments of concrete and asphalt can be found along the depression margins. Although it is included in the general radiologically controlled area north of the 300 Area, there are no site specific radiological postings.

Site Code: 300-222**Classification:** Accepted**Site Names:** 300-222, 384-W Brine Pit, 384-W Salt Dissolving Pit and Brine Pump Pit**ReClassification:** Rejected (3/14/2002)**Site Type:** Sump**Start Date:** 1977**Site Status:** Inactive**End Date:**

Site Description: The brine pit, a concrete underground storage pit, was cleaned out and filled with sand/gravel in May 1998. At the surface the structure measures 5.18 meters (17 feet) by 3.05 meters (10 feet). It was divided into two sections.

The larger section is the salt dissolving pit, also called "brine pit" on drawings. This section held the salt that was dissolved to make the brine. A 3.8 centimeter (1.5 inch) stainless steel sprinkler pipe runs the length of the pit. A 3.8 centimeter (1.5 inch) PVC (polyvinyl chloride) brine return line enters the pit through its south wall. The bottom of the pit was covered with a 15 centimeter (6 inch) layer of gravel topped by a 15 centimeter (6 inch) layer of sand. Three 2.9 meter (9.5 foot) lengths of 10 centimeter (4 inch) transite tile pipe were located within the gravel layer. These three pipes connected through a dividing wall into the adjacent section. An overflow drain is located near the top of the structure. The salt dissolving pit is identifiable at the surface by its red metal cover.

The smaller section is the brine pump pit, also called "tank" in drawings. A 5 centimeter (2 inch) PVC line exits the pit through its south wall. The brine pump pit is identifiable at the surface by its gray metal cover.

Waste Type: Abandoned Chemicals

Waste Description: Before it was cleaned out, the structure contained salt cake and/or brine, both of which may be designated as dangerous waste.

Site Code: 300-223**Classification:** Accepted**Site Names:** 300-223, 384 Powerhouse Fuel Oil Day Tanks #1 and #2**ReClassification:** Closed Out (5/4/2004)**Site Type:** Storage Tank**Start Date:** 1964**Site Status:** Inactive**End Date:** 1998

Site Description: The site has been backfilled to grade.

The site was backfilled on March 22, 2003 after the Day Tanks and surrounding contaminated soil had been removed. The tanks were carbon steel, underground storage tanks, positioned horizontally, in a north-south direction.

Waste Type: Oil

**Waste
Description:**

Site Code:	300-224	Classification:	Accepted
Site Names:	300-224, WATS and U-Bearing Piping Trench	ReClassification:	
Site Type:	Trench	Start Date:	1960
Site Status:	Inactive	End Date:	1988

Site Description: The site is a subsurface, concrete pipe trench with concrete block and metal plate covers. The pipe trench has several sections which allow piping connections to be made between process operations in the 313 Building, the 303-F Building, the 311 Tank Farm, the 333 Building, the 334-A Building, and the 334 Tank Farm, as shown in the attached scanned schematic diagram.

The west part of the concrete pipe trench, which connects the 333 Building and the 313 Building, is approximately 188 m (617 ft) long with internal dimensions of about 45.7 cm by 45.7 cm (18 in by 18 in). This section of the pipe trench has ethylene glycol heating lines used for freeze protection. An access box or valve box with a metal lid abuts the west wall of 333 where the pipe trench emerges from the building. The pipe trench is then covered by concrete lids measuring 1.21 m by 0.64 m (4 ft by 2.1 ft).

The concrete covers are numbered with # 1 being the closest to the west wall of 333. Some of the covers adjacent to 333 and the 333 West Tank Farm are posted "Fixed Contamination Area." The entire length of the pipe trench is posted "Radioactive Material, Internally Contaminated." The pipe trench runs south along the west side of 333, makes a 90 degree turn to the west at the building's southwest corner, crosses the street, makes another 90 degree turn to the south and runs along the east side of the 3712 Building. A metal access lid is found on the east side of 3712, between the covers labeled # 65 and # 66. This allows access to the pipe trench and the helium lines that used to run between 306W and 3712.

The pipe trench makes a 90 degree turn to the west just east of the northeast corner of 303G. It is just west of this turn that the trench runs under a railroad track. The pipe trench then runs along the north side of 303G where an access box or valve pit is located by the northwest corner. The metal lid covering this concrete box measures approximately 0.6 m by 1.8 m (2 ft by 6 ft) and is posted "Radioactive Material, Internally Contaminated." The pipe trench at this point also turns north 4.5 m, east 16 m, then north for 1 m, where the railroad tank car pumping station is located. This station was used for the transfer of caustics. A french drain (H-3-23530 sht. 1 rev. 3) located at the south end of this station, received steam condensate from the caustic pump operation and is connected to a floor drain of the pipe trench. The pipe trench continues along the north side of the 311 Tank Farm where there is a second row of concrete lids adjacent and parallel to the pipe trench.

The concrete covers in this second row are longer and wider than those covering the pipe trench. The pipe trench makes a 90 degree turn at the northeast corner of 303F and runs along the east side of that building where it makes another 90 degree turn to run through the building. Drawing H-3-10022 shows where the "Acid Sump" was located east of the 303F Building. At one time the sump was lined with acid brick and appears to have been used to collect effluent from the pipe trench, from the vent/overflow of the nitric acid tanks, from the caustic drains, and from the floor drains in the 303F Building (including the various pumping stations). The pipe trench through the 303F Building is shown on H-3-10037, which also shows a floor drain in the pipe trench. The pipe trench reappears on the west side of 303F at a transfer box and enters the southeast wall of the 313 Building at another transfer box. A steam line, among other things, enters the transfer box on the west side of 303F.

The concrete blocks covering the trench between 303F and 313 are much larger, measuring approximately 0.9 meters by 1.2 meters (3 feet by 4 feet). The WATS pipe trench from the 303F to the 313 Building piping wall box is shown on H-3-10157. Drawing H-3-10157 shows the process sewer lines beneath the 313 Building including the WATS pipe trench drain in the floor of the wall box next to the 313 Building. Between the 333 Building and the 313 Building, the pipe trench has 2.4 centimeter (1 inch) diameter weep holes in the bottom of the trench at 6.11 meter (20 feet) intervals to allow precipitation to drain out into the soil at the low points, especially as the pipe trench passed under the railroad tracks. Consequently, leaks to the pipe trench are expected to have resulted in contamination of the ground beneath the length of this section of the pipe trench (see H-3-18530).

Waste Type: Chemicals

Waste Description: The pipe trench and subsurface soil have become contaminated due to multiple releases into the trench. Releases included acids, bases, and solvents. Some of released acids contained dissolved uranium. See the "Releases" section for information on the individual releases.

Site Code: 300-225 **Classification:** Not Accepted (5/26/1999)

Site Names: 300-225, 3790 Building Stormwater Runoff, Miscellaneous Stream #767 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is a drain that received stormwater. It is located at the bottom of a stairwell that is covered with a corrugated metal roof. The drain is covered with a 0.30 meter (1.00 foot) metal grate and is surrounded by concrete.

Waste Type: Stormwater Runoff

Waste Description: This stream discharges to stream #378

Site Code: 300-226 **Classification:** Accepted

Site Names: 300-226, 3709A Building Miscellaneous Stream #768, Drip Station U39 **ReClassification:** Rejected (5/26/1999)

Site Type: Injection/Reverse Well **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is covered with a 147-centimeter (58-inch) diameter steel plate. There are four holes in the cover. The drain structure is slightly elevated from the surrounding ground surface. The site is labeled "U-39" and is posted as a "Confined Space."

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 2, the flow was less than 0.038 liters (0.01 gallons) per minute of nondangerous/nonradioactive steam condensate.

Site Code: 300-227 **Classification:** Accepted

Site Names: 300-227, 3709A Building Miscellaneous Stream #769, Drip Station U38 **ReClassification:** Rejected (5/26/1999)

Site Type: Injection/Reverse Well **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is covered with a 147-centimeter (58-inch) diameter steel plate. There are four holes in the cover. The site is labeled "U-38" and is posted as a "Confined Space." It is flush with the surrounding ground in the lawn at 3709-A.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 2, the flow was less than 0.038 liters (0.01 gallons) per minute of nondangerous/nonradioactive steam condensate.

Site Code: 300-228 **Classification:** Accepted

Site Names: 300-228, Miscellaneous Stream #770, Drip Station U28, Steam Trap 3G-U28, HPD-TRP-026 **ReClassification:** Rejected (5/26/1999)

Site Type: French Drain **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is a french drain that received steam condensate. The drain is a concrete pipe covered with a 1.47 meter (4.28 foot) diameter perforated metal plate. The lid is labeled "U-28" and is posted "Danger, Limited Access/Confined Space." The top of the pipe appears to be flush with the ground surface. The site is located on a low rise relative to the surrounding area and is surrounded by sand and gravel. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned.

Waste Type: Steam Condensate

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 2, the flow was less than 0.038 liters (0.01 gallons) per minute of nondangerous/nonradioactive steam condensate.

Site Code: 300-230 **Classification:** Accepted

Site Names: 300-230, Steam Trap 3G-U44, HPD-TRP-29, U44, Miscellaneous Stream #771 **ReClassification:** Rejected (5/26/1999)

Site Type: Valve Pit **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is covered with a 173-centimeter (68-inch) diameter diamond plate steel cover. A square access hatch is located in the center of the cover. The below grade section is constructed of concrete with a dirt floor. The interior of the pit contains valves which released steam condensate to the floor. The site is labeled "U-44" and is posted as a "Confined Space."

Waste Type: Steam Condensate

Waste Description: Steam condensate was discharged to the floor of the pit. According to the "Inventory of Miscellaneous Streams," Revision 2, the flow was less than 0.038 liters (0.01 gallons) per minute of nondangerous/nonradioactive steam condensate.

Site Code:	300-231	Classification:	Accepted
Site Names:	300-231, Vitrification Test Site Transformer Pad, Substation C3-S15	ReClassification:	Closed Out (5/26/1999)
Site Type:	Electrical Substation	Start Date:	1983
Site Status:	Inactive	End Date:	1999

Site Description: The site was a transformer station connected to a 13.8 KVA overhead powerline. The transformers have been removed. The transformers were used to provide electricity for in-situ vitrification tests at the 300 Vitrification Test Site (300 VTS), a separate WIDS site.

The transformers were located on a concrete pad and enclosed by a chain link fence. The transformers were numbered as follows: transformer #C4804P, serial #81439, property #F176743; transformer #C4805P, serial #81441, property #176744; transformer #C4648P, serial #80097, property #176745. The transformers were single phase 200 KVA. The primary voltage for each of the transformers was 14400 and secondary voltage was 240/480. Each transformer weighed 544 kilograms (1200 pounds). Electric fluid capacity was 492.1 liters (130 gallons) and the fluid type was mineral oil.

Waste Type: Transformer

Waste Description: The transformers have been removed (5/13/1999). The concrete pad and the surrounding soils are clean. The only remaining waste is the abandoned concrete pad and fence.

Historical data showed that all three transformers were sampled for polychlorinated biphenyls (PCBs) on 8/18/86. Analysis on C4804P indicated 98 parts per million of PCB. Analysis on C4805P indicated 90 parts per million of PCB. Analysis on C4648P indicated 92 parts per million of PCB.

Site Code:	300-235	Classification:	Accepted
Site Names:	300-235, 3713 Building Storm Water Runoff and Steam Condensate, Miscellaneous Stream #766	ReClassification:	Rejected (5/26/1999)
Site Type:	French Drain	Start Date:	
Site Status:	Active	End Date:	

Site Description: The site is a french drain that currently receives only stormwater. The drain is a concrete pipe that is covered by a 0.76 meter (2.49 foot) metal lid with perforations. The top of the pipe is flush with the ground surface and is surrounded by soil and gravel. The drain appears to be filled with soil to within approximately 0.7 meters (2.3 feet) of the top of the pipe. The upper 0.45 meters (1.5 feet) of the concrete pipe appear to be lined with some kind of a metal that is pulling away from the pipe. At least two, possibly three, metal pipes were observed extending into the side of the drain from the west. A small diameter (approximately 2.5 centimeters or 1 inch) pipe enters the side of the drain, makes a 90 degree turn and disappears into the floor of the drain. An approximately 5 centimeter (2 inch) open end pipe extends approximately 5 centimeters (2 inches) from the side of the drain. What appears to be a third pipe is covered with cobwebs that could not safely be removed. There are no pipes descending from the overhead steam line in the vicinity of the site. According to the "Inventory of Miscellaneous Streams," Revision 3, the steam source has been shut off.

Site Code: 300-238 **Classification:** Accepted
Site Names: 300-238, Steam Trap 3G-U24, HPD-TRP-016, U-24, Miscellaneous Stream #774 **ReClassification:** Rejected (5/26/1999)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is a french drain that received steam condensate from an underground steam line. The drain is a concrete pipe covered by a 1.55 meter (5.09 foot) diameter metal lid. The lid is labeled "U-24" and "Danger, Limited Access/Confined Space." The site is surrounded by sand and gravel. The site or the nearby steam line are not labeled "HPD-TRP-016." According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned.
Waste Type: Steam Condensate
Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 2, the flow used to be less than 0.04 liters (0.01 gallons) per minute of nondangerous/nonradioactive steam condensate.

Site Code: 300-239 **Classification:** Accepted
Site Names: 300-239, Steam Trap 3G-U26, HPD-TRP-058, U26, Miscellaneous Stream #775 **ReClassification:** Rejected (5/26/1999)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is a french drain that received steam condensate. The drain appears to be a rust stained concrete pipe covered by a 0.61 meter (2.0 foot) diameter metal lid. The metal lid has some perforations and is labeled "U-26." The top of the pipe ranges from flush with the ground surface to approximately 2.5 centimeters (1 inch) above grade. The site is surrounded by sand and some asphalt. According to the "Inventory of Miscellaneous Streams," Revision 3, the site is inactive, source abandoned.
Waste Type: Steam Condensate
Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 2, the flow was less than 0.038 liters (0.01 gallons) per minute of nondangerous/nonradioactive steam condensate.

Site Code: 300-240 **Classification:** Not Accepted (5/26/1999)
Site Names: 300-240, 314 Building Stormwater Drain, Miscellaneous Stream #789 **ReClassification:**
Site Type: French Drain **Start Date:**
Site Status: Active **End Date:**
Site Description: The site is a french drain that receives stormwater runoff. The drain appears to be constructed of concrete and is covered by a 0.64 meter (2.10 foot) metal grate. The grate is stamped "STD 42" and its edge seems to be sealed. The drain appears to be approximately 30 centimeters (1 foot) deep. The bottom is covered with sand and gravel. An approximately 10 centimeter (4 inch) diameter pipe enters the west side of the drain, makes a 90 degree turn towards the ground surface, and terminates with a screened opening. The top of the drain is flush with the ground surface, which is slightly depressed relative to the surrounding area. It appears as though the drain would collect runoff from the asphalt on the north side of 314 and from the gravel area

southeast of 305B. During the December 17, 1998, walkdown, the inside of the drain appeared to be damp. The drain is surrounded by broken concrete, gravel and cobbles. The 314 Building is a closed facility. There is a similar structure west of this site, southeast of the southeast corner of 305B, south of the fenced area.

Waste Type: Stormwater Runoff

Waste Description: According to the "Inventory of Miscellaneous Streams," Revision 3, the flow is less than 0.038 liters (0.01 gallons) per minute of stormwater only.

Site Code: 300-241 **Classification:** Not Accepted (5/26/1999)

Site Names: 300-241, 320 Building Irrigation Line Effluent, Miscellaneous Stream #790 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a 60 centimeter (2 foot) diameter, sprinkler valve pit. There is a water valve inside.

Waste Type: Water

Waste Description: This site receives less than 0.038 liters (0.01 gallons) per minute of effluent from irrigation.

Site Code: 300-242 **Classification:** Not Accepted (5/26/1999)

Site Names: 300-242, 325 Building Stormwater Runoff, Miscellaneous Stream #791 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a concrete box that received drainage from the 325 Building. The box is a ground level, square, concrete structure with a steel cover. It measures approximately 0.9 meters (3 feet) by 0.9 meters (3 feet) and is approximately 0.6 meters (2 feet) deep. A large diameter carbon steel line coming from the basement of the 325 Building terminates inside the structure.

Waste Type: Stormwater Runoff

Waste Description: According to the Inventory of Miscellaneous Streams, Revision 3, the site receives less than 0.038 liters (0.01 gallons) per minute of stormwater only.

Site Code: 300-243 **Classification:** Not Accepted (5/26/1999)

Site Names: 300-243, 318 Building Stormwater Runoff, Miscellaneous Stream #792 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a rectangular grate in the pavement. Water was observed in the bottom of the drain during a site walkdown on December 14, 1998.

Waste Type: Stormwater Runoff

Waste Description: The site receives less than 0.038 liters (0.01 gallons) per minute of stormwater only.

Site Code: 300-244 **Classification:** Not Accepted (5/26/1999)

Site Names: 300-244, 318 Building Stormwater Runoff, Miscellaneous Stream #793 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a horizontal, metal culvert that protrudes from the ground in a gravel depression. The pipe runs under the asphalt driveway, westward toward the 318 Building.

Waste Type: Stormwater Runoff

Waste Description: The site receives less than 0.038 liters (0.01 gallons) per minute of stormwater only.

Site Code: 300-248 **Classification:** Accepted

Site Names: 300-248, 340B Steam Condensate Sump Pit **ReClassification:** Rejected (5/26/1999)

Site Type: Sump **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is a sump that collected condensate from process steam. The visible structure is approximately 1.22 meters (4 feet) in diameter, with an entry hatch. Originally, the sump was open to the ground under the building. Later the bottom was filled with concrete

Waste Type: Steam Condensate

Waste Description: Steam was used to decontaminate rail cars at the 340B building. The steam condensate sump collected condensate from the process steam. The contaminated solution that resulted from steam cleaning the railcars was flushed into a different drain that led to the Process Sewer.

Site Code: 300-249 **Classification:** Accepted

Site Names: 300-249, 304 Building, Residual Rad Contamination **ReClassification:**

Site Type: Process Unit/Plant **Start Date:** 1952

Site Status: Inactive **End Date:** 1995

Site Description: This site is the residual radioactive contamination at the 304 Building that was not closed out as part of the 304 Concretion Facility.

The 304 Building was designed and constructed in 1952. The main building is metal and rests on a concrete pad. The ceiling has exposed steel trusses (girders). The north and south ends of the building have sliding doors, and there are windows in the east side. Regular doors are located on the north and west sides. The building has no interior insulation or wallboard.

Waste Type: Chemicals

Waste Description: Residual uranium contamination remains in the building from its past use as a concretion facility.

Site Code: 300-250 **Classification:** Not Accepted (5/26/1999)

Site Names: 300-250, Valve Pit Southeast of 303A **ReClassification:**

Site Type: Valve Pit **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a valve pit for a sanitary water line. The pit has a rectangular concrete base covered by a 1.12 meter (3.67 foot) by 1.42 meter (4.66 foot) metal lid. The top of the concrete ranges from 11 to 20 centimeters (4.3 to 7.9 inches) above the ground surface. The site is surrounded by sand and gravel. The lid is posted "Confined Space." Both "W 26" and "W 16" are written in fading paint on the lid. The overhead steam line terminates and is capped at the north edge of the 3717B Building. The site is just south of the "Radiologically Controlled Area" signs around the 303A, 304 and 303B Buildings.

On December 10, 1998, a DynCorp employee removed the lid of the structure just described, allowing access to its interior. The pit is approximately 0.9 to 1.2 meters (3 to 4 feet) deep and has a gravel-covered bottom. An approximately 5 to 7.6 centimeter (2 to 3 inch) pipe runs across the pit from east to west. Two valves were visible in the pit. There are no drains.

Site Code: 300-251 **Classification:** Accepted

Site Names: 300-251, Unplanned Release Outside the 303-K Building **ReClassification:**

Site Type: Unplanned Release **Start Date:** 1943

Site Status: Inactive **End Date:**

Site Description: The site consists of uranium contaminated soil around and under the 303-K Building (also known as the 303-K Contaminated Waste Storage). The 303-K building was removed and clean closed on July 22, 2002.

Waste Type: Soil

Waste Description: The waste is contaminated soil from operations at the 303-K Contaminated Waste Storage Facility.

The following information is provided about operations inside the facility. Since 1943, the building has been used to store various amounts of low-level radioactive wastes. Solids are stored outside, while liquids are contained inside the building. Mixed waste stored after January 1986 included: a. Neutralized solid waste for the unrecoverable uranium stream of the 300 Area Waste Acid Treatment System, b. Uranium contaminated metallic lead, c. Salt and sludge containers from beta and quench metal heat treatment furnaces, d. Uranium contaminated perchloroethylene, chloroform, and ethyl acetate, e. Beryllium/zircaloy-2 alloy chips and fines generated at the stepcut lathe, before and after concreting at the 304 Concretion Facility, f. Spent coolant from counterbore lathes in the 333 Building, g. Waste oil and hydraulic fluids that are known, or strongly suspected, to be contaminated with uranium, h. Salt crystals (copper fluorozirconate) from the bottom of the waste storage tanks in the 334-A Building, i. Acids (HNO₃, HF, and H₂SO₄ mixtures) as a solution and sorbed on opal clay. Analyses of soil samples taken in 1977 for RCRA closure resulted in the conclusion that there

are no metals or semivolatile organic constituents of concern present in the soil.

Site Code: 300-253 **Classification:** Accepted
Site Names: 300-253, 384-W Original Brine Pit, 384-W Original Salt Dissolving Pit and Brine Pump Pit **ReClassification:** No Action (5/26/1999)
Site Type: Sump **Start Date:**
Site Status: Inactive **End Date:** 1977

Site Description: The site was a two-chambered concrete structure. No surface features were noted at the structure's location except a patch of asphalt that was darker than the surrounding material.

The structure was located partially below grade with the top 83 centimeters (33 inches) visible. It had either a concrete or metal lid (see Site Comment).

The larger chamber, was the salt dissolving pit, also identified as the "Salt Storage Pit" on drawing H-3-36240. This section held the salt that was dissolved to make the brine. Typically, the salt dissolving pit was connected to the brine pump pit by a piece of perforated pipe located at the bottom of the structure. The pipe was covered by layers of gravel and sand.

The smaller chamber was the brine pump pit, also identified as "brine" on drawing H-3-36240. This chamber held the filtered brine for use in powerhouse operations. The pump pit was connected to the powerhouse by a 5.1 centimeter (2 inch) line and a 2.5 centimeter (1 inch) line.

Waste Type: Abandoned Chemicals

Waste Description: Salt cake may be present as part of any demolition debris at the site. Salt cake may be designated as a dangerous waste under the Model Toxics Control Act (MTCA).

Site Code: 300-255 **Classification:** Accepted
Site Names: 300-255, 309 Tank Farm Contaminated Soil **ReClassification:**
Site Type: Unplanned Release **Start Date:** 1960
Site Status: Inactive **End Date:** 1969

Site Description: The site is contaminated soil located inside the 309 Building Tank Farm fenced area. The source of the contamination was probably the piping related to tanks 309-TW-1, 309-TW-2 and 309-TW-3.

The 309 Tank Farm houses three underground holdup tanks (WIDS Sites 309-TW-1, 309-TW-2 and 309-TW-3) covered by a protective concrete pad, an underground concrete covered valve pit, above and below ground transfer pipelines, an ion exchange vessel, a control panel, and a large access area of mixed sand and gravel. In 1996, the Tank Farm area and associated hardware and fixtures were surveyed, sampled, assayed, video taped, or otherwise characterized. The purpose of this work was to establish the radiological status of the Tank Farm as preparatory work to cleanup actions.

Waste Type: Soil

Waste Description: The waste is contaminated soil. Potential radioactive contaminants of concern are cesium-137, cobalt-60, and americium-241. Potential hazardous contaminants are barium, cadmium, chromium, lead, and selenium.

The related contaminated structures, e.g., tanks, valve pit and ancillary piping will need to be removed under a decontamination and decommissioning action prior to soil remediation. The tanks, 309-TW-1, 309-TW-2, and 309-TW-3 are separate sites in WIDS.

Site Code: 300-256 **Classification:** Accepted
Site Names: 300-256, 306E Fabrication and Testing Laboratory Releases **ReClassification:** Interim Closed Out (11/22/2010)
Site Type: Unplanned Release **Start Date:** 1956
Site Status: Inactive **End Date:**
Site Description: The site is contaminated soil under and around the 306E Building. The area around the 306E building is paved and posted as having underground radioactive contamination.

Waste Type: Soil
Waste Description: The waste is contaminated soil under and around the 306E Building.

Site Code: 300-257 **Classification:** Accepted
Site Names: 300-257, 309 Process Sewer to River **ReClassification:**
Site Type: Process Sewer **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is process sewer piping that was originally connected to the 309 Building's Rupture Loop Holding Tank. The tank was removed in the late 1970's. Gerber states that at the same time the Rupture Loop Holding Tank was removed to a 200 Area burial ground, all Radioactive Liquid Waste Sewer (RLWS) connections were severed and plugged. The area where the Rupture Loop Holding Tank was located is now covered with asphalt and is being used as a parking lot.

The tank had a set of incoming piping that included a 7.6 centimeter (3 inch) steel process sewer pipeline and a 10.2 centimeter (4 inch) steel vent pipeline. The outgoing piping was more complex in that there were two outgoing pipelines that were interconnected in a valve box. One 7.6 centimeter (3 inch) steel pipe run started at the pump on the center top of the tank and ran to the valve box. This pipeline was for pump discharge and was the means of lowering the tank level.

The second pipe was a 15 centimeter (6 inch) steel overflow pipe that drained to manhole #3. This pipe exited the tank 22.9 centimeters (9 inches) from the top of the tank.

The valve box (pit) was a 1.8 meter by 1.8 meter (6 foot by 6 foot) mostly below grade concrete box with a gravel bottom. The valve box had a manhole and ladder for direct access to the valves. There were also three grade level openings in the top of the valve box for access to the valves with a gate key. It is unknown if the valve box remains in place. The valve box was located approximately 2.1 meters (7 feet) from the Rupture Loop Holding Tank. It may have been removed at the same time as the tank.

There was one 7.6 centimeter (3 inch) incoming pipeline to the valve box and two 7.6 centimeter (3 inch) exit pipelines. Contaminated waste water was diverted at the valve box to the high level waste pipeline that went to the 340 Complex. Uncontaminated water was sent to the process sewer where it teed into the overflow pipeline. At manhole #3, five pipelines converge and flow into a 1 meter (36 inch) 10 gauge corrugated steel pipeline that flowed to the Columbia River. The five pipelines that enter manhole #3 are all process sewer piping with the following sizes and descriptions: 1) a 15.2 (6 inch) steel pipeline from the Rupture Loop Holding Tank overflow line and the valve box, 2) a 30.5 centimeter (12 inch) vitrified clay pipe coming from the 309 Building, 3) a 30.5 centimeter (12 inch) steel line with a 5.1 centimeter (2 inch) condensate drain above the steel pipeline from the 309 Reactor, 4) a 0.76 meter (2.5 foot) steel pipeline from the Condenser Facility (demolished), and 5) a 15.2 centimeter (6 inch) vitrified clay pipe from the 309 Building. According to DOE/EIS-0113, the streams from the 309 Building included cooling water from air conditioning chillers and floor drains from the south basement service area.

The corrugated steel pipe enters a manhole (overflow structure) at the top of the river bank. The structure is 3.8 meters (12.5 feet) deep with the invert to the structure at 1.9 meters (6.2 feet) from the top of the open grate cover. The pipe exits at a depth of 3.8 meters (12.5 feet) on the opposite side of the structure (going towards the river). No pipeline is visible on the river bank or at the edge of the river. DOE/EIS-0113 shows the top view and the profile of this pipeline. The pipeline from the overflow structure (concrete box) is covered by 3.15 meters by 3.15 meters by 0.9 meters (10 feet by 10 feet by 3 feet) deep riprap. Additional riprap has been placed at the terminus of the pipe. At the pipeline terminus there is a minimum of 1.2 meters (4 feet) of riprap cover over the pipeline. This pipeline was identified as discharge No. 014 309 Building Outfall Structure Columbia River Mile 344.5.

According to Nat Harding (Water Utilities), the corrugated pipe has collapsed (due to deterioration) in some places causing subsidences and has had to be filled with dirt.

Waste Type: Equipment

Waste Description: The waste is a pipeline that carried potentially radioactively contaminated water to the river.

Site Code: 300-258 **Classification:** Accepted

Site Names: 300-258, Abandoned Pipe Trench Between 334 Tank Farm and 306E **ReClassification:**

Site Type: Trench **Start Date:** 1960

Site Status: Inactive **End Date:** 1975

Site Description: The site is an abandoned subsurface concrete pipe trench. The top of the pipe trench is level with the ground surface and is covered with metal plates that measure approximately 0.9 meters by 0.3 meters (3 feet by 1 foot). The metal plates are posted "Radioactive Material, Internally Contaminated." Between the 306E Building and the fence south of the 333 Building, the trench is surrounded by asphalt. The metal cover plates and concrete walls are constructed to allow vehicle traffic on the north side of the 306E Building to drive over the pipe trench. Between the 333 Building fence and the 334 Tank Farm, the trench is primarily surrounded by gravel. The pipe trench is covered by solid plate over most of its length. However, approximately 10 meters (32.8 feet) at the north end have metal plates with approximately 5 centimeter (2 inch) holes. Pipes are visible through these holes.

Site Code: 300-259 **Classification:** Accepted

Site Names: 300-259, Contamination Area Surrounding 618-1 Burial Ground **ReClassification:** Interim Closed Out (5/11/2010)

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The Contamination Area (CA) was posted with light posts and plastic chain that encompasses the 618-1 Burial Ground. The concrete markers for the burial ground (WIDS Site 618-1) were inside the Contamination Area chain. The Contamination Area and Burial Ground were both covered with gravel. A concrete pipe trench (WIDS Site 300-258) and a concrete storage pad (WIDS Site 333 LHWSA) were also located inside the Contamination Area.

Waste Type: Misc. Trash and Debris

Waste Description:

Site Code: 300-260 **Classification:** Accepted

Site Names: 300-260, Contaminated Soil West of 313 Building **ReClassification:**

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is no longer radiologically posted. It is currently surrounded by light posts and a yellow rope, but no signs of any kind are present. A small amount of equipment and large wooden boxes are stored inside the roped area.

Site Code: 300-261 **Classification:** Accepted

Site Names: 300-261, 315 Filter Plant Process Sewer to River **ReClassification:** Rejected (5/26/1999)

Site Type: Process Sewer **Start Date:**

Site Status: Active **End Date:**

Site Description: The sewer is constructed of a 0.61 meter (24 inch) vitrified clay pipe from the building to the river bank. A 0.8 meter (30 inch) corrugated steel flume (1/2 pipe) conveys the effluent down the riverbank and into the river. There is an active stormwater drain located on the west side of the road and due east of the outfall flume. This site has been identified as outfall 012 in DOE/EIS-0113.

Waste Type: Water

Waste Description: The waste is a process sewer pipeline that received overflow and filter backwash from the 315 Filter Plant. Treatment chemicals included alum (aluminum sulfate), chlorine, and separan (a polyacrylamide -flocculent). The site no longer receives material from the 315 Filter Plant. It can receive stormwater.

Site Code: 300-262 **Classification:** Accepted

Site Names: 300-262, Contaminated Soil West of South Process Pond **ReClassification:** Closed Out (7/23/2003)

Site Type: Unplanned Release **Start Date:** 1943
Site Status: Inactive **End Date:** 1975
Site Description: The site has been remediated and closed out.
Waste Type: Soil
Waste Description: The waste is radioactively contaminated soil. The survey report indicates readings up to 15,000 disintegrations per minute (dpm) Beta/Gamma. The contamination is suspected to be scrapings from the 316-1, South Process Pond. Potential contaminants of concern may be the same as those for 316-1, including uranium-238 and cobalt-60. Other contaminants may be copper, chromium, ammonia, and polychlorinated biphenyls (PCBs).

Site Code: 300-263 **Classification:** Accepted
Site Names: 300-263, 324 Building Diversion Tank **ReClassification:**
Site Type: Catch Tank **Start Date:** 1969
Site Status: Inactive **End Date:** 1969
Site Description: The site is an inactive catch tank. The tank was set up to hold contaminated process solutions that were too hot to send directly to the crib (316-3?) without additional treatment. After the tank was put on line, it was intended to be used as a diversion tank in the event of a radioactive release from the facility (324 Building).

Shortly after the tank was installed, the 340 Complex came on line. At that time, the piping system to the diversion tank in the 324 yard was bypassed and capped. Since that time, the 324 Building has transferred its waste to the 340 Complex. Drawing H-3-28455 shows the isolation of the system and has been visually verified at the caissons.

Waste Type: Equipment
Waste Description: The waste is an inactive tank. Hazardous or radioactive waste was never transferred from the 324 Building to the tank. The tank is isolated and the pipelines are capped.

Sample results, Sample Id S8171-01, indicated cesium-137 to be 509 picocuries per liter (13.9% counting error). Gross Beta was 1,700 picocuries per liter (10% method error).

At the time the site was sampled, there was 15.2 centimeters (6 inches) of rainwater. The water is believed to have come from intrusion because many of the flange bolts were missing. The site is located in a low area where pooling of water can occur. The contamination is believed to be from surface contamination. This site lies in the middle of WIDS Site 316-3, 307 Disposal Trenches.

Site Code: 300-264 **Classification:** Accepted
Site Names: 300-264, 327 Building, Postirradiation Testing Laboratory (PTL) **ReClassification:**
Site Type: Laboratory **Start Date:** 1953
Site Status: Active **End Date:**

Site Description: The 327 Building is also known as the Postirradiation Testing Laboratory (PTL). The facility is in a stabilization and deactivation phase, where radioactive material and contamination is being removed and cleaned to allow for future Decontamination and Decommissioning (D&D) activities. While the post irradiation tests that the building was intended for are no longer active, the stabilization and deactivation work is in progress. Many places in the building are well-posted as contamination and radiation areas. While equipment used in the current activity is staged throughout the building, and many rooms are used for equipment storage before excessing or disposal, the building is kept in a neat and orderly manner.

The facility is a one-story structure with a basement. The building has four major areas: 1) the Canyon, 2) the Transfer and Storage Area (also known as the Truck Lock), 3) the Northwest Storage Pad, and 4) the Basement.

The Canyon is the main work area, with 12 shielded Hot Cells, a Dry Storage Unit, and a Wet Storage/Transfer Basin. The entire Canyon area, including support areas, is controlled as a Radiation Area/Contamination Area. The Hot Cells are posted as Very High Radiation Areas because of the large inventories of irradiated materials in each cell. Ten of the cells (A through I, and the Special Environmental Radiometallurgy Facility [SERF]) are constructed of cast iron or steel, and have viewing windows and manipulators. The other two, smaller cells are made of lead bricks and are attachments to the B and I cells. Canisters with radioactive material that remain in the cells from previous studies are transferred to A-Cell for crushing and packing for later disposal. Records of the canister contents from their initial acceptance to the building are used to keep track of and inventory the materials for eventual disposal. A-Cell through I-Cell and the SERF Cell have stainless steel trays on the floor that slope to built-in Radioactive Liquid Waste System (RLWS) drains, which are no longer in service. Isopropyl alcohol tanks are reported to be under the C and E Cells, but are not visible.

The Dry Storage Unit was used to archive small samples that had the potential for further examination, and to hold structural material test specimens removed from irradiated assemblies. The Dry Storage facility is a steel-lined, reinforced concrete tank that extends to the basement, with the top flush with the Canyon floor. It is not accessible to personnel. Process knowledge indicates that the tank is grossly contaminated with both alpha and beta-gamma radionuclides from failed containers. Visual inspection with the periscope confirmed the presence of loose material (Landsman et al 1998). From the canyon floor, all that is visible are 5 upright pipes with controls on top, which are used to maneuver the inner storage trays, and 6 ports in the floor used to access the material.

The Small Transfer Basin is used for receipt of radioactive materials and can receive samples transferred out of the A-Cell through a connecting transport tube. A canal connects the Small Transfer Basin to the Large Storage Basin in the Transfer and Storage Area. There is a jib crane for each basin (large and small). The jibs are used to move the material to the canal that is common between the two basins. Hand tools are used to move the material through the canal. Materials stored in the Large Storage Basin are grossly contaminated with alpha and beta-gamma radionuclides. The basins at present are almost entirely empty of materials, but remain full of water.

Also in the Canyon area are Room #16 (Burst Test Room) and Room #20 (Decontamination Room). The Burst Test Room is used to store manipulators and tools. It is called the Burst Test Basin because it once held a large wet basin used to perform pressure tests of reactor components and fuel assemblies. The basin was backfilled and capped with concrete in the 1950s or 1960s, and is now indistinguishable from the rest of the floor. Routine surveillance indicates contamination levels are below detection. Wrapped pipes near the ceiling are labeled with "Asbestos-free" stickers. The room is now used for storage of equipment.

The Decontamination Room is used as a decontamination area, and contains a double fume hood

and an ultra-sonic sink (no longer used). The Decontamination Room continues to be used to decontaminate manipulators and other facility materials. Decontamination is primarily done by hand. Routine surveillance indicates contamination levels are below detection. This area is used to stage equipment used in the stabilization activities.

The Transfer and Storage Area is on the west end of the Canyon, and is used to receive and ship materials, equipment, and supplies, to store irradiated materials in the large water basin, and to compact low-level waste generated in the facility. The Low-Level Waste Compactor, located in the southwest corner of the Transfer and Storage area, compacts waste into 208-liter (55-gallon) drums. The Transfer and Storage area also contains a decontamination chamber (no longer used) with a permitted air exhaust, and a water filtration system designed to remove radionuclides from the basin water. A large roll-up door at the west end of the building opens to the outside, and allows vehicle access into the transfer area.

The Northwest Storage Pad is used to store empty casks, compacted waste drums awaiting shipment, and other controlled equipment that would not be affected by outside exposure. An enclosed solvent and acid storage facility is also on the cask pad. The fenced area is posted as a Radiological Controlled Area (RCA). The east half of the pad is also posted as a Radioactive Material Area (RMA)/Radiation Area (RA). In the southwest corner of the building is another fenced storage area, used to hold a Conex box and radioactive drums prior to shipment. The parts of this fenced area that holds the drums is posted as a RMA.

The 327 Basement is separated into 3 distinct areas. The north third is used to store supplies, idle equipment, cell plugs, and includes the SERF Cell storage. Legacy wastes (that is, buckets with pieces of Transuranic Waste [TRU]) are currently being staged in this area pending disposal. Access to this area is only available through the SERF Cell on the main level.

The middle of the basement houses the hot cell ventilation ductwork, HEPA filters for the hot cells, and the activated charcoal filtration system. The activated charcoal filtration system does not currently have filters installed because there are no programmatic or regulatory needs. An access hatch to a crawl space containing building steam pipes is also in this area.

The south third of the basement is physically separated from the rest of the basement by a wall. The cold side equipment room is in this area, and contains the building hot and cold exhaust, supply fans #1 & #2, facility air inlet system supply, Retention Process Sewer system diverter, stack monitoring system, stack base plenum and related equipment, vacuum air sampling system and pumps, and steam system components

Waste Type: Equipment

Waste Description: Waste material is contained in ducts, filters, and piping. A 1995 assessment showed most gamma activity was due to Cesium-137, Cesium-134, Europium-154, and Cobalt-60. Approximately 170 grams (maximum) of plutonium is estimated to be in the ducts, piping and other locations in the building, with an additional 314 grams estimated to be in the cells.

Site Code:	300-265	Classification:	Accepted
Site Names:	300-265, Pipe Trench Between 324 and 325 Buildings	ReClassification:	
Site Type:	Radioactive Process Sewer	Start Date:	1971
Site Status:	Inactive	End Date:	

Site Description: The site is a 5 centimeter (2 inch), underground encased stainless-steel waste transfer line encased within a 10 centimeter (4-inch) fiberglass-reinforced epoxy pipe. The pipeline has a downward slope of about 0.5% from the 325 Building to the 324 Building. Inside the pipeline are two other stainless-steel Schedule 40 pipes, one is 3/8 inch and the other is 3/4 inch. The inner pipes were driven through the 5 centimeter (2 inch) pipe several years after the larger pipe was installed.

The route of the pipeline is marked at the ground surface and is totally within the exclusion area to prevent accidental excavation. The depth of the pipeline ranges from 1 to 4 meters (3 to 12 feet) underground.

The encasement surrounding the two smaller pipelines was used both for secondary containment and as a route for transfer of the process off-gas for discharge through the 324 Building stack. Before venting through the stack, it flowed into B Cell and was treated with the B Cell ventilation exhaust.

Waste Type: Process Effluent

Waste Description: The transfer line carried liquid High Level Waste from spent nuclear fuel processing.

Site Code:	300-266	Classification:	Accepted
Site Names:	300-266, Soil Under 3728 Building Drain Pipe	ReClassification:	Rejected (3/8/2001)
Site Type:	French Drain	Start Date:	
Site Status:	Active	End Date:	
Site Description:	The site is soil below a 5-centimeter (2-inch) black plastic drain pipe on the southwest corner of the 3728 Building. In October, 1999, a white plastic bucket was placed under the drain pipe to catch any water draining out. The soil under the pipe is lightly graveled (as is the larger area around the entire building), with some of the gravel directly under the pipe washed away. The soil is not discolored. No engineered structure was built as an injection well.		

Site Code:	300-267	Classification:	Accepted
Site Names:	300-267, French Drain on Northeast Corner of 3728 Building	ReClassification:	Rejected (3/8/2001)
Site Type:	French Drain	Start Date:	
Site Status:	Active	End Date:	
Site Description:	The site is a concrete slab with a square pit at the end. The pit is 0.6 meters (2 feet) on a side, and filled with small pea gravel. A galvanized, 3.2-centimeter (1.25-inch) pipe comes from the building and enters the pit.		

Site Code:	300-268	Classification:	Accepted
Site Names:	300-268, 3741 Building Foundation, Special Machine Shop, Box Storage Building Foundation	ReClassification:	
Site Type:	Foundation	Start Date:	1944

Site Status: Inactive **End Date:** 1956

Site Description: The building has been removed. The building site is covered with gravel. There are no visual signs or markers to indicate where the building footprint had been located. The site cannot be precisely located without geophysical scans or excavation. The entire 300 Area is a posted Underground Radioactive Material area. There is no separate radiological posting for this site.

Waste Type: Demolition and Inert Waste

Waste Description: The contamination related to this building were a result of passive dust from machining irradiated uranium, graphite, and other metallic samples from the 305 Test Pile. The contamination, if remaining, would be associated with any remaining concrete foundation.

Site Code: 300-269 **Classification:** Accepted

Site Names: 300-269, 331-A Virology Laboratory Foundation **ReClassification:**

Site Type: Foundation **Start Date:** 1972

Site Status: Active **End Date:** 1995

Site Description: The site is a rectangular concrete building foundation. New air conditioner units are installed on the concrete foundation to support the adjacent 331 facility.

Waste Type: Equipment

Waste Description: Residual contamination may be on the pad from past releases at the building.

Site Code: 300-270 **Classification:** Accepted

Site Names: 300-270, Unplanned Release at 313 Building **ReClassification:**

Site Type: Unplanned Release **Start Date:** 2000

Site Status: Inactive **End Date:** 2000

Site Description: The "unplanned release" reported by the Government Accountability Project and sampled by the Washington Departments of Ecology and Health is a milky-white flow of water that came out of a pipe located below the loading dock on the east side of the 313 Building. The dock is used by Richland Specialty Extrusions to store cylinders of metal (e.g., aluminum). The pipe drains stormwater from the roof of the 313 Building. The release was on to the surface of the ground, in an area of compacted gravel and soil. This area adjoins a paved parking lot.

Waste Type: Soil

Waste Description: The stormwater is nondangerous and nonradioactive. Soil collected from the area near the pipe showed elevated levels of lead. The contaminated soil was not caused by the milky-white liquid. The source of the lead contamination is unknown.

Site Code: 300-271 **Classification:** Accepted

Site Names: 300-271, 324/327 Buildings 90 Day Storage Pad, HS-027 **ReClassification:** Rejected (9/14/2000)

Site Type: Storage Pad (<90 day) **Start Date:** 1997
Site Status: Inactive **End Date:** 2000

Site Description: The dangerous waste was kept in a connex box commercially manufactured for storing wastes. The box has a spill containment system in that the waste was stored on a grate at the level of the door threshold, and any spills would be contained under the grate so they could not spill out the door. The box is still in place, but is now used to store hazardous material intended for future use, such as roofing material, propylene glycol (trade name Dow Frost), and oils.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: Wastes stored at this 90 Day Pad include absorbed gasoline, oils (possibly contaminated with heavy metals), ice melt (sodium chloride), toluene, and PCBs.

Site Code: 300-272 **Classification:** Accepted
Site Names: 300-272, Underground Storage Tank Near the 377 Building **ReClassification:** Closed Out (11/4/2002)

Site Type: Storage Tank **Start Date:**
Site Status: Unknown **End Date:**

Site Description: The site was an underground storage tank in a gravel field. The tank was removed in 2002.

Waste Type: Oil

Waste Description: Upon initial investigation of the UST site, an odor of fuel oil or diesel was noted when the fill tube extending above the ground surface was opened. Subsequent sampling and analysis of the tank contents in December 2001 indicated the liquid to be water with the impurities listed in the WSCF Analytical Results Report (See Field Work entry).

Site Code: 300-273 **Classification:** Accepted
Site Names: 300-273, Fuel Oil Transfer Pipeline, 366 Bunker Pipeline **ReClassification:**

Site Type: Product Piping **Start Date:** 1964
Site Status: Inactive **End Date:** 1998

Site Description: The site is an encased underground pipeline. The encased pipeline contains two 7.6 centimeter (3 inch diameter) stainless steel lines. It is not visually marked on the surface.

Site Code: 300-274 **Classification:** Accepted
Site Names: 300-274, Surface Debris **ReClassification:**

Site Type: Dumping Area **Start Date:**
Site Status: Inactive **End Date:**

Site Description: A field walkdown of the 300-FF-1 Operable Unit was done in July and December of 2004 to identify remaining debris, hazards and potential new waste sites. Miscellaneous surface debris found consisted mostly of transite, wood, asphalt, metal and broken glass.

Waste Type: Asbestos (non-friable)

Waste Description: Transit pipe, treated wood, insulation and various forms of transit were identified during the Operable Unit walkdown. The debris was determine to be Potential Asbestos Containing Material (PACM).

Site Code: 300-276 **Classification:** Accepted

Site Names: 300-276, 3607 Sanitary System
Miscellaneous Components, 300 Area
Sanitary Sewer Disposal System, 3607
Sanitary Sewer System, 3707 **ReClassification:**

Site Type: Sanitary Sewer **Start Date:** 1943

Site Status: Inactive **End Date:** 1996

Site Description: The site includes the surface and subsurface sewer system components of manhole SS6, the influent diversion box, the effluent diversion box, the sludge pumping equipment, the sludge pit, the system's original septic tank, the system's original tile field, a retention basin and the measuring weir/diversion trenches.

Waste Type: Sanitary Sewage

Waste Description: The Sanitary Sewer System is potentially contains radioactive and chemical contaminants.

Waste Type: Equipment

Waste Description: The equipment (diversion boxes, pumps, tanks) associated with the Sanitary Sewer System is potentially chemically and radioactively contaminated. WHC-MR-0388 states that a 1991 radiation survey of the septic tank sludge pump and pipes had readings of 25,000 counts per minute.

Site Code: 300-277 **Classification:** Discovery

Site Names: 300-277, 300 Area Queue Contamination **ReClassification:**

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:**

Site Description:

Site Code: 300-278 **Classification:** Discovery

Site Names: 300-278, 331-C Storage Unit **ReClassification:**

Site Type: Storage **Start Date:** 2006

Site Status: Active **End Date:**

Site Description: The 331-C Storage Unit is a one-story metal building with fenced exterior areas constructed in the early 1970s. Upgrades were completed in 2006 to meet requirements for storage of dangerous waste. Dangerous wastes are stored in Room 1 of the 331-C building.

Waste Type: Chemicals

Waste Description: The unit stores waste that may include acid, oxidizers and flammable materials

Site Code: 300-279 **Classification:** Discovery

Site Names: 300-279, 3716 Automotive Repair Building Fuel Tanks **ReClassification:**

Site Type: Storage Tank **Start Date:**

Site Status: Inactive **End Date:**

Site Description: This feature consists of the historical location of underground diesel and gasoline storage tanks. The northern expansion of the 313 Building was constructed over the area where the tanks were located.

Site Code: 300-280 **Classification:** Discovery

Site Names: 300-280, Construction Debris Disposal Pit West of George Washington Way Extension **ReClassification:**

Site Type: Dumping Area **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site consists of a disposal pit that appears to have been used for construction debris during the construction of the 309 Facility in the late 1950s.

Site Code: 300-281 **Classification:** Discovery

Site Names: 300-281, Septic Tank Near 325 Building **ReClassification:**

Site Type: Septic Tank **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is a suspect septic tank.

Site Code: 300-282 **Classification:** Discovery

Site Names: 300-282, Crib Near 3717-B Building **ReClassification:**

Site Type: Crib **Start Date:**

Site Status: Inactive **End Date:**

Site Description: This feature consists of the historical location of temporary experimental autoclaves with a settling tank that was connected to a wooden crib or French drain in 1944.

Site Code: 300-284 **Classification:** Discovery

Site Names: 300-284, Sand Blasting Area Near 3221 Building **ReClassification:**

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:**
Site Description: This feature is the historical location of the sand blasting area associated with the former 3221 building location.

Site Code: 300-283 **Classification:** Discovery
Site Names: 300-283, Contaminated Light Water Disposal Site #2 **ReClassification:**
Site Type: Trench **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is a new location for the suspect liquid disposal area associated with the September 29, 1965 contamination event that occurred at the 309 building, Plutonium Recycle Test Reactor (PRTR). The original location was thought to be associated with 300-2.

Site Code: 300-285 **Classification:** Discovery
Site Names: 300-285, 300 Area Steam Condensate French Drains/Dry Wells, Ten French Drains and Dry Wells in 300 Area **ReClassification:**
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site consists of underlying soils from six french drains and four dry wells that received steam condensate. The items include their associated below grade piping components.

Site Code: 300-286 **Classification:** Discovery
Site Names: 300-286, Three 300 Area Potentially Contaminated French Drain/Drywells **ReClassification:**
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: This site consists of one French drain and two dry wells with potentially contaminated underlying soils and their associated below grade piping components.

Site Code: 300-287 **Classification:** Discovery
Site Names: 300-287, Transite Debris west of Route 4 South **ReClassification:**
Site Type: Dumping Area **Start Date:**
Site Status: Inactive **End Date:**
Site Description: This site consists of broken corrugated transite debris.

Site Code: 300-288 **Classification:** Discovery

Site Names: 300-288, Piles of Garnet Sand/Soil Mixture within Gravel Pit 6 **ReClassification:**

Site Type: Dumping Area **Start Date:**

Site Status: Inactive **End Date:**

Site Description: Two piles of garnet sand located within rejected WIDS 600-249 (gravel pit 6) site.

Site Code: 300-289 **Classification:** Discovery

Site Names: 300-289, Stained Soil Area North of 300 Area **ReClassification:**

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:**

Site Description: A 5 meter (16.4 feet) diameter area of bare ground with two bung drum plugs, suggesting a possible release.

Site Code: 300-290 **Classification:** Discovery

Site Names: 300-290, Radiological Debris Area East of Horn Rapids Disposal Landfill **ReClassification:**

Site Type: Dumping Area **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site consists of a posted Radiological Materials Area (RMA) measuring approximately 8 meters by 8 meters (26.3 feet by 26.3 feet). The material in the RMA consisted mostly of rusted metal automotive parts, scraps of crumpled sheet metal, electrical wire debris, and engine gaskets.

Site Code: 300-291 **Classification:** Discovery

Site Names: 300-291, Garnet Sand West of 350-A Paint Shop **ReClassification:**

Site Type: Dumping Area **Start Date:**

Site Status: Inactive **End Date:**

Site Description: Site consists of garnet sand on the gravel road bed located 60 meters (197 feet) west of the 350A paint shop. This feature is approximately 4 meters by 40 meters (13 feet by 131 feet) in area.

Site Code: 300-292 **Classification:** Discovery

Site Names: 300-292, 315 Water Filter Plant Waste Pipeline Segments **ReClassification:**

Site Type: Product Piping **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site consists of twelve abandoned nonhazardous waste pipeline segments associated with the 315 Water Filter Plant.

Site Code: 300-293 **Classification:** Discovery
Site Names: 300-293, 300 Area Miscellaneous Pipelines **ReClassification:**
Site Type: Product Piping **Start Date:**
Site Status: Inactive **End Date:**
Site Description: Site consists of miscellaneous previously unidentified potentially hazardous pipelines.

Site Code: 300-294 **Classification:** Discovery
Site Names: 300-294, Garnet Sand East of 350 Building **ReClassification:**
Site Type: Dumping Area **Start Date:**
Site Status: Inactive **End Date:**
Site Description: Site consists of a 60 meters by 24 meters (197 feet by 78.7 feet) area of garnet sand located 5 meters (16.4 feet) east of the 350 Building.

Site Code: 300-295 **Classification:** Discovery
Site Names: 300-295, 384 Powerhouse Coal Ash Waste Pipeline Segments **ReClassification:**
Site Type: Product Piping **Start Date:**
Site Status: Inactive **End Date:**
Site Description:

Site Code: 303-K CWS **Classification:** Accepted
Site Names: 303-K CWS, 303-K Contaminated Waste Storage **ReClassification:** Closed Out (8/5/2002)
Site Type: Storage **Start Date:** 1943
Site Status: Inactive **End Date:** 2002
Site Description: The site has been demolished and clean closed as of July 22, 2002. The building site appears as a weedless gravel lot.

The 303-K Facility included a former concrete and cinder block building with no windows, outdoor asphalt, concrete, and gravel storage areas, all surrounded by a six foot chain link fence. The building, which was torn down in 2001, had a cinder block east-west partition wall with a floor trench drain in the north room. The floor trench drain was sealed in 1988.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: Since 1943, the building had been used to store various amounts of low-level radioactive wastes and mixed waste. Solids were stored outside, while liquids were contained inside the building. The mixed waste stored after January 1986 included: a. Neutralized solid waste for the unrecoverable uranium stream of the 300 Area Waste Acid Treatment System, b. Uranium contaminated metallic lead, c. Salt and sludge containers from beta and quench metal heat treatment furnaces, d. Uranium contaminated perchloroethylene, chloroform, and ethyl acetate, e. Beryllium/zircaloy-2 alloy chips and fines generated at the stepcut lathe, before and after

concreting at the 304 Concretion Facility, f. Spent coolant from counterbore lathes in the 333 Building, g. Waste oil and hydraulic fluids that are known, or strongly suspected, to be contaminated with uranium, h. Salt crystals (copper fluorozirconate) from the bottom of the waste storage tanks in the 334-A Building, i. Acids (HNO₃, HF, and H₂SO₄ mixtures) as a solution and sorbed on opal clay. There were no records of waste spills or leaks at the site.

Note: Waste materials began being generated in 1943 with the construction and startup of this facility.

Site Code:	303-M SA	Classification:	Accepted
Site Names:	303-M SA, 303-M Storage Area, 303-M Building Storage Area	ReClassification:	Interim Closed Out (6/29/2010)
Site Type:	Storage	Start Date:	1983
Site Status:	Inactive	End Date:	1987
Site Description:	The 303-M-Storage Area was an inactive, curbed, concrete pad adjacent to the west side of the 303-M Uranium Oxide Facility (UOF). The concrete surface was painted with a heavy gray paint as a fixative. Several "fixed radioactive contamination" signs were on the surface. The area was used for storage of pyrophoric uranium and Zircaloy-2 chips and fines awaiting treatment in the 303-M UOF. The metal turnings were stored underwater in 114-L (30-gal) metal drums. The drums of fines were stored in a spaced array defined by painted yellow circles on the pad.		

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: The area was used for storage of pyrophoric uranium and zirconium fines awaiting treatment in the 303-M Oxidation Facility. The metal turnings were stored under water in 30 gallon metal drums. The drums of uranium fines were stored in a spaced array defined by painted yellow circles on the pad. An estimated 127 tons (115,300 kilograms) of uranium were treated during the 303-M Facilities operation from 1983 to 1987.

Site Code:	303-M UOF	Classification:	Accepted
Site Names:	303-M UOF, 303-M Uranium Oxide Facility	ReClassification:	Interim Closed Out (6/29/2010)
Site Type:	Process Unit/Plant	Start Date:	1983
Site Status:	Inactive	End Date:	
Site Description:	The site was a reinforced concrete structure containing a highbay area and a one-story extension on the north side of the building (Figures 7, 8, and 9). The 303-M SA is located on the west side of the building. The building was used to oxidize pyrophoric uranium metal turnings and chips and Zircaloy-2 fines generated during fuel fabrication machining operations in the 333 Building. During the 4 years that it was operational (1983 to 1987), the 303-M UOF converted 115 metric tons of uranium scrap into oxide form. The 303-M Building was demolished in March 2006, and the debris was shipped to the ERDF as described in Facility Status Change Form D4-300-008		

Waste Type: Chemicals

Waste Description: The oxidation process feed material was pyrophoric uranium and zircalloy-2 fines. Approximately 127 tons (115,300 kilograms) of material was oxidized during operations. Waste currently at the facility may include residual radiological and chemical contamination in the process equipment, on surfaces, and in the process sewer.

Site Code:	304 CF	Classification:	Accepted
Site Names:	304 CF, 304 Concretion Facility	ReClassification:	Closed Out (11/30/1995)
Site Type:	Process Unit/Plant	Start Date:	1952
Site Status:	Inactive	End Date:	1995

Site Description: The 304 Concretion Facility was designed and constructed in 1952. The main building is metal and rests on a concrete pad. The ceiling has exposed steel trusses (girders). The north and south ends of the building have sliding doors, and there are windows in the east side. Regular doors are located on the north and west sides. The building has no interior insulation or wallboard. Drainage to the process sewer is provided by a trench along the eastern wall, a sump along the western wall, a sink drain, and a floor drain.

A metal change room was added on the east side of the building in 1972. The sliding metal doors are located in the north and west walls and a window is located on the east side of the change room. The walls and ceiling of this change room are insulated and covered by wallboard.

There is a concrete pad on the north side of the building (WIDS Site 304 SA).

During the history of the Facility, several exhaust and vent systems were used. The original system was composed of three roof vents powered by 58 cubic meters (2,050 cubic feet) per minute electric fans. This system was used from 1952 to the mid-1960's. The electricity was disconnected to the fans in 1971.

When the building had furnaces for the melting of metals (1952 to the late 1950's), the furnace cooling air was exhausted through a 15.2 centimeter (6 inch) diameter exhaust pipe on the west side of the building. The exhaust pipe is still in place, but is sealed off in the sump (formerly a furnace pit).

The first fume exhaust system was a 53.8 cubic meters (1,900 cubic feet) per minute Roto-clone exhauster and was used to exhaust acid and nitrogen oxide fumes from the nickel plating operations (late 1950's to mid-1960's). No monitoring capabilities existed on this exhaust system.

The existing cyclone precipitator exhaust system replaced the plating operation exhaust system in 1971. Both exhausters were located on the concrete pad outside the east side of the building. The flow rate, manufacturer, and efficiency of the present cyclone exhaust system are unknown. The exhaust system was used to remove cement dust from the operator's work area when bags of cement were being emptied and the concrete mixer was in operation. After the air passed through the cyclone precipitator, it was discharged vertically approximately 3.66 meters (12 feet) above ground level. The discharge was sampled continuously for uranium particulates while the precipitator was in service.

In addition to the exhaust systems described previously, the building contained a 939 square meters (10,000 square feet) per minute evaporative (swamp) cooler. Until approximately 1985, the swamp cooler was used to cool the building. The swamp cooler was located on the concrete pad outside the southeast corner of the building. The swamp cooler was removed in 1992.

The Facility contains five drains that entered the process sewer. A floor drain near the cement mixer discharges to the sump where fines settled out. The sump has a removable screened standpipe, about 40.6 centimeters (16 inches) high, that overflowed into an underground drain line to the process sewer on the east side of the building. A water line discharged directly into the overflow pipe below the screen and was used when the concretion process was in operation. This flowing water (flow rate unknown) helped prevent the P-trap from plugging with concrete.

Four other drains entered the main underground drain, including a drain from the east side floor trench, a drain from the sink in the southwest corner of the building, and overflow drain from the outside steam condensate quench sump on the east side of the building, and a drain from the swamp cooler on the exterior pad at the southeast corner of the building.

The main underground drain slopes from the bottom of the sump to the process sewer. The elevation of the bottom of the main drain, where the drain passes under the east wall of the Facility, is about 116.1 meters (381 feet). The elevation of the bottom of the process sewer is about 115.5 meters (379 feet), and elevation of the Facility floor is about 117.7 meters (386 feet)

Waste Type: Chemicals

Waste Description: Radiological contamination (derived from building concretion and plating activities) on surfaces and in building piping may still be present. Hazardous wastes were addressed in the facilities RCRA closure plan.

The waste sources are described below.

Beryllium/zircaloy-2 alloy and zircaloy-2 chips and fines that were stored temporarily at the 303-K Facility were concreted into containers to reduce their ignitability.

From 1985, spent counterbore lathe coolant (an aqueous synthetic lubricant) from lathes in the 333 Building was stored at the 303-K Facility until it could be used as makeup water in the 304 Facility cement mixer during concretion of chips and fines. The coolant was a nonregulated material. The spent counterbore lathe coolant used for makeup water for concretion in the 304 Facility was Polar chip 350L, which was diluted with water 20 to 1. Besides uranium, copper-silicon alloy, zircaloy-2 alloy, and graphite particulates, the only potential contaminant in the lathe coolant was AW Hydraulic Oil 32, used in the counterbore lathe.

Once a year during the recyclable uranium concretion operation (1971 to 1982), a 3-day sample of the overflow pipe in the sump was taken to calculate a loss factor to the sewer for uranium chips and fines. The highly variable flow rate was calculated by adding a known dilute concentration of lithium nitrate 0.34 kilograms per liter (0.2 pounds per gallon) at a known flow rate to the sump for a known sampling time. The change in lithium concentration and time would give the total volume of solution discharged from the sump. No routine sampling of the process sewer from the 304 Building occurred.

Until March 1975, all waste liquid chemicals in the fuels operation were discharged to the process sewer. Therefore, during the nickel-plating pilot plant operation (late 1950's to mid-1960's), waste chemicals from this operation in the 304 Facility would have entered the process sewer.

During concretion operations, the water that covered the uranium chips and fines, and 5 percent beryllium/zircaloy-2 chips in the incoming drums, were drained into the process sewer after passing through the sump to settle out entrained solids. The water covering the chips and fines would have contained an unknown amount of cutting fluid from the lathe operations. Four different cutting fluids were used.

In the summer of 1988, spent halogenated solvents consisting of perchloroethylene, 1,1,1-trichloroethane, and rinse water used in degreasing tanks in the fuels manufacturing process were stored at the 303-K Facility and then moved to the 304 Facility for repackaging. Occasionally, Ethyl acetate-bromine solutions generated from laboratory analysis work for uranium was mixed with degreaser solvents.

The maximum estimated inventory of containerized waste stored at the 304 Facility at any time

was 40 containers. This total includes container sizes (not including overpacks) of 55, 30, and 7.5 gallons. Some of these containers contained labpacks, some were partially filled, and some were full. Up to 10 208 liter (55 gallon) containers could be concreted each day. An average of 9071.8 kilograms (20,000 pounds) of dangerous waste was concreted each year. The maximum amount stored inside was 2082 liters (550 gallons).

Site Code:	304 SA	Classification:	Accepted
Site Names:	304 SA, 304 Storage Area, 304 Building Storage Area	ReClassification:	Closed Out (11/30/1995)
Site Type:	Storage	Start Date:	1972
Site Status:	Inactive	End Date:	1986
Site Description:	The 304 Storage Area is a concrete pad surrounded by asphalt on two sides.		
Waste Type:	Barrels/Drums/Buckets/Cans		
Waste Description:	No wastes are currently stored at the site. The area was previously used to store containers of potentially contaminated waste generated in the fuel fabrication process. The site was RCRA clean closed in 1995. Radiological contamination may be present on pad surfaces and in the surrounding soil.		

Site Code:	305-B SF	Classification:	Accepted
Site Names:	305-B SF, 305-B Storage Facility	ReClassification:	Closed Out (6/28/2007)
Site Type:	Storage	Start Date:	1978
Site Status:	Inactive	End Date:	
Site Description:	The 305-B Building is a one story frame and steel building with a basement. It was constructed in 1952 and modified in 1954. In January 1978, a two story high-bay was added for waste storage.		
Waste Type:	Chemicals		
Waste Description:	Chemical and radiological contamination may be present in and around the facility, due to the operation of the Physical Constants Test Reactor and the Thermal Test Reactor that operated in the building prior to 1978. In 1978 the building became a waste assembly area/satellite storage area for the 300 Area Research and Development facilities in the 300 Area. Hazardous and radioactive waste has been stored, repackaged and/or consolidated (mostly in 55 gallon drums) in the 305-B building high bay and basement. The designed storage capacity is 30,000 gallons.		
Waste Type:	Barrels/Drums/Buckets/Cans		
Waste Description:	The site is currently used to store hazardous and mixed waste.		

Site Code:	307 RB	Classification:	Accepted
Site Names:	307 RB, 307 Retention Basins	ReClassification:	
Site Type:	Retention Basin	Start Date:	1953

Site Status: Active

End Date:

Site Description: The facility consists of four open, epoxy-coated, concrete basins. Each basin has a nominal 94,500 liter (25,000 gallon) capacity. The Retention Process Sewer (RPS) ties into the basins on the north side, passing through a sample pit northwest of retention basin #1. The 300 Area Process Sewer and the Radioactive Liquid Waste Sewer (RLWS) drain from the south side of the basins.

Waste Type: Process Effluent

Waste Description: The Retention Process Sewer line and the 307 Retention Basin systems (the 3707-F control shack, the RPS sample pit, 307 Trench and RLWS diversion control, and other ancillary equipment) were installed to collect "potentially" contaminated liquids from the sinks, drains and sumps of the laboratory facilities. During FY98, 12 million liters (3 million gallons) of liquid was received by the retention basins; none was diverted to the Radioactive Liquid Waste Sewer (RLWS). Liquid effluents that meet process sewer discharge criteria are released to the process sewer. Waste that exceeds discharge limits is held until it can be transported to the 200 Area double-shell tanks. Prior to October 1, 1998, waste above discharge limits was diverted to the 340 facility holding tanks.

Site Code: 309-TW-1

Classification: Accepted

Site Names: 309-TW-1, 309-TW Tank #1, 309 Holdup Tanks

ReClassification:

Site Type: Storage Tank

Start Date: 1960

Site Status: Inactive

End Date: 1973

Site Description: Tank 309-TW-1 is the northernmost tank in the 309 Holdup Tank System. All three tanks are located in a rectangular, underground concrete vault. A chain-link fence surrounds the site. Pumps, vents, piping, a valve box and the top of the concrete vault are visible above grade.

The tanks are empty and the line to the sewer is capped. Residual contamination is present in the tanks and piping.

Waste Type: Process Effluent

Waste Description: The unit received aqueous nonhazardous radioactive wastes from the operation of the Plutonium Recycle Test Reactor. Residual contamination may be present in the empty tanks.

Site Code: 309-TW-2

Classification: Accepted

Site Names: 309-TW-2, 309-TW Tank #2, 309 Holdup Tanks

ReClassification:

Site Type: Storage Tank

Start Date: 1960

Site Status: Inactive

End Date: 1973

Site Description: Tank 309-TW-2 is the center tank in the 309 Holdup Tank System. All three tanks are located in a rectangular, underground concrete vault. A chain-link fence surrounds the vault. Pumps, vents, piping, a valve box and the top of the concrete vault are visible above grade.

The tanks are empty and the line to the sewer is capped. Residual contamination is present in the tanks and piping.

Waste Type: Process Effluent

Waste Description: The unit received aqueous nonhazardous radioactive wastes from the operation of the Plutonium Recycle Test Reactor. Residual contamination may be present in the tanks.

Site Code: 309-TW-3 **Classification:** Accepted

Site Names: 309-TW-3, 309-TW Tank #3, 309 Holdup Tank **ReClassification:**

Site Type: Storage Tank **Start Date:** 1960

Site Status: Inactive **End Date:** 1973

Site Description: Tank 309-TW-3 is the southernmost tank in the 309 Holdup Tank System. All three tanks rest in a rectangular, underground concrete vault. A chain-link fence surrounds the vaults. Pipes and risers are visible above grade.

The tanks are empty and the line to the sewer is capped. Residual contamination is present in the tanks and piping.

Waste Type: Process Effluent

Waste Description: The unit received aqueous nonhazardous radioactive wastes from the operation of the Plutonium Recycle Test Reactor. Residual contamination may be present in the tank.

Site Code: 309-WS-1 **Classification:** Accepted

Site Names: 309-WS-1, 309 Plutonium Recycle Test Reactor Ion Exchanger Vault, Reactor Ion Exchange Pit, PRTR Ion Exchange Vault **ReClassification:**

Site Type: Process Unit/Plant **Start Date:** 1961

Site Status: Inactive **End Date:** 1969

Site Description: The 309-WS-1 Vault is a below grade, reinforced concrete structure containing two levels. The vault has connecting piping to the dome. The upper (main vault) level housed the ion exchangers (IX) used for moderator cleaning, while the lower (resin disposal) level was used to store spent columns. The lower vault has been cleaned of debris, decontaminated and coated with a fixative paint. The upper vault was cleaned of debris and swept clean. Access to the upper vault is through shielding blocks and access to the lower vault is through two concrete plugs.

Waste Type: Chemicals

Waste Description: Following deactivation activities, residual radiological contamination and chemical contamination from the ion exchange resin may be present on surfaces in the vault. Contaminants of concern are cesium-137 and strontium-90. The rainwater (in the lower vault) and ion exchange columns were removed in 1995.

Site Code: 309-WS-2 **Classification:** Accepted

Site Names: 309-WS-2, Rupture Loop Ion Exchange Pit, Ion Exchange Vault, Rupture Loop **ReClassification:**

Annex Ion Exchange Loop Vault, RLAI, X,
PRTR Rupture Loop

Site Type: Process Unit/Plant **Start Date:** 1960

Site Status: Inactive **End Date:** 1969

Site Description: The 309-WS-2 Ion Exchange Vault (RLAI, X) is an underground, reinforced concrete structure. The unit is divided into five stalls. Four stalls held horizontally configured ion exchange columns, while the fifth stall is covered by a steel plate. A drain in the fifth bay discharged to a sump in Room 20 of the 309 Building. A rain cover has been installed over the top of the vault to prevent water from entering the vault.

Waste Type: Equipment

Waste Description: Stabilized radiological contamination is present on vault surfaces. Contaminants of concern are transuranics, cesium-137 and cobalt-60. Prior to stabilization, survey reports indicate radiological contamination levels were as high as 70,000 disintegrations per minute per square centimeter beta-gamma and 28,000 disintegrations per minute per square centimeter alpha and with contact dose rates up to 2.5 rem per hour. After cleanout and stabilization, contamination levels were less than 1,000 disintegrations per minute per square centimeter beta-gamma, less than background (3 counts per minute) alpha, and a dose rate of less than 0.5 millirem per hour.

Site Code: 309-WS-3 **Classification:** Accepted

Site Names: 309-WS-3, 309 Brine Tank **ReClassification:**

Site Type: Storage Tank **Start Date:** 1960

Site Status: Inactive **End Date:** 1969

Site Description: The unit has been backfilled, and grass has been planted above the tank. The Brine Tank is a below grade, rectangular concrete structure with two chambers. Access/loading ports were installed on the top of the tank. Inside the tank, four perforated transite pipes ran the length of the main chamber. The pipes were suspended in a gravel filter bed and covered by a layer of sand. The second chamber acted as a holding tank.

Waste Type: Chemicals

Waste Description: The unit stored brine salt to be used by the process water/brine tanks within the basement of the 309 Building.

Site Code: 311 MT1 **Classification:** Accepted

Site Names: 311 MT1, 311 Methanol Tank 1, 311 Tank Farm Underground Methanol Tank #1, 311-1 **ReClassification:** Closed Out (2/12/1999)

Site Type: Storage Tank **Start Date:** 1955

Site Status: Inactive **End Date:** 1971

Site Description: The former site has been backfilled and is covered with gravel. Prior to removal, the site consisted of a horizontal, flat-ended cylindrical tank.

Waste Type: Chemicals

Waste Description: The unit contained an aqueous solution of methanol. Methanol was used as a drying agent for the aluminum cleaning process. The methanol was pumped from the tank in 1971. The tank was removed in 1989.

Site Code: 311 MT2 **Classification:** Accepted

Site Names: 311 MT2, 311 Methanol Tank 2, 311 Tank Farm Underground Methanol Tank #2, 311-2 **ReClassification:** Closed Out (2/12/1999)

Site Type: Storage Tank **Start Date:** 1955

Site Status: Inactive **End Date:** 1971

Site Description: The former site has been backfilled and is covered with gravel. Prior to removal, the site consisted of a horizontal, flat-ended cylindrical tank.

Waste Type: Chemicals

Waste Description: The unit contained an aqueous solution of methanol. Methanol was used as a drying agent for the aluminum cleaning process. The methanol was removed from the tank in 1971. The tank was removed in 1989.

Site Code: 311-TK-40 **Classification:** Accepted

Site Names: 311-TK-40, 311 Neutralized Waste Tank 1 **ReClassification:** Closed Out (12/6/2001)

Site Type: Storage Tank **Start Date:** 1953

Site Status: Inactive **End Date:**

Site Description: This site has been clean closed as part of the 300 Area Waste Acid Treatment System (WATS) Partial Closure in December 2001.

The 311-TK-40 tank is an isolated, stainless steel cylinder in the horizontal position. The tank is positioned within a concrete containment structure.

Waste Type: Chemicals

Waste Description: The tank is empty and isolated. From 1953 to 1973 the tank held nitric acid. Since 1973 the system has been part of the 300 Area Waste Acid Treatment System. It held liquid mixed waste prior to disposal.

Site Code: 311-TK-50 **Classification:** Accepted

Site Names: 311-TK-50, 311 Neutralized Waste Tank 2, 311 Neutralization Tank #2 **ReClassification:** Closed Out (12/6/2001)

Site Type: Storage Tank **Start Date:** 1985

Site Status: Inactive **End Date:**

Site Description: Site 311-TK-50, an 18,927 liter (5000 gallon) vertical stainless tank has been drained, characterized, isolated, and clean closed.

Waste Type: Chemicals

Waste Description: The unit received waste solutions consisting of neutralized liquid from the nonrecoverable uranium stream and filtrate from processing of the uranium-bearing waste stream. The tank was used to decant liquid waste.

Site Code:	313 CENTRIFUGE	Classification:	Accepted
Site Names:	313 CENTRIFUGE, 313 Centrifuge, 300 Area WATS	ReClassification:	Closed Out (12/6/2001)
Site Type:	Process Unit/Plant	Start Date:	1985
Site Status:	Inactive	End Date:	1997

Site Description: This site has been clean closed under the 300 Area Waste Acid Treatment System (WATS) Partial Closure. The centrifuge was removed in 1997 and disposed of as low level solid waste.

Waste Type: Chemicals

Waste Description: The centrifuge treated neutralized nonrecoverable uranium bearing waste slurry by separating the solid and liquid phases.

Site Code:	313 CRO	Classification:	Not Accepted (2/12/1999)
Site Names:	313 CRO, 313 Copper Remelt Operations, 313 Building Copper Remelt Operations	ReClassification:	
Site Type:	Process Unit/Plant	Start Date:	1973
Site Status:	Inactive	End Date:	1988

Site Description: The 313 Copper Remelting Operation was performed in the southern end of the 313 Building. The 313 Building is a large structure resting on a reinforced concrete slab floor. The walls are concrete block and structural steel framing. The roof is a precast concrete slab covered in tar and gravel. Interior walls are concrete block or concrete brick.

Waste Type: Chemicals

Waste Description: Copper-silicon alloy scrap materials from the fuel fabrication process were melted, cast, and machined in preparation for recycling. The unit processed 600 pounds (270 kilograms) per day when in operation.

Site Code:	313 ESSP	Classification:	Accepted
Site Names:	313 ESSP, 313 East Side Storage Pad, 313 Building East Site Storage Pad	ReClassification:	
Site Type:	Storage	Start Date:	
Site Status:	Inactive	End Date:	

Site Description: The 313 East Side Storage Pad is a large concrete pad with an asphalt ramp that connects the pad to Ginko street. No wastes of any kind are currently stored at the site. The Waste Acid Treatment System pipe trench (WIDS Site 300-224) passes east-west through the site and is posted as internally contaminated with radioactive material. Two areas of the pad, located adjacent to the east wall near the southern end of the 313 building have been painted gray.

Signed are placed at the base of the walls, just above the painted areas that read "Fixed Contamination - Contamination Under Grey Paint on Ground".

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: The area was used to stage mixed waste including byproduct waste materials from the fuels fabrication process and neutralized solids from the 313 Recovery Operations process.

Site Code: 313 FP

Classification: Accepted

Site Names: 313 FP, 313 Filter Press, 300 Area Waste Acid Treatment System

ReClassification: Closed Out (12/6/2001)

Site Type: Process Unit/Plant

Start Date: 1944

Site Status: Inactive

End Date: 1997

Site Description: This site has been clean closed under the 300 Area Waste Acid Treatment System Partial Closure in 2001. The 313 Filter Press was removed in 1997 and buried as low level solid waste.

Waste Type: Chemicals

Waste Description: The unit treated recoverable and nonrecoverable uranium-bearing waste acid by separating solid and liquid phases. Residual radiological and chemical contamination may be present.

Site Code: 313 MT

Classification: Accepted

Site Names: 313 MT, 313 Methanol Tank, 313 Building Underground Methanol Storage Tank

ReClassification: Closed Out (2/12/1999)

Site Type: Storage Tank

Start Date: 1955

Site Status: Inactive

End Date: 1971

Site Description: The 313 Methanol Tank was removed in 1989. The excavation was backfilled and the floor was patched with concrete. Prior to removal the site consisted of a steel cylindrical tank lying horizontally. The tank was below the floor of the 313 Building.

Waste Type: Chemicals

Waste Description: From 1971 to 1987 the tank contained an aqueous methanol solution. The tank was removed in 1989. The tank never received an emergency methanol dump.

Site Code: 313 URO

Classification: Accepted

Site Names: 313 URO, 313 Uranium Recovery Operations, Uranium Recovery Operations

ReClassification: Closed Out (2/12/1999)

Site Type: Process Unit/Plant

Start Date: 1954

Site Status: Inactive

End Date: 1997

Site Description: In 1997, the 313 Uranium Recovery Operation process equipment and piping were removed and the concrete surfaces scabbled and decontaminated. Past practice sub-floor contamination remains to be addressed as well as the potential for some minor RCRA contributions to subfloor contamination.

Waste Type: Equipment

Waste Description: The equipment contained uranium-bearing acid wastes from fuel fabrication processes that were used to treat and recover uranium. All contaminated equipment was removed from the facility.

Site Code: 313-TK-2 **Classification:** Accepted
Site Names: 313-TK-2, 313 Waste Acid Neutralization Tank, 300 Area Waste Acid Treatment System **ReClassification:** Closed Out (12/6/2001)

Site Type: Neutralization Tank **Start Date:** 1975

Site Status: Inactive **End Date:** 1997

Site Description: This site has been clean closed under the 300 Area WATS partial closure in 2001. The 313-TK-2 Neutralization Tank was removed in 1997. The tank was part of the 300 Area Waste Acid Treatment System. The vertical, stainless steel, cylindrical tank was located within a bermed area with other uranium recovery and acid treatment equipment.

Waste Type: Chemicals

Waste Description: The unit treated uranium-bearing acid waste by neutralization. Prior to removal of the tank, a precipitate cake was present in the bottom of the tank.

Site Code: 315 RSDF **Classification:** Accepted
Site Names: 315 RSDF, 315 Retired Sanitary Drain Field **ReClassification:** Rejected (1/27/1999)

Site Type: Drain/Tile Field **Start Date:** 1950

Site Status: Inactive **End Date:** 1978

Site Description: The 315 RSDF is an abandoned septic tank and drain field. The location shown by maps and drawings is not marked in the field. The site is covered with a surface of gravel and cobbles and no vegetation. There are manhole covers with protective posts located in close proximity to the abandoned septic tank/drain field.

Waste Type: Sanitary Sewage

Waste Description: The unit received unknown amounts of sanitary wastes from the 315 Water Filter Plant.

The authors of the 300-FF-2 Operable Unit Technical Baseline Report speculated that water treatment chemicals may have been discharged to the site, but no supporting documentation for this has been found. According to Jim Day, Dyncorp Water Utilities and Support Services, the only chemicals used at the facility were alum (nonhazardous) and chlorine gas.

Site Code: 316-3 **Classification:** Accepted

Site Names: 316-3, 307 Disposal Trenches, Process Water Trenches **ReClassification:**

Site Type: Trench **Start Date:** 1953

Site Status: Inactive **End Date:** 1963

Site Description: The trenches were backfilled in 1965 and are no longer visible. A large portion of the location has been paved and fenced. The site consisted of two trenches, each 180 meters (600 feet) long, 9.1 meters (30 feet) wide at the east end, tapering to 3.0 meters (10 feet) wide at the west end. The depth varied from 3.7 meters (12 feet) to 8.2 meters (27 feet). The trenches ran in an east and west direction, approximately 6.1 meters (20 feet) apart. Each contained a 13 centimeter (5 inch) vitrified clay pipe that ran the entire length of the unit.

Waste Type: Process Effluent

Waste Description: The site received wastes from the 300 Area Laboratory expansion facilities (329 Biophysics Laboratory, 327 Radiometallurgy Building, 324 Radiochemistry Building, 326 Pile Technology Building, and 329 Mechanical Development Building). The wastes first went through the 307 Retention Basin. Retention Basin waste below discharge limits was released to the trenches from 1953 to 1963. The trenches were excavated in 1963, and the contaminated soil was taken to 300 North (618-10) Burial Ground. The trenches were backfilled with process pond scrapings and fly ash in 1965.

In 1987 the west end of the 316-3 (near the 3727 building) was used to test a grout liquid waste solidification process. A 6.1 meter by 6.1 meter by 3.0 meter (20 foot by 20 foot by 9 foot) deep section of the trenches was excavated, and contaminated material (probably backfill from the south process pond) was encountered. Activities measured were as high as 378 picocuries per gram beta and 234 picocuries per gram alpha.

Site Code: 316-4 **Classification:** Accepted

Site Names: 316-4, 321 Cribs, 300 North Cribs, 316-N-1, 616-4 **ReClassification:**

Site Type: Crib **Start Date:** 1948

Site Status: Inactive **End Date:** 1956

Site Description: The crib consists of two bottomless tanks, buried 3 meters (10 feet) below grade, resting on gravel strata. A waste influent line to the tanks starts 0.6 meters (2 feet) above the bottom of one of the tanks and extends at an angle above the tank top to grade level. A vent riser extends from the top of the same tank to 2.4 meters (8 feet) above grade. The tanks are 0.6 meters (2 feet) apart, with a stainless steel overflow pipe connecting them just below the top of each tank. The area is marked with AC-540 markers marked "Crib 316-4".

A 1995 Geophysical Investigation survey concurs the tanks have concrete footings and sit on a bed of gravel. It also states they are believed to be 8 ft in diameter, 7 ft tall, and approximately 10 ft below the surface.

Waste Type: Process Effluent

Waste Description: The site received hexone-bearing uranium wastes and limited amounts of other uranium-bearing wastes from the 321 Building. Calculations up to and including July 1955 indicated liquid wastes containing a total of 550 kilograms (1,230 pounds) of uranium had been discharged to this site. Additional documentation has been found indicating 12,040 liters (3,182 gallons) of liquid organic waste was being shipped to the 300 North Cribs in 1962.

Site Code: 323 TANK 1 **Classification:** Accepted

Site Names: 323 Tank 1, 321 Building Underground Waste Tanks, 321 Tank Farm #3 **ReClassification:**

Site Type: Storage Tank **Start Date:** 1944

Site Status: Inactive **End Date:**

Site Description: The 323 Tank 1 is not visible or accessible. It is encased in concrete with a minimum of 1 foot thickness to an outside surface. The tank (waste site) is a carbon steel horizontal tank on the west side of three other (identical) tanks encased in a large block of concrete. The top of the concrete block was used as the floor for the installation of the 323 Building (lower level) in 1958. The embedded tank originally had two 4 inch diameter and one 20 inch diameter pipe nozzle connections from the top of the tank through the concrete surface. None of these pipe nozzles are presently visible. 323 Tank 1 is the westernmost tank of the four tanks in the concrete encasement beneath the 323 Building. The 323 Building is posted "Authorized Personnel Only." The roll-up door on the east side of the building is posted "Radioactive Material Area, Entry Requirements: Radiological Worker 1 Training (If Unescorted)" and "Caution, Overhead Areas Are Not Routinely Surveyed. Contact Radiological Control Prior To Entry. The 323 Building lower level is crowded with mechanical and thermal test equipment. Process cooling water drain trenches in the concrete floor drain to a sump which discharges to the area process sewer.

Waste Type: Process Effluent

Waste Description: The tank received neutralized uranium-contaminated water and/or basic aluminum cladding waste solutions from reprocessing research and development activities in the 321 Building and the 3706 Building (via the hot sink drains in the 321 Building laboratories), including those related to bismuth phosphate chemical separations, REDOX, Uranium Metal Recovery, PUREX, RECUPLEX, the Thorex program, and medical isotope extraction. The tank was emptied in 1952 or 1953.

Site Code: 323 TANK 2 **Classification:** Accepted

Site Names: 323 Tank 2, 321 Building Underground Waste Tanks, 321 Tank Farm #3 **ReClassification:**

Site Type: Storage Tank **Start Date:** 1944

Site Status: Inactive **End Date:**

Site Description: The 323 Tank 2 is not visible or accessible. It is encased in concrete with a minimum of 1-foot thickness to an outside surface. The tank (waste site) is a carbon steel horizontal tank, one of four identical tanks encased in a large block of concrete. The top of the concrete block was used as the floor for the installation of the 323 Building (lower level) in 1958. The embedded tank originally had two 4-inch diameter and one 20-inch diameter pipe nozzle connections from the top of the tank through the concrete surface. None of these pipe nozzles are presently visible. 323 Tank 2 is the second tank from the west side of the concrete encasement beneath the 323 Building. The 323 Building is posted "Authorized Personnel Only." The roll-up door on the east side of the building is posted "Radioactive Material Area, Entry Requirements: Radiological Worker 1 Training (If Unescorted)" and "Caution, Overhead Areas Are Not Routinely Surveyed. Contact Radiological Control Prior To Entry. The 323 Building lower level is crowded with mechanical and thermal test equipment. Process cooling water drain trenches in the concrete floor drain to a sump which discharges to the area process sewer.

Waste Type: Process Effluent

Waste Description: The tank received neutralized uranium-contaminated water and/or basic aluminum cladding waste solutions from reprocessing research and development activities in the 321 Building and the 3706 Building (via the hot sink drains in the 321 Building laboratories), including those related to bismuth phosphate chemical separations, REDOX, Uranium Metal Recovery, PUREX, RECUPLEX, the Thorex program, and medical isotope extraction. The tank was emptied in 1952 or 1953.

Site Code: 323 TANK 3 **Classification:** Accepted

Site Names: 323 Tank 3, 321 Building Underground Waste Tanks, 321 Tank Farm #3 **ReClassification:**

Site Type: Storage Tank **Start Date:** 1944

Site Status: Inactive **End Date:**

Site Description: The 323 Tank 3 is not visible or accessible. It is encased in concrete with a minimum of 1-foot thickness to an outside surface. The tank (waste site) is a carbon steel horizontal tank, one of four identical tanks encased in a large block of concrete. The top of the concrete block was used as the floor for the installation of the 323 Building (lower level) in 1958. The embedded tank originally had two 4-inch diameter and one 20-inch diameter pipe nozzle connections from the top of the tank through the concrete surface. None of these pipe nozzles are presently visible. 323 Tank 3 is the third tank from the west side of the concrete encasement beneath the 323 Building. The 323 Building is posted "Authorized Personnel Only." The roll-up door on the east side of the building is posted "Radioactive Material Area, Entry Requirements: Radiological Worker 1 Training (If Unescorted)" and "Caution, Overhead Areas Are Not Routinely Surveyed. Contact Radiological Control Prior To Entry. The 323 Building lower level is crowded with mechanical and thermal test equipment. Process cooling water drain trenches in the concrete floor drain to a sump which discharges to the area process sewer.

Waste Type: Process Effluent

Waste Description: The tank received neutralized uranium-contaminated water and/or basic aluminum cladding waste solutions from reprocessing research and development activities in the 321 Building and the 3706 Building (via the hot sink drains in the 321 Building laboratories), including those related to bismuth phosphate chemical separations, REDOX, Uranium Metal Recovery, PUREX, RECUPLEX, the Thorex program, and medical isotope extraction. The tank was emptied in 1952 or 1953.

Site Code: 323 TANK 4 **Classification:** Accepted

Site Names: 323 Tank 4, 321 Building Underground Waste Tanks, 321 Tank Farm #3 **ReClassification:**

Site Type: Storage Tank **Start Date:** 1944

Site Status: Inactive **End Date:** 1987

Site Description: The 323 Tank 4 is a horizontal, cylindrical, underground carbon steel tank. The tank has rounded ends. The concrete enclosure around the tank includes a drain trench below the length of the tank which empties into a concrete sump at the south end. The sump was used for tank leak detection. The tank is the easternmost tank in a series of four tanks that lie in a concrete enclosure beneath the 323 (321-A) Building. Pearson (1987) issued an inspection report which included a photo of the open access to the tank through the modified center manhole. The 323 Building is posted "Authorized Personnel Only." The roll-up door on the east side of the building is posted "Radioactive Material Area, Entry Requirements: Radiological Worker 1

Training (If Unescorted)" and "Caution, Overhead Areas Are Not Routinely Surveyed. Contact Radiological Control Prior To Entry."

Waste Type: Process Effluent

Waste Description: Between 1945 and 1953, the tank received neutralized uranium-contaminated water and/or basic aluminum cladding waste solutions from reprocessing research and development activities in the 321 Building and the 3706 Building (via the hot sink drains in the 321 Building laboratories), including those related to bismuth phosphate chemical separations, REDOX, Uranium Metal Recovery, PUREX, RECUPLEX, the Thorex program, and medical isotope extraction. The tank was emptied in 1952 or 1953. Between 1968 and 1987, the tank received waste from the 323 Building, including the hot cell drain, the cleanup box drain and overflow from the process water sump. The tank has not received waste since 1987. In 1987, the tank contained liquid and sludge. Significant uranium and aluminum was detected, but no thorium was detected in either the liquid or the sludge. The uranium and aluminum contamination would have entered the tank prior to 1967.

Site Code: 325 WTF **Classification:** Accepted

Site Names: 325 WTF, 325 Waste Treatment Facility, 325 Hazardous Waste Treatment Units **ReClassification:**

Site Type: Process Unit/Plant **Start Date:** 1953

Site Status: Active **End Date:**

Site Description: The 325 Waste Treatment Facilities (WTF) consist of two sections. The first section, the shielded analytical laboratory, is located in Rooms 32, 200, 201, 201A, 202, and 203. The second section includes the hazardous waste treatment units, located in Rooms 520, 527A, and 528. All facilities are part of the 325 Building. The building is constructed of welded steel framework covered with fluted steel insulated panels. The first and second floors are steel deck, topped with concrete and vinyl. The roof is steel deck topped with tar and gravel.

Waste Type: Chemicals

Waste Description: The waste treatment facilities treated radioactive mixed wastes generated in research and development activities. The 325 Waste Treatment Facility also served to test and evaluate the effectiveness of various waste treatment technologies.

Site Code: 331 LSLDF **Classification:** Accepted

Site Names: 331 LSLDF, 331 LSL Drain Field, 331 Life Sciences Laboratory Drainfield **ReClassification:** No Action (10/16/2008)

Site Type: Drain/Tile Field **Start Date:** 1970

Site Status: Inactive **End Date:** 1974

Site Description: The 331 LSLDF waste site is a septic system consisting of a diversion chamber, two (dual-chambered) septic tanks, a distribution box, and a drain field connected to the 331 complex. The 331 LSLDF septic system was operational from 1970 to 1974, at which time the sanitary sewer connections were rerouted to the 300 Area Sanitary Sewer. The 331 LSLDF septic system was fully isolated and abandoned in place in 1974. The waste line has been capped west of the septic tanks. The drainfield is marked with a single sign at the site center.

Waste Type: Sanitary Sewage

waste type: Sanitary Sewage

Waste Description: The unit received sanitary wastewater from the 331-A and 331-B Buildings for discharge into the soil column.

Waste Type: Animal Waste

Waste Description: The unit may have received animal waste from the 331 Buildings prior to construction of the 331-D Treatment Facility. Since most of the animal studies involved the use of radio isotopes, animal waste was segregated on the bases of activity. Solid animal waste, exceeding 200 picocuries per gram specific activity, was transported to the 100-F Area trenches on a regular basis. All other solid animal waste (less than 200 picocuries per gram specific activity) was allowed to flush into the 331 waste system. However, specific cases of contamination have occurred at the 331 complex. In January 1975, between 25 and 2,500 microcuries of plutonium-238 from contaminated soil used in a botanical experiment was washed into the process sewer. This material may have ended up in the 331 Life Science Laboratory Drainfield (LSLDF).

The constituents of concern listed below reflects those which could potentially still be present in the subsurface at the 331 Building WIDS sites. During the course of identifying the constituents of concern no evidence of any waste containing PCBs was discovered during a records review. A walkthrough of the facility did not reveal the presence of any PCB containing equipment with the exception of possible PCB laden light ballast. All transformers were of the dry design. Therefore, PCBs are not listed among the constituents of concern. These contaminants are americium-241, curium-244, neptunium-237, plutonium-238, plutonium-239, uranium-232, uranium-233, cadmium, chromium, lead, uranium (total).

Site Code: 331 LSLT1 **Classification:** Accepted

Site Names: 331 LSLT1, 331 LSL Trench 1, 331 Life Sciences Laboratory Trench #1 **ReClassification:**

Site Type: Trench **Start Date:** 1966

Site Status: Inactive **End Date:** 1969

Site Description: The trench is currently marked with a single sign at the site centerline and surrounded with Underground Radioactive Material signs. The 331 Life Sciences Laboratory Trench 1 (LSLT1) is an abandoned leaching trench that has been backfilled. The site was a rectangular excavation. The site includes connecting waste transfer lines.

Waste Type: Sanitary Sewage

Waste Description: The unit received sanitary wastewater.

Waste Type: Animal Waste

Waste Description: The unit received liquid animal waste from the animal waste pit. Since most of the animal studies involved the use of radio isotopes, animal waste was segregated on the bases of activity. Solid animal waste, exceeding 200 picocuries per gram specific activity, was transported to the 100-F Area trenches on a regular basis. All other solid animal waste (less than 200 picocuries per gram specific activity) was allowed to flush into the 331 waste system. However, specific cases of contamination have occurred at the 331 complex.

The constituents of concern reflect those contaminants which could potentially still be present in the subsurface at the 331 Building WIDS sites. These include americium-241, curium-244, neptunium-237, plutonium-238, plutonium-239, uranium-232, uranium-233, cadmium,

chromium, lead, uranium (total). During a records review to identify the constituents of concern, no evidence of any waste containing PCBs was discovered. A walkthrough of the facility did not reveal the presence of any PCB containing equipment with the exception of possible PCB laden light ballasts. All transformers were of the dry design. Therefore, PCBs are not listed among the constituents of concern.

Site Code:	331 LSLT2	Classification:	Accepted
Site Names:	331 LSLT2, 331 LSL Trench 2, 331 Life Sciences Laboratory Trench #2	ReClassification:	
Site Type:	Trench	Start Date:	1966
Site Status:	Inactive	End Date:	1974
Site Description:	The trench is currently marked with a single sign at the site centerline and surrounded with Underground Radioactive Material signs. The 331 LSLT2 is an abandoned leaching trench that has been backfilled. The site was a rectangular excavation. The site includes connecting waste transfer lines.		

Waste Type: Sanitary Sewage

Waste Description: The unit received sanitary wastewater. In 1974, the clean (non-radioactive) animal sewage was connected to the regular 300 Area Sanitary Sewer System.

Waste Type: Animal Waste

Waste Description: The unit received liquid animal waste from the animal waste pit. Animal wastes were the most prominent wastes, in terms of volume, generated by the 331 complex. Originally, liquid animal wastes from the complex including washdowns from the "hog and dog runs" were disposed to a large, unlined pit, east of the 331-D Building. Sewers carrying animal waste from the 331 complex were also connected to this pit.

Since most of the animal studies involved the use of radio isotopes, animal waste was segregated on the bases of activity. Solid animal waste, exceeding 200 picocuries per gram specific activity, was transported to the 100-F Area trenches on a regular basis. All other solid animal waste (less than 200 picocuries per gram specific activity) was allowed to flush into the 331 waste system. However, specific cases of contamination have occurred at the 331 complex.

The constituents of concern reflect those contaminants which could potentially still be present in the subsurface at the 331 Building WIDS sites. These include americium-241, curium-244, neptunium-237, plutonium-238, plutonium-239, uranium-232, uranium-233, cadmium, chromium, lead, uranium (total). During a records review to identify the constituents of concern, no evidence of any waste containing PCBs was discovered. A walkthrough of the facility did not reveal the presence of any PCB containing equipment with the exception of possible PCB laden light ballasts. All transformers were of the dry design. Therefore, PCBs are not listed among the constituents of concern.

Site Code:	331-C HWSA	Classification:	Accepted
Site Names:	331-C HWSA, 331-C Hazardous Waste Storage Area, 331-C Low Level Radioactive Storage Area	ReClassification:	Rejected (9/2/1998)

Site Type: Storage Pad (<90 day) **Start Date:** 1972

Site Status: Inactive **End Date:** 1996

Site Description: The former 331-C HWSA is now a steel building and fenced laydown yard that is currently in use as a refrigeration maintenance shop, material storage area, laydown yard and radioactive waste storage area. The 331-C building is divided into three sections. The southern portion of the 331-C building is currently empty. The mid section of the building is in use as a equipment and material storage area. The northern portion of the building is in use as a refrigeration maintenance shop. The maintenance shop contains a satellite accumulation area for the storage of used oil [less than 208 liters (55 gallons)]. On the east side of the building, a radioactive waste storage area was observed under the roofed area. In addition, several 208 liter (55 gallon) drums of propylene glycol was stored under the roofed area. The fenced laydown area contains equipment.

Waste Type: Animal Waste

Waste Description: The site stored dog bones and tissues contaminated with strontium-90 and cesium-137 stored in 70% ethanol solution, nitric acid, formalin and regulated empty containers. Hardcopy waste disposal records, waste verification, waste inventory, packing slips, characterization summaries, offsite shipment, waste specification, land disposal notification and certification, waste manifest records are available for this site. (See hardcopy WIDS file). It appears that most of the waste disposed of onsite went to 218-W-4C and 218-W-5 Burial Grounds in the 200 West Area.

Waste Type: Misc. Trash and Debris

Waste Description:

Site Code: 333 ESHTSSA **Classification:** Accepted

Site Names: 333 ESHTSSA, 333 East Side Heat Treat Salt Storage Area **ReClassification:** Consolidated (2/12/1999)

Site Type: Storage **Start Date:** 1964

Site Status: Inactive **End Date:** 1987

Site Description: This waste site has been incorporated into the 618-1 Burial Ground waste site.

The 333 ESHTSSA is an inactive storage area. The site included various locations inside the 333 fence where heat-treat salts were stored. It is now an open paved area near the southeast corner of the 333 Building. Several areas of the asphalt pavement have been painted over and posted fixed radiological contamination (WIDS Site UPR-300-17).

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: This area is no longer used for storing hazardous wastes. In the past, it stored containers of solidified waste heat-treat salts from the Fuels Fabrication Facility. The waste consisted of sodium chloride, potassium chloride, sodium nitrate, and potassium nitrate. Approximately, thirty to fifty 208-liter (55-gallon) drums accumulated each year.

The Site Was Consolidated With:

Site Code: 618-1

Site Names: 618-1, Solid Waste Burial Ground No. 1, 318-1, 300 Area Burial Ground No. 1 (See Subsites)

Reason: Within Boundary Of Larger Site

Site Code: 333 ESHWSA **Classification:** Accepted
Site Names: 333 ESHWSA, 333 East Side HWSA, 333 Building East Side Hazardous Waste Storage Area **ReClassification:** Interim Closed Out (6/29/2010)
Site Type: Storage **Start Date:** 1964
Site Status: Inactive **End Date:**
Site Description: The 333 East Side Hazardous Waste Storage Area is part of the asphalt paved area near the northeast corner of the 333 Building, within the building fence line. No barrels of hazardous waste are stored here anymore, only miscellaneous non-hazardous materials. Currently, several large trash dumpsters are at this location.
Waste Type: Barrels/Drums/Buckets/Cans
Waste Description: The area contained small quantities of miscellaneous waste oils, cutting lubricants, chemicals, and solvents stored in containers. In previous years, the area was used for miscellaneous radioactive and hazardous waste storage. Currently this area is used only to store miscellaneous non-hazardous solid building waste.

Site Code: 333 LHWSA **Classification:** Accepted
Site Names: 333 LHWSA, 333 Laydown HWSA, 333 Laydown Hazardous Waste Storage Area **ReClassification:** Consolidated (2/12/1999)
Site Type: Storage Pad (<90 day) **Start Date:** 1971
Site Status: Active **End Date:**
Site Description: This waste site has been consolidated into the 618-1 Burial Ground waste site.
The 333 LHWSA is a concrete and asphalt pad on the east side of the 333 Building. The unit is within the 333 Building fence, and a second locked fence surrounds the unit. The white conex box in this unit is the location of the present 90-day waste storage area. Currently this conex box is empty. The yellow boxes on the opposite side of the area contain low level radioactive waste.
Waste Type: Barrels/Drums/Buckets/Cans
Waste Description: The area typically contains corrosive and toxic metal wastes.
Waste Type: Misc. Trash and Debris
Waste Description: The fixed contamination area, i.e., concrete and asphalt, that was the result of storing radioactive materials in the past will be addressed as part of 618-1 Burial Ground. The Burial Ground underlies the 333 LHWSA.

The Site Was Consolidated With:

Site Code: 618-1
Site Names: 618-1, Solid Waste Burial Ground No. 1, 318-1, 300 Area Burial Ground No. 1 (See Subsites)
Reason: Within Boundary Of Larger Site

Site Code: 333 WSTF **Classification:** Accepted

Site Names: 333 WSTF, 333 West Side Tank Farm, 333 West Side Waste Oil Tank, 333 West Side Uranium Bearing Acid Tanks, 333 WSWOT **ReClassification:**

Site Type: Storage Tank **Start Date:** 1972

Site Status: Inactive **End Date:**

Site Description: The site is an above grade tank farm containing three cylindrical tanks that stand upright within a concrete containment basin. The containment basin is attached to the outside wall of the 333 Building. One of the tanks is labeled "Non Contaminated Waste Oil - Flashpoint 455 degrees F." The two other tanks are labeled "Uranium bearing acid." The concrete containment basin is 6 meters (19.7 feet) by 4.2 meters (13.8 feet) with a depth of 0.4 meters (1.3 feet). Asphalt pavement surrounds the basin and the west side of the building. On this pavement there is a sign posting fixed radioactive contamination.

Waste Type: Oil

Waste Description: The Waste Oil Tank was used for storage of oil from the extrusion press sump. It was verified that the oil did not contain polychlorinated biphenyls and was not ignitable prior to removal. No known releases have been reported.

Waste Type: Chemicals

Waste Description: The Uranium Bearing Acid tanks stored spent acid containing uranium. The uranium was a recoverable asset for recycling.

Site Code: 333-TK-11 **Classification:** Accepted

Site Names: 333-TK-11, 333 West Side Storage Tank for Uranium Bearing Acid, 333 Chromium Treatment Tank 2 **ReClassification:** Closed Out (12/6/2001)

Site Type: Storage Tank **Start Date:** 1961

Site Status: Inactive **End Date:** 1998

Site Description: This site has been clean closed under the 300 Area Waste Acid Treatment System (WATS) partial closure. 333-TK-11 was removed in 1998. It was a square uncovered metal tank. The unit was connected to the 300 Area Waste Treatment System by a polyvinyl chloride (PVC) drain line.

Waste Type: Chemicals

Waste Description: The tank was used to store spent etch acids (nitric and sulfuric acid with uranium in solution). The unit was also used to treat metal-bearing waste acids by reducing chromium (VI) to chromium (III).

Site Code: 333-TK-7 **Classification:** Accepted

Site Names: 333-TK-7, 333 West Side Storage Tank for **ReClassification:** Closed Out (12/6/2001)

Uranium Bearing Acid, 333 Chromium
Treatment Tank 1

Site Type: Storage Tank **Start Date:** 1961

Site Status: Inactive **End Date:** 1998

Site Description: This site has been closed out. Tank 333-TK-7 was removed in 1998. Tank 333-TK-7 was a square, uncovered metal tank. The unit was connected to the 300 Area Waste Acid Treatment System by a polyvinyl chloride drain line. The tank was last used in 1987.

Waste Type: Chemicals

Waste Description: The tank was used to store spent etch acids (nitric and sulfuric acid with uranium in solution). The unit was later used to reduce chromium (VI) to chromium (III) in metal-bearing waste acids.

Site Code: 334 TFWAST **Classification:** Accepted

Site Names: 334 TFWAST, 334 Tank Farm Waste Acid Storage Tank, Tank 4 **ReClassification:** Closed Out (12/6/2001)

Site Type: Storage Tank **Start Date:** 1971

Site Status: Inactive **End Date:** 1988

Site Description: This site has been clean closed. The tank was taken out of service in 1986 and removed in 1988. The tank was a 27,710 liter (6000 gallon) Koroseal-lined mild steel tank. It was a vertical cylindrical tank installed on the upper level of the 334 Tank Farm structure, about 8 feet (2.4 meters) above ground level.

Waste Type: Chemicals

Waste Description: The unit was intermittently used to store waste acids containing nonrecoverable uranium from the fuel fabrication process.

Site Code: 334-A-TK-B **Classification:** Accepted

Site Names: 334-A-TK-B, 334-A Waste Acid Storage Tank 1 **ReClassification:** Closed Out (12/6/2001)

Site Type: Storage Tank **Start Date:** 1975

Site Status: Inactive **End Date:** 1998

Site Description: This site has been clean closed. The tank was removed in 1998. The horizontal 7570 liter (2000 gallon) tank was a high-density polyethylene tank resting on a steel saddle. The tank was one of three tanks in a 3 meter (10 foot) deep concrete pit below the 334-A Building. A cover has been installed over the pit and the cover sealed.

Waste Type: Chemicals

Waste Description: The unit was removed in 1998. It received waste acids from the fuel fabrication process. The waste contained nonrecoverable uranium, hydrofluoric, nitric, sulfuric, and chromic acids, and various metals.

Site Code: 334-A-TK-C **Classification:** Accepted
Site Names: 334-A-TK-C, 334-A Waste Acid Storage Tank 2 **ReClassification:** Closed Out (12/6/2001)
Site Type: Storage Tank **Start Date:** 1975
Site Status: Inactive **End Date:** 1998
Site Description: This site has been clean closed. The tank was removed in 1998. The horizontal 7570 liter (2000 gallon) tank was a high-density polyethylene tank resting on a steel saddle. The tank was one of three tanks in a 3 meter (10 foot) deep concrete pit below the 334-A Building. A cover has been installed over the pit and the cover sealed.
Waste Type: Chemicals
Waste Description: The unit was removed in 1998. It received waste acids from the fuel fabrication process. The waste contained nonrecoverable uranium, hydrofluoric, nitric, sulfuric, and chromic acids in solution bearing metals in solution.

Site Code: 335 & 336 RSDF **Classification:** Accepted
Site Names: 335 & 336 RSDF, 335 & 336 Retired Sanitary Drain Field **ReClassification:** Rejected (2/12/1999)
Site Type: Drain/Tile Field **Start Date:** 1973
Site Status: Inactive **End Date:** 1978
Site Description: The 335 and 336 RSDF is a below grade waste site consisting of a septic tank and drainfield that have been abandoned in place. Only a riser from the septic tank is visible in the field. There is no evidence of a drainfield. The riser is a concrete pipe with an inner diameter of 20.5 centimeters (8.1 inches) covered by a metal grate. The riser is surrounded by metal posts and its top is approximately 18 centimeters (7.1 inches) above grade. The riser is 5.4 meters (17.7 feet) west of the manhole shown on M-3904, sheet 14, that is currently connected to the sanitary sewer. The area around the riser is sandy with some gravel and cobbles. Immediately south of the septic tank is a chained off area that is surrounded by metal posts and plastic chain. Inside the fenced off area are pipes, tanks, old equipment, and concrete and asphalt debris. There are no signs labeling the site or the adjacent chained off area.
Waste Type: Sanitary Sewage
Waste Description: The unit received unknown amounts of sanitary wastes from the 335 and 336 Buildings.

Site Code: 340 CHWSA **Classification:** Accepted
Site Names: 340 CHWSA, 340 Complex HWSA, 340 Complex Hazardous Waste Storage Area **ReClassification:** Rejected (1/15/1999)
Site Type: Storage Pad (<90 day) **Start Date:**
Site Status: Inactive **End Date:**
Site Description: According to 340 Complex personnel, hazardous waste was staged for less-than-90-day storage at various locations throughout the 340 Complex yard. This includes a small concrete pad to the northeast of 340B, and the asphalt pad to the west of the 340 Building.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Type: DARTS/DRUMS/DUCKETS/CANS

Waste Description: This area is no longer used to stage hazardous waste.

Site Code: 340 COMPLEX **Classification:** Accepted

Site Names: 340 COMPLEX, 340 Radioactive Liquid Waste Handling Facility, 340 Vault **ReClassification:**

Site Type: Storage Tank **Start Date:** 1953

Site Status: Active **End Date:**

Site Description: The 340 Complex is located on the east side of the 300 Area. The 340 Complex consists of buildings 340, 340-A, 340-B, 3707-F, and two office trailers. Other 340 complex systems include the 307 Retention Basins, two tanks in an underground vault, six aboveground tanks in 340A, underground transfer pipes, load-out and decontamination equipment, and instrumentation. Prior to 1963, the 340 Complex also included the 316-3 trenches, which disposed of retention process waste that met release criteria.

The 340 Building and Annex includes a control room, decontamination area, mechanical equipment room, change and rest rooms, truck load-out facilities, and an operator's office. The process water, vacuum, and compressed dry-air subsystems are contained within these structures.

The 340 Vault is directly east of the 340 building, and is a below-grade concrete basin, with large concrete cover-blocks. The Vault contains two 57,000-liter (15,000-gallon) tanks once used for primary RLWS storage.

The 340-A building lies east of the vault, and houses six 30,000-liter (8,000-gallon) above ground tanks for auxiliary RLWS storage. The tanks are vented through the Vault filter system.

304-B building is divided into east and west sections. The east section was used for RLWS load-outs by rail to the 200 Areas. The west section is used for radioactive solid waste storage and for housing the east side ventilation system.

3707-F building houses the retention process sewer sampling equipment and controls.

MO-741 is the health physics technicians' office and survey station.

MO-036 is a double-wide trailer that provides offices for engineering, radiation control, and operations personnel.

Waste Type: Process Effluent

Waste Description: The 340 Complex receives liquid effluent from 300 Area laboratories via the 300 Area Radioactive Liquid Waste Sewer and the Retention Process Sewer. The sewer effluent was collected in the 340 underground vault tanks and the 307 Retention Basins. Waste may also include organic and inorganic laboratory chemicals, acids, bases, and decontamination solutions.

Waste Type: Soil

Waste Description: Several spills and leaks over the operational history of the 340 Complex have contributed radionuclides (such as Cesium and Strontium) and chemical waste to the soil column.

Site Code: 350 HWSA **Classification:** Accepted
Site Names: 350 HWSA, 350 Building Hazardous Waste Storage Area, 350-D Hazardous Waste Staging Area **ReClassification:** Rejected (2/24/1999)
Site Type: Storage Pad (<90 day) **Start Date:** 1982
Site Status: Active **End Date:**
Site Description: The 350 Hazardous Waste Staging Area is inside the 350-D Building and on an asphalt pad in front of the building.
Waste Type: Barrels/Drums/Buckets/Cans
Waste Description: Typically, the area stores corrosive chemicals, used oils and PCB-contaminated oils. Oil containing PCBs from old ballasts is stored inside the 350-D building along with combustible liquids.

Site Code: 3712 USSA **Classification:** Accepted
Site Names: 3712 USSA, 3712 Uranium Scrap Storage Area, 3712 Building Uranium Scrap Storage Area, 3712 Fuels Warehouse **ReClassification:**
Site Type: Storage **Start Date:** 1961
Site Status: Active **End Date:**
Site Description: The 3712 USSA is an active uranium metal storage unit. The building is a steel frame structure with metal siding and a metal roof. The unit has a concrete floor and foundation. There are "Radiologically Controlled Area" signs posted along the east side of the 3712 Building, just east of the railroad tracks. The "Radiologically Controlled Area" signs continue around the north side of the building. The building has four roll-up doors - one each on the north and south sides of the building and two on the west side. Signs next to the north roll-up door read "Caution, Fissile Materials," "Caution, Radiation Area And Contamination Area, Entry Requirements: Personnel Dosimeter (TLD), Radiological Work Permit (RWP)," and "No Uranium Enriched Above 1.25 Nor Any Other Fissile Material Allowed In This Facility." The posting by the east walk-in door is the same as the north roll-up door except the "Caution Radiation Area And Contamination Area" sign is replaced by a "Radiological Buffer Area" sign. The posting by the south roll-up door is similar to the north roll-up door, with some additions - "Stop! No Visitors, No Entry Without Management And ACES Approval" and "Contact HPT Prior To Entry 376-3311." There is no "Caution, Radiation Area And Contamination Area" posting by the south door. The "No Uranium Enriched Above 1.25" sign is appended by the phrase "Without Prior Approval Of Facility Supervisor." There are large concrete blocks outside the north roll-up door on the west side of 3712. The blocks are placed far enough away from the building to allow some access to this door. Posting by this door was not reviewed during the November 24, 1998, walkdown. A pair of metal pipes exit the east side of 3712 near the southeast corner and enter a square concrete structure (see photo). There is a process sewer manhole northeast of the northeast corner of the building. Drawing M-3904, sheet 2, revision 24, shows two underground process sewer lines running under the 3712 Building where they converge and continue towards the northeast.
Waste Type: Chemicals
Waste Description: The unit is used to store uranium fuel elements, components for fuel fabrication, concrete billets of ignitable uranium chips and fines, and uranium scrap. Contamination resulting from the 1979 and 1985 fires may be present in or on building surfaces.

Site Code: 3713 PSHWSA **Classification:** Accepted
Site Names: 3713 PSHWSA, 3713 Paint Shop **ReClassification:** Rejected (1/27/1999)
Hazardous Waste Satellite Area
Site Type: Satellite Accumulation Area **Start Date:** 1984
Site Status: Inactive **End Date:** 1987
Site Description: Until 1987, the site was a hazardous waste satellite accumulation area. Today, the site is a concrete pad surrounded by a fiberglass and wood fence. There is a drain in the center of the pad. Items stored in this area include nonhazardous materials, such as ladders, hoses, and pipe. Currently, the 3713 Building is being used as a carpenter's shop.
Waste Type: Barrels/Drums/Buckets/Cans
Waste Description: Hazardous wastes have not been accumulated at this facility since the paint shop was moved. The area contained small quantities of miscellaneous waste solutions. The waste was derived from paint shop operations.

Site Code: 3713 SSHWSA **Classification:** Accepted
Site Names: 3713 SSHWSA, 3713 Sign Shop **ReClassification:** Rejected (1/27/1999)
Hazardous Waste Satellite Area
Site Type: Satellite Accumulation Area **Start Date:** 1984
Site Status: Inactive **End Date:** 1987
Site Description: Until 1987, the site was a hazardous waste satellite accumulation area. It is no longer in existence. No evidence of the satellite accumulation area is apparent.
Waste Type: Barrels/Drums/Buckets/Cans
Waste Description: Hazardous wastes are no longer staged at this facility. The area accumulated miscellaneous small quantities of nonsolvent waste solutions from sign shop operations.

Site Code: 3718-F BS **Classification:** Accepted
Site Names: 3718-F BS, 3718-F Burn Shed **ReClassification:** Closed Out (8/1/1998)
Site Type: Process Pit **Start Date:** 1968
Site Status: Inactive **End Date:** 1998
Site Description: The site was a small structure designed to burn waste alkali metals. The structure has been removed and all that remains is the concrete pad which it shared with other sites related to the 3718-F Alkali Metal Treatment and Storage Facility.

The 3718-F Burn Shed was a 3.0-meter by 3.7-meter (10-foot by 12-foot) sheet metal enclosure with a 2.4 meter (8-foot) wide roll-up door. Small stirring ports and windows were placed on the north and west sides. To the east of the burn shed was a fume scrubber through which the gaseous emissions from the burning were processed. The burn shed and fume scrubber were connected by overhead ductwork. The burn shed and fume scrubber were built on a concrete pad. The pad was bermed on the north and south and sloped to the east. A channel on the east side routed any drainage to a floor drain which discharged to the process sewer.

Waste Type: Chemicals

Waste Description: Wastes treated at the unit included: sodium, lithium and sodium-potassium alloys. After burning, the remaining wastes would have consisted of alkali metal oxides and carbonates. Small quantities of reactive laboratory waste may also have been treated. All wastes have been removed.

Site Code:	3718-F SF	Classification:	Accepted
Site Names:	3718-F SF, 3718-F Storage Facility, 3718-F Alkali Metal Treatment Facility	ReClassification:	Closed Out (8/4/1998)
Site Type:	Storage	Start Date:	1968
Site Status:	Inactive	End Date:	1989

Site Description: The 3718-F Storage Facility consisted of a single-story building, an adjoining loading pad, and a concrete treatment pad. The storage building has been removed and all that remains is the concrete pad, which it shared with other sites related to the 3718-F Alkali Metal Treatment and Storage Facility.

The 3718-F Storage Facility was designed and constructed in 1968, and redesigned and modified in 1973. The building, which measured 6.1 meters by 14.6 meters (20 feet by 48 feet), was constructed on a concrete pad. The gabled ends, roof, and siding were corrugated steel. The building had electric lights, electric space heaters, and two window air conditioning units. The northern half of the building was used as a storage area and the southern half was used as a work area. A concrete loading pad measuring 3.7 meters by 6.1 meters (12 feet by 20 feet) was located at the south end of the building.

The 15-centimeter (6-inch) thick concrete treatment pad measuring 7.2 meters by 14.6 meters (25 feet by 48 feet) adjoined the east side of the building. A burn shed and fume scrubber (3718-F BS) and two treatment tanks (3718-F TT1 and 3718-F TT2) were located on the pad. The north and south ends of the pad are bermed and the pad slopes to the east. Along the east edge is a 7.6-centimeter (3-inch) wide by 7.6 centimeter (3-inch) deep trench. The trench was connected to a floor drain which discharged to the process sewer system. This design was intended to prevent runoff onto the surrounding soils.

Waste Type: Chemicals

Waste Description: Hazardous wastes are no longer stored in this facility.

The wastes stored at the facility while in use consisted of sodium, lithium, and sodium alloys. Cleaning agents used within the treatment tanks and discharged to the concrete pad included water, methanol, isopropanol, and 2-butoxy ethanol (trade name Dowanol). Reaction products contained within the solutions included alkali oxides, alkali carbonates, and alkoxides (strong organic bases).

During cleanup, polychlorinated biphenyl (PCB) Aroclor 1254 contamination from an unknown source was identified in soil samples.

Site Code:	3718-F TT1	Classification:	Accepted
Site Names:	3718-F TT1, 3718-F Treatment Tank 1	ReClassification:	Closed Out (8/4/1998)

Waste Type: Chemicals

Waste Description: Corrosive silver containing waste photochemicals used to be processed to reclaim silver. During 1993, 7,721 liters (2,040 gallons) of photochemical waste was processed to recover 209.2 kilograms (1,139.686 troy ounces) of silver.

Site Code: 400 FD1A **Classification:** Accepted
Site Names: 400 FD1A, 400 Area French Drain 1A, 4717 Reactor Service Building HVAC Condensate, Miscellaneous Stream #14, Injection Well #1A **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:** 1979
Site Status: Active **End Date:**
Site Description: The unit is a 1.5 meter (5 foot) long, 1.2 meter (4 foot) diameter concrete or vitrified clay pipe filled with gravel. It is in a vegetation-free, gravel covered field south of the 403 Building and cannot be identified visually. The site is not located in a depression or a contaminated area.

Waste Type: Water

Waste Description: Reports conflict about effluents received by the unit which may have received demineralizer backwash; Heating, Ventilation, and Air Conditioning (HVAC) system condensate from the 4717 Facility Reactor Service Building; and/or water and detergents. The flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 400 FD1B **Classification:** Accepted
Site Names: 400 FD1B, 400 Area French Drain 1B, 4703 Building (FFTF Control Building) HVAC Condensate, Miscellaneous Stream #15, Injection Well #1B **ReClassification:** Rejected (12/15/1998)
Site Type: French Drain **Start Date:** 1979
Site Status: Active **End Date:**
Site Description: The unit is a 1.5-meter (5-foot) long, 1.2-meter (4-foot) diameter concrete or polyvinyl chloride (PVC) pipe filled with gravel. It is in a vegetation free, gravel covered field and cannot be identified visually. The site is not located in a depression or contaminated area.

Waste Type: Water

Waste Description: Reports conflict about effluents discharged to this unit which may receive sump water; Heating, Ventilation, and Air Conditioning (HVAC) condensate from the 4703 Building; and/or water and detergent solutions. The flow rate as less is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 400 FD2 **Classification:** Accepted
Site Names: 400 FD2, 400 Area French Drain 2, 4621E Building HVAC Condensate and **ReClassification:** Rejected (12/15/1998)

Stormwater, Miscellaneous Stream #16,
Injection Well #02

Site Type: French Drain **Start Date:** 1979

Site Status: Active **End Date:**

Site Description: The unit is a 1.5-meter (5-foot) long, 1.2-meter (4-foot) diameter concrete or polyvinyl chloride (PVC) pipe filled with gravel. The above ground portion is a 0.9 meter (3 foot) long, 15.2 centimeter (6 inch) diameter rusted metal pipe capped with a metal plug and surrounded with landscaping rocks and shrubs. The site is not located in a depression or contaminated area.

Waste Type: Water

Waste Description: Reports conflict about effluents discharged to this unit. It may have received stormwater; and Heating, Ventilation, and Air Conditioning (HVAC) system condensate from the 4621E Auxiliary Equipment Building; and/or water and detergent solutions. The "Inventory of Miscellaneous Streams", Revision 3, lists the sources as stormwater and potable water. This document lists the flow rate as less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 400 FD3 **Classification:** Accepted

Site Names: 400 FD3, 400 Area French Drain 3, 408A East Dump Heat Exchanger Stormwater, Miscellaneous Stream #17, Injection Well #03 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:** 1979

Site Status: Active **End Date:**

Site Description: The unit is a 1.5-meter (5-foot) long, 1.2-meter (4-foot) diameter concrete or vitrified clay pipe filled with gravel. The above ground portion is two rusty metal pipes. One is 0.61 meters (2 feet) long and 8.9 centimeters (3.5 inches) in diameter. The other is 0.91 meters (3 feet) long and 11.4 centimeters (4.5 inches) in diameter. Each pipe is capped with a metal plug. The unit is surrounded by four 1.2-meter (4-foot) high yellow metal posts and is in a gravel-covered, vegetation-free field.

Waste Type: Stormwater Runoff

Waste Description: The site receives stormwater from the 408-A Dump Heat Exchanger (DHX). The flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 400 FD4 **Classification:** Accepted

Site Names: 400 FD4, 400 Area French Drain 4, 491E Heat Transport Building Stormwater and HVAC Condensate, Miscellaneous Stream #18 **ReClassification:** Rejected (12/15/1998)

Site Type: French Drain **Start Date:** 1979

Site Status: Active **End Date:**

Site Description: The unit is a 1.5-meter (5-foot) long, 1.2-meter (4-foot) diameter concrete or vitrified clay pipe filled with gravel. The above ground portion is a 0.91 meter (3 foot) long, 11.4-centimeter (4.5-inch) diameter, rusted metal pipe protruding from the middle of a gravel-covered field. It is

surrounded by four 1.2-meter (4-foot) tall yellow metal posts. Each of the posts has had a 20-centimeter (8-inch) diameter PVC (polyvinyl chloride) pipe measuring 2.0 meters (6 feet 8 inches) in length placed over it. The white PVC pipes have been marked with three horizontal, yellow stripes.

Waste Type: Water

Waste Description: Reports conflict about effluents discharged to this unit. It may receive dilute condensate; floor drain effluent and effluent from the 491-E Heat Transport Building consisting of stormwater from the roof of HTS-E, condensate from the building's Heating, Ventilation, and Air Conditioning (HVAC) system, rheostat water, and non-regulated quantities of sodium carbonate. The "Inventory of Miscellaneous Streams", Revision 3, lists the streams as HVAC condensate and storm water. The flow rate is less than 0.038 liters per minute (less than 0.01 gallons) per minute.

Waste Type: Water

Waste Description:

Site Code:	400 FD5	Classification:	Accepted
Site Names:	400 FD5, 400 Area French Drain 5, 408 South Building Stormwater and Condensate, Miscellaneous Stream #19, Injection Well #05	ReClassification:	Rejected (12/15/1998)
Site Type:	French Drain	Start Date:	1979
Site Status:	Active	End Date:	
Site Description:	The unit is a 1.2-meter (4-foot) diameter 1.5-meter (5-foot) long concrete or polyvinyl chloride (PVC) pipe filled with gravel and located in a gravel and cobble covered field. The visible portion of the unit is two rusted metal stand pipes. On pipe is 38.1-centimeters (15 inches) tall by 11.4 centimeters (4.5 inches) in diameter and the other is 15.2 centimeters (6 inches) tall by 20.3 centimeters (8 inches) in diameter. Surrounding the unit are two 1.2-meter (4-foot) tall yellow metal posts. Both stand pipes have a metal cap.		

Waste Type: Water

Waste Description: Reports conflict about effluents discharged to the unit, which may receive stormwater; dump heat exchanger effluent; and rheostat water containing non regulated quantities of sodium carbonate from the 408-B Dump Heat Exchanger (DHX) and the 491-W Heat Transport Building; condensate from building air cooling systems, solutions of water and detergent. The "Inventory of Miscellaneous Streams", Revision 3 lists the streams as heat exchanger condensate and stormwater. This document states that this stream receives the heat exchanger condensate formerly routed to Miscellaneous Stream #20 (WIDS Site Code 400 FD6). The document lists the flow rate as less than 0.08 liters per minute (0.02 gallons per minute).

Site Code:	400 FD6	Classification:	Accepted
Site Names:	400 FD6, 400 Area French Drain 6, 408C West Dump Heat Exchanger Sump Stormwater, Miscellaneous Stream #20	ReClassification:	Rejected (12/15/1998)

Condensate, Miscellaneous Stream #22,
Injection Well #08

Site Type: French Drain **Start Date:** 1979

Site Status: Active **End Date:**

Site Description: The unit is a 1.2-meter (4-foot) diameter, 1.5-meter (5-foot) long concrete or polyvinyl chloride (PVC) pipe filled with gravel. Drawing H-4-14647 shows the site to be located in an asphalt covered area. The site is capped by a 20.3-centimeter (8-inch) diameter metal stand pipe with a metal lid at grade.

Waste Type: Water

Waste Description: The site receives Heating, Ventilation, and Air Conditioning (HVAC) condensate from the 4621W Auxiliary Equipment Building. The flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 400 FD9 **Classification:** Accepted

Site Names: 400 FD9, 400 Area French Drain 9, 481 Pumphouse Sanitary Water and Salt Water, Miscellaneous Stream #23, Injection Well #09 **ReClassification:** Rejected (12/3/1998)

Site Type: French Drain **Start Date:** 1979

Site Status: Active **End Date:**

Site Description: The unit consists of a 1.5-meter (5-foot) long, 1.2-meter (4-foot) diameter concrete or vitrified clay pipe filled with gravel. The above grade structure is a rusted metal stand pipe 12.7 centimeters (5 inches) in diameter and 30.5 centimeters (1 foot) tall. It is located in a vegetation free, gravel covered field, and is surrounded by three 1.2-meter (4-foot) tall yellow steel posts

Waste Type: Water

Waste Description: The site receives sanitary water from pump seal leaks, and salt water from water softener back flushing from the 481 Pumphouse. The flow rate is less than 0.038 liters per minute (0.01 gallons per minute)

Site Code: 400 FD10 **Classification:** Not Accepted (12/3/1998)

Site Names: 400 FD10, 400 Area French Drain 10, 482A Building - T-58 Stormwater, Miscellaneous Stream #25, Injection Well #10 **ReClassification:**

Site Type: French Drain **Start Date:** 1979

Site Status: Active **End Date:**

Site Description: The site is either a concrete or vitrified clay pipe filled with gravel (H-4-14647). The disposal structure is not visible in the field. The drawing (H-4-14647) states that the drywells shall be located in the field so that they are 12.2 meters (40 feet) minimum from the nearest building line and 3.05 meters (10 feet) minimum from utilities and other structures.

The pipe (cast iron soil) invert is to the top of the french drain. Connections (elbows) are made

with 45 degree laterals. The top of the french drain is covered by a polyethylene sheet and a 5.1-centimeter (2-inch) thick redwood or cedar wooden cover.

The feed pipe is a 10.2 centimeter (4 inch) diameter steel pipe (drain line) with metal grate cover that is flush with the surrounding concrete paved area. The feed pipe drain is located at the base of a set of concrete steps leading to the equipment room for the 482A/T-58 Water Storage Tank. The Water Storage Tank is a concrete structure with a subgrade equipment room and concrete steps leading to the equipment room.

Waste Type: Stormwater Runoff

Waste Description: The site receives stormwater runoff from the 482A/T-58 Water Storage Tank and Equipment Room Structure. The flow rate is less than 0.038 liters (0.01 gallons) per minute.

Site Code: 400 FD10A **Classification:** Not Accepted (12/3/1998)

Site Names: 400 FD10A, 400 Area French Drain 10A, 482A Building -T-87 Stormwater, Miscellaneous Stream #24, Injection Well #10A **ReClassification:**

Site Type: French Drain **Start Date:** 1979

Site Status: Active **End Date:**

Site Description: The site is either a concrete or vitrified clay pipe filled with gravel (H-4-14647). The disposal structure is not visible in the field. The drawing (H-4-14647) states that the drywells shall be located in the field so that they are 12.2 meters (40 feet) minimum from the nearest building line and 3.05 meters (10 feet) minimum from utilities and other structures.

The pipe (cast iron soil) invert is to the top of the french drain. Connections (elbows) are made with 45 degree laterals. The top of the french drain is covered by a polyethylene sheet and a 5.1 centimeter (2 inch) thick redwood or cedar wooden cover.

The feed pipe is a 10.2 centimeter (4 inch) diameter steel pipe (drain line) with metal grate cover that is flush with the surrounding concrete paved area. The feed pipe drain is located at the base of a set of concrete steps leading to the equipment room for the 482B/T-87 Water Storage Tank. The Water Storage Tank is a concrete structure with a subgrade equipment room and concrete steps leading to the equipment room.

Waste Type: Stormwater Runoff

Waste Description: The site receives stormwater runoff from the 482B/T-87 Water Storage Tank and Equipment Room Structure. The flow rate is less than 0.038 liters (0.01 gallons) per minute.

Site Code: 400 PPSS **Classification:** Accepted

Site Names: 400 PPSS, 400 Area Process Pond and Sewer System, 4904 Process Sewer System, 4904 Process Sewer Main, 4608 Percolation Pond, 4608B Control Structure and Process Sewer Sampling Site **ReClassification:**

Site Type: Pond **Start Date:** 1979

Site Status: Active**End Date:**

Site Description: This site is the 400 Area Secondary Cooling Water (400 Area Process Sewer). The unit consists of underground piping, a control structure, and two percolation ponds known as 4608B and 4608C. The control structure, located near the 4607 Sanitary Sewer septic tank, is a corrugated metal building. A 30.5 centimeter (12 inch) main pipeline carries effluent from the 400 Area to the control structure, then northeast to the percolation ponds. Five 15.2 centimeter (6 inch) diameter pipes discharge process water from the four contributing facilities (see Process Description) into the main pipe (two pipes from FMEF, and one pipe each from the other three facilities). The ponds are 30.5 meters (100 feet) long, 15.3 meters or 23 meters (50 feet or 75 feet) wide, and 1.2 meters (4 feet) deep. The process sewer pipeline empties into a diversion box that is built into the wall that separates the two ponds. Each pond is connected to the diversion box by a 35.6 centimeter (14 inch) vitrified clay pipe. The ponds are enclosed by an 2.4 meter (8 foot) chain-link fence that has an unlocked, open gate. Each pond appears as a vegetation covered area that is recessed 1.2 to 1.8 meters (4 to 6 feet). The sampling location for the process sewer is contained in the flow metering hut (4608B) located just north of the northern fence line of the 400 Area.

The following is a list of source contributors and their status. Numbering/naming conventions, e.g., FMEF-352, 36B, 4M-92-00240/M are specific to facility locations, systems, and Engineering Change Notice/Work Package within the FFTF Complex. Note that some of the original source contributors have been plugged or bermed to prevent cooling water from entering the process sewer.

15	Floor Drain - FMEF-404	36B system drain plugged.
16	Floor Drain - FMEF-238	36B system drain plugged.
17	Floor Drain - FMEF	Routed to 36B system.
18	Floor Drain - FMEF-307	36B system drain plugged.
19	Floor Drain - FMEF	Routed to 36B system.
20	Floor Drain - FMEF	Routed to 36B system.
21	Floor Drain - FMEF	36B system drain plugged.
22	Floor Drain - FMEF	Routed to 36B system.
23	Floor Drain - FMEF	36B system plugged by 4M-92-00240/M.
24	Floor Drain - FMEF-204	36B system plugged by 4M-92-00240/M.
25	Floor Drain - FMEF-206	36B system plugged by 4M-92-00240/M.
26	Floor Drain - FMEF	Routed to 36B system.
27	Floor Drain - FMEF	Routed to 36B system.
28	Floor Drain - FMEF-300	36B system plugged by 4M-92-00240/M.
29-42	Floor Drain - FMEF-352	36B system plugged by 4M-92-00240/M.
44-47	Floor Drain - FMEF	Bermed to prevent spills from discharging to process sewer.
49-51	Floor Drain - FMEF	Bermed to prevent spills from discharging to process sewer.
60	Equipment Drain	Bermed to prevent spills from discharging to process sewer.
62	Floor Drain 0 MASF-HB	Drain has been permanently plugged.
63	Floor Drain - MASF-HB	Bermed to prevent spills from discharging to process sewer.
64	Air Compressor Cooling Water - MASF-ER	Bermed under 4A-92-00065/W.
65	Equipment Drain - MASF-ER	Bermed under 4A-92-00065/W.
66	Floor Drain in 481-A	A rubber plug has been installed on the drain cover under 4F-92-00940/W.
67	Sanitary Water Pump Leakage - 481-A	Drains service pump seal; 4 inch collars have been installed.

68	Equipment Drain - 481-A	Drains service pump seal; 4 inch collars have been installed.
69	Equipment Drain - 481-A	Drains service pump seal; 4 inch collars have been installed.
70	Janitor Sink - 481-A	Drains service pump seal; 4 inch collars have been installed.

Waste Type: Process Effluent

Waste Description: The process sewer, which empties into the process ponds, is for discharge of water from cooling systems and nonsanitary drains and sumps in the 400 Area facilities, including the Fast Flux Test Facility (FFTF). Water from the FFTF and FMEF cooling towers contains nonregulated quantities of algicides and other treatment chemicals, including a biocide (Dearcide 702), a microbiocide (sodium hypochlorite), and a softening agent (Dearborn 878). Chemicals used for secondary cooling water testing (Dearborn Code 550, 562, 595, 899, 904) are also present in unregulated quantities. Effluent flow varies from approximately (10 gallons per minute) in winter months to approximately (50 gallons per minute) in peak summer months.

The following waste streams are produced from each of the listed processes.

Process Name	Waste Stream Name
1. FFTF Cooling Water	Cooling Water System
2. FMEF Cooling Water	Cooling Water System
3. FFTF Containment H & V	Moisture Condensate from Ambient Air
4. FMEF Containment H & V	Moisture Condensate from Ambient Air
5. Paint Shop Spray	Filter Water from H & V
6. MASF Large Diameter Cleaning Vessel	Pump Water for Testing of Mitigation Pump
7. MASF Bearing Cooling Water	Bearing Cooling Water from Pump Test Runs
8. FMEF Retention Water	System 36B
9. FMEF Waste System	System 36D

Notes:

The water used in the cooling towers is recycled through the system 2.5 times or until the conductivity reading has reached 1,200 umhos. The chemical containers for the cooling tower treatment are rinsed out and the rinsate is added to the cooling tower sump.

The FFTF and FMEF recycle lubricants offsite.

The total water usage at the site is 471,232.5 liters per day (124,500 gallons per day) (average) and 727,477 liters per day (192,200 gallons per day) (maximum). The water source is a Hanford Site well designated as a drinking water well (Well 499-S1-8J).

Site Code:	400 RFD	Classification:	Not Accepted (12/3/1998)
Site Names:	400 RFD, 400 Area Retired French Drains	ReClassification:	
Site Type:	French Drain	Start Date:	
Site Status:	Inactive	End Date:	
Site Description:	The sites cannot be positively described, although most french drains in the 400 area are 1.5 meter (5 foot) long, 1.2 meter (4 foot) diameter concrete or vitrified clay pipes filled with gravel.		
Waste Type:	Water		

Waste Description: The retired french drains received unknown amounts of water used during construction for washing components prior to installation. The combined hazardous chemical inventory for the drains reportedly includes 40 kilograms of sodium dichromate. Based on reviews of available technical information, this information has not been substantiated.

Site Code: 400 RSP **Classification:** Accepted
Site Names: 400 RSP, 400 Area Retired Sanitary Pond **ReClassification:** Rejected (12/15/1998)
Site Type: Pond **Start Date:** 1972
Site Status: Inactive **End Date:** 1979

Site Description: This site was one component of a sanitary sewer system that supported the temporary facilities during construction of the FFTF. The site was a sanitary sewer pond that has been backfilled and is not visible. It currently appears as a vegetation-free, cobble-covered area. Originally, the site was 152 meters (500 feet) long and (152 meters) (500 feet) wide. Three square unlabeled manholes that provided access to the sanitary sewer pipelines (now abandoned in place) are located in the area and each manhole is adjacent to two 9 meter (3 foot) high metal posts.

Waste Type: Sanitary Sewage

Waste Description: The unit received 45,420 liters (12,000 gallons) per day of aqueous wastes from a portable sanitary sewage treatment plant that was located several hundred feet away from the pond. Nonhazardous sludges were taken offsite for disposal while the plant and pond were operating.

Site Code: 400 RST **Classification:** Accepted
Site Names: 400 RST, 400 Area Retired Septic Tanks **ReClassification:** Rejected (1/27/1999)
Site Type: Septic Tank **Start Date:** 1979
Site Status: Inactive **End Date:** 1983

Site Description: Three septic tanks are shown on drawing H-4-152051 and are listed as inactive waste disposal units in the Hanford Site Waste Management Units Report. There are no signs to mark the septic tanks. Surface features in the locations indicated on the drawing include two steel manhole covers near the southeast portion of 4702. One lid was partially covered with gravel. It is bolted down in the center and has perforated holes around its perimeter. The second manhole cover is posted with a "Danger: Limited Access, Confined Space, Class II" sign. On the east side of the center wing of 4702 Building is a 0.6 meter (2 foot) square concrete pad with a white 10 centimeter (4 inch) diameter PVC vent pipe protruding from the center. On the west side of the 4702 Building is a steel manhole that is surrounded by four yellow posts. It is also posted with a Confined Space, Class II sign. South of this manhole (on the west side of 4702 Building) is another 0.6 meter (2 foot) square concrete pad with a white 10 centimeter (4 inch) diameter PVC vent pipe protruding from the center.

Waste Type: Sanitary Sewage

Waste Description: The units received unknown amounts of sanitary wastes from office buildings.

Site Code: 400 SBT **Classification:** Not Accepted (12/3/1998)
Site Names: 400 SBT, 400 Area Sand Bottom Trench, **ReClassification:**

400 Area Retired Sand Bottom Trench,
Cooling Tower Overflow Trench

Site Type: Trench **Start Date:** 1979

Site Status: Inactive **End Date:**

Site Description: A concrete-lined trench 61 meters (200 feet) long, 1 meter (3 feet) wide, and 0.3 meters (1 foot) deep, covered with steel grating. The site collects overflow water from the 483 Cooling Tower pad and directs it to the process sewer. There is no known contamination or postings at the site.

Waste Type: Water

Waste Description: The 400 Area Sand Bottom Trench reportedly received an unknown amount of non-hazardous cooling tower blowdown. Site personnel state that the Cooling Tower Overflow Trench continues to receive non-hazardous blowdown, also known as secondary cooling water. Secondary cooling water contains non-regulated quantities of a biocide, a microbiocide, and a softening agent. Chemicals used for secondary cooling water testing are also present in non-regulated quantities.

Site Code: 400 SS **Classification:** Accepted

Site Names: 400 SS, 400 Area Sanitary Sewer, 4608 Sanitary Sewer, 4608 SS **ReClassification:** Rejected (1/27/1999)

Site Type: Septic Tank **Start Date:** 1983

Site Status: Inactive **End Date:** 1998

Site Description: The unit is a septic tank with a 11,355 liter (3000 gallon) capacity. The surface features of the septic tank were two fiberglass manhole covers. One of the manhole covers was posted with a "Danger: Confined Space" sign. The area is covered by vegetation.

Waste Type: Sanitary Sewage

Waste Description: Site personnel report the unit may have received waste from the T-100, T-101, T-102, T-103, T-104, T-105, T-106, T-107, T-108, and T-109 trailers. The tank received 2,839 liters (750 gallons) of sanitary waste each day. Effluent from this septic tank was discharged to the 4608 Sanitary Tile Field.

Site Code: 400 STF **Classification:** Accepted

Site Names: 400 STF, 400 Area Sanitary Tile Field, 4608 Sanitary Tile Field, 4608 STF **ReClassification:** Rejected (1/27/1999)

Site Type: Drain/Tile Field **Start Date:** 1983

Site Status: Inactive **End Date:** 1998

Site Description: The sanitary tile field is located within and at the west end of a vegetation-covered area that is bounded by steel posts and barricade chain. The 4608 Sanitary Sewer septic tank (400 SS) is on the east end of the chained area. The chained area is posted with a blue-and-white sign that reads "No Vehicles--Septic Field." The tile field has no surface features.

Waste Type: Sanitary Sewage

Waste Description: The unit received liquid wastes from the 4608 Sanitary Sewer septic tank. Site personnel report the tank and tile field may have received wastes from the T-100, T-101, T-102, T-103, T-104, T-105, T-106, T-107, T-108, and T-109 trailers.

Site Code: 400-1 **Classification:** Accepted
Site Names: 400-1, 400-1 Dump Site **ReClassification:** Rejected (12/15/1998)
Site Type: Dumping Area **Start Date:**
Site Status: Inactive **End Date:**

Site Description: The site is an area of soil mounds containing waste material. The mounds vary in content from backfill material (soil and rocks) to chunks of concrete, red volcanic landscaping rocks, metal piping, rebar, chunks of asphalt, and signs. The mounds are from 0.6 to 1.5 meters (2 to 5 feet) high. Some are partially covered with natural vegetation. The entire site is raised approximately 1.5 meters (5 feet) above the perimeter road that surrounds the 400 Area.

Waste Type: Construction Debris

Waste Description: The site contains piles of soil, concrete and rubble, a small amount of miscellaneous materials such as traffic markers and landscape rocks, and a few pieces of concrete asbestos board. Approximately 6 half 208 liter (half 55 gallon) drums (cut in half) are also present.

Site Code: 400-2 **Classification:** Not Accepted (12/3/1998)
Site Names: 400-2, Concrete Batch Plant **ReClassification:**
Site Type: Process Unit/Plant **Start Date:** 1972
Site Status: Inactive **End Date:**

Site Description: The site is a vegetation-free, cobble-covered area that is surrounded by a 2.4-meter (8-foot) high chain-link fence. A concrete building foundation is located at the southwest corner of the fenced area, with rebar and wooden supports protruding from its surface. Several material staging areas contained raw materials for the concrete production. They are open ended, concrete walled bins, located near the building foundation. There is a metal lined pit inside the fenced area that has been used to train employees to use fire extinguishing equipment.

Site Code: 400-3 **Classification:** Not Accepted (12/3/1998)
Site Names: 400-3, 400 DT, 400 Area Drainage Trench, **ReClassification:**
 400 Area Storm Drain Outfall Trench,
 Miscellaneous Stream #732
Site Type: Trench **Start Date:**
Site Status: Active **End Date:**

Site Description: This trench emerges just north of the perimeter road, at the northeast corner of the 400 Area, and travels north-northeast for approximately 90 meters (300 feet). The sides of the trench are covered with cobblestones, and the bottom is covered with cobblestones and sand. At its starting point near the perimeter road, the trench is 9 meters (30 feet) wide and 6 meters (20 feet) deep. There is no obvious end to the trench, as it narrows down and eventually becomes an area of disturbed vegetation.

Waste Type: Stormwater Runoff

Waste Description: Site personnel report that the unit receives storm runoff from various drains throughout the 400 Area. The Inventory of Miscellaneous Streams Report (DOE/RL-95-82) states this trench receives less than 0.038 liters per minute (0.01 gallons per minute) of stormwater runoff.

Site Code: 400-4 **Classification:** Accepted

Site Names: 400-4, Suspected Burial Ground (East of FFTF) **ReClassification:** Rejected (12/3/1998)

Site Type: Burial Ground **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site visit done in 1994 to support the 300-FF-2 Operable Unit Technical Baseline Report indicated the site appeared to possibly be a closed burial ground that had been covered with soil. Large mounds of soil are located on the north side of a flat area that measures approximately 30 by 15 meters (100 by 50 feet). The soil has been mounded approximately 3 to 6 meters (10 to 20 feet) above the surrounding terrain. Vegetation on the mound is sparse. In 1994, some waste, such as a glove and an electrical cable, were partially visible.

Waste Type: Misc. Trash and Debris

Waste Description: A small amount of visible surface debris. A glove and an electric cable.

Site Code: 400-5 **Classification:** Accepted

Site Names: 400-5, Septic Tank or Cistern **ReClassification:** Closed Out (12/3/1998)

Site Type: Septic Tank **Start Date:**

Site Status: Inactive **End Date:**

Site Description: Prior to 1998, a concrete pipe emerged from the ground approximately 6 meters (20 feet) north of a building foundation. The pipe had an inside diameter of 0.6 meters (2 feet) and was loosely covered with a wooden cover. It dropped approximately 4.6 meters (15 feet) into a concrete or concrete-lined circular vault. On September 16, 1998, the site was backfilled with sand slurry. It is currently surrounded by "Caution" tape.

Site Code: 400-6 **Classification:** Accepted

Site Names: 400-6, Material Dumping Area (North of FFTF), Material Dumping Area and Building Foundation **ReClassification:** Rejected (12/3/1998)

Site Type: Dumping Area **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site consists of a building foundation, sidewalks, and construction and demolition debris. The concrete building found is approximately 23 meters (75 feet) long and 7.6 meters (25 feet) wide. A portion of the building remains standing. That portion is made of painted concrete blocks with a corrugated metal roof. The floor slopes to a centered drain. Lumber at the site indicates that the rest of the building may have been of wood construction.

Waste Type: Construction Debris

Waste Type: Construction Debris

Waste Description: Debris scattered randomly at the site includes glass, metal, bricks, and wood from the building; wooden pallets; chunks of concrete; metal scraps; concrete core samples; and other construction materials. Surplus concrete and asphalt were also poured in an area at the north end of the site.

Site Code: 400-7 **Classification:** Accepted
Site Names: 400-7, 4607 SSST, 4607 Sanitary Sewer Septic Tank, 4607 SS, 4607 Sanitary Sewer **ReClassification:** Rejected (1/27/1999)

Site Type: Septic Tank **Start Date:** 1978

Site Status: Inactive **End Date:** 1997

Site Description: The unit is surrounded by an 2.4 meter (8 foot) high chain-link fence that is topped with three strands of barbed wire. The gate is unlocked and open. The top of a concrete structure with six metal access hatches is located on the west side of the fenced area. The hatches are marked with "Confined Space" signs. The septic tank inlet, which appears to be a circular concrete tank, is located approximately 3 meters (10 feet) from the south end of the concrete structure, just outside of the fence.

Hanford Drawing, H-4-38162, Civil Drawing Index Plot Plan, shows the various components of the system. They are the 4607 Septic Tank (WIDS Site 400-7, 4607 Leaching Field (WIDS Site 400-12), 4607 Sanitary Sewer Lagoon (WIDS Site 400-11). Note that this drawing shows the percolation ponds that belong to the process sewer system (WIDS Site 400 PPSS).

Waste Type: Sanitary Sewage

Waste Description: Site personnel report that this unit receives all sanitary wastes from 400 Area buildings except the wastes from a few trailers serviced by the 4608 Sanitary Sewer. The tank was designed to handle a flow rate of 230,000 liters per day (60,000 gallons per day). Reported flow rates include 23,000,000 liters per year (6,000,000 gallons per year), 57,000 liters per day) 15,000 gallons per day, 42,000 to 49,200 liters per day (11,000 to 13,000 gallons per day) of effluent, and 87,400 liters per day (23,100 gallons per day) of "influent and effluent." From 1978 to 1986, effluent was discharged through an underground 20 centimeter (8 inch) PVC pipe to the 4607 Sanitary Tile Field.

Site Code: 400-8 **Classification:** Accepted

Site Names: 400-8, Construction Material Dumping Area (North of FFTF) **ReClassification:** Rejected (12/3/1998)

Site Type: Dumping Area **Start Date:**

Site Status: Inactive **End Date:**

Site Description: Currently, the dumping area appears as a field that is a partially covered with vegetation and strewn with debris. The debris consists primarily of construction and demolition waste. There are no boundaries to clearly define the size of the dumping area.

Waste Type: Construction Debris

Waste Description: Material dumped at the site includes tires, concrete rubble, metal fencing, rebar, metal grating, sheet metal, piping, and metal scraps.

Site Code: 400-9 **Classification:** Accepted
Site Names: 400-9, 400 RPSSTP, 400 Area Retired **ReClassification:** Rejected (12/3/1998)
 Portable Sanitary Sewer Treatment Plant
Site Type: Sanitary Sewer **Start Date:** 1972
Site Status: Inactive **End Date:** 1979
Site Description: The site was a temporary sanitary sewage treatment plant. There is no visible evidence from the surface of the underground lines that remain in place, the removed treatment plant, or the backfilled pond.

Waste Type: Sanitary Sewage
Waste Description: Approximately 45,000 liters per day (12,000 gallons per day) of aqueous effluent from the treatment plant was transferred through underground lines to the pond, which was located just west of the current 4706 Building site. An unknown amount of that effluent leaked from sanitary sewer manholes and the outfall prior to late 1975 or early 1976. Nonhazardous sludges from the treatment plant were hauled offsite for disposal.

Site Code: 400-10 **Classification:** Not Accepted (12/3/1998)
Site Names: 400-10, 400 FD11, 400 Area French Drain **ReClassification:**
 #11, 453B Switch Gear Pad Stormwater,
 Miscellaneous Stream #26, Injection Well
 #11
Site Type: French Drain **Start Date:** 1979
Site Status: Active **End Date:**
Site Description: The site is a french drain. The visible portion is a 38 centimeter (15 inch) tall metal pipe, 10 centimeters (4 inches) in diameter. On two sides are 20.32 centimeter (8 inch) tall metal bars that are connected by a cross member. The drain is surrounded by four 1.2 meter (4 foot) tall yellow steel posts and is in the middle of a gravel covered field. The pipe is capped with a metal plug that has a raised square on top.

Waste Type: Stormwater Runoff
Waste Description: The unit receives stormwater from the 453-B Switchgear Pad. The flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 400-11 **Classification:** Accepted
Site Names: 400-11, 4607 SSL, 4607 Sanitary Sewer **ReClassification:** Rejected (1/27/1999)
 Lagoon, 400 Area Wetlands
Site Type: Pond **Start Date:** 1986
Site Status: Inactive **End Date:** 1996
Site Description: The site is a sanitary sewer lagoon that is currently dry. It has been backfilled and vegetated with grasses. The north and west sides are slightly depressed, but the south and east sides slope upward to the surrounding terrain. The adjacent terrain is covered with sagebrush and tumbleweeds. Signs are still present around the perimeter of the lagoon that state "Treated Sewage".

Shortly after the 4607 Sanitary Sewer and the 4607 Sanitary Tile Field began operating in 1978, sanitary effluent began surfacing in the location of the drain field and overflowing into a natural depression nearby. In 1986, the drain field failed completely, causing effluent to overflow through a manhole and enter the depression through a drainage ditch. A valve pit diversion box was subsequently installed to divert the waste stream to the natural depression. It became known as the 4607 Sanitary Sewer Lagoon and the 400 Area Wetlands. The lagoon was deepened, a berm was constructed around it. The existing drainage ditch was backfilled.

Waste Type: Sanitary Sewage

Waste Description: From 1986 to 1996, all sanitary effluent from the 4607 Sanitary Sewer has been discharged from the septic tank to the lagoon. Reported flow rates include 23,000,000 liters per year (6,000,000 gallons per year) in 1987, 57,000 liters per day (15,000 gallons per day) in 1989, 42,000 to 49,200 liters per day (11,000 gallons per day to 13,000 gallons per day) in 1992, and 87,400 liters per day (23,100 gallons per day) of influent and effluent in 1993. The theoretical combined evapotranspiration and percolation rate of the pond, based upon the 1993 flow rate is 187 liters per square meter per day (4.6 gallons per square foot per day).

Site Code:	400-12	Classification:	Accepted
Site Names:	400-12, 4607 STF, 4607 Sanitary Tile Field, 4608A Sanitary Sewer Leaching Field, 4608A Leaching Field	ReClassification:	Rejected (1/27/1999)
Site Type:	Drain/Tile Field	Start Date:	1978
Site Status:	Inactive	End Date:	1986
Site Description:	There are no visible surface features to identify this tile field. The tile field consisted of perforated 10 centimeter (4 inch) diameter PVC pipe that discharged sanitary effluent by gravity. The pipe sloped 0.25 meters for every 30.5 meters (3 inches for every 100 feet) of length. The tile field was filled with 0.3 meters (3 feet) of gravel and was covered with "untreated building paper." Approximately 490 meters (1,600 feet) of PVC pipe connected the tile field with the 4607 Sanitary Sewer septic tank.		

Per Curt Clement, Dyncorp, the drain/tile field was abandoned in-place years ago when it originally failed. The tie-in has been plugged.

Waste Type: Sanitary Sewage

Waste Description: The 4607 Sanitary Sewer received all sanitary wastes from 400 Area buildings except the wastes from a few trailers serviced by the 4608 Sanitary Sewer. Between 1978 and 1986, the tile field received liquid effluent from the 4607 Sanitary Sewer septic tank. The tank may have received effluent at a rate of 23,000,000 liters per year (6,000,000 gallons per year) in 1987, 57,000 liters per day (15,000 gallons per day) in 1989, 42,000 to 49,200 liters per day (11,000 to 13,000 gallons per day) in 1992, and 87,400 liters per day (23,100 gallons per day) in 1993.

Site Code:	400-13	Classification:	Accepted
Site Names:	400-13, Waste Dumping Site (East of FFTF)	ReClassification:	Rejected (12/15/1998)
Site Type:	Dumping Area	Start Date:	

Site Status:	Inactive	End Date:	
Site Description:	The site is a dumping area. Debris has been dumped in several areas, scattered over an area occupying approximately 1.2 hectares (3 acres). One of the dumping areas was possibly fenced in the past, since two corners are framed by wooden posts with fallen fence rails and chicken-wire fencing.		
Waste Type:	Misc. Trash and Debris		
Waste Description:	Tree limbs, bags of leaves, and other debris are scattered in several locations along the east side of the dirt access road. Additional areas further away from the road contain fire bricks, black rubber gloves, metal buckets, rusted tin cans, broken glass jars, electrical wiring, metal mesh screening, caulking guns, wood scraps, large chunks of building concrete, semi-circular wooden wall sections, and other waste materials.		

Site Code:	400-14	Classification:	Accepted
Site Names:	400-14, Burn Pit (East of FFTF)	ReClassification:	Rejected (12/15/1998)
Site Type:	Burn Pit	Start Date:	
Site Status:	Inactive	End Date:	
Site Description:	The 1994 site visit that supported the 300-FF-2 Technical Baseline Report stated the site was a large burn pit containing some visible, fire-scarred debris at the east end. Blown-in tumbleweeds were piled within the pit and some natural vegetation had begun to grow along the pit's walls. The unit's appearance indicated it has not been used for some time.		
Waste Type:	Misc. Trash and Debris		
Waste Description:	Fire-scarred metal mesh screening, rags, wood scraps, and fire bricks are visible within the pit, particularly at its east end.		

Site Code:	400-15	Classification:	Not Accepted (11/22/2004)
Site Names:	400-15, Diesel Fuel Tank Fitting Leak	ReClassification:	
Site Type:	Unplanned Release	Start Date:	1986
Site Status:	Inactive	End Date:	1994
Site Description:	The site was a petroleum unplanned release, discovered during the removal of two fuel tanks 400-FS-40 and 400-FS-4. One tank held diesel fuel and one tank held unleaded gasoline.		
Waste Type:	Oil		
Waste Description:	Two empty underground tanks were unearthed and moved from this site on May 10, 1994. One of the tanks had held diesel fuel, and the other had held unleaded gasoline. The soil underneath was discovered to have been contaminated with fuel. Approximately, 400 cubic yards of contaminated soil was excavated and removed to a bioremediation pit. Maximum soil concentrations were 4,500 parts per million (milligrams per kilogram) and 660 parts per million (milligrams per kilogram) for diesel and gasoline respectively. The soil sampling results indicated that at a depth of (30 feet), gasoline concentration was less than 20 parts per million and the diesel concentration was less than 50 parts per million. These limits were below the regulatory limits of WAC 173-340. As a result, the hole was backfilled with clean soil.		

Site Code: 400-16 **Classification:** Accepted
Site Names: 400-16, 4831 Flammable Storage Facility, 4831 FSF **ReClassification:** Rejected (12/3/1998)
Site Type: Storage **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The unit is a yellow, corrugated metal building and a fenced concrete pad to the south. The pad is 6.1 meters (20 feet) wide and 15.2 meters (50 feet) long, surrounded by a 1.8 meter (6 foot) high chain-link fence with a locked gate. The building is about 6.1 meters (20 feet) high, 6.1 meters (20 feet) wide, and 15.2 meters (50 feet) long. A walk-in door and a roll-up door, located on the south side of the building, allow access from the building to the fenced area.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: In 1994, signs indicated that the fenced area contains nonregulated empty drums, nonregulated waste, and used oil. No hazardous chemicals were stored on the outdoor pad. In 1998, all nonregulated waste containers were removed from the outdoor concrete pad. This pad is no longer used for nonregulated waste or empty containers. The building is used to store flammable or combustible products including lubricants and alcohols.

On 9/8/1998, the facility and nonregulated waste storage pad were walked down by Mr. T. A. Dillhoff (FFTF Environmental Compliance Officer). There was some rust staining on the concrete pad, but no evidence of any chemical leakage

Site Code: 400-17 **Classification:** Accepted
Site Names: 400-17, Buried Construction Waste Area #1, Buried Construction Waste Area **ReClassification:** Rejected (12/15/1998)
Site Type: Burial Ground **Start Date:** 1977
Site Status: Inactive **End Date:** 1979
Site Description: The site is a burial ground. The area shown on SK-4-81543 as a construction waste burial ground is partially covered by the 4843 Building and the 4843 Laydown Area. There is no visible evidence of a burial ground at this location. Areas surrounding the 4843 facilities appear as vegetation-free, gravel-covered fields.

Waste Type: Construction Debris

Waste Description: Site employees report that construction wastes were buried in this unit from "about 1977" to "about 1979."

Site Code: 400-18 **Classification:** Accepted
Site Names: 400-18, Buried Construction Waste Area #2, Buried Construction Waste Area **ReClassification:** Rejected (12/15/1998)
Site Type: Burial Ground **Start Date:** 1972
Site Status: Inactive **End Date:** 1974

Site Description: The site is a burial ground. The area shown on SK-4-81543 as a construction waste burial ground is partially covered by the 4831 Flammable Storage Facility. There is no visible evidence of a burial ground at this location. The area is now a vegetation-free, gravel-covered field.

Waste Type: Construction Debris

Waste Description: Site employees report that construction wastes were buried in this unit from "about 1972" to "about 1974."

Site Code:	400-19	Classification:	Accepted
Site Names:	400-19, Hazardous Waste Temporary Storage Facility, 400-30, 440 Building 90-Day Waste Accumulation Area	ReClassification:	Rejected (12/15/1998)
Site Type:	Storage Pad (<90 day)	Start Date:	1993
Site Status:	Active	End Date:	

Site Description: This facility consists of a tan-painted clearspan steel structure on a concrete pad. The structure's south, west, and north sides consist of steel siding, and its east side consists of 2.4 meter (8 feet) high metal chain-link fencing with two locked gates. It has a weather tight, zinc-coated steel roof with skylights and a full length roof vent. A 13 centimeter (5 inch) high and 15 centimeter (6 inch) wide concrete containment berm runs along the east side of the foundation. The facility's southeast corner is a fenced-off area, designated on drawings as a "Spill Cleanup Equipment Area," that is 3.0 meters (10 feet) long and 2.9 meters (9.67 feet) wide. Its concrete floor is raised about 15 centimeters (6 inches) from the building foundation. A section of this area is used to store clean empty drums for use as waste containers.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: The 4831 LHWSA was used to stage oils and other hazardous wastes, including solvents and ethylene glycol. Empty drums that had previously held cooling water treatment chemicals, such as the acutely hazardous Endcor 4690, were also staged at the site. The 440 HWTSF (WIDS Site Code 400-19) replaced the 4831 LHWSA as the 400 Area's less-than-90-day storage area for hazardous wastes. In August 1994, the main portion of the facility contained a white box, labeled "Spill Kit," along with wooden crates and metal cabinets. The "Spill Cleanup Equipment Area" contained several 208 liter (55 gallon) drums.

Site Code:	400-20	Classification:	Not Accepted (12/3/1998)
Site Names:	400-20, Altitude Valve Pit T-58, Miscellaneous Stream #31	ReClassification:	
Site Type:	French Drain	Start Date:	
Site Status:	Active	End Date:	

Site Description: The site was listed as a french drain located under Altitude Valve Pit T-58. This site is the source location for WIDS Site 400 FD10. Stormwater runs into the drain at the bottom of the stairs and is routed to the french drain, 400 FD10.

Site Code:	400-21	Classification:	Not Accepted (12/3/1998)
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Site Names: 400-21, Altitude Valve Pit T-87, Miscellaneous Stream #32 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site was listed as a french drain located under Altitude Valve Pit T-58. This site is the source location for WIDS Site 400 FD10A. Stormwater runs into the drain at the bottom of the stairs and is routed to the french drain, 400 FD10A.

Site Code: 400-22 **Classification:** Not Accepted (12/3/1998)

Site Names: 400-22, Altitude Valve Pit T-330 French Drain, Miscellaneous Stream #30 **ReClassification:**

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site was listed as a french drain located under Altitude Valve Pit T-330. No french drain exists at this location. The waste stream discharges directly to the process sewer. A drain was visually identified by opening the hatch cover and seeing a drain located in the southeast corner of the pit. Water was observed on the floor of the pit. The site is located within a confined space preventing further description of the site at the time of the inspection.

Site Code: 400-23 **Classification:** Accepted

Site Names: 400-23, Well Pump P-14 French Drain, Miscellaneous Stream #34, 480-A Pump House French Drain **ReClassification:** Rejected (12/3/1998)

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a square opening in the concrete floor of the 480-A Pumphouse. The site receives leakage from the P-14 Pump. An open 10.2 centimeters (4 inch) diameter pipe was observed at the bottom of the site. The site was dry at the time of the inspection.

Waste Type: Water

Waste Description: The french drain receives pump packing leakage from the P-14 well pump. The normal flow rate is 0.038 liters per minute (0.01 gallons per minute).

Site Code: 400-24 **Classification:** Accepted

Site Names: 400-24, Well Pump P-15 French Drain, Miscellaneous Stream #35 **ReClassification:** Rejected (12/3/1998)

Site Type: French Drain **Start Date:**

Site Status: Active **End Date:**

Site Description: The site is a rectangular opening in the concrete floor of the 480-B Pumphouse. The site receives leakage from the P-15 Pump. An open 10.2 centimeter (4 inch) diameter pipe was observed at the bottom of the site. The site was dry at the time of the inspection.

Waste Type: Water

Waste Description: This french drain receives groundwater well water leakage from pump P-15. The flow rate for this french drain is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 400-25

Classification: Accepted

Site Names: 400-25, Well Pump P-16 French Drain, Miscellaneous Stream #36

ReClassification: Rejected (12/3/1998)

Site Type: French Drain

Start Date:

Site Status: Active

End Date:

Site Description: The site is an active french drain constructed of concrete and covered with a steel lid. There is no known contamination at the site, and there were no postings. The site is actively receiving water. The water level in the french drain was 0.46 meters (1.5 feet) deep at the time of the inspection (10/5/1998).

Waste Type: Water

Waste Description: The french drain receives groundwater well pump packing leakage from the P-16 pump. The well is used to supply drinking and process water for the 400 Area. The flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Site Code: 400-26

Classification: Not Accepted (12/3/1998)

Site Names: 400-26, 451-A Substation and B/N Plant French Drain

ReClassification:

Site Type: French Drain

Start Date: 1979

Site Status: Active

End Date:

Site Description: This site consists of two drains located in the bottom of Electrical Manhole #1. These drains remove stormwater.

Waste Type: Stormwater Runoff

Waste Description: This unit receives intermittent discharges of stormwater from the 451-A Substation and the 400 Area B/N plant. It has a normal flow rate of zero.

Site Code: 400-28

Classification: Not Accepted (12/3/1998)

Site Names: 400-28, FFTF Dichlorodifluoromethane Releases

ReClassification:

Site Type: Unplanned Release

Start Date:

Site Status: Active

End Date:

Site Description: The sites are "fugitive airborne emissions" from eight centrifugal chiller units at the Fast Flux Test Facility (FFTF). These units are used to provide cooling for personnel and equipment. Each chiller unit contains up to 3,000 pounds of dichlorodifluoromethane.

Waste Type: Chemicals

Waste Description: The waste released was dichlorodifluoromethane, R-12, refrigerant. In Fiscal Year 1998, the R-12 refrigerant was replaced by R-134A. This information was reported by the FFTF Technical Point of Contact.

Site Code: 400-29 **Classification:** Not Accepted (12/3/1998)

Site Names: 400-29, FFTF PCB Containing Transformers (See Subsites) **ReClassification:**

Site Type: Control Structure **Start Date:**

Site Status: Active **End Date:**

Site Description: The sites are the 19 electrical transformers within the Fast Flux Test Facility (FFTF) complex containing polychlorinated biphenyls (PCBs). All of the transformers are/were located within buildings or on the roof of buildings. Five of the transformers have been removed and disposed of in accordance with Toxic Substances Control Act (TSCA) regulations.

Waste Type: Oil

Waste Description: The waste is transformers containing polychlorinated biphenyl oils (Type is Askarel).

SubSites:

SubSite Code: 400-29:1

SubSite Name: 400-29:1, Transformer X-5

Classification: Rejected

ReClassification:

Description: The transformer is located in Room 308 of the 4621E Building, 550 Level.

SubSite Code: 400-29:2

SubSite Name: 400-29:2, Transformer X-6

Classification: Rejected

ReClassification:

Description: The transformer is located in Room 367 of the 4621W Building, 550 Level.

SubSite Code: 400-29:3

SubSite Name: 400-29:3, Transformer X-7

Classification: Rejected

ReClassification:

Description: The transformer is located in Room 331 of the 4621E Building, 580 Level.

SubSite Code: 400-29:4

SubSite Name: 400-29:4, Transformer X-9

Classification: Rejected

ReClassification:

Description: The transformer was located on the Roof of the 4621 W Building, 580 Level. This transformer has been removed.

SubSite Code: 400-29:5

SubSite Name: 400-29:5, Transformer X-10

Classification: Rejected

ReClassification:

Description: The transformer was located on the Roof of the 4621 W Building, 580 Level. This transformer has been removed.

SubSite Code: 400-29:6

SubSite Name: 400-29:6, Transformer X-11

Classification: Rejected

ReClassification:

Description: The transformer is located in Room 449 of the 491E Building, 580 Level.

SubSite Code: 400-29:7

SubSite Name: 400-29:7, Transformer X-12

Classification: Rejected

ReClassification:

Description: The transformer is located in Room 452 of the 491W Building, 580 Level.

SubSite Code: 400-29:8

SubSite Name: 400-29:8, Transformer X-13

Classification: Rejected

ReClassification:

Description: The transformer is located in Room 457 of the 491W Building, 580 Level.

SubSite Code: 400-29:9

SubSite Name: 400-29:9, Transformer X-14

Classification: Rejected

ReClassification:

Description: The transformer is located on the Roof of the 4621 W Building, 580 Level.

SubSite Code: 400-29:10

SubSite Name: 400-29:10, Transformer X-25

Classification: Rejected

ReClassification:

Description: The transformer is located on the Roof of the 4621 W Building, 580 Level.

SubSite Code: 400-29:11
SubSite Name: 400-29:11, Transformer X-26
Classification: Rejected
ReClassification:
Description: The transformer is located on the Roof of the 4621W Building, 580 Level.

SubSite Code: 400-29:12
SubSite Name: 400-29:12, Transformer X-28
Classification: Rejected
ReClassification:
Description: The transformer was located in Room 303 of the 4621E Building, 533 Level. This transformer has been removed.

SubSite Code: 400-29:13
SubSite Name: 400-29:13, Transformer X-29
Classification: Rejected
ReClassification:
Description: The transformer was located in Room 365 of the 4621W Building, 550 Level. This transformer has been removed.

SubSite Code: 400-29:14
SubSite Name: 400-29:14, Transformer X-30
Classification: Rejected
ReClassification:
Description: The transformer was located in Room 431 of the 491-W Building, 531 Level. This transformer has been removed.

SubSite Code: 400-29:15
SubSite Name: 400-29:15, Transformer X-59
Classification: Rejected
ReClassification:
Description: The transformer is located in Room 457 of the 491W Building, 580 Level.

SubSite Code: 400-29:16
SubSite Name: 400-29:16, Transformer X-98
Classification: Rejected
ReClassification:
Description: The transformer is located in Room 457 of the 491W Building, 550 Level.

SubSite Code: 400-29:17

SubSite Name: 400-29:17, Transformer X-100

Classification: Rejected

ReClassification:

Description: The transformer is located in Room 308 of the 4621E Building, 550 Level.

SubSite Code: 400-29:18

SubSite Name: 400-29:18, Transformer X-101

Classification: Rejected

ReClassification:

Description: The transformer is located in Room 367 of the 4621W Building, 550 Level.

SubSite Code: 400-29:19

SubSite Name: 400-29:19, Transformer X-117

Classification: Rejected

ReClassification:

Description: The transformer is located in Room 452 of the 491E Building, 580 Level.

Site Code: 400-31

Classification: Accepted

Site Names: 400-31, Sodium Storage Facility, 402 Building

ReClassification: Closed Out (9/17/2003)

Site Type: Storage

Start Date:

Site Status: Inactive

End Date:

Site Description: The Sodium Storage Facility (SSF) is designed to receive sodium drained from the Fast Flux Test Facility (FFTF) reactor coolant system. The unit consists of three 303,000 liter (80,000 gallon) tanks and one 197,000 liter (52,000 gallon) tank contained within a concrete structure approximately 27.7 meters (91 feet) long by 27.4 meters (90 feet) by 9.1 meters (30 feet) high. The total process design capacity for the four SSF storage tanks will be 1,105,000 liters (292,000 gallons). A secondary containment sump is capable of containing the contents of two of the 303,000 liter (80,000 gallon) tanks.

Site Code: 400-32

Classification: Accepted

Site Names: 400-32, U.G. Drywell - North, Construction Dry Well

ReClassification: Rejected (12/3/1998)

Site Type: French Drain

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is a large gravel filled excavation that is labeled on drawing H-4-152051 as "U.G. Drywell". The drywell is a subsurface structure and is not visible at the surface.

Waste Type: Water

Waste Description: The gravel filled excavation was used to dispose of water that collected in the bottom of the 400 Area foundation excavations during construction.

Site Code: 400-33 **Classification:** Accepted
Site Names: 400-33, U.G. Drywell - South, Construction Dry Well **ReClassification:** Rejected (12/3/1998)
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is a large gravel filled excavation that is labeled on drawing H-4-152051 as "U.G. Drywell". The dry well is a subsurface structure and is not visible at the surface.
Waste Type: Water
Waste Description: The gravel filled excavation was used to dispose of water that collected in the bottom of the 400 Area foundation excavations during construction

Site Code: 400-34 **Classification:** Not Accepted (12/3/1998)
Site Names: 400-34, Northwest Surface Water Drainage Ditch, Miscellaneous Stream #733 **ReClassification:**
Site Type: Ditch **Start Date:** 1982
Site Status: Inactive **End Date:**
Site Description: A surface water drainage system made of a series of ditches and culverts is shown on drawing H-4-155518 and on H-4-150029. This ditch is shown to be northwest of the 437 building. It is approximately 700 feet in length and exits at the northwest corner of the 400 Area.

Site Code: 400-35 **Classification:** Not Accepted (12/3/1998)
Site Names: 400-35, Southwest Surface Water Drainage Ditch, Miscellaneous Stream #734 **ReClassification:**
Site Type: Ditch **Start Date:** 1982
Site Status: Active **End Date:**
Site Description: A surface water drainage system exits the southwest section of the 400 Area. This system collects surface water runoff from the area west of the Reactor Area. The system is a series of underground culverts and exposed, cobble ditches. It measures approximately 2750 feet in length. It exits the southwest corner of the reactor area near the 4790 Patrol Headquarters building as an underground pipeline. It turns south for approximately 229 meters (750 feet) along Grant Ave. . It exists the security fence and runs along the FMEF parking area. It then turns to the west along Alabama Blvd. until it reaches the desert southwest of 400 Area.
Waste Type: Stormwater Runoff
Waste Description: The unit collects storm water runoff from the west section of the 400 Area Reactor Area.

Site Code: 400-36 **Classification:** Accepted
Site Names: 400-36, 4843 Building Temporary Transfer Station, Sanitary Waste Check Station, **ReClassification:** No Action (1/18/2005)

4843 Waste Inspection Facility

Site Type: Storage **Start Date:** 1998

Site Status: Inactive **End Date:** 2002

Site Description: The structure is a fully-insulated, bolted steel building on a concrete slab. Heat is provided by ceiling-suspended heaters. Two 3.7 meter (12 foot) roll-up doors are located on the structure's east and west sides and can be used for moving materials into and out of the building. A large fenced laydown area adjacent to the building could be accessed through the west door. The facility also has several other doors and windows. A 8 foot (2.4 meter) wide and 10 foot (3.0 meter) tall portion of the south wall has corroded and appears rust-colored. The bottom edges of the facility's outside walls have also corroded.

Waste Type: Misc. Trash and Debris

Waste Description: The building was used as a transfer station to check Hanford garbage (sanitary waste) for radiological or hazardous contaminants prior to transporting the garbage to the Richland Landfill for final disposal.

Site Code: 400-37 **Classification:** Accepted

Site Names: 400-37, Fuel Oil Tank South of 4732-B **ReClassification:**

Site Type: Storage Tank **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is an underground fuel oil tank. There is no visual evidence of the tank on the surface.

Site Code: 400-38 **Classification:** Accepted

Site Names: 400-38, Fuel Oil Tank East of 4722-A Building Pad **ReClassification:**

Site Type: Storage Tank **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The 4722-A building has been removed. The concrete pad still remains. The site is an underground fuel tank that supported 4722A. There is no visual evidence of the tank on the surface.

Site Code: 400-39 **Classification:** Accepted

Site Names: 400-39, 400 Area Bioremediation Pad, 400 Area Soil Cell **ReClassification:** Rejected (11/22/2004)

Site Type: Surface Impoundment **Start Date:** 1994

Site Status: Inactive **End Date:**

Site Description: The site is a bermed, mound of soil with a visible plastic liner. It is marked with a sign that says Keep Out- Petroleum Contaminated Soil.

Waste Type: Oil

Waste Description: The bioremediation pad contains petroleum contaminated soil that was found when the fire station fuel tanks 400-FS-40 and 400-FS-41 were removed (see sitecode 400-15).

Site Code: 403 FD **Classification:** Accepted

Site Names: 403 FD, Discharge Point from the 403 Building, 403 French Drain, 400 Area French Drain Discharge from 403, 400 Area Drain Discharge from 403, Miscellaneous Stream #37 **ReClassification:** Rejected (12/15/1998)

Site Type: Injection/Reverse Well **Start Date:** 1979

Site Status: Active **End Date:**

Site Description: Previously, this discharge point was mistakenly described as a french drain. A 1996 site visit has confirmed that the discharge point is a pipe exiting the northeast side of the 403 Building. The effluent follows an asphalt trough to a drain in the pavement. The pavement drain is part of the 400 Area Stormwater Collection System (reference H-4-38972 and H-4-158520).

Waste Type: Water

Waste Description: The unit may receive, or may have received air washer blowdown, Heating, Ventilation, and Air Conditioning (HVAC) system condensate, and stormwater from the 403 building, as well as janitorial solutions of water and detergents. The site has been removed from the active list of the "Inventory of Miscellaneous Streams", Revision 3, because the site does not discharge to an engineered disposal unit. The site is part of the 400 Area Stormwater Collection System.

Site Code: 427 HWSA **Classification:** Accepted

Site Names: 427 HWSA, 427 Building Fuel Cycle Plant Hazardous Waste Storage Area, 427 Building Fuels and Materials Exam. Facility HWSA **ReClassification:** Closed Out (12/3/1998)

Site Type: Satellite Accumulation Area **Start Date:** 1985

Site Status: Inactive **End Date:**

Site Description: Currently, the site described as the active Reusable Oil and Empty Drum Storage Area appears as a concrete pad approximately 9.1 meters (30 feet) long and 4.6 meters (15 feet) wide surrounded by a 2.1 meter (7 foot) high chain link fence with a locked gate.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: The FMEF hazardous waste engineer indicates the Reusable Oil and Empty Drum Staging Area is used to stage containers of oils and lubricants, as well as empty drums. One report describes the 427 HWSA as a staging area for oils and lubricants. That description fits the Reusable Oil and Empty Drum Staging Area. However, another report states that the 427 HWSA was used as a staging area for ethylene glycol and ammonium hydroxide.

Site Code: 437 MASF **Classification:** Accepted

Site Names: 437 MASF, 400 Area Maintenance and **ReClassification:**

air conditioning (HVAC) equipment including the air handling unit, return air fan, return air HEPA filters, and the energy recovery unit.

The loadout facility, attached to the west end of the service wing is a concrete shielded enclosure that is physically separated from the service wing by a concrete shield wall. The loadout facility is used for the transfer of radioactive liquid waste from the radioactive waste storage tanks to Hanford Site tank cars for transportation to the site disposal facilities.

Support Services

A railroad spur comes from the FFTF west track and extends through the main building, terminating at the north end of the building. A second railroad spur is provided from the loadout facility to the FFTF main track north of the MASF.

Separate water supply lines are installed from the 400 Area water system to the building to provide both fire and sanitary water services. All post indicator valves in the fire water supply piping are supervised circuit valves.

A 13.8 kV underground feeder and duct bank is installed from Substation 451-B to the MASF outdoor substation transformer which provides a 480/277-V, 3-phase, 4-W, 60 Hz building electrical service.

Low voltage drawout switchgear is used for distribution and control of building power. Each power circuit breaker has a solid state tripping device for either delayed, instantaneous, or ground fault tripping characteristics. Motor loads are fed from a motor control center. Lighting, receptacles, and other loads are fed from panelboards.

The facility is surrounded by a grounding grid. All building steel and equipment are connected to the grid. The instrumentation system uses a separate analog system that ties directly into the FFTF analog ground grid.

The MASF has a lightning protection system.

Sanitary water and fire protection water are supplied from separate mains to the building. A reduced pressure backflow preventer assembly is installed between the sanitary water and process water systems to protect the sanitary water supply.

The sanitary sewer collects effluent waste from the sanitary fixtures and floor drains in the personnel support areas. The process sewer collects nonradioactive liquid from all areas of the facility. The primary source of nonradioactive water discharged to the process sewer is the sodium removal system.

All contaminated liquid waste in the facility is discharged into radioactive liquid waste tanks. The stored radioactive liquid waste is transferred to a railroad tank car in the loadout facility for disposal.

The Heating, Ventilation and Air Conditioning (HVAC) System supports all areas of the facility. The direction of air flow, pressure differentials and duct arrangement minimize the potential spread of contamination or the accumulation of inert gas, and potentially contaminated areas are maintained negative with respect to the outside atmosphere.

The MASF HVAC System consists of a supply air system, a return air system, and an exhaust air system. All recirculated air or exhaust air from the facility passes through a bank of HEPA filters, and the filtered air is isokinetically sampled and continuously monitored for radioactive contamination

Waste Type: Process Effluent

Waste Description: This facility is currently being used for the decontamination of radioactive and/or sodium contaminated FFTF equipment, the repair of contaminated manipulators from the FFTF Reactor Containment Building, the staging of large pieces of equipment to be stored, repaired, or tested; and the temporary storage of low level radioactive solid and liquid wastes prior to shipment.

Radioactive liquids are generated in the sodium cleaning vessel operation and Decontamination Areas. All radioactive liquids from the cleaning vessels and Decontamination Areas discharge into the radioactive waste tanks. The radioactive liquid in the tank(s) can be transferred to a liquid waste tank car in the shielded loadout facility for disposal. The capability to transfer radioactive liquids from the cleaning vessels directly to the tank car is also provided. All liquid can be discharged from the tank car through a filter to remove radioactive particles. To minimize the potential for spillage during loadout, overflow lines are provided from the tank car to the radioactive waste tanks. In the event of spillage, a collection basin in the floor also drains back to the waste tanks. The loadout facility is isolated during filling operations to minimize personnel exposure. Personnel exits are located at the north and south ends of the facility for rapid egress if required. The facility is maintained at a negative pressure with respect to the atmosphere to prohibit any inadvertent release of contaminants to the environs.

Components or equipment containing a sodium film or small residual deposits of sodium can be transported to MASF for disposition. All sodium wetted components can be handled in inerted casks or containers and stored in inerted vessels in below grade cells. All sodium wetted components can be cleaned prior to repair/maintenance or other disposition.

Waste Type: Chemicals

Waste Description: The chemicals to be handled in MASF are of a typical industrial nature. These include organic acids for decontamination and caustic solutions and inorganic acids for regenerating demineralizer resins. The chemicals will be handled in fume hoods and areas appropriately vented and exhausted through a scrubber, demister, dryer and HEPA filters. Caustic rinse water from sodium cleaning operations will be present in the sodium cleaning vessels and piping systems.

SubSites:

SubSite Code: 437 MASF:1

SubSite Name: 437 MASF:1, HVAC

Classification: Accepted

ReClassification:

Description: The air handling unit (AH-1) provides ventilation and conditioned air throughout the facility. Makeup supply air is provided from the outside through a supply/exhaust air heat exchanger and dust filters to AH-1.

Chilled water cooling coils in AH-1 cool the makeup/recirculated air, as required by the HVAC temperature control system. Heated air is provided by electric heaters installed in individual area supply ducts.

The supply fan air is controlled at a constant discharge pressure. In the event of a building static pressure upset, such as open doors or other disturbing conditions, the static pressure sensor modulates the supply fan variable inlet vanes to maintain a constant static pressure in the discharge plenum.

The return air system normally recirculates air from noncontaminated areas and introduces the air to the supply side of AH-1 after passing through a bank of HEPA filters. The return air is isokinetically sampled and continuously monitored prior to introduction into AH-1.

Depending on temperature control demands or smoke/fire alarm conditions, the recirculated air can also be partially or fully exhausted from the facility. A flow-controlling instrumentation circuit modulates the variable inlet vanes in the return air blower as required to maintain the constant return air flow.

The exhaust air system takes exhaust air from the potentially contaminated areas for discharge to the atmosphere through HEPA filtration systems. Two exhaust air blowers (each 100% capacity) are provided in the exhaust system and operate in a lead/standby mode. The exhaust air is maintained at a constant volume flow rate by an air flow control circuit similar to the return air system. Automatic switchover from operating to idle blower is incorporated into the control system in the event of a blower system malfunction to ensure maintaining required negative pressurization in the facility. The exhaust air from Decontamination Areas I and II, CDMF, and process system contaminated vents are passed through a wet scrubber, demister, and dryer that are located upstream from the HEPA filters. Operation of the scrubber/dryer normally will involve evolutions that may produce sodium aerosols. All exhaust air passes through HEPA filters and is isokinetically sampled and continuously monitored for radioactive contamination prior to discharge from the building. Demisters are also provided on the exhaust air ducts in Decontamination Area I and Cask Decontamination and Maintenance Facility (CDMF).

A chilled water system feeds the cooling coils in AH-1 to remove heat from the supply air. The chilled water system consists of an air cooled water chiller with dual refrigerant circuits (each 50% capacity), dual chilled water circulating pumps (100% capacity) and piping, and controls to maintain air temperatures. The system configuration permits the use of one chilled water pump in the operating mode while the other chilled water pump remains on standby. Automatic switchover from the operating to the idle pump is provided in the event of pump or system malfunction. Suitable interlocks prevent the simultaneous operation of heating and cooling systems.

Self-contained HEPA filters, with prefilters, are installed as close as practical to the source of potential contaminants to minimize contamination of duct work. HEPA filters are tested at HEHF prior to installation, in place prior to system operation, and at least every two years thereafter. The HEPA filters are installed as single units or manifolded in filter banks and can be changed out as individual units without shutting down the HVAC System. Differential pressure gages are installed across HEPA filters to indicate filter loading. High differential pressure alarms are located on the HVAC control panel for all HEPA filters in the facility, except the CDMF filters.

The HVAC air flow control panel and temperature control panel are located in the mechanical equipment room. The HVAC air flow control system can be operated in a manual or automatic mode. The temperature control system operates in the automatic mode. Any off-normal condition will alarm at the HVAC control panel and the process control room panel.

All potentially contaminated areas are maintained at a negative pressure with respect to the environment and with respect to adjacent less contaminated areas to minimize the spread of potential contamination. Low range, high sensitivity differential pressure instrumentation provides indication and annunciation to the HVAC control panel, for those areas where contamination potential is greater. In addition, local alarm and indication are provided for those areas of greatest potential for contamination.

Smoke detectors are installed in the HVAC return and in selected exhaust ducts upstream from HEPA filters, and these initiate an alarm at the fire alarm control panel (FACP) if smoke is detected in the HVAC exhaust or return ducts.

In the event of a smoke/fire alarm, the supply fan automatically shuts down. The return air recirculation damper to AH-I closes, and the return air is exhausted from the building. Both the return and exhaust fans will continue to operate to exhaust smoke from the facility.

An indicated radiation level above a preset limit in the return or exhaust duct isokinetic sampling and radiation monitoring system will initiate a visible and audible alarm in the process control room to alert personnel to the off normal condition. An assessment of the cause of the alert alarm condition will be made to determine the need and nature of the required corrective action. In the event that the indicated radiation levels in either the return or exhaust duct exceeds the preset high-alarm limit, the HVAC system supply, return and exhaust fans and dampers will automatically shut down (regardless of smoke/fire alarm conditions) to preclude any potential release of radioactive contamination to the environment or dispersal of contaminants to other areas of the facility. The isokinetic sampling monitor alarm setpoints are established in accordance with applicable requirements. The isokinetic radiation monitoring panel is located in the mechanical equipment room, adjacent to the HVAC control panels.

SubSite Code: 437 MASF:2
SubSite Name: 437 MASF:2, Protective Systems
Classification: Accepted
ReClassification:
Description: Instrumentation and Control System

The instrumentation control system (ICS) provides integrated control and instrumentation for the process system. The sodium removal, nitrogen, steam, contaminated waste, process water, process sewer, and demineralized water are subsystems of this system.

Selected process system components located in administratively controlled areas are monitored and controlled in the process control room. The process control panel has visible and audible alarm annunciators.

The process control operator takes corrective action for alarm conditions. For key parameters, backup automatic action is initiated if the operator fails to respond to the alarm condition. Alarm windows are grouped by systems to aid the operator in quickly identifying the problem and facilitating corrective action.

Fire Protection System

The MASF fire protection system is designed in accordance with Fire Zone 3, Type II N requirements of the Uniform Building Code. The repair and storage area is classified as a Group B, Division 4 occupancy and the two-story service wing as a Group B, Division 2 occupancy.

The wet pipe sprinkler system and fire detection/alarm system are designed and installed in accordance with National Fire Protection Association (NFPA) requirements, for ordinary hazard, Group 2 occupancy. All equipment and devices have the Factory Mutual Engineering Corporation approval or are listed for the use intended by the Underwriters Laboratory, Inc.

Fire protection system alarm devices are zoned and arranged to provide a local fire alarm and fire zone identification at the fire alarm control panel (FACP). HVAC duct smoke detectors initiate an alarm at the FACP in the event of smoke detection. All FACP alarms are transmitted directly to the Hanford Site central fire station. The system also detects any trouble condition such as an inoperative alarm circuit, a closed post indicator valve or a normal power failure and transmits a trouble signal to the FACP and the central fire station.

Hose stations are installed in the repair and storage area in accordance with NFPA requirements.

Radiation Monitoring System

A radiation monitoring system provides radiation surveillance throughout the facility and alarms in the event of above normal radiation levels. The radiation monitoring system consists of remote area monitors, continuous air monitors, and fixed room air samplers. All liquid and gaseous effluents are monitored to prevent releases of radioactivity to the environment.

The local area gamma-radiation monitors visibly and audibly alarm locally and process radiation monitors alarm in the process control room in the event that radiation levels exceed pre-established radiation limits.

Hand and shoe counters are installed at all established exits from potentially contaminated areas to control the possible spread of contamination to other building areas.

Oxygen-Deficient Atmosphere

The principal inert gas present in the MASF is nitrogen, although an argon inerted component cask or container may be shipped to MASF providing the possibility that argon gas could also be present in the facility. Oxygen deficiency monitors are located in confined areas such as the mechanical service tunnel, Large Diameter Cleaning Vessel (LDCV) cell, test cell, Decontamination Areas I and II, and all stairwells where an oxygen deficient atmosphere might occur. The monitors provide an audible and visible alarm.

HVAC supply and exhaust ducting is arranged to ensure maximum circulation to prevent the accumulation of nitrogen or argon gas in confined areas.

Breathing Air System Alarms

Visible and audible alarms are provided at each breathing air station to indicate low air pressure and compressor trouble. The process control room has audible and visual alarms for low pressure, high compressor temperature and loss of alarm power.

Door Annunciators

Limit switches are located at all exterior personnel doors, with the exception of the main lobby door and the process equipment room personnel door. The limit switches indicate that a door is opened and that the contamination control boundary may have been compromised. The limit switches initiate a visible and audible alarm in the process control room.

Emergency Lighting

Battery powered emergency lights are strategically located throughout facility and in all stairwells and at exits to permit safe egress from the building in the event of a power failure.

SubSite Code: 437 MASF:3
SubSite Name: 437 MASF:3, Decontamination Areas
Classification: Accepted
ReClassification:
Description: Decontamination Areas I and II

The Decontamination Area shielded enclosure in the main building contains two separate shielded areas, Decontamination Area I and Decontamination Area II. Surface contaminated articles such as tools, small valves, and mechanical components are cleaned and packaged for storage, disposal, or repair.

A 5 ton monorail is provided for material handling in the Decontamination Areas. Operation of the 5 ton monorail in both Decontamination Areas is by radio control.

Decontamination Area I is used for semi-remote or spray cleaning and hands-on spray cleaning of contaminated equipment using hot or cold water, steam, and suitable detergents. Two shield windows are installed in the Decontamination Area I shield walls. Work stations, which include all penetrations necessary for the semi-remote spray cleaning of equipment, are provided at each window location. Access to Area I is through a 1.01 meter (40 inch) diameter port in the ceiling via the Shielded Cell Transfer Cask (SCTC). A 1 ton jib crane and electric hoist are provided on the west wall of Decontamination Area I to relocate equipment to a position clear of the 1.01 meter (40 inch) ceiling port, allowing "turn key" operation. A door from Area II to Area I allows equipment and personnel access.

Interim Examination and Maintenance (IEM) Cell equipment transfers to and from Decontamination Area I are accomplished using the SCTC, the SCTC Air Bearing Carriage Assembly, and the associated support structure located outside and over the Decontamination Area I cell. The SCTC consists of a shielded cask, an 8 ton hoist and cover assembly, a gas system for cask inerting and purging, and a closure valve. The SCTC is lifted by an overhead crane from the Maintenance Equipment Transport System to the Air Bearing Carriage Assembly and then moved via the carriage to a position over the Decontamination Area I 1.01 meter (40 inch) diameter ceiling port. The carriage is a platform with four air cushion pads and a control system for the air pads. To support the carriage and the SCTC, a support structure is provided that contains support beams between the overhead crane access area and the Decontamination Area I ceiling port.

Area I shielding limits all adjacent areas to the design radiation level of 0.2 mrem/h for a maximum 10 R/h point source deposited on the surface of equipment. This point source approximates a 1 curie cobalt-60 equivalent activity deposit which is the maximum projected source to be handled in Decontamination Area I.

Decontamination Area II provides the necessary services for hands-on cleaning and maintenance operations of small mildly contaminated parts. A 1.01 meter (40 inch) diameter ceiling port is provided in the ceiling to permit transfer of contaminated articles from the IEM Cell transfer container into Decontamination Area II. This area has a large ultrasonic cleaner, a sink with fume hood, worktable, safety shower, a solid waste compactor, service sink, and floor space for repair, packaging, and unpackaging components. The ultrasonic cleaning tank, worktable, and solid waste compactor are equipped with fume hoods. Hood exhausts discharge into the Area II HVAC exhaust duct. Large equipment double doors and a personnel airlock are also provided for access into Decontamination Area II.

Decontamination Area II can process components/ equipment with measurable radiation

levels up to 20 mrem/h at 1 foot from the component. This point source approximates a 2 millicurie cobalt-60 equivalent activity deposit on the surface of equipment. As the above analysis showed that this activity was the maximum projected source to be handled in Decontamination Area II, Area II shielding has been designed to maintain the design radiation levels in adjacent areas below the design radiation level of 0.2 mrem/h while processing components/equipment with the above stated radiation levels.

SubSite Code: 437 MASF:4
SubSite Name: 437 MASF:4, Cells
Classification: Accepted
ReClassification:
Description: Below Grade Cells

The below grade cells within the high bay areas are concrete shielded enclosures, approximately 12.5 meters (41 feet) deep, and include two inert vessel cells, a large diameter cleaning vessel (LDCV) cell, a small diameter cleaning vessel (SDCV) cell, and an air and test cell. Equipment access is from above by removing the shielded floor plugs used to cover the cells. The 200 ton and 60 ton crane support these cells.

The below grade cell shielding maintains the radiation levels below 0.2 mrem/h radiation to adjacent areas. The worst case component allowed to be stored or serviced in each cell is an instrument tree in the inert vessel and LDCV cell, six reflectors in the SDCV cell, and an intermediate heat exchanger in the air and test cell). The instrument tree and reflectors experience a maximum neutron flux from the FFTF core. The Intermediate Heat Exchanger (IHX) is subjected to the maximum corrosion product deposition from the primary coolant loops of the FFTF. Source strengths for these components are provided in the facility design criteria. The maximum allowable radiation levels from the cells to the adjacent areas are 2 mrem/h in the mechanical service tunnel and below-grade cells and 0.2 mrem/h in the stairwell and above-grade high-bay area.

Inert Vessel Cells

The inert vessel cells each contain a carbon steel vessel that provides controlled inert storage atmosphere for large sodium-wetted components prior to sodium film removal and for components that have been cleaned, repaired, and are ready for reuse.

LDCV and SDCV Cells

The LDCV and SDCV cells contain the cleaning vessels for sodium film removal from sodium-wetted components.

The LDCV and SDCV cleaning vessel design pressures are 20 psig. The vessels have been designed and fabricated to the ASME Boiler and Pressure Vessel Code. The LDCV has been hydrotested to 43 psig; the SDCV has been hydrotested to 30 psig.

Air and Test Cell

The air and test cell provides an area for maintenance and storage of large components, such as a primary pump, secondary pump, or an intermediate heat exchanger, after sodium removal.

Radioactive Waste Tank Cell

The radioactive waste tank cell is a shielded concrete enclosure located beneath the process equipment room. The cell contains two 18,925 liters (5,000 gallons) stainless steel tanks for the storage of radioactive liquid waste. The tanks were tested in accordance with the ASME Boiler and pressure Vessel Code, Section VIII, Division 1. Design pressure of the tanks is 45 psig; hydrostatic test pressure is 67.5 psig.

The cell shielding is based on the maximum source strength of the radioactive liquid stored in the tanks and has been designed to maintain the radiation levels in the process equipment room below the design radiation level of 0.2 mrem/h. The source strength used in the design calculation is provided in the facility design criteria.

SubSite Code: 437 MASF:5

SubSite Name: 437 MASF:5, Cask Decontamination and Maintenance Facility

Classification: Accepted

ReClassification:

Description:

The Cask Decontamination and Maintenance Facility (CDMF) is an unshielded, air atmosphere glovebox located in the high-bay area. The CDMF operates at a negative pressure with a once-through HEPA filtered air flow. The CDMF provides radiological containment for cleaning operations and inspections under T-3 Cask's license. Both supply and exhaust air is filtered.

Hands-on decontamination is done inside the glovebox enclosure using a water rinse system and special cask unloading, scraping, and inspection tools. The rinse water from the T-3 Cask is filtered in the CDMF adapter before it enters the Contaminated Liquid Waste System. The CDMF is serviced by a small 1/4 ton bridge crane and electric hoist that comply with all requirements for Hanford hoisting and rigging. CDMF was fabricated and helium-leak tested per HWS-12111, Amendment 1. The glovebox is equipped with an alarm for loss of negative pressure and a fire detector.

SubSite Code: 437 MASF:6

SubSite Name: 437 MASF:6, Contaminated Equipment Repair Shop

Classification: Accepted

ReClassification:

Description:

The Contaminated Equipment Repair Shop (CERS) provides the necessary services for hands-on repair and maintenance operations of Interim Examination and Maintenance (IEM) Cell components that have been decontaminated. The CERS is located in the low bay area and is operated at a negative pressure. The shop contains work tables and maintenance tools and is equipped with an overhead sprinkler system. The work tables have local HVAC exhaust drops. A 1 ton monorail and electric hoist services the CERS work tables and a 4 ton electric hoist is housed in a penthouse on the roof of the CERS.

The CERS is accessed through two large equipment doors and a personnel airlock. A ceiling equipment access hatch is also provided. A pair of seal tubes over the large double doors are used for manipulator retesting. Electrical penetrations are provided for contaminated IEM Cell TV equipment repair.

SubSite Code: 437 MASF:7

SubSite Name: 437 MASF:7, Loadout Facility

Classification: Accepted

ReClassification:

Description: The loadout facility is a concrete shielded enclosure that will accommodate the FFTF and Hanford Site tank cars for transfer and disposal of the radioactive liquid waste stored in the radioactive storage tanks. The shielding has been designed to maintain the design radiation level of 0.1 mrem/h external to the facility and 0.2 mrem/h in the process equipment room. The shielding calculations used the maximum source strength in a 75,700 liters (20,000 gallon) tank car, as defined in the facility design criteria.

SubSite Code: 437 MASF:8

SubSite Name: 437 MASF:8, Process Systems

Classification: Accepted

ReClassification:

Description: Sodium Removal System

The sodium removal system consists of the large diameter and small diameter cleaning vessels, fluid/gas supply systems, a vacuum pumping system, water recirculation system, gas recirculation system, and drain and vent systems. Because of the piping system design, only one cleaning vessel can be used at any one time.

The cleaning process consists of recirculating a water vapor/nitrogen mixture (WVN) while venting gas to remove hydrogen. The reaction rate is controlled by monitoring the hydrogen concentration and adjusting the steam concentration as required to maintain the sodium reaction. The WVN process is continued until the moist circulating gas has completely reacted with the sodium film, as indicated by the hydrogen analyzer. The WVN process is then discontinued, and the vessel is slowly filled with hot demineralized water while the N₂ flow is continued and the hydrogen gas is monitored. After a suitable recirculation period, the water is drained, followed by additional rinses as required to ensure that all sodium hydroxide has been rinsed from the item, as indicated by the pH meter. A two-stage filter, with a removal efficiency of 98% (for 0.5 millimeter particles) is included in the water recirculation system to remove radioactive particulate contaminants from the circulating water. After completion of the rinse cycle, the article is dried by recirculating warm dry nitrogen through the system. The gas recirculation system includes a gas cooler to remove moisture and a gas heater to reheat the gas to system temperature. The vessel may also be partially evacuated to facilitate the removal of moisture from the component.

Because of the small volume of the SDCV, the gas phase is a single pass through the vessel and through the scrubber/demister, dryer, and HEPA filters to the HVAC exhaust.

A two stage filter in the water recirculation system is installed in a separate shielded enclosure in the LDCV cell. The expected maximum radiation level of the filter is 80 rem/h within the shielded enclosure. The entire filter assembly, including filter housing, is designed for remote disconnection and removal from the system. Filter piping connections are remotely operated, band type connections and valves are provided with reach rods to permit all required filter removal operations external to the shield enclosure. The filter removal from the enclosure will be accomplished using the FFTF solid waste cask (equipped with electrically operated internal grapple). After filter removal, filter replacement is manually accomplished in the shielded enclosure.

Gas Analyzer System

A gas analyzer system is provided to monitor oxygen, hydrogen, and moisture during the

sodium cleaning process.

The gas analyzer monitors the oxygen concentration in the cleaning vessel to ensure an inert atmosphere for sodium-wetted components and detects any air in-leakage to the vessels. The oxygen analyzer is capable of detecting oxygen concentrations of <0.25% to 5% by volume. At a preset high oxygen concentration limit, the flow of steam is automatically cut off, and additional nitrogen is introduced until the oxygen concentration is within specification.

The gas analyzer monitors the hydrogen concentration to control the sodium removal process and to protect against potentially explosive concentrations in the cleaning vessels. The gas analyzer is capable of detecting hydrogen concentrations in the range of <0.25% to 5% by volume. At a preset high hydrogen concentration limit, steam flow automatically stops and full nitrogen flow is initiated.

The gas analyzer monitors the moisture concentration of both the nitrogen/steam injection and the process system nitrogen gas to control reaction rates and to indicate the end point of the drying process. The instrument is capable of detecting and indicating moisture concentrations in the range of 0.5% to 25% by volume. The instrument indication is used to control the nitrogen/steam ratio and to monitor the drying process.

Process Sewer

Nonradioactive process water from the cleaning vessel is pumped directly to the process sewer. The water is monitored for pH and radioactivity in the sodium cleaning system prior to discharge to the process sewer. Additionally, a liquid monitor in the process sewer system continually checks the discharged water for radioactivity. A removable spoolpiece is provided as a cross connect to the contaminated liquid waste system. The spoolpiece is only installed when the discharge water meets the requirements of the concentration guides in DOE Order 5480.1, Chapter XI. In the event that the discharge water does not meet minimum standards for draining to the process sewer, the water will be automatically diverted to the radioactive waste tanks.

Contaminated Liquid Waste System/Contaminated Gas Vent System

All contaminated liquid waste will be discharged directly to the radioactive waste tanks. During discharge of contaminated liquid waste to the radioactive waste tanks, the removable spoolpiece (cross-connect between the process sewer and the contaminated liquid waste system) is removed to prevent potential release of contaminated liquid waste to the process sewer. Pipe connections are blanked off with blind flanges when the spool piece is not installed.

The contaminated liquid waste in the radioactive waste storage tanks is pumped directly to a railroad tank car in the loadout facility for transport to an appropriate disposal area. All major contamination sources are filtered prior to entering the Contaminated Liquid Waste System. The ultrasonic cleaner in Decontamination Area II has a 20 micrometer in line cartridge filter. The floor drains in Decontamination Areas I and II have 50 micrometer cloth bag filters in metal strainer baskets. The adapter drain basket on the Cask Decontamination and Maintenance Facility has a polyester filter pad insert. These filters minimize the contamination buildup in the Contaminated Liquid Waste System drain lines and storage tanks. In addition, the storage tanks can be flushed and recirculated during the loadout operation to minimize radiation buildup in the tank cell.

All contaminated gas is vented through a scrubber/demister/ dryer and HEPA filter system prior to release to the atmosphere.

Site Code: 4713-B FD **Classification:** Accepted
Site Names: 4713-B FD, 4713-B French Drain, **ReClassification:** Rejected (12/3/1998)
Miscellaneous Stream #33
Site Type: French Drain **Start Date:** 1979
Site Status: Active **End Date:**
Site Description: The unit is a pipe that is 1.5 meters (5 feet) long and 61 centimeters (24 inches) in diameter. The pipe is constructed of concrete and is filled with gravel. The pipe is buried vertically, extends above grade 15.2 centimeters (6 inches) and is covered by a metal grating. Three parallel metal pipes emerge horizontally from the east side of the 4713 Building, then bend 90 degrees downward and end approximately 0.3 meters (1 foot) above the metal grating.

Waste Type: Water

Waste Description: In 1987, the site received approximately 3,785 liters (1,000 gallons) of waste water from lunchroom sinks. In 1988, the french drain received only intermittent discharges and had a normal flow rate of zero. The "Inventory of Miscellaneous Streams", Revision 3, states that the employee sink water and drinking fountain supply have been shut off. The eyewash station is still an active source. Routine maintenance discharges will be covered under ST 4508 (when it is approved by Ecology). The current flow rate (1998) is less than 0.038 liters (0.01 gallons) per minute.

Site Code: 4713-B HWSA **Classification:** Accepted
Site Names: 4713-B HWSA, 4713-B Hazardous Waste **ReClassification:** Rejected (12/3/1998)
Storage Area
Site Type: Storage Pad (<90 day) **Start Date:** 1980
Site Status: Active **End Date:** 1993
Site Description: The site consists of a 6.1 meters (20 foot) long and 6.1 meters (20 foot) wide concrete pad that is used as a satellite accumulation area. Metal cabinets, 208 liter (55 gallon) drums and a wooden storage box were located on the pad in May, 1994.

Waste Type: Misc. Trash and Debris

Waste Description: The site was used as an accumulation area to store waste in cabinets and drums. The wastes were small quantity items related to FFTF maintenance activities. Wastes included fluorescent bulbs, incandescent bulbs, mercury vapor lamps, hazardous rags, solvents, suspected PCB-containing ballasts and capacitors, non PCB containing ballasts and capacitors, persistent carcinogens, and printed circuit boards, and miscellaneous equipment.

Site Code: 4713-B LDFD **Classification:** Accepted
Site Names: 4713-B LDFD, 4713-B Loading Dock **ReClassification:** Rejected (12/3/1998)
French Drain, Miscellaneous Stream #469
Site Type: French Drain **Start Date:**
Site Status: Active **End Date:**
Site Description: The site is a circular metal grate located in an asphalt paved area east of the 4713-B loading dock. The site sits in a small depression. The site appears to be a stormwater access point to the

400 Area surface drainage system. It does not appear to be a ground disposal site.

Waste Type: Stormwater Runoff

Waste Description: The current "Inventory of Miscellaneous Streams", Revision 3 states that the site collects stormwater and discharges it to the 400 Area stormwater collection system. The current flow rate is less than 1.9 liters per minute (0.50 gallons per minute). Earlier documents, Low Volume Effluent Streams report (Milikan 1988) and the Inventory of Miscellaneous Streams Report (WHC 1993 and DOE/RL-95-82), have stated it receives cooling water from welding equipment or sink water. This earlier data may actually refer to WIDS Site 4713-B FD.

Site Code: 4721 FD

Classification: Accepted

Site Names: 4721 FD, 4721 French Drain, 400 Area French Drain Discharge from 4721 Building, Miscellaneous Stream #28

ReClassification: Rejected (12/3/1998)

Site Type: French Drain

Start Date: 1979

Site Status: Active

End Date:

Site Description: The unit is a 1.2 meter (4 foot) diameter, 1.5 meter (5 foot) long concrete or vitrified clay pipe filled with gravel. The unit is below grade and cannot be identified visually at the location identified in the "Inventory of Miscellaneous Streams".

Waste Type: Water

Waste Description: The unit may have received janitorial solutions of water and detergents. The "Inventory of Miscellaneous Streams", Revision 3, states that the site routes stormwater from floor drains to an injection well on the west side of the building. The flow rate is less than 0.038 liters per minute (0.01 gallons per minute).

Waste Type: Oil

Waste Description: If a spill occurred during generator operations, the unit might have received diesel oil. Because oil had to be pumped up to the generator from the underground storage tank, spills should not have occurred when the system was not operating. There are no known spills.

Site Code: 4722 PSHWSA

Classification: Accepted

Site Names: 4722 PSHWSA, 4722 Paint Shop HWSA, 4722 Paint Shop Hazardous Waste Storage Area, 4722-C Hazardous Waste Storage Area

ReClassification: Rejected (1/27/1999)

Site Type: Storage Pad (<90 day)

Start Date: 1980

Site Status: Active

End Date:

Site Description: The Hazardous Waste Storage Area is three metal cabinets that are located on a curbed, concrete pad outside the 4722-C Building.

Waste Type: Chemicals

Waste Description: The site is a staging area primarily for paint solvents. Signs indicate that solvent rags, antifreeze, and absorbent materials (for spill cleanup) may also be present.

Site Code: 4722-B FD **Classification:** Accepted
Site Names: 4722-B FD, 4722-B French Drain **ReClassification:** Rejected (1/27/1999)
Site Type: French Drain **Start Date:** 1979
Site Status: Inactive **End Date:**

Site Description: The unit is described in the Hanford Site Waste Management Units Report as 1.22 meter (4 foot) diameter pipe that is 1.52 meters (5 foot) long. It is made of concrete or vitrified clay and filled with gravel. There are no visible surface features.

Waste Type: Sanitary Sewage

Waste Description: In 1987, the drain was described to have received 3,785 liters (1,000 gallons) per year of wastewater from lunchroom sinks in the 4722-B building. More current documents of miscellaneous stream discharges do not include this french drain. 4722-B employees believe the lunch room sink is connected to the sanitary sewer.

Site Code: 4722-C FD **Classification:** Accepted
Site Names: 4722-C FD, 4722-C French Drain, French Drain South of 4722-C, Miscellaneous Stream #29 **ReClassification:** Rejected (1/27/1999)
Site Type: French Drain **Start Date:** 1979
Site Status: Inactive **End Date:** 1985

Site Description: The Hanford Site Waste Management Units Report (1987) lists the site as a french drain that is 1.22 meter (4 foot) in diameter, concrete or vitrified clay, gravel-filled buried pipe that extends 1.5 meters (5 feet) below grade. Surface features include a 5 centimeter (2 inch) diameter pipe protruding from the south side of the 4722-C Building. The pipe emerges from the wall approximately 0.6 meters (2 feet) above the building foundation and travels west approximately 0.9 meters (3 feet). The pipe turns 90-degrees downward and then turns 90-degrees to the south. The visible piping terminates in the gravel beside the building. No drain structure is visible.

Per Curt Clement, Dyncorp, the pipe is connected to a sink. The drainage will be eliminated.

Waste Type: Steam Condensate

Waste Description: The source of the discharge to the french drain was eliminated by close of business on 1/28/99. The water was disconnected.

The information provided in the following paragraph has been provided for historical purposes. The Hanford Site Waste Management Units Report (1987) states the drain received water 7570 liters (2,000 gallons per year) from a sink used to wash latex paint from hands, brushes and rollers. It also states a sample was taken from the unit and found no hazardous constituents. A 1988 report (DOE/RL-88-11, Revision 0) states that the hazardous chemical inventory for this site includes 1,000 kilograms (2,200 pounds) of sodium dichromate (Reference 1). This data is unsubstantiated. In 1995, the Inventory of Miscellaneous Streams Report DOE/RL-95-82, Rev 0, Table 3-1, changed the process description to indicate the waste is condensate that originates

from a water heater on the west side of 4722-C. The flow rate is listed as 0.038 liters (0.01 gallons) per minute.

A statement provided by Dyncorp on January 21, 1999 says that it is noteworthy that currently there are two sinks in this facility. The sink, located within the area where the painting is done, is connected to the sewer not the drywell.

Dyncorp has not been able to find anyone with any knowledge of what went into the drain. The 'Registration of Hanford Site Class V Underground Injection Wells', DOE/RL-88-11 contains no references that could be used to verify the statement related to the amount of sodium dichromate. It is possible this statement is in error. There is at least one other error, as the formula for sodium dichromate ($\text{Na}_2\text{Cr}_2\text{O}_7$) is not NaCr_2 .

Site Code:	4831 LHWSA	Classification:	Accepted
Site Names:	4831 LHWSA, 4831 Laydown HWSA, 4831 Laydown Hazardous Waste Storage Area, 4831 Flammable Storage Facility	ReClassification:	Closed Out (12/3/1998)
Site Type:	Storage Pad (<90 day)	Start Date:	1984
Site Status:	Inactive	End Date:	1993
Site Description:	Currently the site is an empty concrete pad with a metal berm around its edges. The metal berm measures 5 centimeters (2 inches) tall and 5 centimeters (2 inches) wide. It runs around the pad approximately 7.6 centimeters (3 inches) inward from the edges and is bolted down. Cylindrical concrete anchors are attached to 1.2 meter (4 feet) high metal posts that have been placed around the edges of the pad. Most of the posts remain upright and are connected with a metal chain, although many have fallen down. A small, tan metal shed at the east end of the pad provided supply storage and a sheltered workspace when the storage area was operating. The shed is 4.9 meters (16 feet) long and 3 meters (10 feet) wide and has double sliding doors on its south side.		
Waste Type:	Chemicals		
Waste Description:	The site was used as a staging area for oils and hazardous wastes produced and collected in the 400 Area. Wastes staged at this site in 1977 were primarily oils, solvents, ethylene glycol, and empty drums for cooling water treatment chemicals such as Endcor 4690, which is acutely hazardous. These wastes were stored in containers on the pad.		

Site Code:	4843	Classification:	Accepted
Site Names:	4843, 4843 Building, 4843 Alkali Metal Storage Facility, 4843 AMSF, 4843 FFTF Sodium Storage, 4843 Laydown Area Warehouse	ReClassification:	Closed Out (4/14/1997)
Site Type:	Storage	Start Date:	1986
Site Status:	Inactive	End Date:	1997
Site Description:	The 4843 Alkali Metal Storage Facility was built to store dangerous and mixed alkali metal waste. The structure is a fully-insulated, bolted steel building on a concrete slab. Heat was provided by ceiling-suspended heaters. Two 3.7 meter (12 foot) roll-up doors are located on the structure's east and west sides and were used for moving materials into and out of the building. A large fenced laydown area adjacent to the building could be accessed through the west door. The facility also has several other doors and windows. A 2.4 meter (8 foot) wide and 3.0 meter		

(10 foot) tall portion of the south wall has corroded and appears rust-colored. The bottom edges of the facility's outside walls have also corroded. Inside the building, a rope barrier separated the dangerous alkali metal waste storage area from the mixed alkali metal storage area. Concrete blocks were used to provide shielding from the radioactive alkali metal waste.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: The unit was a storage area for dangerous and mixed alkali metal wastes generated by FFTF and various other operations at the Hanford site. Dangerous and mixed alkali metal wastes that have been stored at the facility include mixed sodium waste; materials used to clean up radioactive sodium; non-radioactive sodium waste; waste radioactive sodium metal; and non-waste, non-radioactive sodium metal. Waste containers used at this facility may have included steel 19 liter (5 gallon), 114 liter (30 gallon), and 208 liter (55 gallon) drums or sealed piping and components that have been welded closed.

Site Code:	600-1	Classification:	Accepted
Site Names:	600-1, Westinghouse Debris Pit	ReClassification:	Rejected (4/6/1999)
Site Type:	Dumping Area	Start Date:	1976
Site Status:	Inactive	End Date:	

Site Description: The site is a large depression with sandy soil and sagebrush. Part of the depressions has been backfilled with soil from adjacent areas. Metal and wood scrap can be seen on the surface. Soil subsidences (sink holes) are evident. One faded yellow sign that states "Positively No Dumping" is located on the south side of the site, adjacent to the gravel road. The sign is located in between the 600-1 trench (located on the east side of the depression) and the JA Jones Pit 1 (located on the west side of the depression). Bulldozer scars are evident on the surface.

Waste Type: Misc. Trash and Debris

Waste Description: The site was used by the 300 Area Westinghouse facilities. It was used mostly to dispose of the tumbleweeds that accumulated on the 300 Area fences. Some wood, pallets and miscellaneous debris may have also been placed in this trench.

Waste Type: Chemicals

Waste Description: October 1994 interviews with Will Kirk and Tony Day, retired Hanford employees, disclosed that aluminum silicon alloy, may have been disposed of at 600-1. Interviewees were unable to positively confirm dumping at this site, but felt a reasonable certainty. Aluminum silicon alloy was used in its molten state as a reactor fuel cladding process dip in the 313 Building and waste aluminum silicon alloy usually had low levels of uranium contamination.

Waste Type: Misc. Trash and Debris

Waste Description: Roofing remnants, plastic bucket with dried paint, rebar, aluminum, bits of concrete, asphalt, wood, and plastic are visible at the site.

Site Code:	600-22	Classification:	Accepted
Site Names:	600-22, UFO Landing Site	ReClassification:	No Action (1/27/1999)
Site Type:	Dumping Area	Start Date:	1942

Site Status: Inactive **End Date:**

Site Description: This site appears on aerial photos as a large, asterisk-shaped area. It is a vegetation-free area that is not marked or easily distinguished on the ground from the surrounding terrain.

The vegetation in the area was removed in the 1940's to create a visual practice target for military airplanes. Some vegetation has grown back over the years and the site is not as distinct as it once was. However, the surrounding terrain has a more diverse mix of vegetation than exists in the area of the target. A pre-Hanford fence bisects part of the site. An area at the southeast corner of the site has green steel posts, but no warning signs or barricade chains are present. Within the area marked by the steel green posts is an inactive telephone pole. The site is littered with several large pieces of "practice bombs".

The site was nicknamed "UFO Landing Site" because of its appearance from the air. Its shape and the presence of dead vegetation suggest that herbicides were used to create the shape. A site visit as part of an ecological review on October 29, 1994 indicated the vegetation abnormalities appear to be caused from a combination of mechanical disturbance and a fire that occurred in 1985. There are no Hanford records of herbicides being used at this site.

Waste Type: Ordnance

Waste Description: Bomb fragments are scattered throughout the site, but are concentrated at the site's southeastern corner. No unexploded bombs have been found in the area.

Practice bombs are constructed of thin sheet metal which can be easily bent with manual pressure and appear to be the size of 113.6 kilogram (250 pound) bombs. The items are completely hollow. There are no nose or tail fuses nor evidence of the use of spotting charges in the nose. In some cases, the items collapsed upon impact without fragmenting leaving recognizable tailfins and noses. Also, filler caps were found in the nose which were possibly used to fill the practice bombs with sand or water.

Waste Type: Chemicals

Waste Description: Areas with minor vegetation disturbance are scattered throughout the site, but little obvious soil disturbance is evident. The vegetation at the site shows signs of stress and appears to have been sprayed with a herbicide.

Site Code:	600-46	Classification:	Accepted
Site Names:	600-46, Cutup Oil Dump	ReClassification:	Closed Out (10/16/1995)
Site Type:	Dumping Area	Start Date:	
Site Status:	Inactive	End Date:	1995

Site Description: At the top of the river bank was a small patch of oil-stained sand with used oil filters by the stain. By the river shore was an empty can of starting fluid. Just north of the oil stain, at the top of the river bank, was an empty 208-liter (55-gallon) drum. Many pieces of wood were also found scattered around the site.

Waste Type: Chemicals

Waste Description: The site contained used diesel oil filters, an empty can of starting fluid, pieces of lumber, and an empty 208-liter (55-gallon) drum (Summary sentence applies to waste records 1, 2, and 3.). It was the consensus of DOE-RL, EPA, and Ecology that the only potential contaminants

involved with past use of the site were total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs), and possibly lead, cadmium and chromium. Following sampling, only PCBs and TPH were found. Approximately, 10 cubic meters (13 cubic yards) of soil were removed from the site. On August 16, 1995, 84 waste drums containing the PCB-contaminated soil removed from the site were shipped offsite to a waste transfer company for ultimate disposal to a Toxic Substances Control Act landfill.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: The site contained one empty 208-liter (55-gallon) drum.

Waste Type: Misc. Trash and Debris

Waste Description: The site contained wood debris.

Site Code: 600-47

Classification: Accepted

Site Names: 600-47, Dumping Area North of 300-FF-1

ReClassification: Interim Closed Out (8/25/2005)

Site Type: Dumping Area

Start Date:

Site Status: Inactive

End Date:

Site Description: The site has been remediated and interim closed out.

This site consisted of several areas of debris and Underground Radioactive Material Areas.

Waste Type: Misc. Trash and Debris

Waste Description: Debris found at the site includes concrete, brick, cinder block, glass, stainless steel, steel millings/filings, plastic, tar roofing paper, wire, pipe, bottles, sheet metal, screen, clay pipe, irrigation pipe, etc. Concreted soils were found during test diggings, burned wood was found on top of the rise. A "Danger Area" sign was located on the ground just north of the rise. A photo of the area from 1950 shows soil disturbance in the area.

Site Code: 600-58

Classification: Accepted

Site Names: 600-58, H.J. Ashe Substation Oil/Water Separator & Drywells, BPA SWMU #13

ReClassification:

Site Type: French Drain

Start Date: 1988

Site Status: Active

End Date:

Site Description: The oil/water separator is located south of the fuel island and south of the maintenance headquarters building. The oil/water separator receives drainage from eight floor drains in the maintenance headquarters building shop and two drains located on either side of the fuel island. The oil/water separator is designed to remove petroleum, oil, and lubricants from incoming water. It has a 454 liter (120 gallon) capacity. Drainage from the separator as well as drainage from two catch basins south of the maintenance headquarters building, flow into the dry well south of the maintenance building. The oil-water separator is precast concrete with a bottom elevation of about 4.6 meters (15 feet) below the surface. A site visit on November 20, 1998 found the oil-water separator to be active. It contained water with a small amount of oil sheen floating on the surface.

Waste Type: Oil

Waste Description: The oil/water separator has received petroleum, oil and lubricants.

Waste Type: Water

Waste Description: The drywells received drainage from the oil/water separator. It is likely that water contained some petroleum products.

Site Code: 600-59 **Classification:** Accepted

Site Names: 600-59, H.J. Ashe Substation Storage Area, BPA SWMU #12, Generator Storage Area Sump **ReClassification:**

Site Type: Storage **Start Date:** 1976

Site Status: Active **End Date:**

Site Description: The storage facility is southwest of the maintenance headquarters building. The 6.1 meter (20 foot) by 4.6 meter (15 foot) generator storage area inside the Hazardous Waste Storage portion of the building has a double floor. The top flooring consists of a metal grate. The sub-floor is concrete with no outlet, that acts as a containment basin to catch any spill or release that might occur. The concrete sub-floor is sloped. The low end is considered to be a sump. The sump has no outlet. The building is actively being used by the Bonneville Power Administration (BPA) for storage of waste drums.

Waste Type: Chemicals

Waste Description: Annual hazardous waste reports indicate that the following wastes are generated at the Ashe Substation, 1,1,1-Trichloroethane mixture, 1,1,1-Trichloroethane-contaminated soils, acetone waste mixture, spent photographic fluids, fixer, and developer, battery acid and fluid mixture, ferric chloride etching solution waste, methanol waste mixture (Karl Fisher reagent), pentachlorophenol and sodium pentachlorophenol, solvent compound-thinner waste, toluene-isopropanol with potassium hydroxide (titrating solution).

All waste is taken to the generator storage area (SWMU #12). This unit is part of the Flammable, Herbicide, and Toxic Waste Storage Facility Building located southwest of the maintenance headquarters building. Hazardous wastes from maintenance activities at other substations are collected at this location.

Site Code: 600-60 **Classification:** Accepted

Site Names: 600-60, H.J. Ashe Substation Switchyard Facility **ReClassification:**

Site Type: Electrical Substation **Start Date:** 1976

Site Status: Active **End Date:**

Site Description: The H.J. Ashe Substation is an active, operating electrical switchyard facility. The H.J. Ashe Substation consists of two large structures, a control house and a maintenance building, and yard areas with smaller buildings used for dry chemical storage and a vehicle fuel station with two underground gasoline tanks. The substation was first energized on December 3, 1976. Structures and equipment include an oil-filled circuit breaker {28, 766 liters (7,600 gallons)}, two underground gasoline tanks {15,140 liters (4,000 gallons) each}, four mineral oil storage

tanks {18,925 liters (5,000 gallons)}, hazardous waste, flammable materials, and herbicide storage building {455 kilograms (1,000 pounds)}.

Waste Type: Chemicals

Waste Description: Annual hazardous waste reports indicate that the following wastes are generated at the Ashe Substation, 1,1,1-Trichloroethane mixture, 1,1,1-Trichloroethane-contaminated soils, acetone waste mixture, spent photographic fluids, fixer, and developer, battery acid and fluid mixture, ferric chloride etching solution waste, methanol waste mixture (Karl Fisher reagent), pentachlorophenol and sodium pentachlorophenol, solvent compound-thinner waste, toluene-isopropanol with potassium hydroxide (titrating solution). Polychlorinated biphenyls (PCBs) are also a potential contaminant of concern at this site because of the releases of insulating oil (See Releases Section).

Site Code: 600-62 **Classification:** Accepted

Site Names: 600-62, Benton Switch Substation Releases **ReClassification:**

Site Type: Unplanned Release **Start Date:** 1948

Site Status: Active **End Date:**

Site Description: The substation is currently active and is enclosed in a locked, chain link fenced area. It began operations on November 11, 1948. The site contains various electrical equipment, circuit breakers, transformers, tanks, and support facilities. The primary environmental concern stems from leaking insulating oil from transformers and circuit breakers. A site visit on November 20, 1998, observed several areas of discolored gravel and stained concrete beneath vessel valves.

Waste Type: Oil

Waste Description: The waste is soil potentially contaminated with polychlorinated biphenyls (PCBs) (Arochlors 1254 and 1260), insulating oil (10-weight petroleum oil with 0.1% 2,6-di-tertbutyl-paracresol). Mineral oil containing PCBs and solvents are the hazardous constituents used at the site.

Site Code: 600-63 **Classification:** Accepted

Site Names: 600-63, 300-N Lysimeter Area, Recharge Study Site, Buried Waste Test Facility, Vadose Zone Field Study - 300 North, VZFS300N **ReClassification:**

Site Type: Experiment/Test Site **Start Date:** 1984

Site Status: Active **End Date:** 1994

Site Description: The site is enclosed within a chain link fence with barbed wire top and a locked gate. The fenced area is posted with "Restricted Area - Contact PNL Radiological Office" and "Underground Radioactive Material" signs. Outside the fence there is a considerable amount of debris. Two large wooden cabinets, pallets, piping and a fire extinguisher were noted.

Waste Type: Soil

Waste Description: A trace amount of Co-60 was mixed in one centimeter of soil and placed 60 centimeters below the surface of two of the drainage lysimeters. Trace amounts of tritium were placed in two other lysimeters. The migration of the contaminants was monitored.

Site Code: 600-64 **Classification:** Not Accepted (2/12/1999)
Site Names: 600-64, Underground Sanitary Sewer Line from 400 Area to WPPSS, Sanitary Waste Tie-Line from the 400 Area to WPPSS **ReClassification:**
Site Type: Sanitary Sewer **Start Date:** 1997
Site Status: Active **End Date:**
Site Description: This underground, gravity flow line begins at the inlet to the 4607 Sanitary Sewer septic tanks and connects the 400 Area sanitary sewer main (also known as the 4903 Sanitary Sewer Main) with the Washington Public Power Supply System sewage treatment facility. The sewer line route appears as a disturbed area covered with sand and little vegetation. Washington Public Power Supply System signs posted along the route mark the existence of an underground sewer line.

Waste Type: Sanitary Sewage

Waste Description: Site personnel report that a small amount of sanitary wastes was unintentionally discharged into the tie-line (and, thus, the WPPSS sewage treatment facility), prior to reaching agreement with WPPSS in late 1992. The sanitary wastes remained with the underground tie-line and the treatment facility. No wastes were released to the environment. Radiation detection systems in the treatment facility indicated the presence of radioactive cobalt, cesium, and tritium beyond set limits. However, only tritium was confirmed to have been present in the sanitary wastes from the 400 Area. Water from 400 Area wells contains elevated levels of tritium, which may explain the presence of tritium in sanitary wastes.

Site Code: 600-96 **Classification:** Not Accepted (10/7/1998)
Site Names: 600-96, 618-10 Borrow Pit **ReClassification:**
Site Type: Depression/Pit (nonspecific) **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is sandy and mostly unvegetated. The site has been scraped for material to cover the adjacent burial ground. No waste was observed in the area in 1995, except for a large pile of tumbleweeds that were removed from the fence surrounding the 618-10 Burial Ground.

Waste Type: Vegetation

Waste Description: A large pile of tumbleweeds was observed.

Site Code: 600-97 **Classification:** Not Accepted (10/7/1998)
Site Names: 600-97, 618-11 Borrow Pit **ReClassification:**
Site Type: Depression/Pit (nonspecific) **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is located in a slight depression where 0.3 to 0.6 meters (1 to 2 feet) of soil has been removed to cover the 618-11 Burial Ground.

Site Code: 600-117 **Classification:** Accepted

Site Names: 600-117, 300 Area Treated Effluent Disposal Facility (TEDF), 310 Building, 342 Sump (See Subsites) **ReClassification:**

Site Type: Process Unit/Plant **Start Date:** 1994

Site Status: Active **End Date:**

Site Description: The site includes the main treatment building (310 Building) which is about 27.4 meters (90 feet) wide, 45.7 meters (150 feet) long, 6.7 meters (22 feet) high, and metal in construction; three modular/mobile offices (MO443, MO744, MO745); two exterior Diversion Tanks (19 meters [62 feet] in diameter each); one exterior Equalization Tank (13.7 meters [45 feet] in diameter); two exterior Clarifier Tanks (9.1 meters [30 feet] in diameter each); two drum storage areas; one chemical storage area; all units are surrounded by a chain link fence.

Waste Type: Process Effluent

Waste Description: The 300 Area process sewer discharges via the 342 TEDF Sump to the 310 facility (300 Area TEDF). The wastes discharged to the process sewer is composed of metals, organics, and cyanide. The maximum flow rate the facility is design to accommodate is 1,200 liters per minute (300 gallons per minute). The expected flow rate is approximately 600 liters per minute (150 gallons per minute).

SubSites:

SubSite Code: 600-117:1

SubSite Name: 600-117:1, 300 TEDF Sump, Waste Collection Sump 1, 342 Sump

Classification: Accepted

ReClassification:

Description: Wastewater from the 300 Area process sewer is collected in a 182-centimeter (72-inch) diameter diversion manhole located just west of Waste Collection Sump 1 via a 41-centimeter (16-inch) ductile iron pipe. A basket strainer on the end of the pipe screens out large objects, protecting the three large pumps. These pumps transfer wastewater to the 310 Facility (300 TEDF) through a 25.4 centimeter (10-inch) high-density polyethylene pipeline. The transfer pipe terminates inside the (300 TEDF) 310 facility at the equalization pipe.

Site Code: 600-155 **Classification:** Not Accepted (1/27/1999)

Site Names: 600-155, Dumping Area Upstream of River Mile Marker 35 Identified During RCRA General Inspection #HIRIV-FY96 Item #7 **ReClassification:**

Site Type: Dumping Area **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site consists of an old rusty machine part with approximate dimensions of 1.8 meters by 1.2 meters by 0.6 meters (6 feet x 4 feet x 2 feet). The part is marked with a small metal tag "USA-HEW 355464/ Property of US Government." The surrounding soil is silty sand and cobbles, with moderate cheatgrass and bunchgrass vegetation. Nearby flood debris consists of tree branches and small logs. There are no other large pieces of metal or construction type material. The surface of the access road is sand and gravel.

During visits to the site on February 1, 1999, and February 3, 1999, other debris was observed.

This debris included: a chunk of concrete, an old muffler, a piece of metal that looked as though it could have come from the piece of machinery, other metal debris, a tire and wood debris (not flood debris). This miscellaneous debris is primarily south of the piece of machinery and most is within 100 meters (328.1 feet).

A field visit on July 19, 1999, verified that the large piece of equipment had been removed. A small piece of metal (approximately 0.46 meters (18 inches) in length) remained half buried in the soil.

Waste Type: Equipment

Waste Description: The waste is steel scrap. The metal tag contains "USA-HEW-355464". "HEW" stands for Hanford Engineering Works which was the name used during the era of reactor construction. Therefore, the material is not pre-Hanford historic waste.

Site Code: 600-210 **Classification:** Not Accepted (1/15/1999)

Site Names: 600-210, 300 Area TEDF Outfall **ReClassification:**

Site Type: Outfall **Start Date:** 1994

Site Status: Inactive **End Date:**

Site Description: The outfall line was a 25-centimeter (10-inch) polyvinyl chloride (PVC) pipeline that is routed to the shore of the Columbia River [approximately 600 meters (2000 feet)] from the TEDF. To protect an archaeological site near the river, the pipeline is routed aboveground until it is close to the shoreline. At this point, the pipe was routed below grade into a gravel-filled, rock-armored trench. At the shoreline the PVC pipe was transitioned to an 20 centimeter (8-inch) ductile iron pipe that transfers the effluents to the mid-channel single-point diffuser.

The diffuser lies on the bottom of the channel, and consisted of an iron pipe routed through a large, rectangular concrete casing. An angled discharge-pipe bolted directly to the concrete block.

Waste Type: Process Effluent

Waste Description: The outfall discharges effluent from the 300 Area TEDF to the Columbia River.

Site Code: 600-243 **Classification:** Accepted

Site Names: 600-243, Petroleum Contaminated Soil Bioremediation Pad, Bioremediation Pad Inside Gravel Pit #6, Pit 6, Oil Contaminated Soil **ReClassification:** Interim Closed Out (11/7/2008)

Site Type: Surface Impoundment **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is a treatment facility for petroleum contaminated soil. It is rectangular shaped, 48.5 meters (159 feet) long by 38.7 meters (127 feet) wide. A 0.9 meters (3 foot) berm surrounds the site. The site is lined with heavy black plastic. The contaminated soil has visible rust stains and pieces of clear plastic mixed into the soil. Tumbleweeds and cheatgrass are growing on the surface. No petroleum odors were observed at the site. The site is posted Keep Out - Petroleum Contaminated Soil - For Entry Contact 376-7053 and WIDS Site 600-243.

Waste Type: Soil

Waste Description: The waste is petroleum contaminated soil from Project LO-44, Underground Storage Tank Removals. The contaminants of potential concern (COPCs) for the 600-243 waste site were petroleum hydrocarbons in the diesel and motor oil ranges, benzo(k)fluoranthene, chrysene, fluoranthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, PCBs, and lead.

Site Code: 600-244 **Classification:** Not Accepted (1/27/1999)

Site Names: 600-244, Gravel Pit #6, Pit 6, Gravel Pit 6 **ReClassification:**

Site Type: Depression/Pit (nonspecific) **Start Date:**

Site Status: Active **End Date:**

Site Description: The pit is a source for gravel used for bedding and backfill material. A gravel road leads into a large irregular shaped pit area. The physical boundaries of the site are larger than the area where gravel is currently being excavated. The four corners of the pit's largest extents are marked with posts (railroad ties installed vertically). Stock piles of gravel and excavation equipment are present, indicating active gravel pit operations. A chain link fenced equipment storage area is located in the northwest corner of the Pit #6 property.

Site Code: 600-245 **Classification:** Not Accepted (1/27/1999)

Site Names: 600-245, Gravel Pit #8, Pit 8 **ReClassification:**

Site Type: Depression/Pit (nonspecific) **Start Date:**

Site Status: Active **End Date:**

Site Description: The gravel pit is an irregular shaped depression. No waste of any kind was found in the pit.

Site Code: 600-246 **Classification:** Accepted

Site Names: 600-246, Gravel Pit #9, Inert/Demolition Waste Landfill, Pit 9 **ReClassification:** Rejected (1/27/1999)

Site Type: Burial Ground **Start Date:**

Site Status: Active **End Date:**

Site Description: Gravel Pit #9 is a large depression where gravel is extracted. The gravel pit is also used as an inert landfill for nondangerous/nonradioactive wastes.

Waste Type: Demolition and Inert Waste

Waste Description: The waste includes concrete, wood and asphalt. Soil was removed from around the 384 fuel oil day tanks and placed in Pit 9 in 1999. Soil sample results showed a plutonium spike, so the bio-remediation pad was posted as a Soil Contamination Area.

Site Code: 600-247 **Classification:** Accepted

Site Names: 600-247, Gravel Pit #10, Inert Landfill, Pit 10 **ReClassification:** Rejected (1/27/1999)

Site Type: Burial Ground **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is an old gravel pit. Once extraction operations were completed, the site was then used as a solid waste landfill for inert and demolition waste. Gravel Pit #10 has been closed and backfilled to grade. The site perimeter is marked with posts and chain.

Waste Type: Demolition and Inert Waste
Waste Description: The gravel pit is an approved inert landfill. Waste includes wood, concrete and asphalt.

Site Code: 600-248 **Classification:** Not Accepted (1/27/1999)
Site Names: 600-248. Gravel Pit #11, Pit 11 **ReClassification:**
Site Type: Depression/Pit (nonspecific) **Start Date:**
Site Status: Active **End Date:**
Site Description: Gravel Pit #11 is a large, rocky excavated area north of the WYE Barricade. It is actively being used as a source of gravel for backfill.

Site Code: 600-249 **Classification:** Accepted
Site Names: 600-249, Debris Within Gravel Pit 6 **ReClassification:** Rejected (4/6/1999)
Site Type: Dumping Area **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is areas of dumped material located within Gravel Pit #6. There are spoil piles of material excavated during the construction of the Environmental Molecular Sciences Laboratory (EMSL) facility that are located in the northwest section of the Gravel Pit #6 property boundaries. Miscellaneous debris can be seen in scattered piles and protruding from the soil.

Waste Type: Misc. Trash and Debris
Waste Description: The site contains miscellaneous debris and ash pit sludge. Visible debris includes metal pipes, PVC pipes, concrete and tires. (The tires and some other debris were removed in 1999 for proper disposal) Periodically, damp ash was trucked from the 300 Area Ash Pits (WIDS Site 300 ASH PITS) and placed in Pit #6. Eventually, the area reserved for the ash became filled. The area was covered with dirt. This is the same area where a bioremediation pad was located (WIDS Site 600-243).

Site Code: 600-255 **Classification:** Not Accepted (5/26/1999)
Site Names: 600-255, 300 Area Stormwater Percolation Pond **ReClassification:**
Site Type: Pond **Start Date:** 1980
Site Status: Active **End Date:**
Site Description: The site is a very large, unlined basin. It has a gravel bottom and cobble covered sloped sides. There are two effluent pipes protruding from the east wall of the basin. Using the contour patterns on Arcview, it was determined the site is approximately 90 meters (295 feet) long and 30

meters (98 feet) wide.

Waste Type: Stormwater Runoff

Waste Description: The site receives stormwater runoff from the northwest section of the 300 Area.

Site Code: 600-259

Classification: Accepted

Site Names: 600-259, Special Waste Form Lysimeter, Grout Waste Test Lysimeter, Inactive Lysimeter Site East End, Special Waste Form Lysimeter, Grout Waste Test Lysimeter (See Subsites)

ReClassification: Interim Closed Out (2/6/2006)

Site Type: Experiment/Test Site

Start Date: 1984

Site Status: Inactive

End Date: 1994

Site Description: The entire site has been remediated and interim closed out.

The site consisted of subsite 1, The Grout Waste Test Facility which was exhumed in 1994 and subsite 2, Special Waste Form lysimeter. In 1999 the inactive eastern portion of the site (600-63), was separated from the active western portion by a section of 2.4 meter (8 foot) high chain link fence.

Waste Type: Soil

Waste Description: The Grout Waste Lysimeter caissons (A-1 and B-1) contained layers of waste, containing small amounts of both radioactive and non-radioactive tracer agents embedded into grout material. The waste layers were separated by layers of soil. The lysimeter caissons were buried below ground. The radioactive tracers used in this test were primarily Co-60 (up to 330 Ci/L) and lesser amounts of Cobalt-58, Iron-59, Chromium-51 and Manganese-54.

Waste Type: Soil

Waste Description: The Special Waste Form lysimeter contained masonry cement, Portland cement and vinyl ester styrene waste forms spiked with Mn-54, Co-60, Cs-134 and Cs-137. The waste forms were placed into the lysimeters at various depths. The leachate was collected and disposed of. The research was completed in 1992. The lysimeters were capped in 1995 to prevent any further water intrusion. The leachate was drained for the last time by PNNL in 1996.

SubSites:

SubSite Code: 600-259:1

SubSite Name: 600-259:1, Grout Waste Test Facility

Classification: Accepted

ReClassification: Interim Closed Out

Description: The Grout Waste Test Facility consisted of four large lysimeters designed to test the leaching and migration rates of grout solidified low level radioactive waste. The lysimeters were installed in 1985. Each lysimeter (caisson) was 2 meters (6.4 feet) in diameter, 8 meters (25.6 feet) deep with a closed bottom.

The four caissons were placed vertically in the ground, forming a square. The four

lysimeters were designated as A1, A2, B1 and B2. A2 and B2 were never used. Lysimeter A1 contained phosphate/sulfate waste and B1 contained Cladding Removal Waste. Twenty four radioactive waste forms were placed on each lysimeter. The waste forms were placed in layers, separated by soil and gravel. Routine monitoring and leachate collection activities were conducted until January 1989. The lysimeters were exhumed in September 1994.

The 600-259 (subsites 1 and 2), waste site has been verified to be remediated in accordance with the ROD and the ESD and may be backfilled. This site has no deep zone; therefore no institutional controls are required.

SubSite Code: 600-259:2

SubSite Name: 600-259:2, Grout Lysimeter Site

Classification: Accepted

ReClassification: Interim Closed Out

Description: In 1999, programmatic responsibility for the lysimeter site was split between PNNL and ERC. PNNL retained responsibility for the active Buried Waste Lysimeter (see 600-63). The inactive Grout Waste Lysimeter facility and the Special Waste Form lysimeter were transitioned to the ERC. A chain link fence was added to physically separate the active portion of the site from the inactive portion.

The Special Waste-Form Lysimeter was constructed in the summer of 1983 and consisted of ten soil filled caissons [1.83 meters (6 feet) in diameter by 3.05 meters (10 feet) deep] placed concentrically around a central access caisson that measured 3.65 meters (in diameter, 3.65 meters deep). Each lysimeter is equipped with a gravity drain attached to the central caisson for leachate collection. The central caisson also provides access to the ten lysimeters through horizontal sample ports. A 15 centimeter diameter monitoring well is installed adjacent to each lysimeter caisson to allow for downwell gamma scanning and neutron probe measurements of the caissons. Each of the ten lysimeter caissons contains one waste-form sample that is in direct contact with the soil. Samples of commercial reactor waste was obtained and solidified in cement, bitumen or vinyl-ester styrene to create a waste form. Information was collected regarding the amount and types of contaminants that leached into the soil over time. Test data was collected between 1984 and 1992.

The 600-259 (subsites 1 and 2), waste site has been verified to be remediated in accordance with the ROD and the ESD and may be backfilled. This site has no deep zone; therefore no institutional controls are required.

Site Code:	600-265	Classification:	Not Accepted (3/8/2001)
Site Names:	600-265, Unidentified Pipes Near the 618-10 Burial Ground	ReClassification:	
Site Type:	Depression/Pit (nonspecific)	Start Date:	
Site Status:	Inactive	End Date:	
Site Description:	The site consists of two, 5 centimeter (2 inch) diameter, stainless steel pipes protruding approximately 10 centimeters (4 inches) above ground. The pipes are approximately 1.5 meters (5 feet) apart. Each stainless steel pipe has a rusted pipe inserted in the center that extends approximately 0.6 meters (2 feet) above ground.		

The Site Was Consolidated With:

Site Code: 618-10
Site Names: 618-10, 300 North Solid Waste Burial Ground, 318-10
Reason: Within Remediation Layback Area

Site Code: 600-276 **Classification:** Not Accepted (4/1/2002)

Site Names: 600-276, Hanford Geotechnical Engineering and Development Facility, GEDF, Cold Test Facility, Little Egypt **ReClassification:**

Site Type: Laboratory **Start Date:** 1982

Site Status: Inactive **End Date:**

Site Description: The site is surrounded with light posts and chain. A vehicle gate is posted "Authorized Personnel Only". The site is a large open field with a high mound of soil in the center. Several pipes extend vertically through the surface of the soil in some areas. A small pallet containing damaged bags of bentonite is located in the southeast corner of the area adjacent to some vertical pipes. Two steel hinged plates cover access holes to underground culverts used as monitoring stations for buried waste tests.

Waste Type: Equipment

Waste Description: Only simulated buried waste was placed into this test site.

Site Code: 600-278 **Classification:** Accepted

Site Names: 600-278, Bioremediation Pad Within Gravel Pit 9, Oil Contaminated Soil **ReClassification:** Closed Out (5/4/2004)

Site Type: Surface Impoundment **Start Date:** 1999

Site Status: Inactive **End Date:**

Site Description: The bioremediation area is located in the eastern section of Gravel Pit #9.

Waste Type: Oil

Waste Description: The soil on the bio remediation pad was originally contaminated with petroleum (fuel oil #6 and diesel oil #2) from the excavation of the 384 Day Tanks (sitecode 300-223).

Site Code: 600-290 **Classification:** Accepted

Site Names: 600-290, Contaminated Concrete Foundation West of 618-13, Pad and Loading Dock Near 618-13, 300 West Storage Area (See Subsites) **ReClassification:**

Site Type: Foundation **Start Date:** 1947

Site Status: Inactive **End Date:** 1950

Site Description: The site consists of two subsites. Subsite 1 included a contaminated foundation and loading dock. The foundation and loading dock were remediated in 2009. Prior to remediation, the concrete pad had been posted as a radiological fixed contamination area. Subsite 2 includes the rest of the site boundary and is know as the 300 West Storage Area.

Waste Type: Chemical Release

Waste Description: The waste is the remains of the concrete pad (apron), the loading dock and surrounding soil. The loading dock was obviously stained with rust colored and yellow staining. Contaminants of potential concern may include uranium and nitric acid (uranyl nitrate). Volatile organic compounds (including hexone), semi-volatile organic compounds, polychlorinated biphenyls, chlorinated hydrocarbons, and lead.

Five areas of fixed radiological contamination were identified during a radiological survey on 5/1/2006 (RSR-300PS-06-0808).

SubSites:

SubSite Code: 600-290:1

SubSite Name: 600-290:1, Contaminated Concrete Foundation West of 618-13, Pad and Loading Dock Near 618-13

Classification: Accepted

ReClassification: Interim Closed Out

Description: The concrete pad and loading dock were remediated in 2009. Field remediation of the 618-13 Burial Ground and the 600-290:1 concrete pad and loading dock occurred between January 5 and February 2, 2009. The activity removed the soil mound, concrete pad, and loading dock.

A gravel road lead to the concrete pad on the north side of the soil mound, where a truck could back up on the pad to the loading dock and offload drums of waste. Circular rust colored patterns, in the shape of 308 liter (55 gallon) drums, suggest that drums were once stored on the loading dock.

Cleanup Verification Package CVP-2009-00005 demonstrates that remedial action at the 618-13 Burial Ground and the collocated 600-290:1 Pad and Loading Dock Near 618-13 has achieved the remedial action objectives (RAOs) and corresponding remedial action goals (RAOs) established for the unrestricted land use scenario in the Interim Action Record of Decision (EPA 2001), the Explanation of Significant Differences for the 300-FF-2 Operable Unit (EPA 2004), and the Remedial Design/Remedial Action Work Plan for the 300 Area (DOE/RL 2009b).

The contaminated materials from the site have been excavated and disposed at ERDF. The remaining soil at the 618-13 and 600-290:1 sites have been sampled, analyzed, and evaluated. Results indicate that the site supports future land uses that can be represented (or bounded) by the residential land-use scenario and poses no threat to groundwater or the Columbia River.

Both 618-13 and 600-290:1 waste sites are closed to shallow zone criteria and, therefore, do not require any institutional controls.

SubSite Code: 600-290:2

SubSite Name: 600-290:2, 300 West Storage Area

Classification: Accepted

ReClassification:

Description: The subsite includes the remaining area covered by the WIDS boundary. The majority of the area was enclosed by a fence and was used for storage of contaminated equipment. A portion of the site extends north of the fence where anomalies were visible in an old aerial photograph.

Site Code: 618-1 **Classification:** Accepted
Site Names: 618-1, Solid Waste Burial Ground No. 1, 318-1, 300 Area Burial Ground No. 1 (See Subsites) **ReClassification:** Interim Closed Out (6/29/2010)

Site Type: Burial Ground **Start Date:** 1945

Site Status: Inactive **End Date:** 1951

Site Description: This burial ground was excavated and remediated in 2008 and 2009.

Drawing H-3-1172 shows the Burial Ground consisted of at least two trenches running north-south, that measure 5 meters (16 feet) wide by 61 meters (200 feet) long and are 2.4 meters (8 feet) deep. The south end of the burial ground contained a series of pits that are estimated to be 6.1 meters (20 feet) deep and possibly two shorter, east-west trenches. The burial ground had been marked with yellow, concrete AC-540 markers and radiation area chain on three sides. Five other Buried Radioactive Material medallions, inserted flush with the asphalt pavement along the east side of the 333 Building, marked the western extent of the burial ground. In 1998, the burial ground was located within a larger area posted as a Contamination Area.

Over time, multiple facilities and portions of operational support structures were placed on top of the backfilled burial ground footprint. The 303-M Building was built over a portion of the original burial ground.

This site has two subsites, 618-1:1, the 333 ESHTSSA (333 East Side Heat Treat Salt Storage Area), and 618-1:2, the Limestone Neutralization Pit, WATS Trench Neutralization Pit. Other, co-located waste sites that have been consolidated into the burial ground waste site include UPR-300-13 (Acid Neutralization Tank Leak East of the 333 Building), UPR-300-14 (Acid Leak at the 334 Tank Farm) and 333 LHWSA (333 Laydown Hazardous Waste Storage Area).

Waste Type: Misc. Trash and Debris

Waste Description: 618-1 was estimated to contain large quantities of uranium (~16 tons [14,500 kilograms]) from the fuel fabrication activities and small quantities of plutonium and fission products from laboratory operations. Specific items include contaminated gloves, miscellaneous equipment, bronze crucibles, and solid laboratory waste. A 1946 report states that lead sink traps from the 321 laboratory were removed and taken to the burial ground. Radiological readings on the sink traps indicated 6,000 d/m alpha and 15 mr/hr beta/gamma. A monthly report from August 1946 mentions the burial of a bronze crucible that read 170 millireps/hour (179 millirads/hour) and 5.5 mr/hr (millirads/hour) at a distance of 10.2 centimeters (4 inches). UPR-300-13 contributed process acid that included 4,432 pounds (2,012 kilograms) of nitrate, 447 pounds (202.9 kilograms) of copper, and 3 pounds (1.4 kilograms) of uranium.

During the burial ground remediation, in 2008 and 2009, items found in the burial ground included metal drums, iron and bronze crucibles, metal boxes, glass laboratory flasks and bottles. Some of the bottles contained unknown liquids and powders. One drum was labeled Poison Waste. Some drums were leaking oily liquid.

Waste Type: Chemical Release

Waste Description: Additional waste from unplanned releases (WIDS Site UPR-300-13) from facilities that were constructed over the burial ground would have contributed additional chemicals to the soil column as a liquid release. Sample results showed that 2015 kilograms (4432 pounds) of nitric acid, 44 kilograms (96 pounds) of fluoride, 217 kilograms (477 pounds) of copper and 1.4 kilograms (3 pounds) equivalent to 0.0005 curies of uranium were lost to the ground. 870 kilograms (1910 pounds) of caustic was added to the leaking tank and allowed to leak into the soil to neutralize the acid that had escaped into the ground. The leak rate of the tank was 582.9 liters (154 gallons) per hour.

A release on July 18, 1975 (WIDS Site UPR-300-14) of 4,540 liters (1,200 gallons) of 93% sulfuric acid solution from the 334 Tank Farm drained to a limestone pit (WIDS Site 300-246). Since the pit had an open bottom and was located over the 618-1 Burial Ground, the release drained to the burial ground.

Waste Type: Chemicals

Waste Description: WIDS Site 333 ESHTSSA stored above ground containers of solidified heat-treat salt waste from the fuels fabrication facility. The waste consisted of sodium chloride, potassium chloride, sodium nitrite, sodium nitrate, and potassium nitrate. Approximately, thirty to fifty 208 liter (55 gallon) drums accumulated each year (1964-1987).

The Following Sites Were Consolidated With This Site:

Site Code: 333 ESHTSSA

Site Names: 333 ESHTSSA, 333 East Side Heat Treat Salt Storage Area

Reason: Within Boundary Of Larger Site

Site Code: 333 LHWSA

Site Names: 333 LHWSA, 333 Laydown HWSA, 333 Laydown Hazardous Waste Storage Area

Reason: Within Boundary Of Larger Site

Site Code: UPR-300-13

Site Names: UPR-300-13, UN-300-13, Acid Neutralization Tank Leak East of 333 Building

Reason: Within Boundary Of Larger Site

Site Code: UPR-300-14

Site Names: UPR-300-14, UN-300-14, Acid Leak at 334 Tank Farm

Reason: Within Boundary Of Larger Site

SubSites:

SubSite Code: 618-1:1

SubSite Name: 618-1:1, 333 ESHTSSA, 333 East Side Heat Treat Salt Storage Area

Classification: Accepted

ReClassification: Interim Closed Out

Description: This area has been remediated and reclassified to Interim Closed Out with the 618-1 Burial Ground.

The 333 ESHTSSA was an inactive storage area. The unit included various locations inside the 333 Building fence where heat-treat salts were stored. The heat-treat salts were stored on the paved area near the southeast corner of the building or in the adjacent area located over a portion of the 618-1 Burial Ground. Several areas of the asphalt pavement have been painted over and posted fixed radiological contamination (see WIDS Site UPR-300-17).

The area stored containers of solidified heat-treat salt waste from the fuels fabrication facility. The waste consisted of sodium chloride, potassium chloride, sodium nitrite, sodium nitrate, and potassium nitrate. Approximately, thirty to fifty 208 liter (55 gallon) drums accumulated each year (1964-1987).

SubSite Code: 618-1:2
SubSite Name: 618-1:2, Limestone Neutralization Pit, WATS Trench Neutralization Pit, 300-246
Classification: Accepted
ReClassification: Interim Closed Out
Description: The neutralization pit has been remediated and reclassified as Interim Closed Out with the 618-1 Burial Ground.

The centerline of the Pit was 26.8 meters (88 feet) south of the centerline of the 333 Building East Pipe Trench, aligned with where the pipe trench exited the east wall of the 333 Building. (see H-3-18520).

The upper wooden covers for the Limestone Neutralization Pit had been removed and the pit had been backfilled with soil. It was no longer visible at the surface. The concrete pipe trench branch to the pit was visible prior to remediation (see photos). The drain line from the concrete pipe trench to the pit was sealed and the neutralization pit shut down in 1975, following a large acid spill (WIDS Site UPR-300-14). This incident caused concern for the groundwater.

The original pit was constructed of a 0.46 meter (1.5 foot) deep bed of limestone with 7.6 centimeter (3 inch) rock on top of a 0.3 meter (1 foot) deep bed of washed gravel. The top of the limestone bed was 15.2 centimeters (6 inches) above grade and 1.2 meters (4 feet) above the surface of the limestone bed.

The Limestone Neutralization Pit received drainage from the WATS pipe trench and the 334 Tank Farm sump trench. The pit was filled with limestone rocks used to neutralize acidic aqueous solutions draining from the pipe trench. The pit had an open top to allow the addition of limestone rocks as needed. It was open at the bottom to drain to the soil column. The soil column effected part of the of the 618-1 Burial Ground, located beneath the neutralization pit. The 334 Tank Farm had four elevated tanks, two for storing concentrated nitric acid, one to store concentrated sulfuric acid, and one tank to store waste etch acid. A sump trench beneath the elevated acid tanks collected leaks from tanks, valves, and piping. The acid transfer lines from the 334 Tank Farm to the 333 Building were installed in the Pipe Trench. Rainwater collected in the sump trenches and the pipe trench drained to the pit.

Site Code:	618-2	Classification:	Accepted
Site Names:	618-2, Solid Waste Burial Ground No. 2, 318-2	ReClassification:	Interim Closed Out (12/28/2006)
Site Type:	Burial Ground	Start Date:	1951
Site Status:	Inactive	End Date:	1954

Site The site has been remediated and interim closed out.

Description: The burial ground contained three or four trenches running east-west. The largest trench was 54 meters (175 feet) long and 18 meters (60 feet) wide.

Waste Type: Equipment

Waste Description: The unit was used for disposal of uranium-contaminated equipment and materials, plutonium, and fission products. The uranium waste was typically solid metallic uranium oxides in the form of metal cuttings from Reactor Fuel Fabrication facilities in the 300 Area. The plutonium and fission products came from 300 Area laboratory facilities, that began to operate in 1953. The burial ground may also contain tin from the triple dip canning process and lead from the lead dip process.

In December 2004, during remedial excavation of this burial ground, a combination lock safe was unearthed. A plutonium contaminated cup, a one gallon jug containing liquid waste, a 250 milliliter flask and several metal cans were found inside the safe.

Site Code: 618-3 **Classification:** Accepted

Site Names: 618-3, Solid Waste Burial Ground No. 3, 318-3, Burial Ground #3, Dry Waste Burial Ground No. 3 **ReClassification:** Interim Closed Out (9/5/2006)

Site Type: Burial Ground **Start Date:** 1954

Site Status: Inactive **End Date:** 1955

Site The site has been remediated and interim closed.

Description: Prior to remediation the site was fenced and posted with Underground Radioactive Material signs. The original surface dimensions were 107 meters (350 feet) long by 50 meters (165 feet) wide. An extension to the north end of the burial ground appeared on Drawings H-6-933 and H-6-939, lengthening the site by 15 meters (50 feet).

A 1995 Ground Penetrating Radar survey indicated that this burial ground was dominated by one continuous north-south trending trench. Within the interpreted trench boundary, areas of debris were readily identified continuously covering an area of about 335 feet by 90 feet.

Waste Type: Demolition and Inert Waste

Waste Description: The site consisted of uranium-contaminated waste, primarily building materials from the remodeling of the 313 Building. It may have also contained waste from the 303-J and K upgrades. In 1986, the volume of contaminated soil was estimated to be 12,549 cubic meters (443,160 cubic feet), with 12,643 cubic meters (446,480 cubic feet) of overburden.

Site Code: 618-5 **Classification:** Accepted

Site Names: 618-5, Burial Ground No. 5, Regulated Burning Ground, 318-5 **ReClassification:** Interim Closed Out (7/12/2004)

Site Type: Burial Ground **Start Date:** 1945

Site Status: Inactive **End Date:** 1962

Site Description: The site has been remediated and interim closed out.

Waste Type: Misc. Trash and Debris

Waste Description: HW-39076 states the area was a burning trench as well as a storage area for aluminum silicate containing 17% uranium and bronze crucibles with radiation levels up to 200 mr/hr. The site was used for the disposal of uranium-bearing trash. Characterization test pits dug in 1992 encountered radiologically contaminated lead bricks, steel pipes, wood fragments and other garbage. Asbestos was found in Test Pit 2.

Site Code: 618-6 **Classification:** Accepted

Site Names: 618-6, Solid Waste Burial Ground #6 **ReClassification:** Rejected (10/7/1998)

Site Type: Burial Ground **Start Date:** 1943

Site Status: Inactive **End Date:** 1944

Site Description: The 618-6 Burial Ground was originally located in the southeast corner of 300 Area near where the 325 Building is currently located. The waste was exhumed and relocated twice to allow for 300 Area construction expansions. In 1962, the contents were permanently moved to the 618-10 Burial Ground.

Waste Type: Equipment

Waste Description: The unit contained solid uranium waste.

Site Code: 618-7 **Classification:** Accepted

Site Names: 618-7, Solid Waste Burial Ground No. 7, Burial Ground #7, 318-7 **ReClassification:** Interim Closed Out (1/7/2009)

Site Type: Burial Ground **Start Date:** 1960

Site Status: Inactive **End Date:** 1973

Site Description: The site has been remediated and backfilled with clean soil to adjacent grade elevations. The burial ground consisted of 2 east-west oriented trenches and one V-shaped pit. Before remediation, the burial ground was a vegetation-covered area, with patches of cobbles, surrounded by wooden poles and an 2.4 meter (8 foot) wire fence. A locked gate was located on the east side of the fenced area and was posted with Underground Radioactive Material signs.

Waste Type: Equipment

Waste Description: Materials buried at this site were primarily from the 321, 313, 333, 3722 and 3732 Buildings. Miscellaneous contaminated equipment and hundreds of 114 liter (30 gallon) drums of zircaloy chips contaminated with moderate amounts of beryllium and uranium were buried in the trenches from 1960 to 1973. Since the zircaloy was considered pyrophoric, the drums were filled with water to avoid spontaneous combustion. It is highly possible the water has leaked out of the drums. It has been suggested the waste remain undisturbed to avoid oxidation. An explosive hazard may be present. Other low-level material, slightly contaminated with uranium and thorium, was also buried in the trenches. A 1972 memo states that from January through August 1972, 91 cubic meters (3024 cubic feet) of waste contaminated with uranium was placed in Burial Ground 7. It also states that during that same period, 55 cubic meters (1848 cubic feet) of thoria contaminated waste, 25 cubic meters (848 cubic feet) of thorium oxide and

30 cubic meters (1000 cubic feet) of non-radioactive beryllium contaminated waste was placed in Burial Ground 7.

Site Code: 618-8 **Classification:** Accepted
Site Names: 618-8, Solid Waste Burial Ground No. 8, 318-8, Early Solid Waste Burial Ground **ReClassification:** Interim Closed Out (8/7/2006)
Site Type: Burial Ground **Start Date:** 1944
Site Status: Inactive **End Date:** 1954
Site Description: The site has been remediated and interim closed.
 The site originally consisted of a solid waste burial ground. Later, when a parking lot was constructed over the majority of the site the radiation monuments were cut down to grade. Medallions embedded in the asphalt then marked the location of the burial ground. The original footprint of the burial ground was expanded to the north in 1980. This area was delineated by post and chain. The site was posted as Underground Radioactive Material.

Waste Type: Construction Debris

Waste Description: The site is assumed to have been used for the disposal of uranium-contaminated solid waste from fuel fabrication facilities.

Site Code: 618-9 **Classification:** Accepted
Site Names: 618-9, 300 West Burial Ground, 318-9, Dry Waste Burial Site No. 9 **ReClassification:** Closed Out (10/7/1998)
Site Type: Burial Ground **Start Date:** 1950
Site Status: Inactive **End Date:** 1956
Site Description: The site was a burial ground composed of a single trench and enclosed within a fence measuring 105 by 95 meters (344 by 312 feet). The waste site was exhumed during an Expedited Response action in 1991-1992. The empty trench was backfilled and revegetated. The site was released from Radiological Control and the fence was removed.

Waste Type: Chemicals

Waste Description: Historical reports indicated 6,000 kilograms (13,200 pounds) of tributyl phosphate, 10,000 kilograms (22,000 pounds) of paraffin hydrocarbon, and 19,000 liters (5,000 gallons) of uranium-contaminated organic solvents were disposed of in the burial trench. In 1991, this burial ground was excavated. Approximately 2,600 liters (700 gallons) of methyl isobutyl ketone, aka hexone, and 3,400 liters (900 gallons) of kerosene solvent were recovered from 120 drums in the trench's western end. The kerosene solvent was normal paraffin hydrocarbon and tributyl phosphate, known as NPH/TBP. Severely corroded drums were also found at the eastern end of the trench. Approximately 39.6 cubic meters (1,400 cubic feet) of debris was also found, including more than 80 empty drums, a wheelbarrow, scrap process equipment, construction debris, two breached bags of ammonium nitrate, unidentified white powders, and several lead bricks. Debris and soil were removed to the 200 Area Low-level Radioactive Burial Ground. Liquid wastes were sent to licensed off site waste handling facilities.

Site Code: 618-10 **Classification:** Accepted
Site Names: 618-10, 300 North Solid Waste Burial Ground, 318-10 **ReClassification:**
Site Type: Burial Ground **Start Date:** 1954
Site Status: Inactive **End Date:** 1963

Site Description: The site consists of 12 trenches and 94 vertical pipe units. The trenches range in size from 97 meters (320 feet) long by 21 meters (70 feet) wide, 7.6 meters (25 feet) deep to 15 meters (50 feet) long by 12 meters (40 feet) wide, 7.6 meters (25 feet) deep. The vertical pipe units are 56 centimeter (22 inch) diameter, 4.6 meter (15 feet) long waste receptacles constructed by welding five 55-gal (208 L) bottomless drums together. The column of drums were buried vertically. When they reached their waste capacity level, they were backfilled and topped with concrete. The site perimeter is fenced and marked with concrete AC-540 Markers numbered 3-64-1 through 3-64-68. The site has been surface stabilized and vegetated with grasses. The site is posted with Underground Radioactive Material signs.

Waste Type: Equipment

Waste Description: The site contains a broad spectrum of low- to high-level dry wastes, primarily fission products and some transuranic (TRU) from the 300 Area. Low-level wastes are buried in trenches, and medium- to high-level beta/gamma wastes are mostly in the vertical pipe units. Some higher activity wastes were placed in concrete shielded drums and disposed in the trenches. Following a Plutonium Nitrate spill in the 305-B Building (3-3-61) miscellaneous contaminated debris was taken to the 300 North Burial Ground. A plutonium contaminated glove box was shipped to the 300 North Burial Ground on 6-8-60. Document D&D-23840 found evidence of high dose rate waste being placed in the trenches, some dose rates exceeding 20 rad per hour. One 1964 radiation survey provides a hand drawing map of 619-10 and shows where barrels of depleted uranium were placed.

The Following Sites Were Consolidated With This Site:

Site Code: 600-265
Site Names: 600-265, Unidentified Pipes Near the 618-10 Burial Ground
Reason: Within Remediation Layback Area

Site Code: UPR-600-1
Site Names: UPR-600-1, Contamination Spread at 618-10 Burial Ground, UN-600-1
Reason: Within Boundary Of Larger Site

Site Code: UPR-600-2
Site Names: UPR-600-2, Contamination Spread at 618-10, UN-600-2
Reason: Within Boundary Of Larger Site

Site Code: UPR-600-3
Site Names: UPR-600-3, Contamination Spread at 618-10
Reason: Within Boundary Of Larger Site

Site Code: 618-11 **Classification:** Accepted
Site Names: 618-11, Y Burial Ground, 318-11, 300 Wye Burial Ground **ReClassification:**
Site Type: Burial Ground **Start Date:** 1962
Site Status: Inactive **End Date:** 1967
Site Description: The burial ground perimeter is marked with concrete AC-540 markers numbered 2-68-1 through 2-68-28. The site surrounded by an 2.4 meter (8 foot) chain link fence with a locked gate. The fence labeled 618-11 Burial Ground and posted with Underground Radioactive Material signs.

The site consists of three "V" shaped trenches, 2 large diameter caissons and 50 vertical pipe storage units. The trenches are 270 meters (900 feet) long by 15 meters (50 feet) wide (surface dimensions) and 7.6 meters (25 feet) deep. The 50 vertical pipe storage units were made by welding five 208-liter (55-gallon) drums together. The welded drums formed a cylinder 56 centimeters (22 inches) in diameter, 4.6 meters (15 feet) long that was buried vertically. The bottoms of the units were 4.6 meters (15 feet) below ground surface. The units were open to the soil at the bottom. The two large diameter caissons were constructed of 2.4 meters (8 feet) diameter corrugated metal pipe, 3.0 meters (10 feet) long, with the top of the caisson being 4.6 meters (15 feet) below grade, connected to the surface by an offset 91-centimeter (36-inch) diameter pipe with a dome type cap. The caissons were open to the soil at the bottom. The bottoms of the caissons were 7.6 meters (25 feet) below ground surface. An additional 0.6 meters (2 feet) of topsoil was added to the site when it was surface stabilized in 1983.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: The site contains a broad spectrum of low to high level dry wastes, including fission products and plutonium. Low-level wastes in cardboard boxes and large pieces of equipment were buried in the trenches. The trenches also include 55 gallon drums with high activity or small amounts of liquid, encased in cement. Most of the high activity wastes were remotely placed into the pipe storage units and caissons. These wastes were contained in small cans. Historical research related to the burial ground waste inventory resulted in the review of many Radiological Shipment Records (RSR's) and Radiological Survey Records. Document D&D-23840 identifies larger items with significant dose rates were placed in the trenches, as well as drums containing depleted uranium and material contaminated with beryllium, thorium and plutonium. Many of these records were copied and bound into miscellaneous report documents. A summary is included in the 618-11 Expedited Response Proposal. One 1963 memorandum, authored by EA Berreth, indicates that all plutonium waste from the 325 building was to be sent to the 200 Area burial grounds. 325 building waste with high dose rates would be sent to 618-11 burial pipes.

The Following Sites Were Consolidated With This Site:

Site Code: UPR-600-4
Site Names: UPR-600-4, Contamination Spread at 618-11
Reason: Within Boundary Of Larger Site

Site Code: UPR-600-5
Site Names: UPR-600-5, Contamination Spread at 618-11
Reason: Within Boundary Of Larger Site

Site Code: UPR-600-6

Site Names: UPR-600-6, Contamination Spread at 618-11

Reason: Within Boundary Of Larger Site

Site Code: UPR-600-7

Site Names: UPR-600-7, Contamination Spread at 618-11

Reason: Within Boundary Of Larger Site

Site Code: UPR-600-8

Site Names: UPR-600-8, Contamination Spread at 618-11

Reason: Within Boundary Of Larger Site

Site Code: UPR-600-9

Site Names: UPR-600-9, Contamination Spread at 618-11

Reason: Within Boundary Of Larger Site

Site Code: UPR-600-10

Site Names: UPR-600-10, Contamination Spread at 618-11

Reason: Within Boundary Of Larger Site

Site Code: 618-13 **Classification:** Accepted

Site Names: 618-13, 618-13 Burial Ground, 318-13, 303 Building Contaminated Soil Burial Site **ReClassification:** Interim Closed Out (11/12/2009)

Site Type: Burial Ground **Start Date:** 1950

Site Status: Inactive **End Date:** 1950

Site Description: The 618-13 waste site was remediated in 2009. The waste site had been of a mound of soil approximately 4.6 to 6.1 meters (15 to 20 feet) high by 38 meters (125 feet) long by 15 meters (50 feet) wide, covered with 0.6 meters (2 feet) of clean soil.

Waste Type: Soil

Waste Description: This site presumably received uranium contaminated topsoil removed from around the 303 Building area. Total activity buried in the site is not known. During remediation, only soil and a small amount of wood debris was identified. No other debris was found in the soil pile.

Site Code: BTTF **Classification:** Accepted

Site Names: BTTF, Biological Treatment Test Facilities **ReClassification:** Closed Out (12/10/1996)

Site Type: Laboratory **Start Date:** 1988

Site Status: Inactive **End Date:** 1996

Site Description: The unit consisted of various laboratories in the 324, 325, and 331 Buildings. The processing equipment covered under this unit included lab, bench, pilot, and full-scale treatment equipment.

Waste Type: Chemicals

Waste Description: Wastes treated by the unit included listed waste, waste from non-specific sources, characteristic wastes, and state-only wastes.

Site Code: PCTTF **Classification:** Accepted
Site Names: PCTTF, Physical and Chemical Treatment Test Facilities **ReClassification:** Closed Out (5/13/1996)
Site Type: Laboratory **Start Date:** 1979
Site Status: Inactive **End Date:** 1995

Site Description: The unit consisted of the use of the 324 Building Biological Treatment Test Facilities, the 324 Building Radiochemical Hot-Cell Complex, and the 325 Building Shielded Analytical Laboratory to test treatment technologies for radioactive mixed waste and hazardous waste. The processing equipment covered under this unit included lab and bench-scale treatment equipment.

Waste Type: Chemicals

Waste Description: Waste treated by various processes included listed wastes, wastes from non-specific sources, characteristic wastes, and state-only wastes. Petroleum refining wastes were also included. The processes used in this unit included pH adjustment, ion exchange processes, waste concentration, precipitation/filtering, solids washing, catalytic destruction, and grouting.

Site Code: TTTF **Classification:** Accepted
Site Names: TTTF, Thermal Treatment Test Facilities **ReClassification:** Closed Out (5/13/1996)
Site Type: Laboratory **Start Date:** 1978
Site Status: Inactive **End Date:** 1996

Site Description: The unit consists of various laboratories in the 324 and 325 Buildings and the in-situ vitrification (ISV) unit which is a transportable treatment unit. The processing equipment covered under this unit included bench, engineering, pilot, and full-scale treatment equipment.

Waste Type: Chemicals

Waste Description: Wastes treated by these processes included listed wastes, wastes from non-specific sources, characteristic wastes, and state-only wastes. In-situ vitrification is a thermal process that converts contaminated soil and sludges into a glass and crystalline product. Non-volatilized contaminants are immobilized in the glass and crystalline product. Volatilized contaminants are recovered in a filtration system. Other vitrification processes explored in these units included plasma arc pyrolysis, melters, and gamma-induced oxidation.

Site Code: UPR-300-1 **Classification:** Accepted
Site Names: UPR-300-1, 316-1A, 307-340 Waste Line Leak, UN-300-1 **ReClassification:**
Site Type: Unplanned Release **Start Date:** 1969
Site Status: Inactive **End Date:** 1969

Site Description: The site was a release to the soil in the area between the 307 Retention Basins and the 340 Building. There is no readily apparent sign of subsurface contamination beneath the gravel covered area.

Waste Type: Process Effluent

Waste Description: The waste discharged to the soil column consisted of process effluent contaminated by transuranic fission products including 900 curies of short-lived radionuclides (mainly promethium-147) and 10 curies each of strontium-90 and cesium-137.

Site Code: UPR-300-2 **Classification:** Accepted

Site Names: UPR-300-2, Releases at the 340 Facility, UN-300-2, UN-316-2 **ReClassification:**

Site Type: Unplanned Release **Start Date:** 1954

Site Status: Inactive **End Date:**

Site Description: The site appears to be multiple releases from ongoing decontamination and waste handling activities starting in January 1954.

Waste Type: Process Effluent

Waste Description: 10 millicuries of cesium-137 is provided in the original source document and is designated as an estimate only. It is unknown if this was related to a single event or all events over the time period (1954 to date).

Site Code: UPR-300-4 **Classification:** Accepted

Site Names: UPR-300-4, UN-300-4, Contaminated Soil Beneath the 321 Building **ReClassification:**

Site Type: Unplanned Release **Start Date:** 1945

Site Status: Inactive **End Date:** 1955

Site Description: The site is the soil beneath and south of the 321 Building. The site represents a number of releases that occurred from 1945 to 1988. This time period covers the development of the REDOX, PUREX processes, and numerous other pilot operations. No specific occurrence reports have been identified. The true extent of the soil contamination is unknown. However, an area approximately 30.5 meters by 30.5 meters by 6.1 meters deep (100 feet by 100 feet by 20 feet deep) is an estimation of the extent of the contamination.

Waste Type: Process Effluent

Waste Description: Wastes and contamination in and around the 321 Building are very extensive. They include all of the components of the many chemical processes tested in this facility over the years and result from both waste management practices and from unplanned contamination events and accidents. Components of the bismuth phosphate process included many acids (nitric, phosphoric, hydrofluoric, oxalic, and others), bismuth nitrate, sodium dichromate, potassium permanganate, calcium, lanthanum and sodium fluorides, ammonium fluosilicate, peroxide, sodium hydroxide, and other substances. Components of the REDOX process and its development include methyl isobutyl ketone (hexone), aluminum nitrate, ammonium nitrate, many acids (including nitric, sulfuric, oxalic, and others), ferrosulfamate, sodium hydroxide,

mercury, resins and other substances.

Components of the Metal Recovery process and the PUREX process were quite similar to each other and included tri-butyl phosphate, normal paraffin hydrocarbon, acids (including nitric, oxalic, and others), ammonium fluoride, ammonium nitrate and other substances. The RECUPLEX process used tri-butyl phosphate, carbon tetrachloride, many acids (including nitric, oxalic, hydrofluoric, and others), sodium fluoride, sodium hydroxide, and other substances. All of these chemicals became waste constituents, along with trace isotopes of plutonium, uranium, thorium, strontium, cesium, aluminum, iron, copper, and zinc. Additionally, cell and equipment decontamination reagents, cleansers, and drying materials, including carbon tetrachloride, trichlorethylene, acetone, A-butanone, and many commercial products, became a part of the 321 waste stream.

Because the 321 Building was a pilot plant, the Building's mission changed a number of times. These mission changes altered the potential contaminants that may have contributed to the soil contamination. Listed below are some of the mission changes and potential contaminants.

When the original hot laboratory facilities in the A and B Cells of T Plant had been disassembled to make room for a radioactive lanthanum production mission, some of the testing with higher activity radiochemical solutions was initiated in the 321 Building. These tests continued until 'C' Plant (Hot Semi-Works) was constructed in the 200 East Area in 1949.

Subsequent defense production expansions from 1950 to 1955 generated the development of the Uranium Plant Metal Recovery process, the PUREX process, and the reclamation of uranium and plutonium by extraction (RECUPLEX) process. Pilot scale developmental testing using low activity solutions for all of these processes was conducted in the 321 Building. Reduction-oxidation process improvement trials, including mercury-catalyzed dissolving studies, also were conducted during this period.

Beginning in the late 1950's, in response to orders from the National Aeronautics and Space Administration (NASA) and from hospitals and medical laboratories and research centers, chemists embarked on the development of several pioneering methods of extracting high-heat isotopes from high level nuclear waste. Among the most prominent isotopes extracted were strontium-90, cesium-137, cerium-144, promethium-147, and neptunium-237. At one time in the 1960's, Hanford was the only producer in the world of promethium-147, a rare earth extract that was used in the development of the artificial heart. Extraction of these isotopes was accomplished by ion exchange, solvent extraction, carrier precipitation, and other means. Many of the pilot scale development tests for these extractions were conducted using tracer level waste solutions. During the 1950's and 1960's, several attempts were made to produce uranium-233 from thorium. These processes used chemical separation of various forms of thorium target fuel elements (powders, pellets, wafers, with many oxide blends) after irradiation.

A general cleanup of the building during 1946 to 1947 revealed radioactive material in lead sink traps of cold areas and maximum readings of 50,000 disintegrations per minute in other building locations. During January and February of 1947, a total of nearly 800 micrograms of plutonium was flushed from the inside of process lines and tanks in the 321 Building. Late that year, a large disposal of uranyl nitrate hexahydrate solution to the 300 Area Process Pond spiked radioactivity readings in that pond so high that a decision was made to build the special 321 Cribs to contain uranium bearing 321 Building solutions. By April 1948, 321 Building operations had discharged 238 pounds of uranium to the 300 Area Process Pond. Early that year, building modifications revealed plutonium contamination in the concrete of sampling boxes in cold areas of the canyon, and readings up to 45,000 disintegrations per minute (alpha) were discovered in sludge inside tank 1-AU.

Solid radioactive and chemical wastes from the 321 Building were buried in all of the various

burial grounds used in the 300 Area (with the possible exception of 618-9). Nitrous oxide fumes from bismuth phosphate process tests and fission gases including iodine-131 from all separations processes tests escaped from the 321 Building stack.

The Following Sites Were Consolidated With This Site:

Site Code: 300-81

Site Names: 300-81, 321 Building Steam Condensate, Miscellaneous Stream #370

Reason: Within Boundary Of Larger Site

Site Code: 300-82

Site Names: 300-82, 321 Building Steam Condensate, Miscellaneous Stream #371

Reason: Within Boundary Of Larger Site

Site Code: 300-83

Site Names: 300-83, 321 Building Steam Condensate, Miscellaneous Stream #372

Reason: Within Boundary Of Larger Site

Site Code: 300-84

Site Names: 300-84, 321 Building Vent Valve on Water Line, Miscellaneous Stream #348

Reason: Within Boundary Of Larger Site

Site Code: 300-92

Site Names: 300-92, 321 Building Stormwater Runoff, Miscellaneous Stream #680

Reason: Within Boundary Of Larger Site

Site Code: UPR-300-5

Classification: Accepted

Site Names: UPR-300-5, UN-300-5, Spill at 309 Storage Basin

ReClassification:

Site Type: Unplanned Release

Start Date: 1973

Site Status: Inactive

End Date: 1973

Site Description: The site was a release that contaminated the storage basin area, the filter vault, the stack base, the truck stall, and the truck ramp outside the 309 Building. Currently, the truck ramp is paved with asphalt. No radiological postings or markers are present to identify the location of this release.

Waste Type: Process Effluent

Waste Description: The waste was low-level radioactive water. The primary isotope was cesium-137.

Surveys of the truck ramp outside of the building and of the truck stall floor within the storage basin area prior to initial decontamination revealed direct radiation levels to 20 millirad per hour and smearable contamination of 30 millirad per hour, respectively. The smearable contamination within the truck stall and on the floor in the storage basin area was initially reduced by flushing with water to levels up to 7,000 counts per minute (wet), 25,000 counts per minute (dry), and 4,000 counts per minute (wet), 10,000 counts per minute (dry), respectively.

Further decontamination efforts reduced these levels to 7,000 counts per minute (dry) and 1,000 counts per minute (dry), respectively. Air concentrations remained normal following the incident. No detectable radioactive stack emissions were revealed by the continuous exhaust air monitoring equipment or the air sampling system in the stack pit.

Site Code:	UPR-300-7	Classification:	Accepted
Site Names:	UPR-300-7, UN-300-7, Oil Spill at 384 Building	ReClassification:	Closed Out (8/24/1999)
Site Type:	Unplanned Release	Start Date:	1972
Site Status:	Inactive	End Date:	1972
Site Description:	The release site was to the ground and concrete valve pits around the underground day tanks located behind the 384 Building (300 Area Powerhouse). The area is paved with asphalt. There is no visual evidence of a spill. Most of the spilled oil was contained in the underground, concrete pits that surround the day tanks.		

This site was closed out in conjunction with the North Process Pond.

Waste Type: Oil

Waste Description: The release consisted of approximately 3,220 liters (850 gallons) of #6 fuel oil. An estimated 3,028 liters (800 gallons) were recovered in cleanup operations. Approximately, 114 liters (30 gallons) were conveyed to the powerhouse, of which (20 gallons) went to the ash pits and 38 liters (10 gallons) were observed at the process pond (WIDS Site 316-2). That would leave approximately 38 liters (10 gallons) that may have remained in the soil between the day tanks, the powerhouse facility, piping, the ash pits or process ponds. All values are approximate (as stated in the incident report).

Site Code:	UPR-300-10	Classification:	Accepted
Site Names:	UPR-300-10, Contamination Under 325 Building, UN-300-10	ReClassification:	
Site Type:	Unplanned Release	Start Date:	1977
Site Status:	Inactive	End Date:	1977
Site Description:	The site was an unplanned release to the soil beneath the northwest corner of the 325 Building.		
Waste Type:	Chemicals		
Waste Description:	UPR-300-10 included waste from dissolution of highly radioactive samples including irradiated reactor fuels.		

Site Code:	UPR-300-11	Classification:	Accepted
Site Names:	UPR-300-11, Underground Radioactive Liquid Line Leak, UN-300-11	ReClassification:	
Site Type:	Unplanned Release	Start Date:	1977
Site Status:	Inactive	End Date:	1977

Site Description: The site was a release to the soil that involved a 1.22 meter (4 foot) diameter column of gravel-covered soil in the 340 Complex yard, located immediately south of the 340 Vault. The release occurred around and below a leaking flanged-tee that connected the Retired Radioactive Liquid Waste Sewer (RRLWS) to the 340 Vault.

Waste Type: Process Effluent

Waste Description: Soil samples collected near the broken pipe were analyzed and yielded concentrations of 0.2 strontium-90, 0.24 europium-155, 0.09 cerium-144, 0.0017 plutonium-239 and 240, and 0.014 americium-241 and plutonium-238 (all microcuries per cubic centimeter). Approximately 1 curie of contamination was left in place.

Site Code: UPR-300-12 **Classification:** Accepted

Site Names: UPR-300-12, UN-300-12, Contaminated Soil Beneath the 325 Building **ReClassification:**

Site Type: Unplanned Release **Start Date:** 1979

Site Status: Inactive **End Date:** 1979

Site Description: The site was an unplanned release to the soil under the floor on the east side of the 325-A Building.

Waste Type: Process Effluent

Waste Description: The site received radioactive rinse water overflow containing nitrate ions, promethium-147, fission products, and transuranic nuclides. The total activity in the rinse water was estimated to be 70 Curies, of which 95% was promethium-147. The rinse water contained nitrate ions, promethium-147, fission products, and transuranic radionuclides. Nitrate ions, but no radionuclides, were detected in samples taken from a nearby groundwater monitoring well. PNL (Occurrence Report #79-2) reports that coring through the cement floor of Room 50-A and sampling of the soils below was completed on January 26, 1979.

Site Code: UPR-300-13 **Classification:** Accepted

Site Names: UPR-300-13, UN-300-13, Acid Neutralization Tank Leak East of 333 Building **ReClassification:** Consolidated (2/12/1999)

Site Type: Unplanned Release **Start Date:** 1973

Site Status: Inactive **End Date:** 1973

Site Description: This waste site has been consolidated into the 618-1 Burial Ground waste site.

The release site was the soil adjacent to the underground spent acid receiver tank that was located east of the 333 Building and adjacent to the 618-1 Burial Ground. The tank pit depth was 3.05 meters (10 feet) below grade. There is currently no visual evidence of the tank or this release. The 334-A Building was built on top of the area where the tank was removed.

Waste Type: Process Effluent

Waste Description: The waste contained process acid that included 4,432 pounds (2,012 kilograms) of nitrate, 447 pounds (202.9 kilograms) of copper, and 3 pounds (1.4 kilograms) of uranium.

Contaminated." The 0.6 meter (24 inch) metal manhole is labeled "Sewer" and "Danger, Limited Access/Confined Space."

Waste Type: Chemicals

Waste Description: The waste consisted oily rags and other waste material, including what was believed to be uranium shavings.

Site Code: UPR-300-18 **Classification:** Not Accepted (2/12/1999)

Site Names: UPR-300-18, UN-300-18, Release at 321 Tank Farms **ReClassification:**

Site Type: Unplanned Release **Start Date:** 1962

Site Status: Inactive **End Date:** 1962

Site Description: On August 27, 1962, an employee was sprayed by a release from a low-level cesium-134 waste line.

Waste Type: Process Effluent

Waste Description: The Occurrence Report states that the waste line carried low-level cesium-134, but the emitter isotope was cesium-137.

Site Code: UPR-300-31 **Classification:** Not Accepted (2/12/1999)

Site Names: UPR-300-31, UN-300-3, 300-31 **ReClassification:**

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:**

Site Description: This site is a duplicate of UPR-300-40 (See Site Comment Section).

Site Code: UPR-300-38 **Classification:** Accepted

Site Names: UPR-300-38, Soil Contamination Beneath the 313 Building **ReClassification:**

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site consisted of the contaminated soil beneath the 313 Building, as well as the foundation. The contamination resulted from multiple unplanned release events. The full extent of contamination will not be determined until the 313 Building foundation has been removed.

Waste Type: Chemicals

Waste Description: Materials released to the soil beneath the building may have included uranium-bearing acid (nitric and sulfuric acid with uranium in solution), neutralized acid waste (typically sodium fluoride, sodium nitrate, sodium dichromate, and sodium sulfate in solution with precipitates of uranium, chromium, copper and zirconium), etch acids (nitric, hydrofluoric, sulfuric, and chromic acids), tetrachloroethene (perchloroethylene), sodium hydroxide solutions, and contaminated water.

The Following Sites Were Consolidated With This Site:

Site Code: UPR-300-44
Site Names: UPR-300-44, 313 Building, Uranium Bearing Waste Etch-Acid Spill, UN-300-44
Reason: Within Boundary Of Larger Site

Site Code: UPR-300-39 **Classification:** Accepted
Site Names: UPR-300-39, UN-300-39, Sodium Hydroxide Leak at 311 Tank Farm **ReClassification:**
Site Type: Unplanned Release **Start Date:** 1954
Site Status: Inactive **End Date:** 1954

Site Description: The release site was to the soil adjacent to the caustic storage tanks in the 311 Tank Farm. The two sodium hydroxide (NaOH) tanks are currently labeled "Empty." The location and extent of the release is not discernible in the field. The ground around the two tanks is covered by a concrete containment, that is surrounded by more concrete and gravel. The concrete containment is not marked or labeled in any way to warn about excavating in the area.

Waste Type: Chemicals
Waste Description: The waste consisted of caustic solution containing 50 percent sodium hydroxide solution.

Site Code: UPR-300-40 **Classification:** Accepted
Site Names: UPR-300-40, Acid Release at the 303-F Pipe Trench, UN-300-40, UPR-300-31, UN-300-31 **ReClassification:**
Site Type: Unplanned Release **Start Date:** 1974
Site Status: Inactive **End Date:** 1974

Site Description: The release site was to the soil between the 311 Tank Farm and the 303-F Building.

Waste Type: Chemicals
Waste Description: The waste consisted of uranium-bearing acid waste containing nitric and sulfuric acid with uranium in solution and chromic acids with copper and zinc in solution.

Site Code: UPR-300-41 **Classification:** Accepted
Site Names: UPR-300-41, 300 Area #340 Building Phosphoric Acid Spill, UN-300-41 **ReClassification:** Closed Out (2/24/1999)
Site Type: Unplanned Release **Start Date:** 1986
Site Status: Inactive **End Date:** 1986

Site Description: The release involved asphalt and soil in the 340 Complex yard. Facility personnel do not know the exact location of the spill.

Waste Type: Chemicals

Waste Type:	Chemicals		
Waste Description:	A detailed analysis on a sample taken from the leaking drum showed the released liquid consisted of phosphoric acid containing 14,000 parts per million chromium, 1,900 parts per million manganese, 1,700 parts per million iron, and 400 parts per million nickel.		
Site Code:	UPR-300-42	Classification:	Accepted
Site Names:	UPR-300-42, 300 Area Powerhouse Fuel Oil Spill, UN-300-42	ReClassification:	
Site Type:	Unplanned Release	Start Date:	1983
Site Status:	Inactive	End Date:	1983
Site Description:	This release is not visible. The adjacent day tanks (300-223) have been remediated, but this release was not removed because of concerns regarding the foundation of the building. The release was an overflow of Number 6 fuel oil onto the ground adjacent to the Number 2 Day Tank, an underground storage tank. The surface area around the day tanks was paved with asphalt.		
Waste Type:	Oil		
Waste Description:	The release consisted of approximately 750 to 1135 liters (200 to 300 gallons) of #6 fuel oil.		
Site Code:	UPR-300-43	Classification:	Accepted
Site Names:	UPR-300-43, 300 Area Solvent Refined Coal Spill, UN-300-43	ReClassification:	Rejected (9/22/1998)
Site Type:	Unplanned Release	Start Date:	1986
Site Status:	Inactive	End Date:	1986
Site Description:	The site is an unplanned release to the soil adjacent to the 329 Building. All discolored soil was removed from the site. No occurrence report could be found for this site.		
Waste Type:	Chemicals		
Waste Description:	The release consisted of solvent-refined coal (light fraction) that was spilled to the ground.		
Site Code:	UPR-300-44	Classification:	Accepted
Site Names:	UPR-300-44, 313 Building, Uranium Bearing Waste Etch-Acid Spill, UN-300-44	ReClassification:	Consolidated (2/12/1999)
Site Type:	Unplanned Release	Start Date:	
Site Status:	Inactive	End Date:	1985
Site Description:	The release site was to the soil around a section of process sewer line. The information for this site has been incorporated into WIDS Site UPR-300-38. UPR-300-38 addresses the soil contamination under the 313 Building.		
Waste Type:	Process Effluent		

Waste Description: The release consisted of wastewater and possibly uranium-bearing acid (nitric and sulfuric acid with uranium in solution) or waste-etch acid (nitric, hydrofluoric, and chromic acids with uranium, copper, and zirconium metals in solution) to the soil. The spill area was possibly contaminated with byproduct waste material.

The Site Was Consolidated With:

Site Code: UPR-300-38

Site Names: UPR-300-38, Soil Contamination Beneath the 313 Building

Reason: Within Boundary Of Larger Site

Site Code: UPR-300-45 **Classification:** Accepted

Site Names: UPR-300-45, 303-F Building Uranium-Bearing Acid Spill, UN-300-45 **ReClassification:**

Site Type: Unplanned Release **Start Date:** 1985

Site Status: Inactive **End Date:** 1985

Site Description: The release site was to the soil beneath the transfer piping, adjacent to the 303-F Building. The uranium-bearing acid transfer line runs through the pipe trench from the 333 Building to the valve box at the southeast corner of the 313 Building outside the Uranium Recovery Room. The 5.1 centimeter (2 inch) stainless steel line leaves the top of the valve box, runs up the wall of the 313 Building and enters the building as an overhead line in the 313 Uranium Recovery Room.

Waste Type: Process Effluent

Waste Description: The leak contained uranium-bearing waste acid identified as nitric and sulfuric with uranium in solution. Analysis showed the solution to contain 3,480 parts per million nitrate, 6,960 parts per million sulfate, and 920 parts per million uranium.

Site Code: UPR-300-46 **Classification:** Accepted

Site Names: UPR-300-46, Contamination North of 333 Building **ReClassification:**

Site Type: Unplanned Release **Start Date:** 1989

Site Status: Inactive **End Date:** 1989

Site Description: The release site was a layer of radioactively contaminated soil found during a pipe trench excavation. There is currently no visual evidence of the release. The area is not marked or posted. The gravel east of the telephone pole along the north perimeter fence appears to be slightly newer than other gravel in the vicinity.

Waste Type: Process Effluent

Waste Description: The contaminated soil was analyzed, and it was determined that the soil did not contain any significant quantities of hazardous chemicals. The truck load of contaminated soil was disposed of as low-level waste. The contamination was likely caused by a spill of Uranyl Nitrate.

Site Code: UPR-300-48 **Classification:** Accepted

Site Names: UPR-300-48, 325 Building Basement Topsy Pit **ReClassification:**

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:** 1991

Site Description: The site is radioactively contaminated soil that occurred as a result of a release through a crack in the process sewer drain pipe elbow.

Waste Type: Soil

Waste Description: The site received radioactive liquid from a leak in the process sewer drain pipe. The site was discovered during dye testing of drains during development of the Facility Effluent Monitoring Plan development for the 325 Building. The contamination may have resulted from routine releases and accumulated in the soil under the crack.

Samples of the soil under the drain were analyzed for gross radioactivity and for hazardous metals by TCLP. Radioactivity up to 1700 disintegrations per minute alpha was detected. The TCLP results were below regulatory limits.

Site Code: UPR-400-1 **Classification:** Accepted

Site Names: UPR-400-1, 400 Area Coolant Spill, UN-400-1 **ReClassification:** Rejected (12/3/1998)

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site was an unplanned release that occurred during the construction of FFTF. This site is located somewhere in a field that is now a vegetation-free, gravel-covered area shaped like a semicircle bordered by an asphalt-covered roadway and parking area. The specific location can not be identified. There is no occurrence report for the site.

Waste Type: Chemicals

Waste Description: The waste consisted of approximately 189.3 liters (50 gallons) of a coolant solution consisting of 50% water and 50% ethylene glycol.

Site Code: UPR-600-1 **Classification:** Accepted

Site Names: UPR-600-1, Contamination Spread at 618-10 Burial Ground, UN-600-1 **ReClassification:** Consolidated (2/24/1999)

Site Type: Unplanned Release **Start Date:** 1961

Site Status: Inactive **End Date:** 1961

Site Description: The release originated in the 618-10 Burial Ground. It contaminated the environment in the vicinity of the burial ground, extending 274 meters (300 yards) out from the burial ground fence, with radioactive particulates. The 618-10 Burial Ground has been surface stabilized and vegetated with grasses. The burial ground is fenced and posted as Underground Radioactive Material.

Waste Type: Ash

Waste Description: The waste consisted of burned "CWS" filters and an unknown amount of other materials.

Waste Type: Chemicals

Waste Description: The waste consisted of approximately 200 boxes of contaminated materials.

The Site Was Consolidated With:

Site Code: 618-10

Site Names: 618-10, 300 North Solid Waste Burial Ground, 318-10

Reason: Within Boundary Of Larger Site

Site Code: UPR-600-2

Classification: Accepted

Site Names: UPR-600-2, Contamination Spread at 618-10, UN-600-2

ReClassification: Consolidated (2/24/1999)

Site Type: Unplanned Release

Start Date: 1963

Site Status: Inactive

End Date: 1963

Site Description: Contamination from this incident was identified in a 1.5 meter (5 foot) radius around the burial receptacle in the 618-10 Burial Ground, an area in front of the burial ground access gate, and a spot in front of the 300 Area Powerhouse. The 618-10 Burial Ground has since been stabilized and revegetated. The burial ground is posted with Underground Radioactive Material signs.

Waste Type: Chemicals

Waste Description: Contamination detected at the time of the release ranged from 60,000 to 80,000 counts per minute around the barrel in the 618-10 Burial Ground, 40,000 counts per minute in front of the 300 Area Powerhouse, and 80,000 counts per minute in front of the burial ground access gate.

The Site Was Consolidated With:

Site Code: 618-10

Site Names: 618-10, 300 North Solid Waste Burial Ground, 318-10

Reason: Within Boundary Of Larger Site

Site Code: UPR-600-3

Classification: Accepted

Site Names: UPR-600-3, Contamination Spread at 618-10

ReClassification: Consolidated (2/24/1999)

Site Type: Unplanned Release

Start Date: 1963

Site Status: Inactive

End Date: 1963

Site Description: The release site was an area of soil around a burial barrel within the 618-10 Burial Ground. The release area was surface stabilized with the rest of the burial ground in 1983. The burial ground is fenced and posed as an Underground Radioactive Material area.

Waste Type: Chemical Release

Waste Description: The waste consisted of radioactive dust that was improperly containerized.

The Site Was Consolidated With:

Site Code: 618-10
Site Names: 618-10, 300 North Solid Waste Burial Ground, 318-10
Reason: Within Boundary Of Larger Site

Site Code:	UPR-600-4	Classification:	Accepted
Site Names:	UPR-600-4, Contamination Spread at 618-11	ReClassification:	Consolidated (2/24/1999)
Site Type:	Unplanned Release	Start Date:	1964
Site Status:	Inactive	End Date:	1964

Site Description: The release consisted of an area of soil contamination in the 618-11 Burial Ground. The release site was surface stabilized along with the rest of the burial ground in 1983.

Waste Type: Chemicals

Waste Description: The release consisted of radioactive waste from the High-Level Radiochemistry Facility. The waste had readings of up to 10,000 counts per minute.

The Site Was Consolidated With:

Site Code: 618-11
Site Names: 618-11, Y Burial Ground, 318-11, 300 Wye Burial Ground
Reason: Within Boundary Of Larger Site

Site Code:	UPR-600-5	Classification:	Accepted
Site Names:	UPR-600-5, Contamination Spread at 618-11	ReClassification:	Consolidated (2/24/1999)
Site Type:	Unplanned Release	Start Date:	1964
Site Status:	Inactive	End Date:	1964

Site Description: The release site was covered with a layer of clean material immediately after the release. The release site consisted of an area of soil in the 618-11 Burial Ground. The 618-11 Burial Ground was surface stabilized in 1983. The burial Ground is fenced and posted as Underground Radioactive Material.

Waste Type: Chemicals

Waste Description: The release consisted of gross fission products with beta and gamma contamination. The wastes were generated in the Radio Chemistry Building (325 Building) and packaged in cars.

The Site Was Consolidated With:

Site Code: 618-11

Site Names: 618-11, Y Burial Ground, 318-11, 300 Wye Burial Ground

Reason: Within Boundary Of Larger Site

Site Code: UPR-600-6

Classification: Accepted

Site Names: UPR-600-6, Contamination Spread at 618-11

ReClassification: Consolidated (2/24/1999)

Site Type: Unplanned Release

Start Date: 1965

Site Status: Inactive

End Date: 1965

Site Description: The release contaminated an area of soil within the 618-11 Burial Ground. The 618-11 Burial Ground was surface stabilized in 1983. The burial ground is fenced and posted Underground Radioactive Material.

Waste Type: Chemicals

Waste Description: The waste consisted of ruthenium-103 and zirconium-niobium-95 with readings from 100 counts per minute to 200 millirads/hour.

The Site Was Consolidated With:

Site Code: 618-11

Site Names: 618-11, Y Burial Ground, 318-11, 300 Wye Burial Ground

Reason: Within Boundary Of Larger Site

Site Code: UPR-600-7

Classification: Accepted

Site Names: UPR-600-7, Contamination Spread at 618-11

ReClassification: Consolidated (2/24/1999)

Site Type: Unplanned Release

Start Date: 1965

Site Status: Inactive

End Date: 1965

Site Description: The release site was an area of ground in the 618-11 Burial Ground. The 618-11 Burial Ground was surface stabilized in 1983. The burial ground is fenced and posted as Underground Radioactive Material.

Waste Type: Chemicals

Waste Description: The waste was generated at the high-level radiochemistry building (327 Building). The waste consisted of a dust from a highly contaminated filter.

The Site Was Consolidated With:

Site Code: 618-11

Site Names: 618-11, Y Burial Ground, 318-11, 300 Wye Burial Ground

Reason: Within Boundary Of Larger Site

Site Code: UPR-600-8

Classification: Accepted

Site Names: UPR-600-8, Contamination Spread at 618-11 **ReClassification:** Consolidated (2/24/1999)
Site Type: Unplanned Release **Start Date:** 1967
Site Status: Inactive **End Date:** 1967
Site Description: The release contaminated an area of soil in the 618-11 Burial Ground. Following the release, area was covered with a layer of clean gravel. The 618-11 Burial Ground was surface stabilized in 1983. The burial ground is fenced and posted as Underground Radioactive Material

Waste Type: Chemicals

Waste Description: The waste consisted of, in-part, aluminum rupture cans that had been inspected in the High-Level Radio Chemistry Facility (327 Building). The fact that the airborne contaminant was a "fairly fresh fission product" indicates that it was picked up by the cans during transfer operations through "A" cell in the 327 Building.

The Site Was Consolidated With:

Site Code: 618-11
Site Names: 618-11, Y Burial Ground, 318-11, 300 Wye Burial Ground
Reason: Within Boundary Of Larger Site

Site Code: UPR-600-9 **Classification:** Accepted
Site Names: UPR-600-9, Contamination Spread at 618-11 **ReClassification:** Consolidated (2/24/1999)
Site Type: Unplanned Release **Start Date:** 1967
Site Status: Inactive **End Date:** 1967
Site Description: The contamination spread was a large fan-shaped area extending in a northeast direction from the burial site. The contamination inside the burial ground was covered with gravel. Contamination outside the fence was turned under and the site was released from radiation zone status. The entire 618-11 Burial Ground was surface stabilized in 1983. An area outside the fence known as the "Wind Row" site was released from radiological control in 1972. The rows of soil are still visible, but the area is not marked or posted.

Waste Type: Chemicals

Waste Description: The release consisted of airborne contamination from corroded aluminum rupture cans and pieces of an N Reactor safety rod from the 327 Building.

The Site Was Consolidated With:

Site Code: 618-11
Site Names: 618-11, Y Burial Ground, 318-11, 300 Wye Burial Ground
Reason: Within Boundary Of Larger Site

Site Code: UPR-600-10 **Classification:** Accepted
Site Names: UPR-600-10, Contamination Spread at 618- **ReClassification:** Consolidated (2/24/1999)

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Site Type: Unplanned Release **Start Date:** 1963

Site Status: Inactive **End Date:** 1963

Site Description: The release contaminated an area of soil in the northeast corner of the 618-11 Burial Ground. The 618-11 Burial Ground was surface stabilized in 1983. The burial ground is fenced and posted as Underground Radioactive Contamination.

Waste Type: Chemicals

Waste Description: The release consisted of high-level beta and gamma contamination with readings of up to 1.4 rads/hour at 7.6 centimeters (3 inches).

The Site Was Consolidated With:

Site Code: 618-11

Site Names: 618-11, Y Burial Ground, 318-11, 300 Wye Burial Ground

Reason: Within Boundary Of Larger Site

Site Code: UPR-600-22 **Classification:** Accepted

Site Names: UPR-600-22, WPPSS Windrow Site, 600-21 **ReClassification:**

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site consists of a series of small parallel berms, which are approximately 0.6 meters (2 feet), 0.9 meters (3 feet) wide and 91 meters (100 yards) long. The berms are arranged to form a triangle approximately 137 meters (150 yards) by 91 meters (100 yards) long. Perimeter berms are approximately 1.2 meters (4 feet) tall.

Waste Type: Soil

Waste Description: The area was contaminated prior to 1972 with particulate fallout from burial activities in the 618-11 Burial Grounds. The contaminated area was covered by scraping the affected ground into windrows. On October 24, 1972, a backhoe was used to cut across each windrow at a spacing of every 15 meters (50 feet) to a depth of 15 centimeters (6 inches) below ground level. Radiological surveys were made of all soils removed and of the walls of each cut. No beta, gamma, or alpha radioactivity was detected above the normal background of 100 counts/minute.

Site Code: 1100-1 **Classification:** Accepted
Site Names: 1100-1, Battery Acid Pit, 1171 Building Sandpit Spills, UPR-1100-1 **ReClassification:** Deleted From NPL (9/30/1996)
Site Type: Depression/Pit (nonspecific) **Start Date:** 1954
Site Status: Inactive **End Date:** 1977
Site Description: This site has been cleaned up under the 1100 Area Record of Decision. The 1100-1 Battery Acid Pit was an unlined, sand-filled pit excavated in native soil. The site is not visible at the surface. The pit was backfilled to grade when it was withdrawn from service.

Waste Type: Chemicals

Waste Description: Historical documents record an estimated 15,000 gallons (57,000 liters) of battery acid wastes may have been disposed of between 1954 and 1977. Other substances including antifreeze and solvents may have also been disposed of at the site. The sand lining was removed and deposited in an undisclosed location when the sand became saturated. New sand was then added to the pit for further acid disposal.

Site Code: 1100-2 **Classification:** Accepted
Site Names: 1100-2, Paint and Solvent Pit, UPR-1100-2 **ReClassification:** Deleted From NPL (9/30/1996)
Site Type: Depression/Pit (nonspecific) **Start Date:** 1954
Site Status: Inactive **End Date:** 1985

Site Description:

Waste Type: Chemicals

Waste Description: Paint, solvents, and thinners may have been disposed of in this location.

Waste Type: Construction Debris

Waste Description: The site received construction debris from Hanford Site demolition activities. Principal components of the waste included concrete rubble, asphalt, and wood debris.

Site Code: 1100-3 **Classification:** Accepted
Site Names: 1100-3, Antifreeze and Degreaser Pit, Antifreeze Pit, UPR-1100-3 **ReClassification:** Deleted From NPL (9/30/1996)
Site Type: Depression/Pit (nonspecific) **Start Date:** 1979
Site Status: Inactive **End Date:** 1985

Site Description: The site was originally a gravel pit used as a source of backfill material. This contaminated soils have been cleaned up under the 1100 Area Record of Decision. The site currently appears as a shallow roughly circular depression.

Waste Type: Chemicals

Waste Description: Ethylene glycol, degreasing solvents and wash water from engine cleaning may have been disposed of at this site although it is not documented.

Waste Type: Construction Debris

Waste Description: Construction waste material including roofing and concrete rubble was disposed of at this site.

Site Code: 1100-4 **Classification:** Accepted

Site Names: 1100-4, Antifreeze Tank Site, UN-1100-4, 1171 Building Spills, UPR-1100-4 **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Storage Tank **Start Date:** 1976

Site Status: Inactive **End Date:** 1986

Site Description: This site was cleaned up under the 1100 Area Record of Decision. This site is the former location of a steel underground storage tank.

Waste Type: Chemicals

Waste Description: The unit stored waste antifreeze until removal in 1986. Recent investigations have found metals contamination and slight ethylene glycol contamination.

Site Code: 1100-9 **Classification:** Accepted

Site Names: 1100-9, 1164 Building 90-Day Waste Accumulation Area **ReClassification:** Rejected (9/14/2000)

Site Type: Storage Pad (<90 day) **Start Date:**

Site Status: Inactive **End Date:** 1998

Site Description: The 90 Day Storage Area was inside the 1164 Building, a small (15 by 11 meters [48 by 36 feet]) steel structure surrounded by gravel and pavement. The Building is closed, and has transferred to the Port of Benton. However, the Port has not started to use it yet.

Waste Type: Chemicals

Waste Description: The wastes stored here were materials (for example, rags and brushes) and paints left over from marking sensitive equipment.

Site Code: 1100-11 **Classification:** Accepted

Site Names: 1100-11, Ephemeral Pool **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Pond **Start Date:**

Site Status: Inactive **End Date:** 1995

Site Description: The site has been regraded to a smooth, uniform surface. The Ephemeral Pool site was a long, narrow depression designed to act as a drainage collection point for precipitation runoff flowing from the 1171 parking area. The north and south boundaries of the site were not distinct because the depression gradually rose toward both the north and south to near the elevation of the surrounding land. Settlement and/or poor grading of the depression floor resulted in the formation of a series of linked pools after rainfall events that temporarily held a portion of the

collected moisture within the drainage way until it evaporated or infiltrated into the ground. A pervious gravel lining encouraged infiltration of the collected runoff into the vadose zone beneath this site.

Waste Type: Stormwater Runoff

Waste Description: The site was designed to receive stormwater runoff from the adjacent 1171 Building parking area.

Waste Type: Chemicals

Waste Description: Before cleanup, soil sampling indicated the presence of PCB's (Aroclor 1260) at concentrations ranging from 300 to 42,000 micrograms per kilogram.

Site Code: 1100-12

Classification: Accepted

Site Names: 1100-12 Dumping Areas

ReClassification: Rejected (5/9/2000)

Site Type: Dumping Area

Start Date:

Site Status: Inactive

End Date:

Site Description: The site is miscellaneous pre-Hanford debris consisting of old concrete, glass, and metal (e.g., camp stove, food cans, buckets, and wire). The decayed batteries previously reported were not seen on May 4, 2000. Two separate areas of debris were reported in 1996 and 1998, but only one is evident in 2000.

Waste Type: Batteries

Waste Description: Dry cell batteries were observed at the site in 1996. Vegetation surrounding the batteries was reported to be stressed in 1996, but no sign of the batteries was found in 2000.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: Buckets and cans were observed at the site.

Site Code: 1100-13

Classification: Not Accepted (5/9/2000)

Site Names: 1100-13, Gravel Pit #1, Pit 1

ReClassification:

Site Type: Depression/Pit (nonspecific)

Start Date:

Site Status: Active

End Date:

Site Description: The site is a pit where sand was excavated to be used for bedding and backfill material. The northern perimeter is marked with post and chain.

Site Code: 1100-14

Classification: Not Accepted (5/9/2000)

Site Names: 1100-14, Gravel Pit #2, Pit 2

ReClassification:

Site Type: Depression/Pit (nonspecific)

Start Date: 1954

Site Status: Inactive

End Date: 1985

Site Description: The pit was a source of gravel for backfill material. It also was used as a dumping site for miscellaneous debris, paint and solvents.

Site Code: 1100-15 **Classification:** Not Accepted (5/9/2000)

Site Names: 1100-15, Gravel Pit #3, Pit 3 **ReClassification:**

Site Type: Depression/Pit (nonspecific) **Start Date:** 1979

Site Status: Inactive **End Date:** 1985

Site Description: The site was used as a source of gravel for backfill material. It was also used as a disposal site for construction material (concrete rubble and roofing material. Occasionally antifreeze and degreaser solutions from the 1171 building were disposed into the pit

Site Code: 1100-18 **Classification:** Not Accepted (5/9/2000)

Site Names: 1100-18, Cistern and Possible Historic Disposal Site Identified During RCRA General Inspection 1100FY98 Item #3 **ReClassification:**

Site Type: Dumping Area **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site appears to be a cistern. In the general area of the cistern is a homestead dump site. There appears to have been a well casing inside of the cistern. The casing is plugged approximately 1.5 meters (5 feet) below the ground surface.

The cistern is in the middle of an old concrete pad and is lined with concrete (at least as much as is visible). The area between the sides of the cistern and the metal well casing is filled with large rocks and cobbles. Connected to this concrete pad, there appears to be another concrete-lined, rock-filled hole. The second hole is now very overgrown and is filled with large rocks and cobbles. It appears to have been rectangular and may have had a wooden cover. A snake was living under the remains of this wooden cover. North of the cistern are the remains of a wire mesh fence and an old household dump (cans primarily, some glass and ceramics). Further north, there is a smaller concrete structure. It is square and is now filled with dirt and vegetation. Overall, the site is mostly grass-covered, with some mature sagebrush and tumbleweeds. Debris is concentrated in the household dump, but there is some scattered debris across the site, including the metal frame of a coil mattress. The features mentioned thus far (with the exception of the small concrete structure) are south of an extensive ditch (irrigation?). Northeast of the cistern and north of the ditch, a cement pipe was found extending into the ditch. Just north of this feature, some of the cement pipe is exposed. This could be considered a physical hazard. Southeast of the cistern are the remains of an old foundation. The cellar presents a physical hazard. Adjacent to the foundation is a small, thin area of coal, level with the ground surface.

Waste Type: Misc. Trash and Debris

Waste Description: The waste consists of a cistern (with an interior well casing), several other concrete structures, a foundation, and miscellaneous debris (cans, glass, ceramics, an old mattress frame).

Site Code: 1100-20 **Classification:** Accepted

Site Names: 1100-20, Hammer 90-Day Storage Pad **ReClassification:** Rejected (9/14/2000)
Site Type: Storage Pad (<90 day) **Start Date:**
Site Status: Inactive **End Date:** 2000
Site Description: The storage pad was a "clamshell" unit that protected the waste from the elements and served as a secondary containment. The site is now inactive; all regulated waste was removed by February 15, 2000.
Waste Type: Chemicals
Waste Description: The pad stored flammable paint waste.

Site Code: HRD **Classification:** Accepted
Site Names: HRD, Horn Rapids Disposal, ITT Waste Disposal Landfill, Horn Rapid Landfill (HRL), Gravel Pit 4, Gravel Pit 5 **ReClassification:** Deleted From NPL (9/30/1996)
Site Type: Sanitary Landfill **Start Date:**
Site Status: Inactive **End Date:**
Site Description: This site has been cleaned up based on the 1100 Area Record of Decision. This site consists of an inactive landfill that has been capped with clean soil (asbestos cap) and revegetated. A security fence surrounds the site.
Waste Type: Chemicals
Waste Description: During the remedial investigation of the site, a small amount of medical waste was discovered. It consisted of a milky white substance, an eye dropper bottle with clear liquid and another bottle with clear liquid. A single plastic intravenous dispenser bag was also found. Because of the unknown hazards associated with this waste, it was reburied in the landfill.

Waste Type: Asbestos (friable)
Waste Description: Asbestos was found to be distributed throughout the landfill.

Waste Type: Misc. Trash and Debris
Waste Description: Automotive debris was found in all areas of the landfill. Stainless steel lathe shavings were found in the central portion of the landfill. Miscellaneous trash including paint containers was also found at the site.

Waste Type: Construction Debris
Waste Description: Various types of construction debris were found at the site.

Waste Type: Oil
Waste Description: Hydraulic oil contaminated with polychlorinated biphenyls was disposed at the site.

Site Code: UPR-1100-5 **Classification:** Accepted

Site Names: UPR-1100-5, UN-1100-5, 1171 Parking Lot **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Unplanned Release **Start Date:** 1962

Site Status: Inactive **End Date:** 1962

Site Description: The site of the release was a transport truck in the 1171 Building parking lot.

Waste Type: Chemical Release

Waste Description: The chemical release consisted of water in which metal specimens were immersed. One metal capsule ruptured contaminating the water with zirconium and plutonium oxides.

Site Code: UPR-1100-6 **Classification:** Accepted

Site Names: UPR-1100-6, Discolored Soil Site, UN-1100-6 **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Depression/Pit (nonspecific) **Start Date:**

Site Status: Inactive **End Date:** 1995

Site Description: The site was a patch of oily, dark-stained soil within an elongated east-west oriented depression.

Waste Type: Abandoned Chemicals

Waste Description: The site consists of dark-colored, oily residue, and soil. The material includes metal, organic, and pesticide contaminants. Bis(2-ethylhexyl)phthalate (BEHP) and chlordane were identified. BEHP is a probable human carcinogen.

1100-EM-2

Site Code: 700 WST **Classification:** Accepted

Site Names: 700 WST, 700 Area Waste Solvent Tank, 700 Area Underground Waste Solvent Tank, 703-1 **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Storage Tank **Start Date:**

Site Status: Inactive **End Date:** 1989

Site Description: Prior to removal, the site consisted of an underground steel storage tank. The tank was pulled and examined. There was a thick crust of soil over much of the tank bottom that prevented a detailed observation of the tank. However, there were no obvious holes. The tank was empty.

Waste Type: Chemicals

Waste Description: The unit contained combustible solution of aliphatic hydrocarbons with 162 parts per million of 1,1,1-trichloroethane.

Site Code: 700-1 **Classification:** Accepted

Site Names: 700-1, 747 Building 90-Day Waste Accumulation Area **ReClassification:** Rejected (9/14/2000)

Site Type: Storage Pad (<90 day) **Start Date:**

Site Status: Inactive **End Date:** 1995

Site Description: There is no longer a 90 Day Storage Area at the 747 Building; the part of the 747 Building that held the 90 Day pad is no longer in use.

Site Code: 1100 BSUHR **Classification:** Accepted

Site Names: 1100 BSUHR, 1100 Area Bus Shop Underground Hoist Rams **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Storage Tank **Start Date:** 1953

Site Status: Inactive **End Date:**

Site Description: This site was cleaned up under the 1100 Area Record of Decision. The 1100 BSUHR Site consists of four single manifold, triple tank hoists. Each is related to the 1171 Building Maintenance activities.

Waste Type: Oil

Waste Description: The units contain non-PCB hydraulic oil.

Site Code: 1100 HWSA **Classification:** Accepted

Site Names: 1100 HWSA, 1100 Area HWSA, 1100 Area Hazardous Waste Storage Area **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Storage Pad (<90 day) **Start Date:** 1985

Site Status: Inactive **End Date:** 1990

Site Description: The site consists of a fenced gravel pad that is used to store waste containers.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: The waste staged at the site included: used oil, antifreeze, degreasers, acids, and paint-related wastes.

Site Code: 1100 UOT4 **Classification:** Accepted

Site Names: 1100 UOT4, 1100 Area Used Oil Tank 4, 1100 Area Underground Used Oil Tank (Tank #4), 1171-4 **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Storage Tank **Start Date:** 1953

Site Status: Inactive **End Date:** 1995

Site Description: The 1100 UOT4 Site was an unlined, underground steel tank. The tank was removed.

Waste Type: Oil

Waste Description: The unit received used oil designated for recycling.

Site Code: 1100 UOT5 **Classification:** Accepted

Site Names: 1100 UOT5, 1100 Area Used Oil Tank 5, 1100 Area Underground Used Oil Tank (Tank #5), 1171-5 **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Storage Tank **Start Date:** 1953

Site Status: Inactive **End Date:** 1994

Site Description: The 1100 UOT5 Site was an unlined, underground steel tank. The tank was removed.

Waste Type: Oil

Waste Description: The unit received used oil designated for recycling.

Site Code: 1100 UOT6 **Classification:** Accepted

Site Names: 1100 UOT6, 1100 Area Used Oil Tank 6, 1100 Area Underground Used Oil Tank (Tank #6), 1171-6 **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Storage Tank **Start Date:** 1953

Site Status: Inactive **End Date:** 1995

Site Description: The 1100 UOT6 was a below grade, unlined steel tank. The tank has been removed.

Waste Type: Oil

Waste Description: The unit received used oil designated for recycling.

Site Code: 1100 USPT2 **Classification:** Accepted
Site Names: 1100 USPT2, 1100 Area Underground **ReClassification:** Deleted From NPL (9/30/1996)
 Steam Pad Tank 2, 1171-2
Site Type: Storage Tank **Start Date:** 1984
Site Status: Inactive **End Date:** 1995

Site Description: The site was fiberglass-reinforced plastic tank. The tank was removed.

Waste Type: Chemicals

Waste Description: The unit received oily water from bus washing activities.

Site Code: 1100 USPT3 **Classification:** Accepted
Site Names: 1100 USPT3, 1100 Area Underground **ReClassification:** Deleted From NPL (9/30/1996)
 Steam Pad Tank 3, 1171-3
Site Type: Storage Tank **Start Date:** 1984
Site Status: Inactive **End Date:** 1995

Site Description: The 110 USPT3 Site was a fiberglass-reinforced plastic tank. The tank has been removed.

Waste Type: Water

Waste Description: The unit received oily water from washing heavy equipment.

Site Code: 1100-8 **Classification:** Accepted
Site Names: 1100-8, 1171 Hoist Oil Leak **ReClassification:** Deleted From NPL (9/30/1996)
Site Type: Unplanned Release **Start Date:**
Site Status: Inactive **End Date:**

Site Description: The DB-1-N hoist in the 1171 building is currently used for vehicle maintenance. The hoist has been repaired and the oil that leaked from the hoist into the soil has been removed.

Waste Type: Oil

Waste Description: Industrial Oil, UNOCAL UNAX AW 32, MSDS #12615 (HEHF)
 Reported Date: November 11, 1994

Site Code: 1100-19 **Classification:** Accepted
Site Names: 1100-19, Tar Flow and Stained Sands Areas **ReClassification:** Deleted From NPL (9/30/1996)
Site Type: Unplanned Release **Start Date:**
Site Status: Inactive **End Date:** 1995

Site Description: This site has been remediated based on the 100 Area Record of Decision. Prior to remediation, the Tar Flow site contained soft, tar like material on the surface. The material appeared to have flowed approximately 45.75 meters (150 feet) to the northeast into a drainage ditch. The Stained Sand Area was located on the east slope of a sand dune. The area had vegetation and the sand appeared to be stained. After remediation, both sites were regraded to a smooth, uniform surface.

Waste Type: Soil

Waste Description: The waste consisted of petroleum contaminated soil.

1100-EM-3

Site Code: 3000 JYHWSA **Classification:** Accepted
Site Names: 3000 JYHWSA, 3000 Area Jones Yard **ReClassification:** Deleted From NPL (9/30/1996)
HWSA, 3000 Area Jones Yard Hazardous
Waste Storage Area, Hazardous Waste
Storage Area (Jones Yard)
Site Type: Storage Pad (<90 day) **Start Date:** 1965
Site Status: Inactive **End Date:**
Site Description: The site consisted of a hazardous waste storage area.
Waste Type: Barrels/Drums/Buckets/Cans
Waste Description: A maximum of 200 55-gallon (208-liter) drums of nonregulated oils were stored in this area,
along with 14 55-gallon (208-liter) drums of antifreeze and paint-reacted materials.

Site Code: 3000 UUOT **Classification:** Accepted
Site Names: 3000 UUOT, 3000 Area Underground **ReClassification:** Deleted From NPL (9/30/1996)
Used Oil Tank, 3000-12
Site Type: Storage Tank **Start Date:** 1983
Site Status: Inactive **End Date:** 1993
Site Description: This was the site of a underground storage tank. The tank has been exhumed, and the site
remediated.
Waste Type: Oil
Waste Description: At the time the tank was exhumed, it contained some oil sludge.

Site Code: 3000/1208 HWSA **Classification:** Accepted
Site Names: 3000/1208 HWSA, 3000 Area 1208 **ReClassification:** Deleted From NPL (9/30/1996)
HWSA, 3000 Area 1208 Building
Hazardous Waste Storage Area, Hazardous
Waste Storage Area (1208)
Site Type: Storage Pad (<90 day) **Start Date:** 1967
Site Status: Inactive **End Date:** 1995
Site Description: The site consists of a concrete pad that was used to store waste containers.
Waste Type: Barrels/Drums/Buckets/Cans
Waste Description: Typical wastes contained in the staging area included paints and solvents. The unit received
approximately 300 gallons (1,140 liters) per year.

Site Code: 3000/1226 HWSA **Classification:** Accepted

Site Names: 3000/1226 HWSA, 3000 Area 1226 Building
HWSA, 3000 Area 1226 Building
Hazardous Waste Storage Area, Hazardous
Waste Storage Area (1226) **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Storage Pad (<90 day) **Start Date:** 1954

Site Status: Inactive **End Date:** 1995

Site Description: The site was a concrete pad that was used to store waste containers.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: Typical wastes contained in the staging area included oils, solvents, antifreeze, and degreasers in 55-gallon (208-liter) drums. The unit received approximately 300 gallons (1,140 liters) per year.

Site Code: 3000/1234 **Classification:** Accepted

Site Names: 3000/1234, 1234 Laydown Yard, 3000
Area 1234 Storage Yard, 1234 Building
Storage Yard **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Storage **Start Date:**

Site Status: Inactive **End Date:** 1995

Site Description: This site is an open area surrounded by a fence. Access was controlled by a single locked gate. This site was used for the storage of raw and structural materials. The Simulated High-Level Waste Treatment and Storage (SHLWST) sites were located within this site. The SHLWST was a permitted Treatment, Storage, and Disposal (TSD) unit that was clean closed.

Waste Type: Equipment

Waste Description: This area was used for storage of raw materials and equipment. Raw materials included grout used in the Simulated High-Level Waste Slurry Treatment/Storage.

Site Code: 3000/1240 HWSA **Classification:** Accepted

Site Names: 3000/1240 HWSA, 3000 Area 1240
HWSA, 3000 Area 1240 Building
Hazardous Waste Storage Area, Hazardous
Waste Storage Area (1240) **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Storage Pad (<90 day) **Start Date:** 1951

Site Status: Inactive **End Date:** 1995

Site Description: The site consisted of a concrete pad that was used to store waste containers. There were two drains in the storage pad that drained to the soil. The pad contained old stains.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: Typical wastes contained in the staging area include lubricating oils, cutting oils, solvents, and degreasers in 55-gallon (208-liters) drums. The unit receives approximately 200 gallons (760 liters) per year.

Site Code: SHLWSTS **Classification:** Accepted
Site Names: SHLWSTS, Simulated High-Level Waste Slurry Treatment/Storage **ReClassification:** Closed Out (9/6/1995)
Site Type: Process Unit/Plant **Start Date:** 1987
Site Status: Inactive **End Date:** 1995
Site Description: The site has been cleaned and turned over to the Port of Benton. This site was three roped off areas within the fenced-in 1234 Storage Yard. The site consisted of a treatment area, a storage area, and a less than 90 day accumulation area.

Waste Type: Chemicals

Waste Description: The slurry was dangerous waste containing toxic constituents and dissolved metals. The treated slurry was managed as non-radioactive solid waste.

Waste Type: Chemicals

Waste Description: The 90-day pad stored waste from various Battelle research activities including the slurry treatment wastes.

Site Code: UPR-3000-1 **Classification:** Accepted
Site Names: UPR-3000-1, UN-3000-1, Release from the Physical Science Laboratory **ReClassification:** Deleted From NPL (9/30/1996)
Site Type: Unplanned Release **Start Date:** 1973
Site Status: Inactive **End Date:** 1973
Site Description: The release site was a sink used only for nonradioactive work in Room 1623 of the Physical Science Laboratory Building. A sign was installed by the sink and the whole middle island was designated plainly as a cold region. The whole middle island was marked with floor tape and a bench top tape to plainly segregate the area from the radioactive area.

Waste Type: Chemicals

Waste Description: The waste consisted of a tracer solution containing 2 microcuries of cesium-134.

1100-IU-1

Site Code: 600-28 **Classification:** Accepted

Site Names: 600-28, Rattlesnake Construction Dump **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Dumping Area **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site consists of numerous low piles of excavated soil, rock, and construction debris. This site has a very irregular slope. Sagebrush and other vegetation are growing on the piles.

Waste Type: Asbestos (non-friable)

Waste Description: The waste consists of a small quantity of transite siding and asbestos pipe.

Waste Type: Barrels/Drums/Buckets/Cans

Waste Description: The site contains numerous empty paint cans.

Site Code: 600-112 **Classification:** Accepted

Site Names: 600-112, 6652-C SSLAST, 6652-C SSL Active Septic Tank, 6652-C Space Science Laboratory Active Septic Tank **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Septic Tank **Start Date:** 1955

Site Status: Inactive **End Date:** 1994

Site Description: The site consists of a concrete septic tank with two square access lids and a retention tank connected to the outlet of the septic tank. Both structures are underground. There is no visual evidence of a second septic tank or a retention tank. There is a chained area marked with signs stating "Caution, Sanitary Tile Field".

Waste Type: Sanitary Sewage

Waste Description: The unit received sanitary wastewater.

Site Code: 600-113 **Classification:** Accepted

Site Names: 600-113, 6652-C SSLIST, 6652-C SSL Inactive Septic Tank, 6652-C Space Science Laboratory Inactive Septic Tank, 6607-15 **ReClassification:** Deleted From NPL (9/30/1996)

Site Type: Septic Tank **Start Date:** 1955

Site Status: Inactive **End Date:** 1960

Site Description: This site consists of a septic tank with two access covers and connecting, cobble covered drainfield. Both the septic tank and the drain field are located outside the Hanford Site boundary barbed wire fence.

Waste Type: Sanitary Sewage

Waste Description: The unit received sanitary sewage from U.S. Army facilities.

Site Code: 600-114 **Classification:** Accepted
Site Names: 600-114, 6652-G ALEFSBST, 6652-G ALE Field Storage Building Septic Tank, 6607-14B **ReClassification:** Deleted From NPL (9/30/1996)
Site Type: Septic Tank **Start Date:** 1955
Site Status: Inactive **End Date:** 1960

Site Description: This site consists of a septic tank with two round access lids, a concrete distribution box with a wooden lid, and the connecting tile field. The distribution box is located partly inside and partly outside of the tile field chained boundary.

Waste Type: Sanitary Sewage

Waste Description: The unit received sanitary sewage from U.S. Army facilities.

Site Code: 600-115 **Classification:** Accepted
Site Names: 600-115, 6652-I ALEHST, 6652-I ALE Headquarters Septic Tank, 6652-I Arid Lands Ecology (ALE) Headquarters Septic Tank, 6607-14 **ReClassification:** Deleted From NPL (9/30/1996)
Site Type: Septic Tank **Start Date:** 1955
Site Status: Inactive **End Date:** 1996

Site Description: This site consists of a septic tank with a round base and a 72 centimeter access lid, a distribution box covered with a wooden lid, a square diverter box, and the connecting drain field.

Waste Type: Sanitary Sewage

Waste Description: The unit received sanitary wastewater.

Site Code: 600-116 **Classification:** Accepted
Site Names: 600-116, RMNMB, Rattlesnake Mountain Nike Missile Base **ReClassification:** Deleted From NPL (9/30/1996)
Site Type: Military Compound **Start Date:** 1955
Site Status: Inactive **End Date:** 1961

Site Description: This site consists of a former U. S. Army Nike Missile Base. The base is split into two parts: the radar site is on top of Rattlesnake Mountain and the missile launch area is at the foot of Rattlesnake Mountain on the southeast slope. Some of these facilities were subsequently used by Battelle Northwest.

Waste Type: Ordnance

Waste Description: The site previously contained unexploded ordnance waste, according to DOE/RL-92-67.

Waste Type: Asbestos (friable)

Waste Description: The site contains PCB's from transformers, asbestos in insulation, tiles, and siding, mercury in switches, and lead-based paint and bricks in various buildings.

Site Code: 600-270

Classification: Accepted

Site Names: 600-270, Horseshoe Landfill, Nike Missile Base

ReClassification: Deleted From NPL (9/30/1996)

Site Type: Dumping Area

Start Date: 1950

Site Status: Inactive

End Date: 1970

Site Description: The site is a former historical landfill. The site was part of a former Nike missile base consisting of structures which supported missile launch, control, and maintenance functions, living quarters for base personnel, and storage buildings for hazardous substances use in the maintenance of the facilities and missile operations.

Waste Type: Chemicals

Waste Description: Suspected wastes included solvents, fuels, acids, hydraulic fluid, and paints. Contaminants sampled for were barium, chromium, lead, acetone, bis (2-ethylhexyl) phthalate, butylbenzylphthalate, diethylphthalate, di-n-butylphthalate, phenol, chlordane, DDT, DDE, DDD, Endosulfan B, Endrin, Methyloxychlor, gasoline, diesel, heavy oils, diesel. Based on the results from soil excavated at A-6, the original 16 contaminants (draft ROD) were expanded to include DDT, DDE, and DDD.

Waste Type: Demolition and Inert Waste

Waste Description: The majority of the waste consisted of non-hazardous construction and demolition waste, scrap metal and lumber, empty bottles, cans and drums. A summary of the waste found in each of the 6 anomalous areas is described below.

Horseshoe Landfill/A-1 - boulders were encountered at 1.2 meters (4 feet) below ground surface, otherwise there was no evidence of any buried wastes or disturbed soil.

Horseshoe Landfill/A-2 - no evidence of any buried waste or disturbed soil was found.

Horseshoe Landfill/A-3 - abundant surface metal debris, barb wire, miscellaneous scrap metal, miscellaneous building materials; no evidence of any buried wastes or disturbed soil.

Horseshoe Landfill/A-4 - bottles, rusted metal debris, car parts, car chassis, car engine with oil pan missing, 7-208 liter (7-55 gallon) drums ripped open and partially collapsed (empty) were found.

Horseshoe Landfill/A-5 - bottles, pieces of rusted metal, a few animal bones were found.

Horseshoe Landfill/A-6 - no evidence of buried wastes or disturbed soil in three excavations on the west side of A-6 except for copper grounding wire found about 15 centimeters (6 inches) below ground surface. Sheet metal scrap, fence post, wood debris, 0.61 meter (2 foot) diameter washing machine washtub, abundant 2.54 centimeter (1 inch) diameter cable, cement blocks, bottles, metal scrap, 3 ripped and partially collapsed 208 liter (55 gallon) drums, car engine with oil pan missing, wire, some plastic/metal parts, 4-25.4 centimeter (4 10 inch) battery-type containers with screens.

Site Code: 600-271

Classification: Accepted

Site Names: 600-271, Nike Missile Base Landfill

ReClassification: Deleted From NPL (9/30/1996)

Site Type: Dumping Area

Start Date: 1950

Site Status: Inactive **End Date:** 1970

Site Description: The site is a former historical landfill. The site was part of a former Nike missile base consisting of structures which supported missile launch, control, and maintenance functions, living quarters for base personnel, and storage buildings for hazardous substances use in the maintenance of the facilities and missile operations.

Waste Type: Demolition and Inert Waste

Waste Description: The majority of the waste consisted of non-hazardous construction and demolition waste, scrap metal, lumber, empty bottles, and cans.

Nike Missile Base Landfill/A1 - concrete blocks, bottles, wood, and metal debris.

Nike Missile Base Landfill/A2 - surface debris; long metal U-bolts, sheet metal scrap, miscellaneous scrap metal. There was no evidence of any buried waste or disturbed soil.

Nike Missile Base Landfill/A3 - There was no evidence of any buried waste or disturbed soil.

WMA A/AX

Site Code: 216-A-16 **Classification:** Accepted
Site Names: 216-A-16, 216-A-16 Dry Well **ReClassification:**
Site Type: French Drain **Start Date:** 1956
Site Status: Inactive **End Date:** 1969

Site Description: The unit is composed of bell-end concrete pipe, 1.8 meters (6 feet) long, placed vertically 3.4 meters (11 feet) below grade. The unit is rock-filled with a 1.9-centimeter (3/4-inch) carbon-steel cover. A 5-centimeter (2-inch) steel vent riser extends 0.9 meters (3 feet) from the top. There is a carbon steel inlet pipe, approximately 0.6 meters (2 feet) long coming from the 216-A-17 French Drain.

Waste Type: Water

Waste Description: The site received the floor drainage and the 296-A-11 Stack drainage from the 241-A-431 Building. The waste is low in salt, neutral to basic, and contains less than 10 curies total beta activity.

Site Code: 216-A-17 **Classification:** Accepted
Site Names: 216-A-17, 216-A-17 Dry Well **ReClassification:**
Site Type: French Drain **Start Date:** 1956
Site Status: Inactive **End Date:** 1969

Site Description: The unit is composed of bell-end concrete pipe, 1.8 meters (6 feet) long, placed vertically 3.3 meters (11 feet) below grade. The unit is rock-filled with a carbon steel cover. The side slope of the excavation is assumed to have been 1:1.

Waste Type: Water

Waste Description: The site received the floor drainage and the 296-A-11 Stack drainage from the 241-A-431 Building. The waste is low in salt, neutral to basic, and contains less than 1 curie total beta activity.

Site Code: 216-A-23A **Classification:** Accepted
Site Names: 216-A-23A, 216-A-23-A French Drain **ReClassification:**
Site Type: French Drain **Start Date:** 1957
Site Status: Inactive **End Date:** 1969

Site Description: The unit is a 1.07-meter (3.5-foot) diameter, 1.8-meter (6-foot) long bell-end concrete pipe, placed vertically 1.98 meters (6.5 feet) below grade. The concrete pipe is filled with 0.9 meters (3 feet) of rock and has a carbon steel cover. A 5.1-centimeter (2-inch) carbon steel vent riser extends from the top to 0.9 meters (3 feet) above grade. A Schedule 80 steel inlet pipe enters approximately 2.7 meters (9 feet) below grade.

Waste Type: Process Effluent

Waste Description: The site received the deentrainer tank condensate and the back flush waste from the 241-A-431 Building. The waste is low in salt, neutral to basic and contains less than 50 curies total beta activity. The total amount discharged by this waste stream, 6,000 liters (1,580 gallons), applies to both A-23A and A-23B.

Site Code: 216-A-23B **Classification:** Accepted

Site Names: 216-A-23B, 216-A-23-B French Drain **ReClassification:**

Site Type: French Drain **Start Date:** 1957

Site Status: Inactive **End Date:** 1969

Site Description: The unit is a 1.07-meter (3.5-foot) diameter, 1.8-meter (6-foot) long bell-end concrete pipe, placed vertically 1.98 meters (6.5 feet) below grade. The unit is filled with 0.9 meters (3 feet) of rock and has a carbon steel cover. The side slope is assumed to be 1:1.

Waste Type: Process Effluent

Waste Description: The site received the deentrainer tank condensate and the backflush waste from the 241-A-431 Building. The waste is low in salt, neutral to basic and contains less than 5 curies total beta activity. Total waste stream discharge was 6,000 liters (1,580 gallons) to the 216-A-23A and 216-A-23B French Drains.

Site Code: 241-A-A **Classification:** Accepted

Site Names: 241-A-A, 241-A-A Diversion Box, 241-A-A Structural Valve Pit **ReClassification:**

Site Type: Valve Pit **Start Date:** 1974

Site Status: Inactive **End Date:**

Site Description: The unit is an underground structure with reinforced concrete walls, floor, and cover blocks.

Waste Type: Process Effluent

Waste Description: The 241-A Tank Farm valve pits are used to route wastes to and from the 242-A Evaporator; 241-AN, 241-AW, 241-AY, and 241-AZ Tank Farms; PUREX; and the 244-A DCRT. The 204-AR Facility was connected to 241-A-A, but waste was re-routed to 241-AW-A valve pit in 2003 when line LIQW-702 was tied into line SN-220. Transfers from 244-A may include cross-site, 244-CR, and B-Plant wastes.

Site Code: 241-A-B **Classification:** Accepted

Site Names: 241-A-B, 241-A-B Diversion Box, 241-A-B Structural Valve Pit **ReClassification:**

Site Type: Valve Pit **Start Date:** 1974

Site Status: Inactive **End Date:**

Site Description: The unit is an underground reinforced concrete structure with walls, a floor, and cover blocks.

Waste Type: Process Effluent

Waste Description: The 241-A Tank Farm valve pits are used to route wastes to and from the 242-A Evaporator; 241-AN, 241-AW, 241-AY, and 241-AZ Tank Farms; PUREX; and the 244-A DCRT. Transfers from 244-A may include cross-site, 244-CR, and B-Plant wastes.

Site Code: 241-A-101 **Classification:** Accepted

Site Names: 241-A-101, 241-A-TK-101 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1956

Site Status: Inactive **End Date:** 1980

Site Description: The unit is carbon-steel lined, with a reinforced concrete shell, dome, and base. The dome is located below grade for shielding. This is a third-generation tank with an increased operating depth and a flat (instead of dished) bottom.

Waste Type: Storage Tank

Waste Description: Activity in Tank 241-A-101 began when it was filled with PUREX high-level waste and organic wash waste in 1956. Activity ceased when the tank was deactivated in November 1980.

Site Code: 241-A-102 **Classification:** Accepted

Site Names: 241-A-102, 241-A-TK-102 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1956

Site Status: Inactive **End Date:** 1980

Site Description: The unit is carbon-steel lined, with a reinforced concrete shell, dome, and base. The dome is located below grade for shielding. This is a third-generation tank with an increased operating depth and a flat (instead of dished) bottom.

Waste Type: Storage Tank

Waste Description: Tank 241-A-102 was filled with PUREX waste in 1956. The tank was declared deactivated in November 1980 and intrusion prevention was completed during 1982. The tank was interim stabilized in August 1989 after most of the supernatant was pumped. The tank waste is classified as double-shell slurry feed.

Site Code: 241-A-103 **Classification:** Accepted

Site Names: 241-A-103, 241-A-TK-103 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1956

Site Status: Inactive **End Date:** 1980

Site Description: The unit is carbon-steel lined, with a reinforced concrete shell, dome, and base. The dome is located below grade for shielding. This is a third-generation tank with an increased operating depth and a flat (instead of dished) bottom.

Waste Type: Storage Tank

Waste Description: Tank 241-A-103 was filled with self-concentrating PUREX waste from 1956 until 1969. Tank 241-A-103 was declared inactive in August 1980.

Site Code: 241-A-104 **Classification:** Accepted

Site Names: 241-A-104, 241-A-TK-104 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1958

Site Status: Inactive **End Date:** 1975

Site Description: The unit is carbon-steel lined, with a reinforced concrete shell, dome, and base. The dome is located below grade for shielding. This is a third-generation tank with an increased operating depth and a flat (instead of dished) bottom.

Waste Type: Storage Tank

Waste Description: The tank contains non-complexed waste.

Site Code: 241-A-105 **Classification:** Accepted

Site Names: 241-A-105, 241-A-TK-105 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1962

Site Status: Inactive **End Date:**

Site Description: The unit is carbon-steel lined, with a reinforced concrete shell, dome, and base. The dome is located below grade for shielding. This is a third-generation tank with an increased operating depth and a flat (instead of dished) bottom.

Waste Type: Storage Tank

Waste Description: The waste in this tank is non-complexed.

Site Code: 241-A-106 **Classification:** Accepted

Site Names: 241-A-106, 241-A-TK-106 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1957

Site Status: Inactive **End Date:** 1980

Site Description: The unit is carbon-steel lined, with a reinforced concrete shell, dome, and base. The dome is located below grade for shielding. This is a third-generation tank with an increased operating depth and a flat (instead of dished) bottom.

Waste Type: Storage Tank

Waste Description: Tank 241-A-106 received deentrained waste and condensate waste from the boiling waste tanks in the A Tank Farm from 1957 to 1960. The waste is classified as concentrated phosphate.

Site Code: 241-A-152 **Classification:** Accepted

Site Names: 241-A-152, 241-A-152 Diversion Box **ReClassification:**
Site Type: Diversion Box **Start Date:** 1956
Site Status: Inactive **End Date:** 1980
Site Description: This diversion box is a reinforced concrete structure containing four stainless steel transfer pipes and adequate space to allow for jumper replacement activities. The major portion of the diversion box is below grade with concrete cover blocks and lifting hooks.

Waste Type: Process Effluent
Waste Description: Waste transferred through 241-A-152 includes fuel decladding waste, organic wash waste, sump waste, and laboratory waste. Lead shielding may also be contained inside the diversion box.

Waste Type: Equipment
Waste Description: The diversion box contains lead shielding.

Site Code: 241-A-153 **Classification:** Accepted
Site Names: 241-A-153, 241-A-153 Diversion Box, 241-A-153 Transfer Station **ReClassification:**
Site Type: Diversion Box **Start Date:** 1956
Site Status: Inactive **End Date:** 1985
Site Description: This diversion box is a reinforced concrete structure sized to accommodate the pipes and provide space for jumper replacement. The 241-A-153 is one type of diversion box, known as a transfer box. It connects one common pipe to several others, one at a time, uses only one jumper and has the several nozzles arranged in a circle about the common nozzle.

Waste Type: Process Effluent
Waste Description: This unit contains PUREX high level waste, and PUREX organic wash waste. Lead shielding may also be contained inside the diversion box.

Waste Type: Equipment
Waste Description: This unit contains lead shielding.

Site Code: 241-A-350 **Classification:** Accepted
Site Names: 241-A-350, 241-A-350 Catch Tank, 241-A-350 Drainage Lift Station **ReClassification:**
Site Type: Catch Tank **Start Date:** 1956
Site Status: Inactive **End Date:** 2005
Site Description: The unit is an underground reinforced concrete pump pit, with a cover block. The pump pit drains any leaks from the pump through the pump pit floor drain to an 800-gallon (3000-liter) stainless steel tank below.

Waste Type: Storage Tank

waste type: storage tank

Waste Description: This unit contains aging PUREX high-level waste, PUREX acid concentrator waste, organic wash waste, and 241-A-207 Retention Basin solution.

Site Code: 241-A-417 **Classification:** Accepted

Site Names: 241-A-417, 241-A-417 Condensate Tank **ReClassification:**

Site Type: Catch Tank **Start Date:** 1959

Site Status: Inactive **End Date:** 2005

Site Description: This unit is an underground cylindrical concrete vault lined with an all welded steel liner. Two overflow lines near the top of the vault prevent overflow of the tank. Above the tank are two rectangular pits, a pump pit and a valve pit. The floor of both pits slope to drains that empty to the tank.

Waste Type: Steam Condensate

Waste Description: This unit collects condensate for the 241-A-702 process condensate, the 241-A-401 process condensate, and the 241-AZ-154 steam condensate.

Site Code: 241-A-431 **Classification:** Accepted

Site Names: 241-A-431, 241-A-431 Ventilation Building, 241-A-431 Tank Farm Ventilation Building **ReClassification:**

Site Type: Process Unit/Plant **Start Date:** 1955

Site Status: Inactive **End Date:** 1969

Site Description: The unit is a concrete structure, with the lower portion below grade. The unit is divided into two sections. One section houses the ventilation equipment. The other section houses the de-entrainment equipment. The building is 8 meters (25 feet) high, with the lower 4.9 meters (16 feet) below grade.

Waste Type: Equipment

Waste Description: The unit contains radioactively contaminated equipment and concrete. It provided off-gas de-entrainment for the 241-A Tank Farm and also received the 296-A-11 Stack drainage.

Site Code: 241-A-501 **Classification:** Accepted

Site Names: 241-A-501, 241-A-501 Contact Condenser Valve Pit **ReClassification:**

Site Type: Valve Pit **Start Date:**

Site Status: Inactive **End Date:**

Site Description:

Site Code: 241-A-702-WS-1 **Classification:** Accepted

Site Names: 241-A-702-WS-1, 702-A Drain Lines **ReClassification:**
Site Type: French Drain **Start Date:** 1968
Site Status: Inactive **End Date:** 1995
Site Description: The unit is a french drain that received steam condensate from the 241-A-702 Ventilation Building.

Waste Type: Steam Condensate
Waste Description: The unit received steam condensate from the 241-A-702 Ventilation Building.

Site Code: 241-AX-A **Classification:** Accepted
Site Names: 241-AX-A, 241-AX-A Diversion Box, 241-AX-A Structural Valve Pit, 241-AX-A Valve Pit **ReClassification:**
Site Type: Valve Pit **Start Date:** 1965
Site Status: Inactive **End Date:**
Site Description: The unit is an underground reinforced concrete structure with 1 foot (0.31 meter) thick walls and floor.

Waste Type: Process Effluent
Waste Description: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

Site Code: 241-AX-B **Classification:** Accepted
Site Names: 241-AX-B, 241-AX-B Diversion Box, 241-AX-B Structural Valve Pit, 241-AX-B Valve Pit **ReClassification:**
Site Type: Valve Pit **Start Date:** 1965
Site Status: Inactive **End Date:**
Site Description: The unit is an underground reinforced concrete structure with 1 foot (.31 meters) thick walls and floor.

Waste Type: Process Effluent
Waste Description: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

Site Code: 241-AX-IX **Classification:** Accepted
Site Names: 241-AX-IX, 241-AX Ion Exchanger, IMUST **ReClassification:**
Site Type: Storage Tank **Start Date:** 1967
Site Status: Inactive **End Date:** 1976

Site Description: The ion exchange system consists of an above ground filter and ion exchange column. The ion exchange column is enclosed in a shielded structure. The ion exchange column sits on top of a 2.4 meter (8 foot) concrete structure.

Waste Type: Equipment

Waste Description: The 241-AX-IX removed cesium from the 702-A tank vapor condensate, collected in the 241-A-417 tank.

Site Code: 241-AX-101 **Classification:** Accepted

Site Names: 241-AX-101, 241-AX-TK-101 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1965

Site Status: Inactive **End Date:** 1980

Site Description: The unit is carbon-steel lined, with a reinforced concrete shell, dome, and base. This is a third-generation tank having a flat bottom, and an additional grid of drain slots beneath the steel liner bottom. The dome is below grade for shielding.

Waste Type: Storage Tank

Waste Description: Double shell slurry feed is waste concentrated just before reacting the sodium aluminate saturation boundary in the evaporator without exceeding the receiver tank composition limit.

Site Code: 241-AX-102 **Classification:** Accepted

Site Names: 241-AX-102, 241-AX-TK-102 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1966

Site Status: Inactive **End Date:** 1980

Site Description: The unit is carbon-steel lined, with a reinforced concrete shell, dome, and base. The dome is below grade for shielding. This is a third-generation tank having a flat bottom, and an additional grid of drain slots beneath the steel liner bottom.

Waste Type: Storage Tank

Waste Description: This tank received concentrated complexant which is a concentrate product from the evaporation of dilute complexed waste.

Site Code: 241-AX-103 **Classification:** Accepted

Site Names: 241-AX-103, 241-AX-TK-103 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1965

Site Status: Inactive **End Date:** 1980

Site Description: The unit is carbon-steel lined, with a reinforced concrete shell, dome, and base. This is a third-generation tank having a flat bottom, and an additional grid of drain slots beneath the steel liner bottom. The dome is below grade for shielding.

Waste Type: Storage Tank

waste type: Storage Tank

Waste Description: This tank received concentrated complexant which is concentrated product form the evaporation of dilute complexed waste.

Site Code: 241-AX-104 **Classification:** Accepted

Site Names: 241-AX-104, 241-AX-TK-104 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1966

Site Status: Inactive **End Date:** 1976

Site Description: The unit is carbon-steel lined, with a reinforced concrete shell, dome, and base. The dome is below grade for shielding. This is a third-generation tank having a flat bottom, and an additional grid of drain slots beneath the steel liner bottom.

Waste Type: Storage Tank

Waste Description: This tank received non-complexed waste which is a general waste term applied to all Hanford Site non-complexed liquors non-identified as complexed.

Site Code: 241-AX-152DS **Classification:** Accepted

Site Names: 241-AX-152DS, 241-AX-152 Diverter Station, 241-AX-152-DS Diverter Station, Line V713 **ReClassification:**

Site Type: Diversion Box **Start Date:** 1965

Site Status: Inactive **End Date:** 2001

Site Description: The unit is a reinforced concrete structure with the top at ground level. There are two diverter tanks in a common cell with a stainless steel liner on the floor that extends approximately 1 foot (0.31 meters) up the cell wall. There is also a pump pit that does not have a stainless steel liner. The cell and pump pit drain to a catch tank below.

Waste Type: Equipment

Waste Description: This unit transports waste solutions from processing and decontamination operations. Volumes are variable according to specific plant operation.

Waste Type: Chemicals

Waste Description: This unit transports waste solutions from processing and decontamination operations. Volumes are variable according to specific plant operation.

The Following Sites Were Consolidated With This Site:

Site Code: 241-AX-152CT

Site Names: 241-AX-152CT, 241-AX-152-CT Catch Tank

Reason: Within Remediation Layback Area

Site Code: 241-AX-153 **Classification:** Accepted

Site Names: 241-AX-153, 241-AX-153 Isolation Jumper Pit **ReClassification:**

Site Type: Diversion Box **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is an underground cement structure with cement cover blocks.

Site Code: 241-AX-501 **Classification:** Accepted

Site Names: 241-AX-501, 241-AX-501 Valve Pit, 241-AX-501 Condensate Valve Pit **ReClassification:**

Site Type: Valve Pit **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The unit is a reinforced concrete structure that contains a valve that routes the tank farm condensate to the 241-A-417 Pump Pit.

Waste Type: Storage Tank

Waste Description: The unit receives and routes tank farm condensate.

Site Code: 241-AY-152 **Classification:** Accepted

Site Names: 241-AY-152, 241-AY-152 Diverter Station, 241-AY-152 Sluice Transfer Box, Line DR0074 **ReClassification:**

Site Type: Diversion Box **Start Date:** 1971

Site Status: Inactive **End Date:** 1985

Site Description: The unit is an underground, reinforced concrete structure.

Waste Type: Process Effluent

Waste Description: This diversion box received PUREX organic wash, PUREX acid, PUREX high level waste and B Plant high level waste. Lead shielding may also be contained inside the diversion box.

Waste Type: Equipment

Waste Description: This diversion box contains lead shielding.

Site Code: 241-AY-501 **Classification:** Accepted

Site Names: 241-AY-501, 241-AY-501 Condensate Valve Pit **ReClassification:**

Site Type: Valve Pit **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The pit is an underground cement structure with cement cover blocks. The valve pit has been isolated and weather sealed.

Site Code: 200-E-131 **Classification:** Accepted
Site Names: 200-E-131, Contaminated Soil Associated with 241-A Tank Farm Complex **ReClassification:**
Site Type: Contamination Migration **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is the soil inside and adjacent to the chain link fence that surrounds the 241-A, AN, AX, AY and AZ Tank Farms. Various radiological postings and warning signs are attached to the chain link fence. The interior of the tank farm complex is covered with gravel. Many risers and monitoring devices for the underground structures are visible on the surface. The individual unplanned releases are not marked or posted. Occasionally, radioactive contamination is found adjacent to the outside of the tank farm fence, resulting in a contamination zone extension. These areas will also be considered tank farm soil.

Waste Type: Process Effluent
Waste Description: Liquid releases occurred from underground leaks in tanks and transfer lines. Airborne contamination spreads occurred from activities conducted in valve pits and diversion boxes. Both types of releases contributed to the contamination in the soil.

The Following Sites Were Consolidated With This Site:

Site Code: UPR-200-E-47
Site Names: UPR-200-E-47, UN-200-E-47, Contamination Spread from 241-A Tank Farm
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-48
Site Names: UPR-200-E-48, UN-200-E-48, 241-A-106 Pump Pit Release
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-115
Site Names: UPR-200-E-115, UN-200-E-115, Contamination Spread Inside 241-AX
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-119
Site Names: UPR-200-E-119, UN-200-E-119, Contamination Spread Inside 241-AX
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-125
Site Names: UPR-200-E-125, UN-200-E-125, 241-A-104 Release
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-126
Site Names: UPR-200-E-126, UN-200-E-126, 241-A-105 Tank Leak

Reason: Within Boundary Of Larger Site

Site Code: 200-E-200-PL **Classification:** Accepted

Site Names: 200-E-200-PL; Pipelines from 244-AR Vault to 241-AY-152 and 241-A-153 Diversion Boxes; Lines 801, 802, 806, and 805 **ReClassification:**

Site Type: Direct Buried Tank Farm Pipeline **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The waste site is four underground, 15 centimeter (6 inch) diameter carbon steel pipelines buried in the same soil trench. The lines split into a "Y" east of the 241-A Tank Farm fence. Lines 802 and 806 divert to 241-AY-152 Diversion Box. Lines 801 and 805 divert to the 241-A-153 Diversion Box.

Site Code: 2607-EC **Classification:** Accepted

Site Names: 2607-EC **ReClassification:**

Site Type: Septic Tank **Start Date:** 1963

Site Status: Inactive **End Date:**

Site Description: This unit includes a septic tank and dry well.

Waste Type: Sanitary Sewage

Waste Description: Sanitary wastewater and sewage. In 1995, the estimated rate of waste generation is 0.45 cu m/d.

Site Code: 2607-ED **Classification:** Accepted

Site Names: 2607-ED **ReClassification:**

Site Type: Septic Tank **Start Date:** 1980

Site Status: Inactive **End Date:**

Site Description: The 2607-ED Septic Tank receives sanitary wastewater and sewage from the 2707-AX Building and drains to the drain field. The drain field has a capacity of 257 gallons (973 liters) per day.

Waste Type: Sanitary Sewage

Waste Description: The 2607-ED Septic Tank receives sanitary wastewater and sewage from the 2707-AX Building at an estimated rate of 10 cubic feet (0.28 cubic meters) per day.

WMA B/BX/BY

Site Code: 241-B-101 **Classification:** Accepted**Site Names:** 241-B-101, 241-B-TK-101 **ReClassification:****Site Type:** Single-Shell Tank **Start Date:** 1945**Site Status:** Inactive **End Date:** 1974

Site Description: The unit is comprised of a carbon steel liner within a reinforced concrete shell, 9 meters (30 feet) high, with a capacity of 2,017,405 liters (533,000 gallons). The bottom is 11.3 meters (37 feet) below grade, and the dome is located below grade for shielding purposes. This type was built to the original single-shell design, having a dished bottom and a 5.2 meters (17 feet) operating depth. The tank is passively ventilated.

Waste Type: Storage Tank

Waste Description: Initially tank B-101 received metal waste in 1945. The tank received and transferred waste via cascade lines from 1945 until 1963. During 1953, B-101 processed feed for U Plant. From 1953 until 1963, the tank contained supernatant containing evaporator bottoms waste from 241-B tanks. During 1957, in-farm scavenged feed was sent to the 244-CR Vault. From 1960 until 1970, B-101 received wastewater. Also, it was found that during 1960 wastewater leaked into the pipe encasement which drained to B-101. During 1963 the tank received PUREX coating waste. B-101 received B Plant high-level waste (Cell 23) from 1969 until 1970. From 1970 until 1973, the tank received B Plant, Cell 23 evaporator bottoms. The tank also received bismuth phosphate metal waste and waste in route to in-tank solidification. Presently, the waste material is classified as non-complexed and has a total waste volume of 427,705 liters (113,000 gallons). Sludge comprises the total 427,705 liters (113,000 gallons). There is no saltcake or pumpable liquid and 6,000 gallons of drainable interstitial liquid remaining. An analysis was conducted on a B-101 sludge sample in February 1976. The sample was found to have a consistency of soft mud and was dark brown. A heat generation rate based on strontium-89, strontium-90, and cesium-137 was calculated to be 0.0201 watts/liter of sludge. The resulting solids remaining in this tank (based on core samples) contain an estimated 4 million Curies of strontium (92,000 BTU/h). The curie content listed is not decayed to a consistent date; therefore, a cumulative total is inappropriate.
Reported Date: April 30, 1996

Site Code: 241-B-102 **Classification:** Accepted**Site Names:** 241-B-102, 241-B-TK-102 **ReClassification:****Site Type:** Single-Shell Tank **Start Date:** 1945**Site Status:** Inactive **End Date:** 1978

Site Description: The unit is comprised of a carbon steel liner within a reinforced concrete shell, 9 meters (30 feet) high, with a capacity of 2,017,405 liters (533,000 gallons). The bottom is 11.3 meters (37 feet) below grade, and the dome is located below grade for shielding purposes. This type was built to the original single-shell design, having a dished bottom and a 5.2 meters (17 feet) operating depth. Tank 241-B-102 is the second tank in a "cascade" connecting it to tanks 241-B-101 and 241-B-103. The tank is passively ventilated.

Waste Type: Storage Tank

Waste Description: Tank 241-B-102 went into service in 1945 by receiving metal waste produced by the bismuth phosphate process. The tank was sluiced in 1953 to remove the metal waste for uranium recovery then filled with a transfer from tank 241-B-105 (the active receiver tank for the 242-B Evaporator). Most of the contents of the tank were sent to tank 241-C-112 in 1957 for ferrocyanide scavenging of the supernate. Later that year the tank received water. The tank stood idle until 1963, when it began to receive cladding waste supernate from other tanks. The tank received a supernatant transfer from 241-B-101 in 1969 and was receiving high level waste from B Plant. Most of this supernate was transferred out of the tank in 1970. The tank received ion-exchange waste (B Plant) which was later transferred in a large supernate transfer in 1971. The tank also received low level waste from B Plant (1972), water waste transfer and pumpable liquids from other single-shell tanks (B-105, 107, and 110) that were being taken out of service (1972-1976). During this time tank 241-B-102 was also transferring supernate to tanks 241-B-103, 241-B-106, and 241-SX-106. The tank also received cladding removal waste supernate from the Plutonium-Uranium Extraction (PUREX) process and supernate from the fission product recovery process at B Plant. The tank also received ion exchange waste and evaporator bottoms from 241-B, -BX, and -C tank farms. Presently, the waste material is classified as non-complexed and has a total waste volume of 121,120 liters (32,000 gallons). Sludge comprises 68,130 liters (18,000 gallons) of the tank contents, saltcake 37,850 liters (10,000 gallons) and there is 15,140 liters (4,000 gallons) of drainable supernatant liquid remaining. The waste level is very low 17.8 centimeters (~7 inches).
Reported Date: April 30, 1996

Site Code:	241-B-103	Classification:	Accepted
Site Names:	241-B-103, 241-B-TK-103	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1945
Site Status:	Inactive	End Date:	1977

Site Description: The unit is a single-shell tank constructed of .3 meter (1 foot) thick reinforced concrete with a 6.4 millimeters (0.25 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meter (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 4 foot 1.2 meters (4 feet) radius knuckle. The tank has a 5.2 meters (17 feet) operating depth. The tank is set on a reinforced concrete foundation 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. Tank 241-B-103 is the third and final tank in a "cascade" connecting to tanks 241-B-101 and 241-B-102. The cascade overflow height is approximately 4.86 meters (192 inches) from the tank bottom (at the sidewall) and .61 meters (2 feet) below the top of the steel liner. The tank is passively ventilated.

Waste Type: Storage Tank

Waste Description: Tank 241-B-103 went into service in 1945 by receiving waste cascaded from tank 241-B-102 until it was declared full in 1946. The tank was sluiced in 1953 for uranium recovery. From 1954 until 1963 the tank received supernate, evaporator bottoms waste and unknown waste from an unknown source. The tank also received bismuth phosphate metal waste; PUREX coating waste; and supernatant containing ion exchange waste, N Reactor waste, organic wash

waste: PNL waste, REDOX high-level waste, coating waste, evaporator bottoms, B Plant low-level waste, decontamination waste, tributyl phosphate waste, and laboratory waste from 241-B, -BX, and -C tank farms. Additional sources of waste are first and second cycle waste from B Plant and in-tank solidification (ITS-1 & ITS-2) evaporator bottoms. Presently, the waste material is classified as non-complexed and has a total waste volume of 59,000 gallons (223,315 L). Sludge is reported to comprise 59,000 gallons (223,315 L) of the tank contents with no saltcake, drainable, or pumpable liquid remaining. However, the Tank Layer Model (Agnew et al. 1994), estimates that the tank contains mostly saltcake 56,000 gallons (211,960 L), with a small amount of metal waste 3,000 gallons (11,355 L). The waste level in the tank is (~14 inches) 35 cm.

Reported Date: May 31, 1996

Site Code:	241-B-104	Classification:	Accepted
Site Names:	241-B-104, 241-B-TK-104	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1946
Site Status:	Inactive	End Date:	1972

Site Description: The single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 6.4 millimeter (0.25 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom sides and a .38 meter (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and at 1.2 meters (4 foot) radius knuckle. The tank has a 5.2 meters (17 foot) operating depth. The tank is set on a reinforced concrete foundation 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. The tank is passively ventilated.

Waste Type: Storage Tank

Waste Description: Tank 241-B-104 is equipped to cascade to tank 241-B-105 and is first in the three-tank cascade flow series. The tank received bismuth phosphate first and second-cycle waste; evaporator bottoms, and supernatant containing evaporator bottoms from the 241-B tanks. Presently, the waste material is classified as non-complexed and has a total waste volume of 371,000 gallons (1,404,235 L). Sludge is reported to comprise 301,000 gallons (1,139,285 L) and saltcake 69,000 (261,165 L). There is 40,000 gallons (151,400 L) pumpable liquid remaining and 47,000 gallons (177,895 L) of drainable liquid remaining. Drainable liquid includes 46,000 gallons (174,110 L) interstitial and 1,000 gallons (3,785 L) of supernatant liquid. The volume of waste converts to a waste level of almost 11 feet (3.4 m). More sample material is needed for full characterization of the waste.

Reported Date: May 31, 1996

Site Code:	241-B-105	Classification:	Accepted
Site Names:	241-B-105, 241-B-TK-105	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1947

Site Status: Inactive **End Date:** 1972

Site Description: The single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 6.4 millimeter (0.25 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meters (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meters (4 foot) radius knuckle. The tank has a 5.2 meters (17 foot) operating depth. The tank is set on a reinforced concrete foundation 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. The tank is passively ventilated.

Waste Type: Storage Tank

Waste Description: Tank 241-B-105 is equipped to receive waste via cascade from tank B-104 and cascade to tank 241-B-106 and is second in the three-tank cascade flow series. The tank received bismuth phosphate first and second-cycle waste and flush water containing evaporator bottoms from the 241-B tanks. Presently, the waste material is classified as non-complexed and has a total waste volume of 306,000 gallons (1,158,210 L). Sludge is reported to comprise 40,000 gallons (151,400 L) and saltcake 266,000 (1,006,810 L). There is 23,000 gallons (87,055 L) of drainable liquid remaining and no pumpable liquid remaining. The volume of waste converts to a waste level of almost 9 feet (2.7 m). No samples have been taken from tank 241-B-105. Reported Date: May 31, 1996

Site Code: 241-B-106 **Classification:** Accepted

Site Names: 241-B-106, 241-B-TK-106 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1947

Site Status: Inactive **End Date:** 1977

Site Description: The single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 6.4 millimeters (0.25 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meters (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meter (4 foot) radius knuckle. The tank has at 5.2 meters (17 foot) operating depth. The tank is set on a reinforced concrete foundation 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes.

Waste Type: Storage Tank

Waste Description: The tank received bismuth phosphate first and second-cycle waste; Hanford Laboratory operations waste; supernatant containing tributyl phosphate waste; 224-U wates, PNL waste, evaporator bottoms, B Plant low-level waste, ion exchange waste, and bismuth phosphate first-cycle waste from 241-B, -BX, -BY, and -C tanks. Presently, the waste material is classified as non-complexed and has a total waste volume of 442,845 liters (117,000 gallons). Sludge is reported to comprise 439,060 liters (116,000 gallons) and supernatant liquids comprise 3,785 liters (1,000 gallons). There is 26,495 liters (7,000 gallons) of drainable liquid remaining and no pumpable liquid remaining. The volume of waste is between 100.6-96.5 centimeters (39.6-38 inches). More sample material is needed for full characterization of tank waste.
Reported Date: May 31, 1996

Site Code:	241-B-107	Classification:	Accepted
Site Names:	241-B-107, 241-B-TK-107	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1945
Site Status:	Inactive	End Date:	1969

Site Description: The single-shell tank is constructed of .3 meter (1 foot) thick reinforced concrete with a 6.4 millimeter (0.25 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meters (1.25 feet) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meters (4 feet) radius knuckle. The tank has a 5.2 meters (17 feet) operating depth. The tank is set on a reinforced concrete foundation 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes.

Waste Type: Storage Tank

Waste Description: 241-B-107 tank received PUREX coating waste; bismuth phosphate first-cycle waste; and supernatant containing bismuth phosphate first-cycle waste, bismuth phosphate second-cycle waste, and evaporator bottoms from the 241-B tanks. The tank also received uranium recovery waste, tri-butyl phosphate waste, non-complexed waste, 242-B evaporator saltcake, and wastewater. Presently, the waste material is classified as non-complexed and has a total waste volume of 165,000 gallons (624,525 L). Sludge is reported to comprise 164,000 gallons (620,740 L) and supernatant liquids comprise 1,000 gallons (3,785 L). There is 13,000 gallons (49,205 L) of drainable liquid remaining and 7,000 gallons (26,495 L) of pumpable liquid remaining. The volume of waste is about 4.5 feet (1.4 m) in the tank. There have been no samples taken of the tank waste.
Reported Date: May 31, 1996

Site Code:	241-B-108	Classification:	Accepted
Site Names:	241-B-108, 241-B-TK-108	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1945
Site Status:	Inactive	End Date:	1977

Site Description: The single-shell tank is constructed of .3 meter (1 foot) thick reinforced concrete with a 6.4 millimeters (0.25 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meter (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meters (4 feet) radius knuckle. The tank has a 5.2 meter (17 feet) operating depth. The tank is set on a reinforced concrete foundation 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes.

Waste Type: Storage Tank

Waste Description: 241-B-108 tank received PUREX coating waste; bismuth phosphate first-cycle waste, and supernatant containing evaporator bottoms and ion exchange waste from the 241-B and -BY tank farms. The tank also received non-complexed waste and 242-B evaporator saltcake waste. Presently, the waste material is classified as non-complexed and has a total waste volume of 94,000 gallons (355,790 L). Sludge is reported to comprise the 94,000 gallons (355,790 L). There is 4,000 gallons (15,140 L) of drainable interstitial liquid remaining and no pumpable liquid remaining. The volume of waste converts to approximately 2.5 feet (.8 m) in the tank. There have been no samples taken of the tank waste.
Reported Date: May 31, 1996

Site Code:	241-B-109	Classification:	Accepted
Site Names:	241-B-109, 241-B-TK-109	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1946
Site Status:	Inactive	End Date:	1977

Site Description: The single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 6.4 millimeter (0.25 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meter (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meters (4 foot) radius knuckle. The tank has a 5.2 meters (17 foot) operating depth. The tank is set on a reinforced concrete foundation 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is enclosed by a 1.8 meter (6-foot) high chain link fence. The tanks are marked by yellow riser pipes and the ground surface is covered with gravel.

Waste Type: Storage Tank

Waste Description: 241-B-109 tank received PUREX coating waste; bismuth phosphate first-cycle waste, and supernatant containing evaporator bottoms, and ion exchange waste. The tank also received coating waste from the 241-B, -BY, and -S tank farms, non-complexed waste, waste water, 224-U waste, and 242-B evaporator saltcake waste. Presently, the waste material is classified as non-complexed and has a total waste volume of 127,000 gallons (480,822 L). There is disparity between sources for tank inventories. One source lists sludge for the total waste volume at 8,000 gallons (30,280 L) of drainable interstitial liquid. Another source reports the waste comprises 30,000 gallons (113,550 L) of unknown waste; 13,000 gallons (49,205 L) of sludge; and 84,000 gallons (317,940 L) of saltcake. The volume of waste converts to approximately 3.5 feet (1.1 m) in the tank. There have been no samples taken of the tank waste.
Reported Date: May 31, 1996

Site Code:	241-B-110	Classification:	Accepted
Site Names:	241-B-110, 241-B-TK-110	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1945
Site Status:	Inactive	End Date:	1971

Site Description: The single-shell tank is constructed of .3 meter (1 foot) thick reinforced concrete with a 6.4 millimeter (0.25 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meter (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meter (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a (1.2 m4 foot) radius knuckle. The tank has a 5.2 meters (17 foot) operating depth. The tank is set on a reinforced concrete foundation 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is enclosed by a 1.8 meters (6-foot) high chain link fence. The tanks are marked by yellow riser pipes and the ground surface is covered with gravel.

Waste Type: Storage Tank

Waste Description: 241-B-110 tank received Bismuth phosphate first-cycle waste; bismuth phosphate second-cycle wastes; fission product waste; B Plant high-level waste (waste fractionization); B Plant waste from cells 5 and 6; B Plant flushes; and ion exchange waste; B Plant low-level waste; evaporator bottoms; non-complexed waste; decontamination waste; PUREX high-level waste; in-tank solidification waste; cesium recovery waste; and waste water. The waste material is classified as non-complexed and presently has a total waste volume of 931,001 liters (246,000 gallons). Sludge comprises the total except for 3,785 liters (1,000 gallons) of supernatant liquid. There is 64,345 liters (17,000 gallons) of pumpable liquid remaining. Level adjustments in 1982 and 1985 brought waste level measurements in the tank to current readings. The volume of waste converts to approximately 2.2 meters (7 feet) in the tank. While characterization of the solid contents has been performed, complete analysis of the upper layer must take place to more fully characterize this portion of the waste.
Reported Date: May 31, 1996

Site Code:	241-B-111	Classification:	Accepted
Site Names:	241-B-111, 241-B-TK-111	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1945
Site Status:	Inactive	End Date:	1976

Site Description: The single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 6.4 millimeter (0.25 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meter (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meter (4 foot) radius knuckle. The tank has a 5.2 meter (17 foot) operating depth. The tank is set on a reinforced concrete foundation 11.3 meter (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is enclosed by a 1.8 meters (6-foot) high chain link fence. The tanks are marked by yellow riser pipes and the ground surface is covered with gravel.

Waste Type: Storage Tank

Waste Description: 241-B-111 tank received bismuth phosphate first-cycle waste; bismuth phosphate second-cycle wastes; ion exchange waste (waste fractionization); fission product waste; B Plant waste from cells 5 and 6; evaporator bottoms; non-complexed waste; decontamination waste; PUREX high-level waste; cesium recovery waste; and waste water. The waste material is classified as non-complexed and presently has a total waste volume of 237,000 gallons (897,045 L) comprised of sludge. There is 60,560 liters (16,000 gallons) of pumpable liquid and 83,270 liters (22,000 gallons) of drainable liquid remaining. The volume of waste converts to approximately 2.2 meters (7 feet) in the tank. More sample material is needed for full characterization of tank waste.

Reported Date: May 31, 1996

Site Code:	241-B-112	Classification:	Accepted
Site Names:	241-B-112, 241-B-TK-112	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1946
Site Status:	Inactive	End Date:	1977

Site Description: The single-shell tank is constructed of 1 foot (.3 m) thick reinforced concrete with a 0.25 inch (6.4 mm) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a 1.25 foot (.38 m) thick domed concrete top. The top of the steel liner is 18 feet (5.5 m) above the bottom of the tank (at the side wall). The tank has a dished bottom with a maximum depth of 12 inches (30 cm) below the side wall of the tank and a 4 foot (1.2 m) radius knuckle. The tank has a 17 foot (5.2 m) operating depth. The tank is set on a reinforced concrete foundation 37 feet (11.3 m) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos

gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 533,000 gallons (2,017,405 L). The tank was covered with approximately 7.25 feet (2.2 m) of overburden for shielding purposes. At present, the tank farm is enclosed by a 6-foot (1.8 m) high chain link fence. The tanks are marked by yellow riser pipes and the ground surface is covered with gravel.

Waste Type: Storage Tank

Waste Description: 241-B-112 tank received bismuth phosphate second-cycle wastes; B Plant low-level waste; fission product waste; ion exchange waste; evaporator bottoms from the 241-B and -BX tanks; non-complexed waste; first cycle waste; decontamination waste; and waste water. The waste material is classified as non-complexed and presently has a total waste volume of 33,000 gallons (124,905 L) comprised of 30,000 gallons (113,550 L) sludge and 3,000 gallons (11,355 L) of drainable supernatant liquid. Another source indicates that the 30,000 gallons (11,355 L) of sludge is composed of 14,000 gallons (52,990 L) of sludge and 16,000 gallons (60,560 L) of salt cake. The volume of waste converts to approximately 1 foot (.3 m) in the tank. Based on analytical results from the 1995 Auger sampling event, the waste in the tank does not appear to present any immediate safety concerns.
Reported Date: May 31, 1996

Site Code:	241-B-151	Classification:	Accepted
Site Names:	241-B-151, 241-B-151 Diversion Box	ReClassification:	
Site Type:	Diversion Box	Start Date:	1945
Site Status:	Inactive	End Date:	1984

Site Description: 241-B-151 Diversion Box is an underground structure constructed of reinforced concrete with a height of approximately 15 feet (4.6 m). Only an approximate 1 foot (.3 m) of this diversion box appears above grade. The outer dimensions are approximately 20 feet (6.1 m) by 9 feet (2.7 m). Wall thickness ranges from about 2 feet (.61 m) for the lower half to a three step progressively thinner thickness to accommodate the three layers of tapered concrete blocks that make up the cover. The cover is made up in sections consisting of fifteen pre-formed concrete blocks. The layers of concrete blocks are arranged in three stacked rows, the bottom row having the shortest length and the top row having the longest length. The tapered ends aid in locating the blocks into place and each block overlaps with the one above and/or below it. Each block is about 20 inches (51 cm) high and range in length from around 6.8 to 8 feet (2 to 2.4 m)

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of liquid waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that approximately 50 pounds (23 kilograms) of waste lead is also stored in each diversion box.

Site Code:	241-B-152	Classification:	Accepted
Site Names:	241-B-152, 241-B-152 Diversion Box	ReClassification:	
Site Type:	Diversion Box	Start Date:	1945
Site Status:	Inactive	End Date:	1984

Site Description: 241-B-152 Diversion Box is an underground structure constructed of reinforced concrete with a height of approximately 4.6 meters (15 feet). Approximate 0.3 meters (1 foot) is above grade.

The outer dimensions are approximately (8.5 meters (28 feet) by 2.7 meters (9 feet). Wall thickness is progressively thinner to accommodate for three layers of tapered concrete cover blocks. The layers of concrete blocks are arranged in three stacked rows, the bottom row having the shortest length and the top row having the longest length.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that approximately 50 pounds (23 kilograms) of waste lead is stored in each diversion box.

Site Code: 241-B-153 **Classification:** Accepted

Site Names: 241-B-153, 241-B-153 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1945

Site Status: Inactive **End Date:** 1984

Site Description: The 241-B-153 Diversion Box is an underground structure constructed of reinforced concrete with a height of approximately 10.4 meters (34 feet). Approximate 0.3 meters (1 foot) is above grade. The outer dimensions are approximately 10.4 meters (34 feet) by 2.7 meters (9 feet). The wall thickness gets progressively thinner to accommodate three layers of tapered concrete cover blocks. The layers of concrete blocks are arranged in three stacked rows.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-B-201 **Classification:** Accepted

Site Names: 241-B-201, 241-B-TK-201 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1946

Site Status: Inactive **End Date:** 1948

Site Description: The tanks are marked by yellow riser pipes and the ground surface is covered with gravel. The single-shell tank is constructed of reinforced concrete with a 6.4 millimeter (0.25 inch) steel liner on the bottom and sides and a .48 meters (1.58 foot) thick domed concrete top. The tank has a 6.1 meters (20 foot) diameter and a 7.5 meter (24.9 foot) operating depth. The tank is set on a concrete foundation 11.5 meters (37.9 feet) below grade. Tank capacity is 208,175 liters (55,000 gallons). The tank was covered with approximately 3.3 meters (11 feet) of overburden for shielding purposes. At present, the tank farm is enclosed by a 1.8 meters (6-foot) high chain link fence.

Waste Type: Storage Tank

Waste Description: 224-B building wastes and 221-B metal waste, non-complexed waste, and waste water. The waste material is classified as non-complexed and presently has a total waste volume of 109,765 liters (9,000 gallons) comprised of 105,980 liter (28,000 gallons) sludge, 3,785 liters (1,000 gallons) of supernatant, 15,140 liters (4,000 gallons) drainable liquid, and no pumpable liquid remaining. The volume of waste, in 1996, converts to approximately 3.8 meters (12.5 feet)

depth in the tank.

Site Code:	241-B-202	Classification:	Accepted
Site Names:	241-B-202, 241-B-TK-202	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1951
Site Status:	Inactive	End Date:	1977

Site Description: The single-shell tank is the smallest of the tank farm designs with a 6.1 meter (20 foot) diameter, a 7.5 meter (24.9 foot) operating depth, and a 208,175 liters (55,000 gallon) capacity. The tank is constructed of reinforced concrete with a 6.4 millimeter (0.25 inch) steel liner on the bottom and sides and a .48 meter (1.58 foot) thick domed concrete top. The tank is set on a concrete foundation 11.5 meters (37.9 feet) below grade. The tank was covered with approximately 3.3 meters (11 feet) of overburden for shielding purposes. At present, the tank farm is enclosed by a 1.8 meters (6-foot) high chain link fence. The tanks are marked by yellow riser pipes and the ground surface is covered with gravel.

Waste Type: Storage Tank

Waste Description: Wastes consist of : 224 building wastes (lanthanum fluoride), metal waste, non-complexed waste, and B Plant high-level waste. The waste material is classified as non-complexed and presently has a total waste volume of 102,195 liters (27,000 gallons) comprised of 102,195 liters (27,000 gallons) sludge. There is 11,355 liters (3,000 gallons) of drainable liquid remaining. The volume of waste converts to approximately 3.7 meters (12 feet) depth in the tank.
Reported Date: May 31, 1996

Site Code:	241-B-203	Classification:	Accepted
Site Names:	241-B-203, 241-B-TK-203	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1951
Site Status:	Inactive	End Date:	1977

Site Description: The single-shell tank is the smallest of the tank farm designs with a 20 foot (6.1 m) diameter, a 24.9 foot (7.5 m) operating depth, and a 55,000 gallon (208,175 L) capacity. The tank is constructed of reinforced concrete with a 0.25 inch (6.4 mm) steel liner on the bottom and sides and a 1.58 foot (.48 m) thick domed concrete top. The tank is set on a concrete foundation 37.9 feet (11.5 m) below grade. The tank was covered with approximately 11 feet (3.3 m) of overburden for shielding purposes. At present, the tank farm is enclosed by a 6-foot (1.8 m) high chain link fence. The tanks are marked by yellow riser pipes and the ground surface is covered with gravel.

Waste Type: Storage Tank

Waste Description: Wastes consist of : 224 building wastes (lanthanum fluoride), metal waste, and non-complexed waste. The waste material is classified as non-complexed and presently has a total waste volume of 51,000 gallons (193,035 L) comprised of 50,000 gallons (189,250 L) sludge. There is 6,000 gallons (22,710 L) of drainable liquid remaining. The volume of waste converts to approximately just over 21 feet (6.4 m) depth in the tank.
Reported Date: May 31, 1996

Site Code:	241-B-204	Classification:	Accepted
Site Names:	241-B-204, 241-B-TK-204	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1951
Site Status:	Inactive	End Date:	1977
Site Description:	The single-shell tank is the smallest of the tank farm designs with a 6.1 meters (20 foot) diameter, a 7.5 meters (24.9 foot) operating depth, and a 208,175 liters (55,000 gallon) capacity. The tank is constructed of reinforced concrete with a 6.4 millimeter (0.25 inch) steel liner on the bottom and sides and a .48 meters (1.58 foot) thick domed concrete top. The tank is set on a concrete foundation 11.5 meters (37.9 feet) below grade. The tank was covered with approximately 3.3 meters (11 feet) of overburden for shielding purposes. At present, the tank farm is enclosed by a 1.8 meter (6-foot) high chain link fence. The tanks are marked by yellow riser pipes and the ground surface is covered with gravel.		
Waste Type:	Storage Tank		
Waste Description:	Wastes consist of: 224 building wastes (lanthanum fluoride), metal waste, B Plant flushes, and non-complexed waste. The waste material is classified as non-complexed and presently has a total waste volume of 189,250 liters (50,000 gallons) comprised of 185,465 liters (49,000 gallons) sludge. There is 22,710 liters (6,000 gallons) of drainable liquid remaining. The volume of waste converts to approximately 6.4 meters (21 feet) depth in the tank. Reported Date: May 31, 1996		

Site Code:	241-B-252	Classification:	Accepted
Site Names:	241-B-252, 241-B-252 Diversion Box	ReClassification:	
Site Type:	Diversion Box	Start Date:	1945
Site Status:	Inactive	End Date:	1984
Site Description:	The site is a 0.6 meter (2 foot) thick, reinforced concrete structure, 4.6 meters (15 feet) deep. The outer dimensions are 11 meters (36 feet) long by 2.7 meters (9 feet) wide. There are twenty four 7.6 centimeter (three inch) Hanford type nozzles housed inside. The top of the box is a concrete cover block which usually extends a few inches above grade.		
Waste Type:	Process Effluent		
Waste Description:	This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.		

Site Code:	241-B-301	Classification:	Accepted
Site Names:	241-B-301; 241-B-301-B Catch Tank; 241-B-301B; IMUST; Inactive Miscellaneous Underground Storage Tank; Lines V238 and V312	ReClassification:	
Site Type:	Catch Tank	Start Date:	1945
Site Status:	Inactive	End Date:	1984

Site Description: The site is an underground tank, located within the 241-B Tank Farm chin link fence. The tank is surrounded by a steel chain and marked with radiological and IMUST signs. Four yellow risers are visible at the surface.

Waste Type: Process Effluent

Waste Description: 1993, the tank was estimated to contain 2230 liters (590 gallons) of supernate and 81648 liters (21,600 gallons) of sludge. Analytical data for tank liquid show moderately basic pH with extremely low levels of fissile materials. Cesium levels are also very low. The radionuclide analyses have been adjusted for 17.4 year radioactive decay (October 1974 to April 1992). From preliminary observations, supernate in this tank would not be In designated as dangerous waste or prove a criticality hazard.

Site Code: 242-B-151 **Classification:** Accepted

Site Names: 242-B-151, 242-B Evaporator Building Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1945

Site Status: Inactive **End Date:** 1984

Site Description: Diversion Box 242-B-151 is constructed of reinforced concrete with a height of approximately 4 meters (13 feet). Approximate 0.3 meters (1 foot) of the diversion box concrete cover appears above grade. The outer dimensions are approximately 3.7 meters (12 feet) by 2.4 meters (8 feet). The structure's cover is in sections consisting of three interlocking pre-formed concrete blocks.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. This unit received byproduct cake solution and waste solution from the first decontamination waste cycle from 242-B. This contained ~10% of original fission product, 1% Plutonium, and the remainder of miscellaneous chemicals. the major chemical component was bismuth phosphate. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-BR-152 **Classification:** Accepted

Site Names: 241-BR-152, 241-BR-152 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1948

Site Status: Inactive **End Date:** 1984

Site Description: Tank Farm drawings show 241-BR-152 is co-located in a series of three diversion boxes that are joined together. 241-BXR-152 is the center diversion box. 241-BR-152 Diversion Box is on the eastern end and 241-BYR-152 is the most western of the diversion boxes in this group. They are located south of the 241-B-101 tank.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that

approximately 50 pounds (23 kilograms) of lead shielding may stored in each diversion box.

Site Code:	241-BX-101	Classification:	Accepted
Site Names:	241-BX-101, 241-BX-TK-101	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1948
Site Status:	Inactive	End Date:	1975
Site Description:	<p>The 22.9 meter (75 foot) diameter single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 1 centimeter (0.375 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 m (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeter (12 inches) below the side wall of the tank and a (1.2 m) radius knuckle. The tank has a 16 foot 4.9 meters (4 foot) operating depth. The tank is set on a reinforced concrete foundation about 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is surrounded by a chain link fence, topped with three strands of barbed wire. The ground surface is covered with gravel and no vegetation is seen.</p>		

Waste Type: Storage Tank

Waste Description: 241-B-101 tank received bismuth phosphate metal waste; evaporator bottoms; B Plant low-level waste, ion exchange waste (waste fractionization), and supernatant containing B Plant low-level waste; PUREX organic wash waste, cladding waste, coating waste, #1 acid and concentrator waste, ion exchange waste; REDOX ion exchange waste from 241-BY, -BX, -B, and -C tanks; tributyl phosphate waste; inorganic wash waste; coating waste; uranium recovery waste; complex waste; double-shell slurry feed; evaporator feed; organic wash waste; metal waste; non-complexed waste; waste water; in-tank solidification saltcake; cesium recovery waste. The unit received an inadvertent transfer of ~ 6,813 liters (1,800 gallons) of ARC-359 organic ion exchange resin in early 1972. The waste material is classified as non-complexed and presently has a total waste volume of 162,755 liters (43,000 gallons) comprised of 158,970 liters (42,000 gallons) sludge and 3,785 liters (1,000 gallons) of drainable supernatant liquid. The volume of waste converts to approximately .3 meters (1 foot) in the tank.
Reported Date: May 31, 1996

Site Code:	241-BX-102	Classification:	Accepted
Site Names:	241-BX-102, 241-BX-TK-102	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1948
Site Status:	Inactive	End Date:	1971
Site Description:	<p>The 22.9 meter (75 foot) diameter single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 1 centimeter (0.375 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 m (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a</p>		

dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meters (4 foot) radius knuckle. The tank has a 4.9 meters (16 foot) operating depth. The tank is set on a reinforced concrete foundation about 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is surrounded by a chain link fence, topped with three strands of barbed wire. The ground surface is covered with gravel and no vegetation is seen.

Waste Type: Storage Tank

Waste Description: 241-BX-102 tank received bismuth phosphate metal waste; diatomaceous earth; supernatant containing tributyl phosphate waste; metal waste; PUREX coating waste; B Plant low level waste; evaporator bottoms from 241-BX, -BY, -B, and -C tanks; organic wash waste; metal waste; non-complexed waste. The waste material is classified as non-complexed and presently has a total waste volume of 363,360 liters (96,000 gallons) comprised of 147,615 liters (39,000 gallons) of unknown waste; 64,345 liters (17,000 gallons) of diatomaceous earth; 151,400 liters (40,000 gallons) of sludge; no pumpable liquid remaining, and 15,140 liters (4,000 gallons) of drainable supernatant liquid. The volume of waste converts to approximately .8 meters (2.5 feet) in the tank.
Reported Date: May 31, 1996

Site Code:	241-BX-103	Classification:	Accepted
Site Names:	241-BX-103, 241-BX-TK-103	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1948
Site Status:	Inactive	End Date:	1977

Site Description: The 22.9 meters (75 foot) diameter single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 1 centimeter (0.375 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meter (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and at 1.2 meters (4 foot) radius knuckle. The tank has a 4.9 meters (16 foot) operating depth. The tank is set on a reinforced concrete foundation about (11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is surrounded by a chain link fence, topped with three strands of barbed wire. The ground surface is covered with gravel and no vegetation is seen.

Waste Type: Storage Tank

Waste Description: 241-BX-103 tank received bismuth phosphate metal waste; supernatant containing metal waste; tributyl phosphate waste; PUREX coating waste, #1 acid concentrator waste, ion exchange

waste, low and high-level waste, and sludge supernatant wastes; organic wash waste; decontamination waste; PNL waste; N Reactor waste; laboratory waste; evaporator feed, evaporator bottoms; REDOX ion exchange waste; non-complexed waste; waste water; B Plant low-level waste from 241-B, -BX, -BY, -C tanks, BXR-002 diversion box, and ER-311 catch tank. The waste material is classified as non-complexed and presently has a total waste volume of 257,380 liters (68,000 gallons) comprised of 234,670 liters (62,000 gallons) of sludge and 22,710 liters (6,000 gallons) of drainable supernatant liquid. There is no pumpable liquid remaining. The volume of waste converts to approximately .5 meters (1.7 feet) in the tank. Reported Date: May 31, 1996

Site Code:	241-BX-104	Classification:	Accepted
Site Names:	241-BX-104, 241-BX-TK-104	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1949
Site Status:	Inactive	End Date:	1980

Site Description: The 22.9 meters (75 foot) diameter single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 1 centimeters (0.375 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meters (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meters (4 foot) radius knuckle. The tank has a 4.9 meters (16 foot) operating depth. The tank is set on a reinforced concrete foundation about 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is surrounded by a chain link fence, topped with three strands of barbed wire. The ground surface is covered with gravel and no vegetation is seen.

Waste Type: Storage Tank

Waste Description: 241-BX-104 tank received bismuth phosphate metal waste; PUREX coating waste, cladding waste; ion exchange waste (waste fractionization); evaporator bottoms; supernatant containing REDOX high-level waste; complexed and non-complexed waste; double-shell slurry feed; tributyl phosphate waste; water and waste water; cesium recovery waste; in-tank solidification saltcake; B Plant low-level waste, and ion exchange waste from 241-B, -BX, -BY, -C, and -SY tanks, and ER-302-C and ER-311 catch tanks. The waste material is classified as non-complexed and presently has a total waste volume of (374,715 liters (99,000 gallons) comprised of 363,360 liters (96,000 gallons) of sludge and 124,905 liters (33,000 gallons) of drainable supernatant liquid and 102,195 liters (27,000 gallons) of pumpable liquid remaining. The volume of waste converts to approximately .8 meters(2.6 feet) in the tank. Reported Date: May 31, 1996

Site Code:	241-BX-105	Classification:	Accepted
Site Names:	241-BX-105, 241-BX-TK-105	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1949

Site Status: Inactive **End Date:** 1980

Site Description: The 22.9 meters (75 foot) diameter single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 1 centimeter (0.375 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meters (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meters (4 foot) radius knuckle. The tank has a 4.9 meters (16 foot) operating depth. The tank is set on a reinforced concrete foundation about 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is surrounded by a chain link fence, topped with three strands of barbed wire. The ground surface is covered with gravel and no vegetation is seen.

Waste Type: Storage Tank

Waste Description: 241-BX-105 tank received bismuth phosphate metal waste; PUREX coating waste; ion exchange waste; evaporator bottoms; supernatant containing metal waste; uranium recovery waste; B Plant low-level waste; concentrated reduction and oxidation (REDOX) waste; complexed and non-complexed waste; double-shell slurry feed from 241-BX, -BY, -C, -S, and -SX tanks; tributyl phosphate waste; evaporator feed; waste water. The waste material is classified as non-complexed and presently has a total waste volume of 193,035 liters (51,000 gallons) comprised of 162,755 liters (43,000 gallons) of sludge; 11,355 liters (3,000 gallons) of saltcake; 18,925 liters (5,000 gallons) of supernatant liquid. There remains 41,635 liters (11,000 gallons) drainable liquid and 15,140 liters (4,000 gallons) of pumpable liquid remaining. The volume of waste converts to approximately .3 meters (1 foot) in the tank (WHC-EP-0182-98). It should be noted that recent FIC gauge level readings taken from riser 1 of the tank indicate a waste depth of 24.8 inches (.6 m). Core samples recovered from risers 1 and 8 seem to confirm the waste depth and volume indicated by the FIC gauge (WHC-SD-WM-ER-406, Rev. 0B).

Site Code: 241-BX-106 **Classification:** Accepted

Site Names: 241-BX-106, 241-BX-TK-106 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1949

Site Status: Inactive **End Date:** 1977

Site Description: The 22.9 m (75 foot) diameter single-shell tank is constructed of .3 meter (1 foot) thick reinforced concrete with a 1 centimeter (0.375 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meter (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meter (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeter (12 inches) below the side wall of the tank and a (1.2 m) radius knuckle. The tank has a 16 foot 4.9 meters (4 foot) operating depth. The tank is set on a reinforced concrete foundation about 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and

gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is surrounded by a chain link fence, topped with three strands of barbed wire. The ground surface is covered with gravel and no vegetation is seen.

Waste Type: Storage Tank

Waste Description: 241-BX-106 tank received bismuth phosphate metal waste; PUREX coating waste, ion exchange waste; evaporator bottoms; supernatant containing metal waste; B Plant low-level waste; REDOX ion exchange waste from 241-B, -BX, and -BY tanks; organic wash waste; evaporator feed; non-complexed waste; waste water; tributyl phosphate waste. The waste material is classified as non-complexed and presently has a total waste volume of 143,830 liters (38,000 gallons) comprised of 143,830 liters (38,000 gallons) of sludge. There is no drainable liquid or pumpable liquid remaining. The volume of waste converts to less than .3 meters (1 foot) in the tank.

Site Code: 241-BX-107 **Classification:** Accepted

Site Names: 241-BX-107, 241-BX-TK-107 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1948

Site Status: Inactive **End Date:** 1977

Site Description: The 22.9 meters (75 foot) diameter single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 1 centimeter (0.375 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meters (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meters (4 foot) radius knuckle. The tank has a 4.9 meters (16 foot) operating depth. The tank is set on a reinforced concrete foundation about 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is surrounded by a chain link fence, topped with three strands of barbed wire. The ground surface is covered with gravel and no vegetation is seen.

Waste Type: Storage Tank

Waste Description: 241-BX-107 tank received bismuth phosphate first-cycle waste; metal waste; supernatant containing ion exchange waste from the 241-BX tank farm; evaporator feed; non-complexed waste; uranium recovery waste. The waste material is classified as non-complexed and presently has a total waste volume of 1,302,040 liters (344,000 gallons) comprised of 1,302,040 liters (344,000 gallons) of sludge. There is 113,550 liters (30,000 gallons) drainable liquid and 87,055 liters (23,000 gallons) pumpable liquid remaining. The volume of waste converts to about a 3 meters (10 foot) depth in the tank.

Site Code: 241-BX-108 **Classification:** Accepted

Site Names: 241-BX-108, 241-BX-TK-108 **ReClassification:**

Waste Type: Storage Tank

Waste Description: 241-BX-109 tank received bismuth phosphate first-cycle waste; tributyl phosphate waste; PUREX coating waste; cesium recovery waste; ion exchange waste (waste fractionization) and supernatant containing tributyl phosphate waste from 241-BY and -C tanks; non-complexed waste; uranium recovery waste; waste water. The waste material is classified as non-complexed and presently has a total waste volume of 730,505 liters (93,000 gallons) comprised of 730,505 liters (193,000 gallons) of sludge. There is 49,205 liters (13,000 gallons) drainable interstitial liquid and 30,280 liters (8,000 gallons) pumpable liquid remaining. The volume of waste converts to about a 1.7 meters (5.5 foot) depth in the tank.

Site Code: 241-BX-110 **Classification:** Accepted

Site Names: 241-BX-110, 241-BX-TK-110 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1949

Site Status: Inactive **End Date:** 1977

Site Description: The 22.9 meters (75 foot) diameter single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 1 centimeter (0.375 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meter (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meters (4 foot) radius knuckle. The tank has a 4.9 meters (16 foot) operating depth. The tank is set on a reinforced concrete foundation about 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is surrounded by a chain link fence, topped with three strands of barbed wire. The ground surface is covered with gravel and no vegetation is seen.

Waste Type: Storage Tank

Waste Description: 241-BX-110 tank received bismuth phosphate first-cycle waste; evaporator bottoms; supernatant containing coating waste; cesium recovery waste; ion exchange waste (waste fractionization) and B Plant first-cycle waste from 241-B and -C tank farms; non-complexed waste; waste water. The waste material is classified as non-complexed and presently has a total waste volume of 783,495 liters (207,000 gallons) comprised of 738,075 liters (195,000 gallons) sludge, 34,065 liters (9,000 gallons) saltcake, and 11,355 liters (3,000 gallons) supernatant liquid. There is 71,915 liters (19,000 gallons) drainable liquid and 49,205 liters (13,000 gallons) pumpable liquid remaining. The volume of waste converts to about a 1.8 meters (6 foot) depth in the tank.

Site Code: 241-BX-111 **Classification:** Accepted

Site Names: 241-BX-111, 241-BX-TK-111 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1950

Site Status: Inactive **End Date:** 1977

Site Description: The 22.9 meters (75 foot) diameter single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 1 centimeter (0.375 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meters (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meters (4 foot) radius knuckle. The tank has a 4.9 meters (16 foot) operating depth. The tank is set on a reinforced concrete foundation about 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is surrounded by a chain link fence, topped with three strands of barbed wire. The ground surface is covered with gravel and no vegetation is seen.

Waste Type: Storage Tank

Waste Description: 241-BX-111 tank received bismuth phosphate first-cycle waste; evaporator bottoms; in-tank solidification (ITS-2) bottoms and recycle system; supernatant containing ion exchange waste; coating waste; first-cycle waste from 241-BX tanks; evaporator feed; non-complexed waste. The waste material is classified as non-complexed and presently has a total waste volume of 613,170 liters (162,000 gallons) comprised of 196,820 liters (52,000 gallons) sludge, 412,565 liter (109,000 gallons) saltcake, and 3,785 liter (1,000 gallons) supernatant liquid. There is 11,355 liters (3,000 gallons) drainable liquid and 3,785 liters (1,000 gallons) pumpable liquid remaining. The volume of waste converts to about a 1.4 m (4.5 foot) depth in the tank.

Site Code:	241-BX-112	Classification:	Accepted
Site Names:	241-BX-112, 241-BX-TK-112	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1950
Site Status:	Inactive	End Date:	1977

Site Description: The 22.9 meters (75 foot) diameter single-shell tank is constructed of .3 meters (1 foot) thick reinforced concrete with a 1 centimeter (0.375 inch) mild carbon steel liner (ASTM A 283 Grade C) on the bottom and sides and a .38 meter (1.25 foot) thick domed concrete top. The top of the steel liner is 5.5 meters (18 feet) above the bottom of the tank (at the side wall). The tank has a dished bottom, with a maximum depth of 30 centimeters (12 inches) below the side wall of the tank and a 1.2 meters (4 foot) radius knuckle. The tank has a 4.9 meters (16 foot) operating depth. The tank is set on a reinforced concrete foundation about 11.3 meters (37 feet) below grade. A three-ply cotton fabric waterproofing was applied over the foundation and steel tank. Four coats of primer paint were sprayed on all exposed interior tank surfaces. The tank ceiling dome was covered with three applications of magnesium zincfluorosilicate wash. Lead flashing was used to protect the joint where the steel liner met the concrete dome. Asbestos gaskets were used to seal the manholes in the tank dome. The tank was waterproofed on the sides and top with tar and gunnite. Tank capacity is 2,017,405 liters (533,000 gallons). The tank was covered with approximately 2.2 meters (7.25 feet) of overburden for shielding purposes. At present, the tank farm is surrounded by a chain link fence, topped with three strands of barbed wire. The ground surface is covered with gravel and no vegetation is seen.

Waste Type: Storage Tank

Waste Description: 241-BX-112 tank received first-cycle waste; evaporator bottoms; supernatant containing evaporator bottoms waste; tri-butyl phosphate; ion exchange waste (waste fractionization); first-cycle waste from 241-C tanks: waste water; PUREX coating waste; non-complexed waste. The waste material is classified as non-complexed and presently has a total waste volume of 624,525 liters (165,000 gallons) comprised of 620,740 liters (164,000 gallons) sludge and 3,785 liters (1,000 gallons) supernatant liquid. There is 30,280 liters (8,000 gallons) drainable liquid and 7,570 liters (2,000 gallons) pumpable liquid remaining. The volume of waste converts to about a 1.4 meters (4.5 foot) depth in the tank.

Site Code: 241-BX-153 **Classification:** Accepted

Site Names: 241-BX-153, 241-BX-153 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1948

Site Status: Inactive **End Date:** 1983

Site Description: Diversion Box 241-BX-153 is constructed of reinforced concrete structure built mostly below grade. Only approximate 38 centimeters (15 inches) of this diversion box appears above grade. The cover blocks are made up in sections consisting of thirty one pre-formed concrete blocks. The layers of concrete blocks are arranged in three stacked rows, the bottom row having the shortest length and the top row having the longest length with 11 total sections. The tapered ends aid in locating the blocks into place and each block overlaps with the one above and/or below it. Each block is about 51 centimeters (20 inches) high and 1.17 meters (46 inches) wide.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-BX-302A **Classification:** Accepted

Site Names: 241-BX-302A; 241-BX-302-A Catch Tank; IMUST; Inactive Miscellaneous Underground Storage Tank; Drain Lines V357, 9053, 9253, and 9453 **ReClassification:**

Site Type: Catch Tank **Start Date:** 1948

Site Status: Inactive **End Date:** 1985

Site Description: The buried tank is located inside the fenced 241-BX-155 Tank Farm. It is covered with gravel and surrounded with post and chain. The tank is marked with radiological and IMUST signs.

Waste Type: Process Effluent

Waste Description: The total tank volume was estimated in 1984 to be 3,160 liters (835 gallons) of sludge with no supernate. The volume of waste converts to a waste level of about 26 cm (10.25 inches) in the tank. The contents of this tank does not meet the definition of dangerous waste (according to Ecology) and in its present condition, poses no immediate environmental or human safety hazard, either from a criticality risk or leakage of hazardous waste.

Site Code: 244-BX DCRT **Classification:** Accepted

Site Names: 244-BX DCRT, 244-BX Double-Contained Receiver Tank, 244-BX RT, 244-BX Receiver Tank, 244-BX-TK/SMP, 244-BX Receiver Vault

ReClassification:

Site Type: Receiver Tank **Start Date:** 1983

Site Status: Inactive **End Date:** 2005

Site Description: 244-BX Receiver Tank is an underground, double-contained receiver tank (DCRT) constructed of carbon steel with a 117,335 liters (31,000 gallons) design capacity. The tank sets lengthwise in a reinforced concrete, steel-lined vault. The lowest portion of the vault is 8.5 m (28 feet) below grade and houses the tank. The upper portion of the vault is comprised of three sections; the pump pit in the southern section comprises almost half the space. The filter pit is in the middle section and the instrumentation pit is in the northern section of this part of the vault.

Waste Type: Chemicals

Waste Description: 244-BX Receiver Tank can accept/transport waste from 241-B, 241-BX, & 241-BY Tank Farms. This tank last received waste from the 241-BY-102 and 241-BY-109 Single-Shell Tanks during the 1991 Stabilization Campaign. The tank currently contains 17,636 gallons (66,752 L) of waste. This represents just over one-half of the tank's design capacity.

Site Code: 241-BXR-151 **Classification:** Accepted

Site Names: 241-BXR-151, 241-BXR-151 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1948

Site Status: Inactive **End Date:** 1984

Site Description: Diversion Box 241-BXR-151 is an underground structure constructed of concrete. Approximately 0.3 meters (1 foot) of the diversion box concrete cover appears above grade. The outer dimensions are approximately 14.6 meters (48 feet) by 9.4 meters (30.7 feet). The structure is L shaped from the side view with 4 meters (13 feet) of the north side being 5.1 meters (16.7 feet) high and 5.4 m (17.7 feet) of the southern portion being 2.4 meters (7.75 feet) high. The southern portion of the structure is 2.3 meter (7.5 feet) below grade. The concrete cover is made up in sections consisting of twenty nine interlocking pre-formed concrete blocks. The concrete blocks are about .9 meters (3 feet) wide and range in thickness from .46 meters (1.5 feet) to .61 meters (2 feet). Each cover block is equipped with lifting bails made from steel bar. The blocks were sealed with a combination of hot sealing compound and a flexcell bituminous fiber expansion joint.

Waste Type: Process Effluent

Waste Description: This unit was used for the transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-BXR-152 **Classification:** Accepted

Site Names: 241-BXR-152, 241-BXR-152 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1948

Site Status: Inactive **End Date:** 1984

Site Description: 241-BXR-152 is an underground concrete structure. It is co-located in a series of three diversion boxes that are joined together. 241-BXR-152 is the center diversion box. 241-BR-152 Diversion Box is on the eastern end and 241-BYR-152 is on the west end of the diversion box group. Its cover blocks and lifting bails are visible from the surface.

Waste Type: Process Effluent

Waste Description: This unit was used to transfer waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that approximately 50 pounds (23 kilograms) of lead shielding may be stored in each diversion box.

Site Code: 241-BXR-153 **Classification:** Accepted

Site Names: 241-BXR-153, 241-BXR-153 Diversion Box, Line 9453 **ReClassification:**

Site Type: Diversion Box **Start Date:** 1948

Site Status: Inactive **End Date:** 1984

Site Description: The 241-BXR-153 Diversion box is co-located with the 241-BYR-153 Diversion Box. 241-BXR-153 is on the east side of the 241-BYR-153 Diversion Box. The diversion boxes are underground concrete structures. Their cover blocks and lifting bails are visible from the surface.

Waste Type: Process Effluent

Waste Description: This unit was used to transfer waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that approximately 50 pounds (23 kilograms) of lead shielding may be stored in each diversion box.

Site Code: 244-BXR VAULT **Classification:** Accepted

Site Names: 244-BXR VAULT, 244-BXR Vault, 244-BXR Receiving Vault (Subsites 244-BXR-001, 244-BXR-002, 244-BXR-003, 244-BXR-011), IMUST, Inactive Miscellaneous Underground Storage Tank, Lines 9765 and 7453 (See Subsites) **ReClassification:**

Site Type: Receiving Vault **Start Date:** 1948

Site Status: Inactive **End Date:** 1985

Site Description: 244-BXR Vault is an underground concrete structure. Only 0.3 meters (1 foot) of the vault concrete cover appears above grade. The vault is surrounded with post and chain and marked with IMUST signs. The vault houses four tanks of two different sizes in the lower portion of the structure, each within a large concrete chamber. The tanks are numbered BXR-001, BXR-002, BXR-003, and BXR-011 from east to west. Each tank is tied individually to diversion box 241-BXR-151. The concrete cover is made up in sections consisting of twenty-nine interlocking pre-formed concrete blocks. The concrete blocks are about 1 meter (3.4 feet) wide and just over 2.4 meters (8 feet) long.

Waste Type: Storage Tank

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. The waste volumes in tanks 244-BXR-001, 244-BXR-002, 244-BXR-003, and 244-BXR-011 are currently unknown. WHC-EP-0560 indicates large volumes of sludge and high cesium-137 concentrations in the 244-BXR vault. In addition, the nitrate and nitrite contents are elevated and could cause this waste to be designated as "dangerous" under the EPA and Ecology criteria. This vault does not pose a criticality hazard from the levels of fissionable isotopes that were found.

SubSites:

SubSite Code: 244-BXR VAULT:

SubSite Name: 244-BXR VAULT:1, 244-BXR-001, 244-BXR-001 Tank and Sump

Classification: Accepted

ReClassification:

Description: Tank 244-BXR-001 is located in an individual cell inside of the 244-BXR Vault. The concrete cell contains a sump with a capacity of 170 liters (45 gallons). Each cell within the vault is separated from the adjacent cell by a 0.6 meter (2 foot) thick concrete wall. The tank is constructed of 0.64 centimeter (1/4 inch) carbon steel and is 6.1 meters (20 feet) in diameter, 6.1 meters (20 feet) tall, and has a nominal capacity of 189,000 liters (50,000 gallons).

When in service, the tank was used as a slurry accumulation tank receiving a maximum of 51,930 liters (13,720 gallons) per day of metal waste slurry from tanks in the 241-BX and 241-BY Tank Farms. Tank 244-BXR-001 was isolated in 1985 as part of the 244-BXR Vault isolation. The results for samples taken from the tank and sump in 1984 are available in WHC-SD-EN-ES-040, Rev 0.

SubSite Code: 244-BXR VAULT:

SubSite Name: 244-BXR VAULT:2, 244-BXR-002, 244-BXR-002 Tank and Sump

Classification: Accepted

ReClassification:

Description: Tank 244-BXR-002 is located in an individual cell inside of the 244-BXR Vault. The concrete cell contains a sump with a capacity of 170 liters (45 gallons). Each cell within the vault is separated from the adjacent cell by a 0.6 meter (2 foot) thick concrete wall. The tank is constructed of 0.64 centimeter (1/4 inch) Type 347 stainless steel and is 4.3 meters (14 feet) in diameter, 3.7 meters (12 feet) tall, and has a nominal capacity of 56,800 liters (15,000 gallons). The tank contains in-tank cooling coils.

When in service, Tank 244-BXR-002 and Tank 244-BXR-003 were configured and used identically. The tanks were used as a pair in waste blending operations. Under normal conditions a slurry stream was brought in from tank 244-BXR-001 and mixed with nitric acid. Tank 244-BXR-002 received a maximum of 53,860 liters (14,230 gallons) per day from tank 244-BXR-001 and a maximum of 29,500 liters (7,800 gallons) per day of nitric acid. The blended solution was then pumped to Tank 244-BXR-011. Tank 244-BXR-002 was isolated in 1985 as part of the 244-BXR Vault isolation. The results for samples taken from the tank and sump in 1984 are available in WHC-SD-EN-ES-040, Rev 0. The sump may contain ferrocyanide discharged from the 241-BXR-151 diversion box.

SubSite Code: 244-BXR VAULT:

SubSite Name: 244-BXR VAULT:3, 244-BXR-003, 244-BXR-003 Tank and Sump

Classification: Accepted

ReClassification:

Description: Tank 244-BXR-003 is located in an individual cell inside of the 244-BXR Vault. The concrete cell contains a sump with a capacity of 170 liters (45 gallons). Each cell within the vault is separated from the adjacent cell by a 0.6 meter (2 foot) thick concrete wall. The tank is constructed of 0.64 centimeter (1/4 inch) Type 347 stainless steel and is 4.3 meters (14 feet) in diameter, 3.7 meters (12 feet) tall, and has a nominal capacity of 56,800 liters (15,000 gallons). The tank contains in-tank cooling coils.

When in service, Tank 244-BXR-002 and Tank 244-BXR-003 were configured and used identically. The tanks were used as a pair in waste blending operations. Under normal conditions a slurry stream was brought in from tank 244-BXR-001 and mixed with nitric acid. Tank 244-BXR-003 received a maximum of 53,860 liters (14,230 gallons) per day from tank 244-BXR-001 and a maximum of 29,500 liters (7,800 gallons) per day of nitric acid. The blended solution was then pumped to Tank 244-BXR-011. Tank 244-BXR-003 was isolated in 1985 as part of the 244-BXR Vault isolation. The results for samples taken from the tank and sump in 1984 are available in WHC-SD-EN-ES-040, Rev 0.

SubSite Code: 244-BXR VAULT:

SubSite Name: 244-BXR VAULT:4, 244-BXR-011, 244-BXR-011 Tank and Sump

Classification: Accepted

ReClassification:

Description: Tank 244-BXR-011 is located in an individual cell inside of the 244-BXR Vault. The cell contains a sump with a capacity of 170 liters (45 gallons). Each cell within the vault is separated from the adjacent cell by a 0.6 meter (2 foot) thick concrete wall. The tank is constructed of 0.64 centimeter (1/4 inch) Type 347 stainless steel and is 6.1 meters (20 feet) in diameter, 6.1 meters (20 feet) tall, and has a nominal capacity of 189,000 liters (50,000 gallons).

When in service, the tank was used as a pump tank for the Uranium Recovery operations. It received approximately 103,000 liters (27,200 gallons) per day of acid solutions from Tanks 244-BXR-002 and 244-BXR-003. The solutions were pumped from 244-BXR-011 to the 241-ER-151 diverter station and from there to U Plant for uranium recovery. Tank 244-BXR-011 was isolated in 1985 as part of the 244-BXR Vault isolation. The results for a tank solids analysis performed in 1978 are available in WHC-SD-EN-ES-040, Rev. 0.

Literature indicates that the wall of the Tank 244-BXR-011 is buckled. Occurrence report 79-70 describes the condition of the tank. The tank failure was due to an overpressure condition on the exterior of the tank from a higher than allowed liquid level in the cell.

Site Code: 241-BY-101

Classification: Accepted

Site Names: 241-BY-101, 241-BY-TK-101

ReClassification:

Site Type: Single-Shell Tank

Start Date: 1950

Site Status: Inactive

End Date: 1971

Site Description: The unit is comprised of a carbon steel liner within a reinforced concrete shell, 11.3 meters (37 feet) high, with a capacity of 2,869,030 liters (758,000 gallons). The bottom of the unit is 13.7 meters (45 feet) below grade, and the dome is located below grade for shielding purposes. This

type was built to the original design, having a dished bottom but with an increased operating depth of 7 meters (23 feet).

Waste Type: Storage Tank

Waste Description: The tank received bismuth phosphate metal waste and supernatant containing tributyl phosphate waste and evaporator bottoms from 241-BY and -C tank farms. Presently, the waste material is classified as non-complexed and has a total waste volume of 1,465,182 liters (387,000 gallons). Saltcake comprises 1,052,230 liters (278,000 gallons), sludge comprises 412,565 liters (109,000 gallons), and no supernatant. There is no pumpable liquid remaining and 18,925 liters (5,000 gallons) drainable liquid remaining.
Reported Date: April 30, 1996

Site Code: 241-BY-102 **Classification:** Accepted

Site Names: 241-BY-102, 241-BY-TK-102 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1950

Site Status: Inactive **End Date:** 1977

Site Description: The unit is comprised of a carbon steel liner within a reinforced concrete shell, 11.3 meters (37 feet) high, with a capacity of 2,869,030 liters (758,000 gallons). The bottom of the unit is 13.7 meters (45 feet) below grade, and the dome is located below grade for shielding purposes. This type was built to the original design, having a dished bottom but with an increased operating depth of 7 meters (23 feet).

Waste Type: Storage Tank

Waste Description: The tank received bismuth phosphate metal waste and supernatant containing tributyl phosphate waste, coating waste; and evaporator bottoms from 241-C, -BX, and -BY tanks. Presently, the waste material is classified as non-complexed and has a total waste volume of 277,000 gallons (1,048,445 L). Saltcake comprises the 1,048,445 liters (277,000 gallons) with no sludge or pumpable liquid remaining. There is 41,635 liters (11,000 gallons) of drainable liquid remaining.
Reported Date: April 30, 1996

Site Code: 241-BY-103 **Classification:** Accepted

Site Names: 241-BY-103, 241-BY-TK-103 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1950

Site Status: Inactive **End Date:** 1973

Site Description: The unit is comprised of a carbon steel liner within a reinforced concrete shell, 11.3 meters (37 feet) high, with a capacity of 2,869,030 liters (758,000 gallons). The bottom of the unit is 13.8 meters (45.3 feet) below grade, and the dome is located below grade for shielding purposes. This type was built to the original design, having a dished bottom but with an increased operating depth of 7 meters (23 feet).

Waste Type: Storage Tank

Waste Description: Bismuth phosphate metal waste; PUREX coating waste; and supernatant containing evaporator bottoms, cladding waste, tributyl phosphate waste, and PUREX high-level and organic wash

wastes from 241-BX, -BY, -C, and -B tanks. Currently contains non-complexed waste with a total waste volume of 1,514,000 liters (400,000 gallons). Saltcake comprises 1,480,200 liters (391,000 gallons), sludge comprises 34,065 liters (9,000 gallons), and no supernatant. Pumpable liquid remaining is 518,545 liters (137,000 gallons).
Reported Date: April 30, 1996

Site Code:	241-BY-104	Classification:	Accepted
Site Names:	241-BY-104, 241-BY-TK-104	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1950
Site Status:	Inactive	End Date:	1977
Site Description:	The unit is a single-shell tank built in 1948. It is comprised of a carbon steel liner within a reinforced concrete shell, 11.3 meters (37 feet) high, with a capacity of 2,869,030 liters (758,000 gallons). The bottom of the unit is 13.7 meters (45 feet) below grade, and the dome is located below grade for shielding purposes. This type was built to the original design, having a dished bottom but with an increased operating depth of 7 meters (23 feet).		
Waste Type:	Storage Tank		
Waste Description:	Bismuth phosphate metal waste; tributyl phosphate waste; and supernatant containing coating waste, tributyl phosphate waste, ion exchange waste, and evaporator bottoms from 241-BY, -BX, and -C tanks. Tank BY-104 contains metal waste from BX tank farms (1951-4). Received accumulated sludge from other ferrocyanide settling tanks. Coating waste, ion exchange waste, and evaporator bottoms waste was sent to the tank through 1977. Currently contains non-complexed waste with a total waste volume of 1,385,310 liters (406,000 gallons), sludge comprises 151,400 liters (40,000 gallons), and no supernatant. There is no pumpable liquid remaining and 68,130 liters (18,000 gallons) drainable liquid remaining. This is an ITS-2 unit. Reported Date: April 30, 1996		

Site Code:	241-BY-105	Classification:	Accepted
Site Names:	241-BY-105, 241-BY-TK-105	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1951
Site Status:	Inactive	End Date:	1974
Site Description:	The unit is a single-shell tank built in 1948-1949. It is comprised of a carbon steel liner within a reinforced concrete shell, 11.3 meters (37 feet) high, with a capacity of 2,869,030 liters (758,000 gallons). The bottom of the unit is 13.7 meters (45 feet) below grade, and the dome is located below grade for shielding purposes. This type was built to the original design, having a dished bottom but with an increased operating depth of 7 meters (23 feet).		
Waste Type:	Storage Tank		
Waste Description:	Tank BY-105 received metal waste via cascade (1951), U Plant waste from tanks 241-BY-107 and 241-BY-110 (1954) and U Plant waste intermittently until 1966. The tank received wastewater (1957-1974), coating waste (1962-1967), and was an in-tank solidification bottoms receiver (1967). The tank contained evaporator bottoms waste from the in-tank solidification program (1968-1974). Sixty-three tons of Portland cement was added in 1977. Presently, the waste material is classified as non-complexed and has a total waste volume of 1,903,855 liters (503,000 gallons). Saltcake comprised 1,737,315 liters (459,000 gallons), sludge comprises		

166,540 liters (44,000 gallons), and no supernatant. There is no pumpable liquid remaining and 726,720 liters (192,000 gallons) drainable liquid remaining.

Reported Date: April 1996

Site Code:	241-BY-106	Classification:	Accepted
Site Names:	241-BY-106, 241-BY-TK-106	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1953
Site Status:	Inactive	End Date:	1977

Site Description: The unit is a single-shell tank built in 1948 which is comprised of a carbon steel liner within a reinforced concrete shell, 11.3 meters (37 feet) high, with a capacity of 2,869,030 liters (758,000 gallons). The bottom of the unit is 13.7 m (45 feet) below grade, and the dome is located below grade for shielding purposes. This type was built to the original design, having a dished bottom but with an increased operating depth of 7 meters (23 feet).

Waste Type: Storage Tank

Waste Description: Bismuth phosphate first-cycle waste (1953), in-plant ferrocyanide waste from 1955-7, wastewater (1957-1974), and supernatant containing coating waste (1961-1970). In 1968 the tank began to receive evaporator bottoms from 241-BY and -C tank farms waste. The tank received in-tank solidification bottoms and recycle waste between 1970 and 1976 and evaporator feed from 1976-7. The tank also received tributyl phosphate waste. Presently, the waste material is classified as non-complexed and has a total waste volume of 2,429,970 liters (642,000 gallons). Saltcake comprises 2,070,395 liters (547,000 gallons), sludge comprises 359,575 liters (95,000 gallons), and no supernatant. There is 616,955 liters (163,000 gallons) pumpable liquid remaining and 757,000 liters (200,000 gallons) drainable liquid remaining. This is an ITS-2 unit.
Reported Date: April 30, 1996

Site Code:	241-BY-107	Classification:	Accepted
Site Names:	241-BY-107, 241-BY-TK-107	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1950
Site Status:	Inactive	End Date:	1974

Site Description: The unit is comprised of a carbon steel liner within a reinforced concrete shell, 11.3 meters (37 feet) high, with a capacity of 2,869,030 liters (758,000 gallons). The bottom of the unit is 45 feet below grade, and the dome is located below grade for shielding purposes. This type was built to the original design, having a dished bottom but with an increased operating depth of 7 meters (23 feet).

Waste Type: Storage Tank

Waste Description: The tank received tributyl phosphate waste; bismuth phosphate first-cycle waste; and supernatant containing tributyl phosphate waste, coating waste, and evaporator bottoms from 241-C, -BX, and -T (BY) tank farms. Presently, the waste material is classified as non-complexed and has a total waste volume of 1,006,810 liters (266,000 gallons). Saltcake comprises 779,710 liters (206,000 gallons), sludge comprises 227,100 liters (60,000 gallons), there is 94,625 liters (25,000 gallons) of drainable liquid and no pumpable liquid remaining. This is an ITS-2 unit.

Reported Date: April 30, 1996

Site Code:	241-BY-108	Classification:	Accepted
Site Names:	241-BY-108, 241-BY-TK-108	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1951
Site Status:	Inactive	End Date:	1972

Site Description: The unit is a single-shell tank built in 1948. It is comprised of a carbon steel liner within a reinforced concrete shell, 11.3 meters (37 feet) high, with a capacity of 2,869,030 liters (758,000 gallons). The bottom of the unit is 13.7 meters (45 feet) below grade, and the dome is located below grade for shielding purposes. This tank type was built to the original design, having a dished bottom but with an increased operating depth of 7 meters (23 feet).

Waste Type: Storage Tank

Waste Description: Initially tank BY-108 received first cycle waste from the tank 241-BY-107 cascade from 1951-1953. The tank received U Plant waste from 1953-1959. The tank received in-plant ferrocyanide waste from 1954-1957. The tank contained U Plant waste and coating waste from 1959-1968. The tank received evaporator bottoms waste from 1968 to 1973. From 1972-1975, the tank received wastewater. Presently, the waste material is classified as non-complexed and has a total waste volume of 862,980 liters (228,000 gallons). Saltcake comprises 280,090 liters (74,000 gallons), sludge comprises 582,890 liters (154,000 gallons), and no supernatant. There is no pumpable liquid remaining and 34,065 liters (9,000 gallons) drainable liquid remaining. This is an ITS-2 unit.
Reported Date: April 30, 1996

Site Code:	241-BY-109	Classification:	Accepted
Site Names:	241-BY-109, 241-BY-TK-109	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1953
Site Status:	Inactive	End Date:	1979

Site Description: The unit is comprised of a carbon steel liner within a reinforced concrete shell, 11.3 meters (37 feet) high, with a capacity of 2,869,030 liters (758,000 gallons). The bottom of the unit is 13.7 meters (45 feet) below grade, and the dome is located below grade for shielding purposes. This type was built to the original design, having a dished bottom but with an increased operating depth of 7 meters (23 feet). It is surrounded by a safety fence within the tank farm

Waste Type: Storage Tank

Waste Description: The tank received supernatant containing tributyl phosphate waste; evaporator bottoms; and PUREX organic wash waste from 241-B, -BX, -BY, and -C tank farms. Presently, the waste material is classified as non-complexed and has a total waste volume of 1,601,055 liters (423,000 gallons). Saltcake comprises 1,286,900 liters (340,000 gallons) and sludge comprises 314,155 liters (83,000 gallons). There is 105,980 liters (28,000 gallons) of drainable and 15,140 liters (4,000 gallons) of pumpable liquid remaining.
Reported Date: April 30, 1996

Site Code:	241-BY-110	Classification:	Accepted
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Site Names: 241-BY-110, 241-BY-TK-110 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1951

Site Status: Inactive **End Date:** 1977

Site Description: The unit is a single-shell tank built in 1948. The unit is comprised of carbon steel liner within a reinforced concrete shell, 11.3 meters (37 feet) high, with a capacity of 2,869,030 liters (758,000 gallons). The bottom of the unit is 13.7 meters (45 feet) below grade, and the dome is located below grade for shielding purposes. This type was built to the original design, having a dished bottom but with an increased operating depth of 7 meters (23 feet).

Waste Type: Storage Tank

Waste Description: Initially tank 241-BY-110 received first cycle waste in 1951. The tank received decontamination waste in 1952. The tank contained first cycle supernatant until 1954 when it was pumped to a ditch. The tank received in-plant ferrocyanide waste from 1954-1947. The tank contained U Plant uranium recovery process waste and coating waste from 1957-1958. The tank also received wastewater in 1957. The tank contained coating waste in 1968-1969. From 1969-1976, the tank was used for storage of evaporator bottoms waste. The tank contained concentrated evaporator feed bottoms waste from 1976-1967. Presently, the waste material is classified as non-complexed and has a total waste volume of 1,506,430 liters (398,000 gallons). Saltcake comprises 1,116,575 liters (295,000 gallons), sludge comprises 398,000 liters (103,000 gallons), and no supernatant. There is no pumpable liquid remaining and 34,065 liters (9,000 gallons) drainable liquid remaining.
Reported Date: April 30, 1996

Site Code: 241-BY-111 **Classification:** Accepted

Site Names: 241-BY-111, 241-BY-TK-111 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1977

Site Description: The unit is comprised of a carbon steel liner within a reinforced concrete shell, 11.3 meters (37 feet) high, with a capacity of 2,869,030 liters (758,000 gallons). The bottom of the unit is 13.7 meters (45 feet) below grade, and the dome is located below grade for shielding purposes. This type was built to the original design, having a dished bottom but with an increased operating depth of 7 meters (23 feet).

Waste Type: Storage Tank

Waste Description: The tank received bismuth phosphate metal waste; tributyl phosphate; PUREX coating waste; organic wash waste; and supernatant containing evaporator bottoms, tributyl phosphate waste, and organic wash waste from 241-BY and -C tanks. Presently, the waste material is classified as non-complexed and has a total waste volume of 1,737,315 liters (459,000 gallons). Saltcake comprises 1,657,830 liters (438,000 gallons), sludge comprises 79,485 liters (21,000 gallons), there is no drainable liquid or pumpable liquid remaining. Net total of liquids pumped from this tank is 1,185,462 liters (313,200 gallons).
Reported Date: April 30, 1996

Site Code: 241-BY-112 **Classification:** Accepted

Site Names: 241-BY-112, 241-BY-TK-112 **ReClassification:**

cement structures. Their cover blocks and lifting bails are visible from the surface.

Waste Type: Process Effluent

Waste Description: This unit was used for the transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-BYR-153 **Classification:** Accepted

Site Names: 241-BYR-153, 241-BYR-153 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1950

Site Status: Inactive **End Date:** 1984

Site Description: The diversion boxes are underground concrete structures. Their cover blocks and lifting bails are visible from the surface. The 241-BYR-153 Diversion box is co-located with the 241-BXR-153 Diversion Box. 241-BYR-153 is on the west side of the 241-BXR-153 Diversion Box.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-BYR-154 **Classification:** Accepted

Site Names: 241-BYR-154, 241-BYR-154 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1950

Site Status: Inactive **End Date:** 1984

Site Description: The diversion box is an underground concrete structure. Its cover blocks and lifting bails are visible from the surface.

Waste Type: Process Effluent

Waste Description: This unit was used for the transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 200-E-59 **Classification:** Accepted

Site Names: 200-E-59, 241-BY-ITS2-TK-1, 241-BY-ITS2 Condenser Vessel, ITS-2, IMUST **ReClassification:**

Site Type: Storage Tank **Start Date:** 1968

Site Status: Inactive **End Date:** 1977

Site Description: The above ground components have been removed. This tank was abandoned in place. The tank is surrounded with a metal fence with IMUST signs.

Waste Type: Equipment

Waste Description: The abandoned tank is considered to be the waste. The current contents of the tank is not known.

Site Code: 200-E-60 **Classification:** Accepted

Site Names: 200-E-60, 241-BY-ITS2-TK-2, 241-BY-ITS2 Heater Flush Tank, ITS-2, IMUST, Inactive Miscellaneous Underground Storage Tank **ReClassification:**

Site Type: Storage Tank **Start Date:** 1968

Site Status: Inactive **End Date:** 1977

Site Description: The above ground components have been removed and the tank was abandoned in place. The tank is surrounded with a metal fence with IMUST signs.

Waste Type: Storage Tank

Waste Description: The chemical and radiological contents are not known, but the composition of any residual material is expected to consist of the same material in the heated waste tank.

Site Code: 200-E-120 **Classification:** Accepted

Site Names: 200-E-120, Contaminated Soil at 241-B Tank Farm, Contamination Migration Beyond the 241-B fence **ReClassification:**

Site Type: Contamination Migration **Start Date:** 1944

Site Status: Inactive **End Date:** 1999

Site Description: The site is the soil inside and adjacent to the chain link fence that surrounds the 241-B Tank Farm. Various radiological postings and warning signs are attached to the chain link fence. The interior of the tank farm complex is covered with gravel. Many risers and monitoring devices for the underground structures are visible on the surface. The individual unplanned releases associated with the 241-B Tank Farm are not separately marked or posted. Occasionally, radioactive contamination is found adjacent to the outside of the tank farm fence, resulting in a contamination zone extension around the tank farm perimeter. These areas will also be considered tank farm soil. A posted Contamination Area, marked with steel posts and chain, currently extends east and south outside the 241-B Tank Farm fence. The posted area size and shape varies with additional radiological surveys.

Waste Type: Soil

Waste Description: Liquid releases occurred from underground leaks in tanks and transfer lines. Airborne contamination spreads occurred from activities conducted in valve pits and diversion boxes. Both types of releases contributed to the contamination in the soil.

The Following Sites Were Consolidated With This Site:

Site Code: UPR-200-E-4

Site Names: UPR-200-E-4, 241-B-151 Diversion Box Contamination Spread, UN-200-E-4
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-6
Site Names: UPR-200-E-6, UN-200-E-6, Contamination Around the 241-B-153 Diversion Box
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-38
Site Names: UPR-200-E-38, Release from 241-B-152, UN-200-E-38, UN-216-E-4
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-73
Site Names: UPR-200-E-73, UN-216-E-1, 241-B-151 Diversion Box Contamination, UN-200-E-73
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-74
Site Names: UPR-200-E-74, UN-216-E-2, 241-B-152 Diversion Box Contamination, UN-200-E-74
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-75
Site Names: UPR-200-E-75, UN-216-E-3, 241-B-153 Diversion Box Contamination, UN-200-E-75
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-76
Site Names: UPR-200-E-76, UN-216-E-4, 241-B-152 Pipeline Break, UN-200-E-76
Reason: Duplicate Site

Site Code: UPR-200-E-108
Site Names: UPR-200-E-108, 241-B-102 Tank Release, UN-200-E-108
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-109
Site Names: UPR-200-E-109, Release from 241-B-104, UN-200-E-109
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-127
Site Names: UPR-200-E-127, 241-B-107 Leak, UN-200-E-127
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-128
Site Names: UPR-200-E-128, 241-B-110 Leak, UN-200-E-128

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-129

Site Names: UPR-200-E-129, 241-B-201 Leak, UN-200-E-129

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-130

Site Names: UPR-200-E-130, UN-200-E-130, 241-B-203 Leak

Reason: Within Boundary Of Larger Site

Site Code: 200-E-132 **Classification:** Accepted

Site Names: 200-E-132, 241-BX/BY Tank Farm **ReClassification:**
Contaminated Soil, Contamination
Migration Beyond the 241-BX/BY fence

Site Type: Contamination Migration **Start Date:** 1948

Site Status: Inactive **End Date:**

Site Description: The site is the soil inside and adjacent to the chain link fence that surrounds the 241-BX/BY Tank Farms. Various radiological postings and warning signs are attached to the chain link fence. The interior of the tank farm complex is covered with gravel. Many risers and monitoring devices for the underground structures are visible on the surface. The individual unplanned releases associated with the 241-BX/BY Tank Farms are not separately marked or posted. Occasionally, radioactive contamination is found adjacent to the outside of the tank farm fence, resulting in a contamination zone extension around the tank farm perimeter. These areas will also be considered tank farm soil. A steep slope is located adjacent to the north and northeast sides of the 241-BY Tank Farm. The contaminated slope has been stabilized with cobble and gravel. The slope is considered part of the tank farm perimeter.

Waste Type: Process Effluent

Waste Description: Liquid releases occurred from underground leaks in tanks and transfer lines. Airborne contamination spreads occurred from activities conducted in valve pits and diversion boxes. Both types of releases contributed to the contamination in the soil.

The Following Sites Were Consolidated With This Site:

Site Code: UPR-200-E-5

Site Names: UPR-200-E-5, UN-200-E-5, 241-BX-102 Tank Overflow

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-105

Site Names: UPR-200-E-105, UN-200-E-105, Liquid Release in the 241-BY Tank Farm

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-110

Site Names: UPR-200-E-110, 241-BY Valve Pit Release, UN-200-E-110

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-116

Site Names: UPR-200-E-116, UN-200-E-116, 241-BY-112 Flush Release

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-131

Site Names: UPR-200-E-131, UN-200-E-131, 241-BX-102 Release

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-132

Site Names: UPR-200-E-132, UN-200-E-132, 241-BX-102 Tank Leak

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-133

Site Names: UPR-200-E-133, UN-200-E-133, 241-BX-108 Leak

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-134

Site Names: UPR-200-E-134, UN-200-E-134, 241-BY-103 Tank Leak

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-135

Site Names: UPR-200-E-135, UN-200-E-135, 241-BY-108 Tank Leak

Reason: Within Boundary Of Larger Site

Site Code:	200-E-197-PL	Classification:	Accepted
Site Names:	200-E-197-PL; Encased Pipelines Between 241-BR-152 Diversion Box and 241-B Tank Farm; Lines 9002, 9006, 9010, 9014, 9017, 9020, 9031, 9032, 9035, 9037, 9038, 9041, 9044, and 9047	ReClassification:	
Site Type:	Encased Tank Farm Pipeline	Start Date:	
Site Status:	Inactive	End Date:	
Site Description:	The waste site is an underground concrete transfer line encasement. Fourteen 10 centimeter (6 inch) diameter, carbon steel lines are located within the same concrete encasement. They are placed with seven lines on the bottom of the encasement and seven lines above those lines within the concrete encasement.		

Site Code:	200-E-208-PL	Classification:	Accepted
Site Names:	200-E-208-PL, Lines V304 and V305 from 241-BY Tank Farm to 241-B-252	ReClassification:	

Site Type: Diversion Box
Site Type: Direct Buried Tank Farm Pipeline **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The waste site is two underground, 10 centimeter (4 inch) diameter, carbon steel lines buried in the same soil trench.

Site Code: 200-E-216-PL **Classification:** Accepted
Site Names: 200-E-216-PL; Transfer Lines Between 241-BX-153, 241-B-151 and 241-B-152 Diversion Boxes; Lines V235, V236, V237, V242, C251, V252, and V253 (See Subsites) **ReClassification:**
Site Type: Direct Buried Tank Farm Pipeline **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The waste site is seven stainless steel lines that are buried in the same soil trench. All of the lines are 9 centimeter (3.5 inch) diameter lines.

SubSites:

SubSite Code: 200-E-216-PL:1
SubSite Name: 200-E-216-PL:1; All seven lines; V235, V23, V237, V251, V252, V253 and V242
Classification: Accepted
ReClassification:
Description: Subsite 1 is the portion of the group of lines exiting the 241-BX Tank Farm where all seven lines are in the same soil trench.

SubSite Code: 200-E-216-PL:2
SubSite Name: 200-E-216-PL:2; Northern Portion of Soil Trench Containing Lines V235, V236 and V237
Classification: Accepted
ReClassification:
Description: Subsite 2 is the northern portion of the split soil trench containing lines V235, V236 and V237 that connects to the 241-B-151 Diversion Box.

SubSite Code: 200-E-216-PL:3
SubSite Name: 200-E-216-PL:3; Southern Portion of Soil Trench Containing Lines V251, V252, V253 and V242
Classification: Accepted
ReClassification:
Description: Subsite 3 is the southern portion of the split soil trench containing lines V251, V252, V253 and V242 that connects to the 241-B-152 Diversion Box.

WMA C

Site Code: 216-C-8 **Classification:** Accepted

Site Names: 216-C-8, 271-CR Crib, 216-C-8 Crib, 216-C-8 French Drain **ReClassification:**

Site Type: French Drain **Start Date:** 1962

Site Status: Inactive **End Date:** 1965

Site Description: In June 2001, the crib location was no longer marked or posted. The area had been recently covered with gravel during road construction in the vicinity of 7th Street and Buffalo Ave. In 2006, a single post and sign marked the crib location.

Waste Type: Process Effluent

Waste Description: The site received the ion exchange waste from the 271-CR Building. The waste volume is unknown. The site contains less than 10 curies total beta.

Site Code: 241-C-101 **Classification:** Accepted

Site Names: 241-C-101, 241-C-TK-101 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1946

Site Status: Inactive **End Date:** 1970

Site Description: The tank is an underground, steel tank with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. The footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished-shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A steel liner lines the bottom and sidewall of the tank.

Waste Type: Storage Tank

Waste Description: This tank contains bismuth phosphate metal waste, tributyl phosphate waste, and PUREX coating waste. Document WHC-SD-WM-ER-349 references the most complete estimated inventory for this tank. Because this tank was the first tank in a cascading series, most of the solids precipitated out of the solutions into this tank.

Site Code: 241-C-102 **Classification:** Accepted

Site Names: 241-C-102, 241-C-TK-102 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1946

Site Status: Inactive **End Date:** 1976

Site Description: The tank is an underground steel tank with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. The footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished-shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A steel liner lines the bottom and sidewall of the tank.

Waste Type: Storage Tank

Waste Description: This tank received bismuth phosphate metal waste, tributyl phosphate waste, PUREX coating waste, high-level waste, PUREX organic wash waste, supernatant containing organic wash wastes and coating wastes from the 241-A, -AX, and -C Tanks.

Site Code: 241-C-103 **Classification:** Accepted
Site Names: 241-C-103, 241-C-TK-103 **ReClassification:**
Site Type: Single-Shell Tank **Start Date:** 1946
Site Status: Inactive **End Date:** 1979

Site Description: The tank is an underground steel tank with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. The footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished-shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A steel liner lines the bottom and sidewall of the tank.

Waste Type: Storage Tank

Waste Description: This tank has waste from the following process: PUREX coating waste, tributyl phosphate waste, coating waste, PUREX high-level waste, B Plant high-level waste, B Plant waste fractionization low-level waste, PUREX sludge supernatant, PUREX low-level waste, waste fractionization PUREX sludge, PUREX organic wash waste, laboratory waste, decontamination waste, REDOX ion exchange waste, REDOX high-level waste, noncomplexed waste, waste fractionization ion exchange waste, N Reactor waste, PNL waste, and evaporator bottoms from 241-A -B, -BX, and -C tank farms. This unit was used as the receiver for operating P-10 saltwell systems within the 241-C Tank Farm. An additional source of waste is PUREX and insoluble strontium-rich sluicing solids from the operation of 244-CR Vault.

Site Code: 241-C-103 VP **Classification:** Accepted
Site Names: 241-C-103 VP, 241-C Valve Pit, 241-C-103 Valve Pit **ReClassification:**
Site Type: Valve Pit **Start Date:** 1979
Site Status: Inactive **End Date:**

Site Description: The waste site is an underground corrugated metal structure.

Site Code: 241-C-104 **Classification:** Accepted
Site Names: 241-C-104, 241-C-TK-104 **ReClassification:**
Site Type: Single-Shell Tank **Start Date:** 1946
Site Status: Inactive **End Date:** 1980

Site Description: The underground tank is constructed with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. The footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished-shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A steel liner lines the bottom and sidewall of the tank.

Waste Type: Storage Tank

Waste Description: Waste is comprised of unknown waste, sludge, and pumpable liquid. This tank received bismuth phosphate metal waste starting in 1946, strontium-leached sluicing solids in 1977, and fissile material (including uranium-223) from PUREX thorium campaigns.

Site Code: 241-C-105 **Classification:** Accepted

Site Names: 241-C-105, 241-C-TK-105 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1946

Site Status: Inactive **End Date:** 1979

Site Description: The underground tank is constructed with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. The footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished-shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A steel liner lines the bottom and sidewall of the tank.

Waste Type: Storage Tank

Waste Description: This tank was used as a receiver tank for PUREX sludge supernate enroute to B Plant. It received bismuth phosphate metal waste from 1947 to 1953. The tank contains unknown waste, sludge, and pumpable liquid.

Site Code: 241-C-106 **Classification:** Accepted

Site Names: 241-C-106, 241-C-TK-106 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1947

Site Status: Inactive **End Date:** 1979

Site Description: The underground tank is constructed with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. This footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A partial spherical shell dome rests on the cylindrical wall. A steel liner lines the bottom and sidewall of the tank. The operating depth for this tank is 5.2 meters (17 feet).

Waste Type: Storage Tank

Waste Description: This tank received bismuth phosphate metal waste, and PUREX process fission product waste, which included large amounts of strontium. The tank was sluiced in 1952 -1955 for the uranium recovery project. The waste contains process supernate, unknown waste products, sludge, and pumpable liquid.

Site Code: 241-C-107 **Classification:** Accepted

Site Names: 241-C-107, 241-C-TK-107 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1946

Site Status: Inactive **End Date:** 1978

Site Description: The underground tank is constructed with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. This footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A partial spherical shell dome rests on the cylindrical wall. A steel liner lines the bottom and sidewall of the tank. The operating depth for this tank is 5.2 meters (17 feet).

Waste Type: Storage Tank

Waste Description: This tank received Bismuth Phosphate first cycle waste beginning in 1946. The tank received insoluble strontium leached, sluicing solids in 1977. This unit is a low-heat load, passively ventilated tank.

Site Code: 241-C-108 **Classification:** Accepted

Site Names: 241-C-108, 241-C-TK-108 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1947

Site Status: Inactive **End Date:** 1977

Site Description: The underground tank is constructed with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. This footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A partial spherical shell dome rests on the cylindrical wall. A steel liner lines the bottom and sidewall of the tank. The operating depth for this tank is 5.2 meters (17 feet).

Waste Type: Storage Tank

Waste Description: Tank 241-C-108 received cascade overflow from tank 241-C107 in 1947. This tank was also used as a primary settling tank for "In-Farm" scavenging for the Uranium Recovery process. This tank is on the ferrocyanide watch list. Waste is composed entirely of sludge, with no pumpable liquid.

Site Code: 241-C-109 **Classification:** Accepted

Site Names: 241-C-109, 241-C-TK-109 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1948

Site Status: Inactive **End Date:** 1978

Site Description: The underground tank is constructed with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. This footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A partial spherical shell dome rests on the cylindrical wall. A steel liner lines the bottom and sidewall of the tank. The operating depth for this tank is 5.2 meters (17 feet).

Waste Type: Storage Tank

Waste Description: Tank 241-C-109 was receiving cascade overflow (B Plant first-cycle waste and decontamination waste) from tank 241-C-108 in 1948. This tank was also used as a primary settling tank for "in farm" scavenging for the Uranium Recovery process. This tank is on the

ferrocyanide watch list. In 1994 the tank was described as containing unknown waste and sludge, with no saltcake or pumpable liquid remaining.

Site Code:	241-C-110	Classification:	Accepted
Site Names:	241-C-110, 241-C-TK-110	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1946
Site Status:	Inactive	End Date:	1976

Site Description: The underground tank was constructed with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. This footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A partial spherical shell dome rests on the cylindrical wall. A steel liner lines the bottom and sidewall of the tank. The operating depth for this tank is 5.2 meters (17 feet).

Waste Type: Storage Tank

Waste Description: Tank 241-C-110 is the first tank in the 241-C-110, 241-C-111, and 241-C-112 cascade line. This tank received bismuth phosphate first cycle waste and process decontamination waste from B Plant. Additionally, this tank was used as a primary settling tank for "In-Farm" scavenging for the Uranium Recovery process.

Site Code:	241-C-111	Classification:	Accepted
Site Names:	241-C-111, 241-C-TK-111	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1946
Site Status:	Inactive	End Date:	1978

Site Description: The underground tank is constructed with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. This footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A partial spherical shell dome rests on the cylindrical wall. A steel liner lines the bottom and sidewall of the tank. The operating depth for this tank is 5.2 meters (17 feet).

Waste Type: Storage Tank

Waste Description: Tank 241-C-111 is the second tank in the 241-C-110, -111, and -112 cascade line. This tank received bismuth phosphate first cycle waste and B Plant decontamination waste. Additionally, this tank was used as a primary settling tank for "In-Farm Scavenged Uranium". There is no pumpable liquid remaining in the tank.

Site Code:	241-C-112	Classification:	Accepted
Site Names:	241-C-112, 241-C-TK-112	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1946
Site Status:	Inactive	End Date:	1976

Site Description: The underground tank is constructed with a cylindrical reinforced-concrete wall that rests on a reinforced-concrete cylindrical footing. This footing gradually tapers to a reinforced-concrete basemat foundation. The basemat foundation is dished shaped and lined with a layer of grout and a layer of asphaltic waterproofing membrane. A partial spherical shell dome rests on the cylindrical wall. A steel liner lines the bottom and sidewall of the tank. The operating depth for this tank is 5.2 meters (17 feet).

Waste Type: Storage Tank

Waste Description: Tank 241-C-112 is the third tank in the 241-C-110, 241-C-111, and 241-C-112 cascade lie. This tank received bismuth phosphate first cycle waste and process decontamination waste from B Plant. Additionally, this tank was used as a primary settling tank for "In-Farm" scavenging for the Uranium Recovery process.

Site Code: 241-C-151 **Classification:** Accepted

Site Names: 241-C-151, 241-C-151 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1946

Site Status: Inactive **End Date:** 1985

Site Description: The diversion box is an underground, reinforced concrete structure. Surface features include concrete coverblocks with lifting bails.

Waste Type: Process Effluent

Waste Description: This unit was used to transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operations. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box. Radiological contamination is estimated to be high in alpha, beta, and gamma.

Waste Type: Chemicals

Waste Description: This unit was used to transfer waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operations. Chemical residues may be present. Radiological contamination is estimated to be high in alpha, beta, and gamma.

Site Code: 241-C-152 **Classification:** Accepted

Site Names: 241-C-152, 241-C-152 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1946

Site Status: Inactive **End Date:** 1985

Site Description: This diversion box is a reinforced concrete structure.

Waste Type: Process Effluent

Waste Description: This unit was used to transfer waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operations. Radiological contamination is estimated to be extremely high.

Waste Description: Tank 241-C-202 began to operate in 1947 by receiving metal waste. Tanks 241-C-201, -202, -203, and -204 were used to settle waste while supernatant was sent to a crib. This tank was sluiced for uranium recovery. No pumpable liquid remains in the tank. Metal waste in the tank was removed in 1954 and the tank received waste from hot semi-works in 1955 and 1956. Most of the hot semi-works waste was removed in 1970. Waste retrieval completed in August 2005 with the retrieval of 1,032 gallons of waste, resulting in an ending volume in the tank of 147 gallons. Retrieval was accomplished using a vacuum retrieval system. Waste was transported to 241-AN-106 through a hose-in-hose transfer line.

Site Code: 241-C-203 **Classification:** Accepted

Site Names: 241-C-203, 241-C-TK-203 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1947

Site Status: Inactive **End Date:** 1976

Site Description: The site is a vertically configured, underground reinforced-concrete tank, with a slab roof. It is lined with steel. The tank rests on a footing which is integral to the tank base.

Waste Type: Storage Tank

Waste Description: Tank 241-C-203 began to operate in 1947 by receiving metal waste. In 1986, a cracked sludge surface was observed with no visible liquids. Approximately 9504 liters (2501 gallons) of waste was removed from this tank and transferred to double shell tank 241-AN-106 in 2004.

Site Code: 241-C-204 **Classification:** Accepted

Site Names: 241-C-204, 241-C-TK-204 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1948

Site Status: Inactive **End Date:** 1977

Site Description: The tank is a vertically configured, reinforced-concrete cylinder, with a slab roof. The tank is lined with steel. The tank rests on a footing which is integral to the tank base.

Waste Type: Storage Tank

Waste Description: Tank 241-C-204 began to operate in 1948 by receiving metal waste. Tanks 241-C-201, -202, -203, and -204 were used to settle waste while supernatant was sent to a crib. This tank was sluiced for uranium recovery. No pumpable liquid remains in the tank.

Site Code: 241-C-252 **Classification:** Accepted

Site Names: 241-C-252, 241-C-252 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1946

Site Status: Inactive **End Date:** 1985

Site Description: The diversion box is an underground, reinforced concrete structure. Surface features include concrete cover blocks and lifting bails.

Waste Type: Equipment

Waste Description: It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Waste Type: Process Effluent

Waste Description: This unit was used to transfer waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operations. Radiological contamination is expected to be high in alpha, beta, and gamma. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-C-301 **Classification:** Accepted

Site Names: 241-C-301, 241-C-301-C Catch Tank, 241-C-301C, IMUST, Inactive Miscellaneous Underground Storage Tank, Lines V114 and V155 **ReClassification:**

Site Type: Catch Tank **Start Date:** 1946

Site Status: Inactive **End Date:** 1985

Site Description: The 241-C-301 Catch tank is an underground tank. It is surrounded with post and chain and marked with Inactive Miscellaneous Underground Storage Tank (IMUST) signs.

Waste Type: Storage Tank

Waste Description: The 241-C-151, 241-C-152, 241-C-153 and 241-C-252 diversion boxes drained waste solutions from leaks or spills that occurred during waste transfer operations. The wastes received in the catch tank include waste from B Plant, PUREX and Hot Semiworks operations. In 1994, the tank contained 5586 liters (1470 gallons) of liquid supernate and 34,260 liters (9016 gallons) of sludge. The tank may also have received ferrocyanide waste.

Site Code: 241-C-801 **Classification:** Accepted

Site Names: 241-C-801, 241-C-801 Cesium Loadout Facility **ReClassification:**

Site Type: Process Unit/Plant **Start Date:** 1962

Site Status: Inactive **End Date:** 1976

Site Description: The site is a single story building located inside the 241-C Tank Farm. The upper portion of the building is constructed of prefabricated metal. The bottom 2.9 meters (9.5 feet) of the building is constructed of concrete walls and foundations, approximately 0.3 meters (1 foot) thick. This part of the structure is covered with earth. The main building sections include the loadout room, which is 9.8 by 4.3 by 6.1 meters (32 by 14 by 20 feet). The operating room, which is 4.3 by 3.7 by 6.1 meters (14 by 12 by 20 feet). A valve pit, measuring 2.4 by 2.1 by 2.4 meters (8 by 7 by 8 feet) is located in the southwest portion of the building. A rollup door that allowed truck access to the High Bay portion of the building. The High Bay occupies approximately half of the building and has a 5 ton capacity crane bridge. There are two dry wells associated with this building. One drywell is located inside the tank farm fence, near the north wall of 801-C. The other dry well is located approximately 23 meters (75 feet) north of the 801-C building, outside the tank farm fence.

Waste Type: Process Effluent

Waste Description: The unit is a radioactively contaminated structure. Contamination levels are estimated at 30 curies beta. There may be residual chemicals and radioactive material in processing equipment and piping. There are no storage tanks inside this building. The drywell located north of the building, outside the fence, is posted with Contamination Area signs.

Site Code: 241-CR-151 **Classification:** Accepted

Site Names: 241-CR-151, 241-CR-151 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1946

Site Status: Inactive **End Date:**

Site Description: The diversion box is an underground, reinforced concrete structure. Surface features include concrete cover blocks and lifting bails.

Waste Type: Equipment

Waste Description: It was estimated that approximately 50 pounds (23 kilograms) of waste lead was stored in this unit.

Waste Type: Chemicals

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

Site Code: 241-CR-152 **Classification:** Accepted

Site Names: 241-CR-152, 241-CR-152 Diversion Box, Line 8253 **ReClassification:**

Site Type: Diversion Box **Start Date:** 1946

Site Status: Inactive **End Date:** 1985

Site Description: The diversion box is an underground, reinforced concrete structure. Surface features include concrete cover blocks and lifting bails.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

Waste Type: Equipment

Waste Description: It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-CR-153 **Classification:** Accepted

Site Names: 241-CR-153, 241-CR-153 Diversion Box, Line 8307 **ReClassification:**

Site Type: Diversion Box **Start Date:** 1946

Site Status: Inactive **End Date:** 1985

Site Description: The diversion box is an underground, reinforced concrete structure. Surface features include concrete cover blocks and lifting bails.

Waste Type: Chemicals

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

Waste Type: Equipment

Waste Description: It was estimated that approximately 50 pounds (23 kilograms) of waste lead was stored in this unit.

Site Code: 244-CR VAULT **Classification:** Accepted

Site Names: 244-CR VAULT, 244-CR Vault, Line 8765 **ReClassification:**
(See Subsites)

Site Type: Receiving Vault **Start Date:** 1946

Site Status: Inactive **End Date:** 1988

Site Description: This vault is an underground, reinforced concrete structure. It is a two-level, multi-cell structure (cells 1, 2, 3 and 11). The lower cell contains the process vessels. Upper cells contain piping and equipment. The structure is constructed with concrete cover blocks which, when removed, allow access to the upper cells. The lower cells contain four process vessels: TK-CR-001, TK-CR-011, TK-CR-002, and TK-CR-003 (see subsites).

Waste Type: Storage Tank

Waste Description: The unit contained the following wastes: metal waste, first cycle waste, B Plant decontamination waste, PUREX fission product waste, uranium recovery sluicing waste, coating waste, radioactive condensates, sink wastes, REDOX spent solvent waste, other REDOX waste, PUREX organic wash waste, PUREX acid process waste, PUREX spent solvent waste, strontium recovery waste, and critical mass laboratory waste.

SubSites:

SubSite Code: 244-CR VAULT:1

SubSite Name: 244-CR VAULT:1, 244-CR-TK-001, 244-CR-001 Tank and Sump

Classification: Accepted

ReClassification:

Description: 244-CR-001 is a 189,250 liter (50,000 gallon) tank located in a 6.7 meter (22 foot) by 7.9 meter (26 foot) by 8.8 meter (29 foot) cell (cell 1) within the 244-CR Vault. The concrete cell has a 170 liter (45 gallon) capacity sump.

The 244-CR Vault and associated tanks and cells were used as the uranium sludge recovery and distribution vault for the 241-C Tank Farm. CR Vault was also used for the interim storage and transfer of waste from B-Plant, PUREX and Hot Semi-Works. Tank 244-CR-001 was the slurry accumulator, receiving waste from the C Farm tanks. The slurry was processed with nitric acid. In 2002, the tank was estimated to contain 7,570 liters (2,000

gallons) of waste solids from the Uranium Recovery Program. In 2005, the tank contained 5,197 liters (1,375 gallons) of liquid and sludge. Cell #1 contained 291 liters (77 gallons) of liquid.

SubSite Code: 244-CR VAULT:2

SubSite Name: 244-CR VAULT:2, 244-CR-TK-002, 244-CR-002 Tank and Sump

Classification: Accepted

ReClassification:

Description: 244-CR-001 is a 56,775 liter (15,000 gallon) tank located in a 4.9 meter (16 foot) by 6.0 meter (20 foot) by 5.79 meter (19 foot) cell (cell 2) within the 244-CR Vault. The concrete cell has a 170 liter (45 gallon) capacity sump.

The 244-CR Vault and associated tanks and cells were used as the uranium sludge recovery and distribution vault for the 241-C Tank Farm. CR Vault was also used for the interim storage and transfer of waste from B-Plant, PUREX and Hot Semi-Works. Tank 244-CR-002 was the blending tank, mixing waste from the 244-CR-001 with nitric acid. In 2002, the tank was estimated to contain 5,678 liters (1,500 gallons) of waste solids from the Uranium Recovery Program. In 2005, the tank contained 2,846 liters (753 gallons) of liquid and sludge. Cell 2 contained 5,579 liters (1,476 gallons) of liquid and sludge.

SubSite Code: 244-CR VAULT:3

SubSite Name: 244-CR VAULT:3, 244-CR-TK-003

Classification: Accepted

ReClassification:

Description: 244-CR-003 is a 56,775 liter (15,000 gallon) tank located in a 4.9 meter (16 foot) by 6.0 meter (20 foot) by 5.79 meter (19 foot) cell (cell 3) within the 244-CR Vault. The concrete cell has a 170 liter (45 gallon) capacity sump.

The 244-CR Vault and associated tanks and cells were used as the uranium sludge recovery and distribution vault for the 241-C Tank Farm. CR Vault was also used for the interim storage and transfer of waste from B-Plant, PUREX and Hot Semi-Works. Tank 244-CR-003 was a blending tank, mixing waste from the 244-CR-001 with nitric acid. In 2002, the tank was estimated to contain 15,973 liters (4,200 gallons) of saltwell waste with an unknown amount of solids. In 2005, the tank contained 8,112 liters (2,146 gallons) of liquid and sludge. Cell 3 contained 6,709 liters (1,775 gallons) of liquid and sludge. 244-CR-003 was the last active tank in the CR Vault. The tank had been available to be used for saltwell pumping of the C Tank Farm.

SubSite Code: 244-CR VAULT:4

SubSite Name: 244-CR VAULT:4, 244-CR-TK-011, 244-CR

Classification: Accepted

ReClassification:

Description: 244-CR-011 is a 189,250 liter (50,000 gallon) tank located in a 6.7 meter (22 foot) by 7.9 meter (26 foot) by 8.8 meter (29 foot) cell (cell 11) within the 244-CR Vault. The concrete cell has a 170 liter (45 gallon) capacity sump.

The 244-CR Vault and associated tanks and cells were used as the uranium sludge recovery and distribution vault for the 241-C Tank Farm. CR Vault was also used for the interim

storage and transfer of waste from B-Plant, PUREX and Hot Semi-Works. Initially, tank 244-CR-011 acted as a process pump tank for the transfer of processed waste from the CR Vault to the diversion station for transfer to the Uranium Recovery facility or other operations. In 2002, the tank was estimated to contain 132,475 liters (35,000 gallons) of supernate and rainwater. In 2005, 15,082 liters (3,990 gallons) of sludge was reported. No liquid volume was remaining in the tank. Cell 11 contained 27,639 liters (7,312 gallons) of liquid and sludge.

Site Code: 244-CR-WS-1 **Classification:** Accepted
Site Names: 244-CR-WS-1, 244-CR French Drain **ReClassification:**
Site Type: French Drain **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The unit is a french drain, It is covered and partially filled with gravel.
Waste Type: Water
Waste Description: This unit received condensate from the 291-CR Stack, the plenum chamber exhaust fans and the plenum inlet.

Site Code: 200-E-133 **Classification:** Accepted
Site Names: 200-E-133, Contaminated Soil at C Farm, Contaminated Soil at 241-C Tank Farm **ReClassification:**
Site Type: Unplanned Release **Start Date:** 1946
Site Status: Inactive **End Date:**
Site Description: The site is the soil inside and adjacent to the chain link fence that surrounds the 241-C Tank Farm. Various radiological postings and warning signs are attached to the chain link fence. The interior of the tank farm complex is covered with gravel. Many risers and monitoring devices for the underground structures are visible on the surface. The individual unplanned releases associated with the 241-C Tank Farms are not separately marked or posted. Occasionally, radioactive contamination is found adjacent to the outside of the tank farm fence, resulting in a contamination zone extension around the tank farm perimeter. These areas are also part of this site.
Waste Type: Process Effluent
Waste Description: Liquid releases occurred from underground leaks in tanks and transfer lines. Airborne contamination spreads occurred from activities conducted in valve pits and diversion boxes. Both types of releases contributed to the contamination in the soil.

The Following Sites Were Consolidated With This Site:

Site Code: UPR-200-E-16
Site Names: UPR-200-E-16, 241-C Overground Transfer Line Leak, UN-200-E-16
Reason: Within Boundary Of Larger Site
Site Code: UPR-200-E-27

Site Names: UPR-200-E-27, 244-CR Contamination Spread, UN-200-E-27
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-68
Site Names: UPR-200-E-68, Radioactive Contamination Spread, UN-216-E-68, UN-200-E-68
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-81
Site Names: UPR-200-E-81, UN-216-E-9, 241-CR-151 Line Break, UN-200-E-81
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-82
Site Names: UPR-200-E-82, UN-216-E-10, 241-C-152 Line Break, UN-200-E-82, B Plant Ion Exchange Feed Line Leak, V122
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-107
Site Names: UPR-200-E-107, UN-200-E-107, Contamination Spread in 241-C Tank Farm
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-118
Site Names: UPR-200-E-118, UN-200-E-118, Airborne Release from 241-C-107
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-136
Site Names: UPR-200-E-136, UN-200-E-136, 241-C-101 Tank Leak
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-E-137
Site Names: UPR-200-E-137, UN-200-E-137, 241-C-203 Leak
Reason: Within Boundary Of Larger Site

Site Code:	2607-EG	Classification:	Accepted
Site Names:	2607-EG	ReClassification:	
Site Type:	Septic Tank	Start Date:	1951
Site Status:	Inactive	End Date:	
Site Description:	There are two, 2607-EG septic tanks. The first tank failed and was replaced in 1972. The 2607-EG Septic Tank is marked by a large diameter, vertical concrete pipe. It received sanitary wastewater and sewage from the 271-CR Building. The associated drain field had a capacity of 619 gallons (2,350 liters) per day.		
Waste Type:	Sanitary Sewage		

Waste Description: The current flow rates to Septic Tank 2607-EG are unknown. However, the 2607-EG septic system received sanitary sewer effluent from the 271-CR Building at a rate of 6 cubic feet (0.2 cubic meters) per day in 1987.

Site Code: UPR-200-E-72 **Classification:** Accepted

Site Names: UPR-200-E-72, Radioactive Contamination from Uncovered Buried Waste, UN-200-E-72 **ReClassification:**

Site Type: Unplanned Release **Start Date:** 1985

Site Status: Inactive **End Date:**

Site Description: A WIDS sign has been placed at the approximate location of the site.

Waste Type: Misc. Trash and Debris

Waste Description: The contamination consisted of beta/gamma particulates with dose rates up to 7 rad per hour on the uncovered material and the surrounding area.

Site Code: UPR-200-E-91 **Classification:** Accepted

Site Names: UPR-200-E-91, UN-216-E-19, UN-200-E-91 **ReClassification:**

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:**

Site Description: This site was a large area of contaminated soil, located north and east of the 241-C Tank Farm. In 1981, the contaminated soil was removed from this area and taken to another location (UPR-200-E-56). The radiological posting was removed in 1981. This release site is no longer marked or posted.

Waste Type: Soil

Waste Description: The release consisted of wind blown radiologically contaminated soil from tank farm activities and water run off from an equipment decontamination located inside 241-C tank farm. The contaminated soil was removed. The area outside the tank farm fence was revegetated with perennial wheatgrass and cheatgrass in 1981.

WMA S/SX

Site Code: 216-S-3 **Classification:** Accepted
Site Names: 216-S-3, 216-S-5, 216-S-3 Crib **ReClassification:**
Site Type: Crib **Start Date:** 1953
Site Status: Inactive **End Date:** 1956

Site Description: The unit consists of two open bottomed crib boxes 3.1 meters (10 feet) by 3.1 meters (10 feet) made of timbers. The two crib boxes are connected in series 15 meters (50 feet) apart, with overflow from one box into the other via a pipe. These boxes are set into a gravel layer in the bottom of a trench. The trench was the backfilled. Each box contains two flanged riser pipes extending from the top of the box.

Waste Type: Process Effluent

Waste Description: The site received condensate from condensers on the 241-S-101 and 241-S-104 Tanks in the 241-S Tank Farm. The waste is low in salt and is neutral to basic. The inorganics at the site consist of nitrate, sodium, sodium dichromate, sodium hydroxide, sodium aluminate, and ammonium nitrate. The Reduction Oxidation (REDOX) Radiation Monitoring Report for September 1953 states that the condensate diverted to this crib was sampled. The analysis indicated 95% of the activity was due to zirconium-niobium.

Site Code: 216-S-15 **Classification:** Accepted
Site Names: 216-S-15, 216-S-2, 241-S-110 Pond, 110-S Tank Overflow Pond, UN-216-W-3 **ReClassification:**
Site Type: Pond **Start Date:** 1951
Site Status: Inactive **End Date:** 1952

Site Description: This site consists of a pond that was deactivated by removing the above-ground piping and backfilling it with clean soil.

Waste Type: Process Effluent

Waste Description: The site received condenser spray cooling water from the 241-S-110 Tank. The waste was low in salt, neutral to basic, and contained nitrates.

Site Code: 241-S-A **Classification:** Accepted
Site Names: 241-S-A, 241-S-A Valve Pit, 241-S-A Diversion Box **ReClassification:**
Site Type: Valve Pit **Start Date:** 1952
Site Status: Inactive **End Date:**

Site Description: This unit is a rectangular concrete structure used to divert waste flow to the proper destination, Valve handles extend through and above a concrete cover block on the 241-S-A Valve Pit.

Waste Type: Process Effluent

Waste Description: The unit transports waste solutions from processing and decontamination operations. Quantities of waste are variable according to specific plant operations. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-S-B **Classification:** Accepted

Site Names: 241-S-B, 241-S-B Valve Pit, 241-S-B Diversion Box **ReClassification:**

Site Type: Valve Pit **Start Date:** 1952

Site Status: Inactive **End Date:**

Site Description: This unit is a rectangular concrete structure used to divert waste flow to the proper destination. Valve handles extend through and above a concrete cover block on the 241-S-B Valve Pit.

Waste Type: Process Effluent

Waste Description: The unit transports waste solutions from processing and decontamination operations. Quantities of waste are variable according to specific plant operations. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-S-C **Classification:** Accepted

Site Names: 241-S-C, 241-S-C Valve Pit, 241-S-C Diversion Box **ReClassification:**

Site Type: Valve Pit **Start Date:** 1952

Site Status: Inactive **End Date:**

Site Description: This unit is a rectangular concrete structure used to divert waste flow to the proper destination. Valve handles extend through and above a concrete cover block on the 241-S-C Valve Pit.

Waste Type: Process Effluent

Waste Description: The unit transports waste solutions from processing and decontamination operations. Quantities of waste are variable according to specific plant operations. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-S-D **Classification:** Accepted

Site Names: 241-S-D, 241-S-D Valve Pit, 241-S-D Diversion Box **ReClassification:**

Site Type: Valve Pit **Start Date:** 1952

Site Status: Inactive **End Date:**

Site Description: This unit is a rectangular concrete structure used to divert waste flow to the proper destination. Valve handles extend through and above a concrete cover block on the 241-S-D Valve Pit.

Waste Type: Process Effluent

Waste Description: The unit transports waste solutions from processing and decontamination operations. Quantities of waste are variable according to specific plant operation. It is estimated that approximately 23

kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code:	241-S-101	Classification:	Accepted
Site Names:	241-S-101, 241-S-TK-101	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1953
Site Status:	Inactive	End Date:	1980

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-101 is the first tank of a three-tank cascade series. This tank is a reinforced concrete, cylindrical structure with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-S-101 included: REDOX high-level wastes, REDOX coating waste, supernatant containing Pacific Northwest Laboratory waste, coating waste, PUREX low-level waste, laboratory waste, B Plant high-level waste, terminal liquor and evaporator bottoms, partial neutralization feed, N Reactor waste, ion exchange waste, and double-shell slurry feed from 241-U, 241-S and 241-SX Tank Farms.

Site Code:	241-S-102	Classification:	Accepted
Site Names:	241-S-102, 241-S-TK-102	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1953
Site Status:	Inactive	End Date:	1980

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-102 is the second tank of a three-tank cascade series. This tank is concrete reinforced, cylindrical, and dome-roofed with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-S-102 include: evaporator bottoms, REDOX high-level waste, noncomplexed waste, double-shell slurry feed, and partial neutralization feed from 241-S, 241-SX, 241-SY, and 241-U Tank Farms.

Site Code:	241-S-103	Classification:	Accepted
Site Names:	241-S-103, 241-S-TK-103	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1953
Site Status:	Inactive	End Date:	1980

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-103 is the third tank of a three-tank cascade series. This tank is a reinforced concrete, cylindrical structure with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-S-103 included REDOX high-level waste, REDOX coating waste, evaporator bottoms, noncomplexed waste, partial neutralization feed, and double-shell slurry feed from 241-S, 241-SX, 241-SY, and 241-U Tank Farms.

Site Code: 241-S-104 **Classification:** Accepted

Site Names: 241-S-104, 241-S-TK-104 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1953

Site Status: Inactive **End Date:** 1968

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-104 is the first tank of a three-tank cascade series. This tank is a reinforced concrete, cylindrical structure with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-S-104 included REDOX high-level and coating waste, and waste from 241-S Tank Farm.

Site Code: 241-S-105 **Classification:** Accepted

Site Names: 241-S-105, 241-S-TK-105 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1953

Site Status: Inactive **End Date:** 1976

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-105 is the second tank of a three-tank cascade series. This tank is a reinforced concrete, cylindrical structure with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: REDOX coating and high-level waste were transferred to Tank 241-S-105.

Site Code: 241-S-106 **Classification:** Accepted

Site Names: 241-S-106, 241-S-TK-106 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1953

Site Status: Inactive **End Date:** 1976

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-106 is the third tank of a three-tank cascade series. This tank is a reinforced concrete, cylindrical structure with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-S-106 included REDOX high-level waste and evaporator bottoms from the 241-S Tank Farm.

Site Code: 241-S-107 **Classification:** Accepted

Site Names: 241-S-107, 241-S-TK-107 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1980

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-107 is the first tank of a three-tank cascade series. This tank is a reinforced concrete, cylindrical structure with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-S-107 included REDOX high-level waste and coating waste, decontamination waste, B Plant high-level and low-level waste, Pacific Northwest Laboratory waste, laboratory waste, N Reactor waste, PUREX low-level waste, ion exchange waste, fractionization waste, evaporator bottoms, double-shell slurry feed, partial neutralization feed, and complexed concentrate from 241-BX, 241-C, 241-S, 241-SX, 241-SY, and 241-U Tank Farms.

Site Code: 241-S-108 **Classification:** Accepted

Site Names: 241-S-108, 241-S-TK-108 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1979

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-108 is the second tank of a three-tank cascade series. This tank is a reinforced concrete, cylindrical structure with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-S-108 included REDOX high-level waste, supernatant containing REDOX high-level waste, and evaporator bottoms from 241-S and 241-SX Tank Farms.

Site Code: 241-S-109 **Classification:** Accepted

Site Names: 241-S-109, 241-S-TK-109 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1979

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-109 is the third tank of a three-tank cascade series. This tank is a reinforced concrete, cylindrical structure with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Tank 241-S-109 received REDOX high-level waste and supernatant containing evaporator bottoms from 241-S-102 Tank.

Site Code: 241-S-110 **Classification:** Accepted

Site Names: 241-S-110, 241-S-TK-110 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1976

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-110 is the first tank of a three-tank cascade series. This tank is a reinforced concrete, cylindrical structure with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to 241-S-110 included REDOX high-level coating, ion exchange waste, 224-U waste, coating waste, decontamination waste, B Plant low-level waste, and organic wash waste from 241-BX, 241-S, 241-SX, 241-T, 241-TX, and 241-U Tank Farms.

Site Code: 241-S-111 **Classification:** Accepted

Site Names: 241-S-111, 241-S-TK-111 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1972

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-111 is the second tank of a three-tank cascade series. This tank is a reinforced concrete, cylindrical structure with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-S-111 included REDOX high-level waste and supernatant containing evaporator bottoms from 241-S Tank Farm.

Site Code: 241-S-112 **Classification:** Accepted

Site Names: 241-S-112, 241-S-TK-112 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1974

Site Description: This unit is a second generation single-shell storage tank. Tank 241-S-112 is the third tank of a three-tank cascade series. This tank is a reinforced concrete, cylindrical structure with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-S-112 included REDOX high-level waste and evaporator bottoms from 241-S Tank Farm. The tank contained 614,000 gallons (82,075 cubic feet) of waste, primarily salt cake. A retrieval campaign was completed in May 2005, retrieving 583,000 gallons (77931 cubic feet) of waste. As of May 2005, 31,000 gallons (4,144 cubic feet) of waste remained in the tank.

Site Code: 241-S-151 **Classification:** Accepted

Site Names: 241-S-151, 241-S-151 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1952

Site Status: Inactive **End Date:**

Site Description: This unit is constructed of reinforced concrete and is rectangular in shape.

Waste Type: Process Effluent

Waste Description: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operations. Lead shielding may also be contained inside the diversion box.

Site Code: 241-S-152 **Classification:** Accepted

Site Names: 241-S-152, 241-S-152 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1977

Site Status: Inactive **End Date:** 1980

Site Description: This unit is constructed of reinforced concrete and is rectangular in shape. The 241-S-152 Diversion Box has been weather covered.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operations. Lead shielding may also be contained inside the diversion box.

Waste Type: Equipment

Waste Description: Equipment associated with the diversion box includes transfer piping and nozzles. Waste lead is also stored in the diversion box.

Site Code: 241-S-302A **Classification:** Accepted

Site Names: 241-S-302A; 241-S-302-A Catch Tank; IMUST; Inactive Miscellaneous Underground Storage Tank; Lines V542, V763, V764, and DR324 **ReClassification:**

Site Type: Catch Tank **Start Date:** 1949

Site Status: Inactive **End Date:** 1991

Site Description: This unit is a cylindrical, steel tank. The catch tank is buried underground for radiation shielding. The tank is surrounded with posts and chain and labeled with IMUST signs.

Waste Type: Process Effluent

Waste Description: The tank collected leaking and excess process waste that passed through the 241-S-151 and 241-SX-152 Diversion Boxes. Wastes characteristic of the 241-S, 241-SX and 241-U Tank Farms as well as the 222-S Laboratory are expected to be present in the catch tank.

Site Code: 241-S-304 **Classification:** Accepted

Site Names: 241-S-304, 241-S-304 Catch Tank **ReClassification:**

Site Type: Catch Tank **Start Date:** 1991

Site Status: Inactive **End Date:** 2005

Site Description: The catch tank is below ground surface, inside a concrete pump pit with concrete cover blocks. The pump pit measures 3 meters by 3 meters (10 foot by 10 foot) and is 1.75 meters (5.75 feet) deep. The catch tank is constructed of carbon steel.

Waste Type: Process Effluent

Waste Description: The catch tank receives precipitation drainage and 241-S-151 Diversion Box drainage.

Site Code: 244-S DCRT **Classification:** Accepted

Site Names: 244-S DCRT, 244-S Double-Contained Receiver Tank, 244-S RT, 244-S Receiver Tank, 244-S Catch Station, 244-S-TK/SMP, Lines 5350 and 5351 **ReClassification:**

Site Type: Receiver Tank **Start Date:** 1987

Site Status: Inactive **End Date:** 2005

Site Description: The 244-S Receiver Tank is constructed of carbon steel. It sets vertically inside a reinforced concrete, steel lined vault with 0.31 meters (1 foot) thick walls and a 1.4 meters (4.5 foot) thick base. The tank vault is separated from a pump pit above by a 30 centimeter (12 inch) thick concrete slab.

Waste Type: Storage Tank

Waste Description: The unit stores and transports radioactive mixed waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operations.

Site Code: 241-SX-A **Classification:** Accepted

Site Names: 241-SX-A, 241-SX-A Diversion Box, 241-SX-A Valve Pit **ReClassification:**

Site Type: Valve Pit **Start Date:** 1954

Site Status: Inactive **End Date:**

Site Description: This unit is a rectangular concrete structure used to divert waste flow to the proper destination. It has been covered with foam. Valve handles extended through and above the concrete cover block.

Waste Type: Process Effluent

Waste Description: The unit is used to transport radioactive waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-SX-B **Classification:** Accepted

Site Names: 241-SX-B, 241-SX-B Diversion Box, 241-SX-B Valve Pit **ReClassification:**

Site Type: Valve Pit **Start Date:** 1954

Site Status: Inactive **End Date:**

Site Description: This unit is a rectangular concrete structure used to divert waste flow to the proper destination. The structure has been covered with foam. Valve handles extended through and above the concrete cover block.

Waste Type: Process Effluent

Waste Description: The unit is used to transport radioactive waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-SX-101 **Classification:** Accepted

Site Names: 241-SX-101, 241-SX-TK-101 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1954

Site Status: Inactive **End Date:** 1980

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-101 is the first tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-101 included: REDOX high-level waste and ion exchange waste, evaporator bottoms, partial neutralization feed, and complexed waste from 241-S, 241-BX, 241-SX, and 241-U Tank Farms.

Site Code: 241-SX-102 **Classification:** Accepted

Site Names: 241-SX-102, 241-SX-TK-102 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1954

Site Status: Inactive **End Date:** 1980

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-102 is the second tank of a three tank cascade series. This tank is a reinforced concrete,

cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to 241-SX-102 included: REDOX high-level waste, carbonate waste, concrete, REDOX high-level waste, ion exchange waste, evaporator bottoms, and partial neutralization feed from 241-BX, 241-SX, 241-TX, and 241-S Tank Farms.

Site Code: 241-SX-103 **Classification:** Accepted

Site Names: 241-SX-103, 241-SX-TK-103 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1954

Site Status: Inactive **End Date:** 1980

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-103 is the third tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-103 included: REDOX high-level waste, concrete, coating waste, evaporator bottoms, organic wash waste, and partial neutralization feed from 241-BX, 241-SX, and 241-S Tank Farms.

Site Code: 241-SX-104 **Classification:** Accepted

Site Names: 241-SX-104, 241-SX-TK-104 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1955

Site Status: Inactive **End Date:** 1980

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-104 is the first tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-104 included: REDOX high-level waste and ion exchange waste, double-shell slurry feed, and evaporator bottoms from the 241-S and the 241-SX Tank Farms.

Site Code: 241-SX-105 **Classification:** Accepted

Site Names: 241-SX-105, 241-SX-TK-105 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1955

Site Status: Inactive **End Date:** 1980

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-105 is the second tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation

shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-105 included: REDOX high-level waste and ion exchange waste, double-shell slurry feed, evaporator bottoms, and partial neutralization feed from 241-BX, 241-S, 241-X, and 241-U Tank Farms.

Site Code: 241-SX-106 **Classification:** Accepted

Site Names: 241-SX-106, 241-SX-TK-106 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1954

Site Status: Inactive **End Date:** 1980

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-106 is the third tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-106 included: Hanford laboratory waste, Pacific Northwest Laboratory waste, REDOX and waste fractionization ion exchange waste, evaporator bottoms, B Plant low level waste, PUREX low level waste, coating waste, and partial neutralization feed from 241-B, 241-BX, 241-C, 241-S, 241-SX, 241-SY, 241-TX, and 241-U Tank Farms.

Site Code: 241-SX-107 **Classification:** Accepted

Site Names: 241-SX-107, 241-SX-TK-107 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1956

Site Status: Inactive **End Date:** 1964

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-107 is the first tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-107 included: coating waste and REDOX high-level waste. The unit contains 41 small bottles of neutralized waste from 100 F Area, each containing less than 1 gram (0.04 ounce) Plutonium 239.

Site Code: 241-SX-108 **Classification:** Accepted

Site Names: 241-SX-108, 241-SX-TK-108 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1955

Site Status: Inactive **End Date:** 1962

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-108 is the first tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-108 included: REDOX high-level waste, concrete, and supernatant containing REDOX high-level waste from the 241-SX Tank Farm.

Site Code: 241-SX-109 **Classification:** Accepted

Site Names: 241-SX-109, 241-SX-TK-109 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1955

Site Status: Inactive **End Date:** 1965

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-109 is the third tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-109 included: REDOX high-level waste and supernatant containing REDOX high-level waste from the 241-SX Tank Farm.

Site Code: 241-SX-110 **Classification:** Accepted

Site Names: 241-SX-110, 241-SX-TK-110 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1960

Site Status: Inactive **End Date:** 1976

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-110 is the first tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-110 included: REDOX high-level waste, concrete, Pacific Northwest Laboratory waste, B Plant low-level waste, ion exchange waste, evaporator bottoms, and 224-U waste from 241-B, 241-BX, and 241-SX Tank Farms. Additionally sixteen plastic bottles or containers containing a total of 4 ounces (110 grams) natural uranium, 2 ounces (62 grams) depleted uranium, 0.21 ounce (6 grams) enriched uranium, and 7 ounces (204 grams) plutonium were added to this unit.

Site Code: 241-SX-111 **Classification:** Accepted

Site Names: 241-SX-111, 241-SX-TK-111 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1956

Site Status: Inactive **End Date:** 1974

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-111 is the second tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-111 included: REDOX high-level waste and supernatant containing REDOX high-level waste and REDOX ion exchange waste from the 241-SX Tank Farm.

Site Code: 241-SX-112 **Classification:** Accepted

Site Names: 241-SX-112, 241-SX-TK-112 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1956

Site Status: Inactive **End Date:** 1969

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-112 is the third tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-112 included: REDOX high-level waste and supernatant containing REDOX high-level waste from 241-SX Tank Farm.

Site Code: 241-SX-113 **Classification:** Accepted

Site Names: 241-SX-113, 241-SX-TK-113 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1958

Site Status: Inactive **End Date:** 1962

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-113 is the first tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-113 included: REDOX high-level waste. Diatomaceous earth was also added in 1962.

Site Code: 241-SX-114 **Classification:** Accepted

Site Names: 241-SX-114, 241-SX-TK-114 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1957

Site Status: Inactive **End Date:** 1972

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-114 is the second tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-114 included: REDOX high-level waste and ion exchange waste, and evaporator bottoms from 241-SX Tank Farm.

Site Code: 241-SX-115 **Classification:** Accepted

Site Names: 241-SX-115, 241-SX-TK-115 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1958

Site Status: Inactive **End Date:** 1965

Site Description: This unit is a third generation single-shell tank designed for self-boiling waste. Tank 241-SX-115 is the third tank of a three tank cascade series. This tank is a reinforced concrete, cylindrical structure with a steel liner. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-SX-115 included: REDOX high-level waste and supernatant containing REDOX high-level waste.

Site Code: 241-SX-151 **Classification:** Accepted

Site Names: 241-SX-151, 241-SX-151 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1954

Site Status: Inactive **End Date:** 1983

Site Description: The diversion box is a rectangular reinforced concrete structure. Most of the structure is below ground. A few inches of the structure that extends above ground is covered with a gray weather coating. The tank farm fence is posted with various radiological postings.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. Lead shielding may also be contained inside the diversion box.

Waste Type: Equipment

Waste Description: Equipment associated with the diversion box includes transfer piping and nozzles. Waste lead is also stored in the diversion box.

Site Code: 241-SX-152 **Classification:** Accepted

Site Names: 241-SX-152, 241-SX-152 Diversion Box, 241-SX-152 Transfer Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1954

Site Status: Inactive **End Date:** 1981

Site Description: The diversion box is a rectangular reinforced concrete structure. Most of the structure is below ground. A few inches of the structure that extends above ground is covered with a gray weather coating. The tank farm fence is posted with various radiological postings.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. Lead shielding may also be contained inside the diversion box.

Waste Type: Equipment

Waste Description: Equipment associated with the diversion box includes transfer piping and nozzles. Waste lead is also stored in the diversion box.

Site Code: 241-SX-401 **Classification:** Accepted

Site Names: 241-SX-401, 241-SX-401 Condenser Shielding Building, 241-SX-401 Waste Disposal Condenser House **ReClassification:**

Site Type: Process Unit/Plant **Start Date:** 1954

Site Status: Inactive **End Date:** 1975

Site Description: This unit is constructed of reinforced concrete with walls varying in thickness from 0.31 to 0.77 meters (1 to 2.5 feet) thick for shielding purposes.

Waste Type: Equipment

Waste Description: The unit contains radioactively contaminated equipment and concrete. The quantity of waste has not been determined. Radiation levels are high.

Site Code: 241-SX-402 **Classification:** Accepted

Site Names: 241-SX-402, 241-SX-402 Condenser Shielding Building, 241-SX-402 Waste Disposal Condenser House **ReClassification:**

Site Type: Process Unit/Plant **Start Date:** 1954

Site Status: Inactive **End Date:** 1975

Site Description: This unit is constructed of reinforced concrete with walls varying in thickness from 0.31 to 0.77 meters (1 to 2.5 feet) thick for shielding purposes.

Waste Type: Equipment

Waste Description: The unit contains radioactively contaminated equipment and concrete. The quantity of waste has not been determined. The unit is only mildly contaminated.

Site Code: 200-W-96 **Classification:** Accepted

Site Names: 200-W-96, Contaminated Soil at 241-S/SX/SY Tank Farm **ReClassification:**

Site Type: Unplanned Release **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The site is the soil inside and adjacent to the chain link fence that surrounds the 241-S/SX/SY Tank Farms. Various radiological postings and warning signs are attached to the chain link fence. The interior of the tank farm complex is covered with gravel. Many risers and monitoring devices for the underground structures are visible on the surface. The individual unplanned releases associated with the 241-S,SX,SY Tank Farms are not separately marked or posted. Occasionally, radioactive contamination is found adjacent to the outside of the tank farm fence, resulting in a contamination zone extension around the tank farm perimeter. These areas will also be considered tank farm soil. The 216-S-3 crib, 216-S-15 overflow pond and a portion of the 242-S Evaporator building are also located inside the tank farm fence.

Waste Type: Process Effluent

Waste Description: Liquid releases occurred from underground leaks in tanks and transfer lines. Airborne contamination spreads occurred from activities conducted in valve pits and diversion boxes. Both types of releases contributed to the contamination in the soil.

The Following Sites Were Consolidated With This Site:

Site Code: 200-W-37

Site Names: 200-W-37, Buried Tygon Tubing Near 241-S-101

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-49

Site Names: UPR-200-W-49, Contamination Southeast of 241-SX, UN-200-W-49

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-50

Site Names: UPR-200-W-50, UN-200-W-50, Contamination Spread from 241-SX-114

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-80

Site Names: UPR-200-W-80, UN-200-W-80, 241-S/SX Contamination Migration

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-81

Site Names: UPR-200-W-81, UN-200-W-81, Contamination Specks in 241-S/SX

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-127

Site Names: UPR-200-W-127, Liquid Release from 242-S Evaporator to the Ground, UN-200-W-127

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-140

Site Names: UPR-200-W-140, 241-SX-107 Leak

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-141
Site Names: UPR-200-W-141, 241-SX-108 Leak
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-142
Site Names: UPR-200-W-142, 241-SX-109 Leak
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-143
Site Names: UPR-200-W-143, 241-SX-111 Leak
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-144
Site Names: UPR-200-W-144, 241-SX-112 Leak
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-145
Site Names: UPR-200-W-145, 241-SX-113 Leak
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-146
Site Names: UPR-200-W-146, 241-SX-115 Leak
Reason: Within Boundary Of Larger Site

Site Code:	241-T-104	Classification:	Accepted
Site Names:	241-T-104, 241-T-TK-104	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1946
Site Status:	Inactive	End Date:	1974
Site Description:	This unit is a first generation, underground single-shell storage tank. Tank 241-T-104 is the first tank of the second cascade of tanks receiving waste in the T Farm. Tank 241-T-105 and 106 are the second and third tanks in the series.		

Waste Type: Storage Tank

Waste Description: Tank 241-T-104 received bismuth phosphate first cycle waste.

Site Code:	241-T-105	Classification:	Accepted
Site Names:	241-T-105, 241-T-TK-105	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1946
Site Status:	Inactive	End Date:	1976
Site Description:	This unit is a first generation, underground single-shell tank. Tank 241-T-105 is the second tank of the second cascade of tanks receiving waste in the 241-T Farm. The tank is cylindrical, dome-roofed, and concrete-reinforced with a steel liner lying across the tank bottom and up the concrete wall. This unit is below grade for shielding purposes.		

Waste Type: Storage Tank

Waste Description: Waste sources include bismuth phosphate first-cycle and second-cycle waste, REDOX coating waste, Hanford Laboratory operations waste, supernatant containing low-level waste, and ion exchange waste.

Site Code:	241-T-106	Classification:	Accepted
Site Names:	241-T-106, 241-T-TK-106	ReClassification:	
Site Type:	Single-Shell Tank	Start Date:	1947
Site Status:	Inactive	End Date:	1973
Site Description:	This unit is a first generation, underground single-shell tank. Tank 241-T-106 is the third tank of the second cascade of tanks receiving waste in the 241-T-Farm. The tank is cylindrical, dome-roofed, and concrete-reinforced with a steel liner lying across the tank bottom and up the concrete well. This unit is below grade for shielding purposes.		

Waste Type: Storage Tank

Waste Description: Waste types transferred to Tank 241-T-106 include bismuth phosphate first cycle waste, supernatant containing coating waste, low-level waste from B Plant, and ion exchange waste.

Site Code:	241-T-107	Classification:	Accepted
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Site Names: 241-T-107, 241-T-TK-107 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1944

Site Status: Inactive **End Date:** 1976

Site Description: This unit is a first generation, underground single-shell tank. Tank 241-T-107 is the first tank of the third cascade of tanks receiving waste in the T-Farm. The tank is cylindrical, dome-roofed, and concrete-reinforced with a steel liner lying across the tank bottom and up the concrete well. This unit is below grade for shielding purposes.

Waste Type: Storage Tank

Waste Description: Waste types transferred to Tank 241-T-107 include first cycle bismuth phosphate waste, tributyl phosphate, ion exchange waste, and coating waste.

Site Code: 241-T-108 **Classification:** Accepted

Site Names: 241-T-108, 241-T-TK-108 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1945

Site Status: Inactive **End Date:** 1974

Site Description: This unit is a first generation, underground single-shell tank. Tank 241-T-108 is the second tank of the third cascade of tanks receiving waste in the T-Farm. The tank is cylindrical, dome-roofed, and concrete-reinforced with a steel liner lying across the tank bottom and up the concrete well. This unit is below grade for shielding purposes.

Waste Type: Storage Tank

Waste Description: Waste types transferred to Tank 241-T-108 include: tributyl phosphate, bismuth phosphate first-cycle waste, Hanford Laboratory operations waste, supernatant containing tributyl phosphate waste, B Plant low-level waste, ion exchange waste, and evaporator bottoms.

Site Code: 241-T-109 **Classification:** Accepted

Site Names: 241-T-109, 241-T-TK-109 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1945

Site Status: Inactive **End Date:** 1974

Site Description: This unit is a first generation, underground single-shell tank. Tank 241-T-109 is the third tank of the third cascade of tanks receiving waste in the T Farm. The tank is cylindrical, dome-roofed, and concrete-reinforced with a steel liner lying across the tank bottom and up the concrete wall. This unit is below grade for shielding purposes.

Waste Type: Storage Tank

Waste Description: Waste types transferred to Tank 241-T-109 include: bismuth phosphate first-cycle waste, tributyl phosphate waste, evaporator bottoms, B Plant low-level waste, ion exchange waste, and waste from 241-T and -TX tank farms.

Site Code: 241-T-110 **Classification:** Accepted

Site Names: 241-T-110, 241-T-TK-110 **ReClassification:**
Site Type: Single-Shell Tank **Start Date:** 1944
Site Status: Inactive **End Date:** 1976
Site Description: This unit is a first generation, underground single-shell tank. Tank 241-T-110 is the first tank of the fourth cascade of tanks receiving waste in the T Farm. The tank is cylindrical, dome-roofed, and concrete-reinforced with a steel liner lying across the tank bottom and up the concrete wall. This unit is below grade for shielding purposes.

Waste Type: Storage Tank
Waste Description: Waste types transferred to 241-T-110 include bismuth phosphate second-cycle waste and the 224-U Building waste.

Site Code: 241-T-111 **Classification:** Accepted
Site Names: 241-T-111, 241-T-TK-111 **ReClassification:**
Site Type: Single-Shell Tank **Start Date:** 1945
Site Status: Inactive **End Date:** 1974
Site Description: This unit is a first generation, underground single-shell tank. Tank 241-T-111 is the second tank of the fourth cascade of tanks receiving waste in the T Farm. The tank is cylindrical, dome-roofed, and concrete-reinforced with a steel liner lying across the tank bottom and up the concrete wall. This unit is below grade for shielding purposes.

Waste Type: Storage Tank
Waste Description: Waste types transferred to Tank 241-T-111 include: bismuth phosphate second-cycle waste and 224-U Building waste.

Site Code: 241-T-112 **Classification:** Accepted
Site Names: 241-T-112, 241-T-TK-112 **ReClassification:**
Site Type: Single-Shell Tank **Start Date:** 1946
Site Status: Inactive **End Date:** 1976
Site Description: This unit is a first generation, underground single-shell tank. Tank 241-T-112 is the third tank of the fourth cascade of tanks receiving waste in the T Farm. The tank is cylindrical, dome-roofed, and concrete-reinforced with a steel liner lying across the tank bottom and up the concrete wall. This unit is below grade for shielding purposes.

Waste Type: Storage Tank
Waste Description: Waste types transferred to Tank 241-T-112 include: bismuth phosphate second-cycle waste, Pacific Northwest Laboratory waste, decontamination waste; and supernatant containing B Plant low-level waste and ion exchange waste from the 241-T tank.

Site Code: 241-T-151 **Classification:** Accepted

Site Names: 241-T-151, 241-T-151 Diversion Box **ReClassification:**
Site Type: Diversion Box **Start Date:** 1944
Site Status: Inactive **End Date:** 1980
Site Description: The diversion box is a rectangular reinforced concrete structure. Most of the structure is below ground. A few inches of the structure that extends above ground is covered with a gray weather coating. The tank farm fence is posted with various radiological postings.

Waste Type: Process Effluent
Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. Lead shielding may also be contained inside the diversion box.

Waste Type: Equipment
Waste Description: Equipment associated with the diversion box includes transfer piping and nozzles. Waste lead is also stored in the diversion box.

Site Code: 241-T-152 **Classification:** Accepted
Site Names: 241-T-152, 241-T-152 Diversion Box **ReClassification:**
Site Type: Diversion Box **Start Date:** 1944
Site Status: Inactive **End Date:** 1983
Site Description: The diversion box is a rectangular reinforced concrete structure. Most of the structure is below ground. A few inches of the structure that extends above ground is covered with a gray weather coating. The tank farm fence is posted with various radiological postings.

Waste Type: Process Effluent
Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operations. Lead shielding may also be contained inside the diversion box.

Waste Type: Equipment
Waste Description: Equipment associated with the 241-T-152 Diversion Box includes transfer piping and nozzles. Waste lead is also stored in the diversion box.

Site Code: 241-T-153 **Classification:** Accepted
Site Names: 241-T-153, 241-T-153 Diversion Box **ReClassification:**
Site Type: Diversion Box **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The diversion box is a rectangular reinforced concrete structure. Most of the structure is below ground. A few inches of the structure that extends above ground is covered with a gray weather coating. The tank farm fence is posted with various radiological postings.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operations. Lead shielding may also be contained inside the diversion box.

Waste Type: Equipment

Waste Description: Equipment associated with this unit include transfer piping and nozzles. Waste lead is also stored in the diversion box.

Site Code: 241-T-201 **Classification:** Accepted

Site Names: 241-T-201, 241-T-TK-201 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1976

Site Description: This unit is an underground, concrete-reinforced vertical single-shell tank. Tank 241-T-201 has a steel liner and rests upon a concrete base slab. This unit is below grade for shielding purposes.

Waste Type: Storage Tank

Waste Description: Waste in Tank 241-T-201 is from the 224 Building.

Site Code: 241-T-202 **Classification:** Accepted

Site Names: 241-T-202, 241-T-TK-202 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1976

Site Description: This unit is an underground, concrete-reinforced vertical single-shell tank. Tank 241-T-202 has a steel liner and rests upon a concrete base slab. This unit is below grade for shielding purposes.

Waste Type: Storage Tank

Waste Description: Waste in Tank 241-T-202 is from the 224 Building.

Site Code: 241-T-203 **Classification:** Accepted

Site Names: 241-T-203, 241-T-TK-203 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1976

Site Description: This unit is an underground, concrete-reinforced vertical single-shell tank. Tank 241-T-203 has a steel liner and rests upon a concrete base slab. This unit is below grade for shielding purposes.

Waste Type: Storage Tank

Waste Description: Waste in Tank 241-T-203 is from the 224 Building.

Site Code: 241-T-204 **Classification:** Accepted
Site Names: 241-T-204, 241-T-TK-204 **ReClassification:**
Site Type: Single-Shell Tank **Start Date:** 1952
Site Status: Inactive **End Date:** 1976
Site Description: This unit is an underground, concrete-reinforced vertical single-shell tank. Tank 241-T-204 has a steel liner and rests upon a concrete base slab. This unit is below grade for shielding purposes.

Waste Type: Storage Tank

Waste Description: Waste in Tank 241-T-204 is from the 224 Building.

Site Code: 241-T-252 **Classification:** Accepted
Site Names: 241-T-252, 241-T-252 Diversion Box **ReClassification:**
Site Type: Diversion Box **Start Date:** 1944
Site Status: Inactive **End Date:** 1983
Site Description: This unit is a reinforced concrete structure, constructed mostly below grade. The 241-T-252 has a concrete cover block with lifting bails. The diversion box has been entirely coated with protective foam.

Waste Type: Process Effluent

Waste Description: This unit transported various mixed waste solutions from processing and decontamination operations. It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Waste Type: Equipment

Waste Description: Transfer piping and nozzles are associated with the 241-T-252 Diversion Box.

Waste Type: Equipment

Waste Description: Waste lead is also stored in the diversion box.

Site Code: 241-T-301B **Classification:** Accepted
Site Names: 241-T-301B, 241-T-301 Catch Tank, 241-T-301-B, 241-T-0301, IMUST, Inactive Miscellaneous Underground Storage Tank, Lines V664 and V727 **ReClassification:**
Site Type: Catch Tank **Start Date:** 1944
Site Status: Inactive **End Date:** 1985
Site Description: The 241-T-301B Catch Tank is an underground, reinforced concrete tank. The tank is surrounded with posts and chain and labeled with IMUST signs. This unit has a concrete-domed lid and uses a vertical construction design. The catch tank is below grade for shielding purposes.

Waste Type: Process Effluent
Waste Description: This tank collected overflow radioactive process waste from 241-T-252, 241-T-151, 241-T-152 and 241-T-153 Diversion Boxes.

Site Code: 241-TR-152 **Classification:** Accepted

Site Names: 241-TR-152, 241-TR-152 Diversion Box, Line 6053 **ReClassification:**

Site Type: Diversion Box **Start Date:** 1944

Site Status: Inactive **End Date:** 1980

Site Description: This unit is constructed of reinforced concrete and is rectangular in shape.

Waste Type: Process Effluent

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operations.

Waste Type: Equipment

Waste Description: Equipment associated with the diversion box includes transfer piping and nozzles.

Waste Type: Equipment

Waste Description: It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 241-TR-153 **Classification:** Accepted

Site Names: 241-TR-153, 241-TR-153 Diversion Box, 241-TR-153 Booster Pump Pit, Line 6172 **ReClassification:**

Site Type: Diversion Box **Start Date:** 1944

Site Status: Inactive **End Date:** 1983

Site Description: This unit is constructed of reinforced concrete and is rectangular in shape.

Waste Type: Chemicals

Waste Description: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

Waste Type: Equipment

Waste Description: Equipment associated with the diversion box includes transfer piping and nozzles.

Waste Type: Equipment

Waste Description: Waste lead is stored in the diversion box.

Site Code: 200-W-52 **Classification:** Accepted
Site Names: 200-W-52, 216-T-7 Crib, 241-T-3 Crib **ReClassification:**
Site Type: Crib **Start Date:** 1948
Site Status: Inactive **End Date:** 1955
Site Description: The crib is located inside the 241-T Tank Farm fence. The fence is posted with Radiological Buffer Area/Underground Radioactive Material signs. The tank farm has a gravel surface. The crib is not separately identified.

Waste Type: Process Effluent

Waste Description:

Site Code: 200-W-93 **Classification:** Accepted
Site Names: 200-W-93, Contaminated Soil at 241-T Tank Farm **ReClassification:**
Site Type: Unplanned Release **Start Date:**
Site Status: Inactive **End Date:**
Site Description: The site is the soil inside and adjacent to the chain link fence that surrounds the 241-T Tank Farm. Various radiological postings and warning signs are attached to the chain link fence.

The interior of the tank farm complex is covered with gravel. Many risers and monitoring devices for the underground structures are visible on the surface. The 216-T-7 and 216-T-32 Cribs are located inside the tank farm fence and are marked with "Crib" signs. The 216-T-7 Tile Field is partially inside the tank farm, but most of it extends westward, beyond the fence line. The individual unplanned releases associated with the 241-T Tank Farm are not separately marked or posted. Occasionally, radioactive contamination is found adjacent to the outside of the tank farm fence, resulting in a contamination zone extension around the tank farm perimeter. These areas will also be considered tank farm soil. A posted Underground Radioactive Material area currently extends outside the 241-T Tank Farm fence on the west side.

Waste Type: Process Effluent

Waste Description: Liquid releases occurred from underground leaks in tanks and transfer lines. Airborne contamination spreads occurred from activities conducted in valve pits and diversion boxes. Both types of releases contributed to the contamination in the soil.

The Following Sites Were Consolidated With This Site:

Site Code: UPR-200-W-7
Site Names: UPR-200-W-7, Contamination Spread from the 241-T-151 and 241-T-152 Diversion Boxes, UN-200-W-7

Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-147
Site Names: UPR-200-W-147, 241-T-103 Leak
Reason: Within Boundary Of Larger Site

Site Code: UPR-200-W-148
Site Names: UPR-200-W-148, 241-T-106 Leak
Reason: Within Boundary Of Larger Site

WMA TX/TY

Site Code: 242-T **Classification:** Accepted

Site Names: 242-T, 242-T Evaporator Facility, 241-T Evaporator **ReClassification:**

Site Type: Evaporator **Start Date:** 1950

Site Status: Inactive **End Date:** 1986

Site Description: The 242-T is a reinforced concrete and structural steel building. The facility consists of the 242-T building with the control room in the southeast portion, 242-TB and the 242-TA vault. The evaporator portion of 242-T contains a feed cell, an evaporator vessel, a cyclone separator, a catch tank and two preheater tanks. The condensate portion contains the off-gas vessels, two condensate catch tanks and a sample gallery. The 242-TA Vault is a concrete lined pit with a ground level steel cover. A 15,120 liter (4000 gallon) receiver tank is inside the vault. This tank received Z Plant waste.

Waste Type: Process Effluent

Waste Description: During the 1950's, the facility concentrated separation process, first cycle decontamination waste from the tank farms. First cycle waste typically contained 10% of the original fission products and 1% plutonium in solution with nitrates, phosphates and sulfates. From the 1960's to the late 1970's, it received single-shell supernatant waste, complexed radioactive waste, and dilute miscellaneous radioactive waste. From 1976 to 1980, the evaporator was used to neutralize Z Plant waste. During its active life, the facility received and processed 127,204,560 liters (33,652,000 gallons) of waste.

Site Code: 242-T-135 **Classification:** Accepted

Site Names: 242-T-135, IMUST, Inactive **ReClassification:**
Miscellaneous Underground Storage Tank

Site Type: Storage Tank **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The unit is a tank partially below grade, constructed of stainless steel. An agitator and a hopper are installed on top of the tank. The tank is surrounded with steel posts and chain, located behind a steel radiation shield wall. The area surrounding the tank is posted with Contamination Area and IMUST signs.

Waste Type: Process Effluent

Waste Description: The contents of the tank are not known. The tank mission was storage of 242-T decontamination solutions. The content of the tank would include 242-T decontamination solutions.

Site Code: 242-T-151 **Classification:** Accepted

Site Names: 242-T-151, 242-T-151 Diversion Box. Line V830 **ReClassification:**

Site Type: Diversion Box **Start Date:**

Site Status: Inactive **End Date:**

Site Description: This unit is constructed of reinforced concrete and is rectangular in shape.

Waste Type: Process Effluent

Waste Description: This unit was used for the transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operations.

Waste Type: Equipment

Waste Description: Equipment associated with the diversion box includes transfer piping and nozzles.

Waste Type: Equipment

Waste Description: It is estimated that approximately 23 kilograms (50 pounds) of lead shielding may be stored in each diversion box.

Site Code: 242-TA-R1 **Classification:** Accepted

Site Names: 242-TA-R1, 242-TA, Receiver TK-Vault, 242-TA Receiver Tank Vault, Z Waste, Receiver Tank TK-R1, IMUST, Inactive Miscellaneous Underground Storage Tank **ReClassification:**

Site Type: Receiving Vault **Start Date:**

Site Status: Inactive **End Date:**

Site Description: The unit is a below-grade 16 foot diameter (at bottom) by 20 foot high cylindrical structure, with a 16 foot octagon-shaped top at grade level. The vault is constructed of concrete and contains a 4200 gallon tank. The surface is surrounded with a metal rail fence and labeled with IMUST signs.

Waste Type: Process Effluent

Waste Description: The waste reportedly contains 0.007 grams per gallon of Plutonium; 4.756 molar concentration of nitrate ion; 0.15 molar concentration of Sodium ion; 0.842 molar concentration of trivalent Aluminum; 0.648 molar concentration of free Hydrogen atoms; 0.454 molar concentration of divalent Aluminum Fluoride; 0.180 molar concentration of bivalent Magnesium; 0.087 molar concentration of trivalent Iron; 0.059 molar concentration of Potassium ion; 0.013 molar concentration of Sulphate ion; and 0.0005 molar concentration of divalent Uranium Oxide.

Site Code: 241-TX-101 **Classification:** Accepted

Site Names: 241-TX-101, 241-TX-TK-101 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1949

Site Status: Inactive **End Date:** 1980

Site Description: This unit is a second-generation underground single-shell storage tank. Tank 241-TX-101 is the first tank of a four-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to this unit includes bismuth phosphate metal waste, REDOX waste, coating waste, tributyl phosphate, and waste fractionation ion exchange waste. Other waste includes high level and low level waste from B-Plant, non-complexed waste, PUREX low-level waste, organic wash waste, partial neutralization feed waste, and evaporator bottoms. The unit also received decontamination waste from 241-C, -BX, -SX, -TX Tank Farms.

Site Code: 241-TX-102 **Classification:** Accepted

Site Names: 241-TX-102, 241-TX-TK-102 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1950

Site Status: Inactive **End Date:** 1975

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-102 is the second tank of a four-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-TX-102 included bismuth phosphate metal waste, 242-T Evaporator waste, and supernatant containing REDOX high-level waste, and evaporator bottoms from 241-TX Tanks.

Site Code: 241-TX-103 **Classification:** Accepted

Site Names: 241-TX-103, 241-TX-TK-103 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1950

Site Status: Inactive **End Date:** 1980

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-103 is the third tank of a four-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-TX-103 included bismuth phosphate metal waste, 242-T Evaporator waste, noncomplexed waste, tributyl phosphate waste, and partial neutralization feed from 241-TX Tanks.

Site Code: 241-TX-104 **Classification:** Accepted

Site Names: 241-TX-104, 241-TX-TK-104 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1950

Site Status: Inactive **End Date:** 1977

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-104 is the fourth tank of a four-tank cascade series. This cylindrical tank is concrete-reinforced with a

single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-TX-104 included bismuth phosphate metal waste, 242-T Evaporator waste, and supernatant containing REDOX ion exchange and high-level waste, PUREX organic wash waste, B Plant low-level waste, and tributyl phosphate from 241-TY and 241-TX Tanks.

Site Code: 241-TX-105 **Classification:** Accepted

Site Names: 241-TX-105, 241-TX-TK-105 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1976

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-105 is the first tank of a four-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to tank 241-TX-105 included bismuth phosphate metal waste, 242-T Evaporator waste, and supernatant containing REDOX ion exchange and high-level waste, and PUREX organic wash waste from 241-BX and 241-SX Tank Farms.

Site Code: 241-TX-106 **Classification:** Accepted

Site Names: 241-TX-106, 241-TX-TK-106 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1977

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-106 is the second tank of a four-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-TX-106 included bismuth phosphate metal waste, tributyl phosphate waste, 242-T Evaporator waste, and supernatant containing REDOX ion exchange and high-level waste, PUREX organic wash waste, evaporator bottoms, and coating waste from 241-TX Tanks.

Site Code: 241-TX-107 **Classification:** Accepted

Site Names: 241-TX-107, 241-TX-TK-107 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1977

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-110 is the second tank of a four-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-TX-110 included bismuth phosphate first-cycle waste and 242-T Evaporator waste.

Site Code: 241-TX-111 **Classification:** Accepted

Site Names: 241-TX-111, 241-TX-TK-111 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1950

Site Status: Inactive **End Date:** 1977

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-111 is the third tank of a four-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-TX-111 included bismuth phosphate first-cycle waste, 242-T Evaporator waste, and supernatant containing tributyl phosphate waste from 241-TX Tanks.

Site Code: 241-TX-112 **Classification:** Accepted

Site Names: 241-TX-112, 241-TX-TK-112 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1950

Site Status: Inactive **End Date:** 1976

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-112 is the fourth tank of a four-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-TX-112 included 242-T Evaporator waste, bismuth phosphate first-cycle waste, and supernatant containing evaporator bottoms from the 241-TX Tanks.

Site Code: 241-TX-113 **Classification:** Accepted

Site Names: 241-TX-113, 241-TX-TK-113 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1976

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-113 is the first tank of a three-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste Transferred to Tank 241-TX-113 included 242-T Evaporator waste and supernatant containing evaporator bottoms from 241-TX Tanks.

Site Code: 241-TX-114 **Classification:** Accepted

Site Names: 241-TX-114, 241-TX-TK-114 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1975

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-114 is the second tank of a three-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-TX-114 included 242-T Evaporator waste, supernatant containing bismuth phosphate first-cycle waste, and evaporator bottoms from the 241-TX Tanks.

Site Code: 241-TX-115 **Classification:** Accepted

Site Names: 241-TX-115, 241-TX-TK-115 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1977

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-115 is the third tank of a three-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-TX-115 included 242-T Evaporator waste, tributyl phosphate waste, coating waste, decontamination waste, and evaporator bottoms from 241-U, 241-S, 241-T, and 241-TX Tanks.

Site Code: 241-TX-116 **Classification:** Accepted

Site Names: 241-TX-116, 241-TX-TK-116 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1976

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-116 is the first tank of a three-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-TX-116 included supernatant containing evaporator bottoms from 241-TX Tanks. Diatomaceous earth was added in 1969.

Site Code: 241-TX-117 **Classification:** Accepted

Site Names: 241-TX-117, 241-TX-TK-117 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1976

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-117 is the second tank of a three-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to Tank 241-TX-117 included supernatant containing first-cycle waste and evaporator bottoms from 241-TX Tanks. Diatomaceous earth was also added in 1969.

Site Code: 241-TX-118 **Classification:** Accepted

Site Names: 241-TX-118, 241-TX-TK-118 **ReClassification:**

Site Type: Single-Shell Tank **Start Date:** 1952

Site Status: Inactive **End Date:** 1980

Site Description: This unit is a second-generation, underground single-shell storage tank. Tank 241-TX-118 is the third tank of a three-tank cascade series. This cylindrical tank is concrete-reinforced with a single steel liner lying across the tank bottom and up the tank wall. The tank is buried underground to provide radiation shielding.

Waste Type: Storage Tank

Waste Description: Waste transferred to tank 241-TX-118 included 242-T Evaporator feed tank waste, 234-Z and 235-Z Buildings waste, caustic solution, tributyl phosphate waste, decontamination waste, bismuth phosphate first-cycle waste, evaporator bottoms, partial neutralization feed, and coating waste from the 241-T, 241-TX, 241-TY, and 241-U Tank Farms.

Site Code: 241-TX-153 **Classification:** Accepted

Site Names: 241-TX-153, 241-TX-153 Diversion Box **ReClassification:**

Site Type: Diversion Box **Start Date:** 1949

Site Status: Inactive **End Date:** 1980