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Hanford Site Waste Management Units Report

Environmental Data Management

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Waste Units Assigned to this Operable Unit

216-S-5	Crib
216-S-6	Crib
216-S-10D	Ditch
216-S-10P	Pond
216-S-11	Pond
216-S-16D	Ditch
216-S-16P	Pond
216-S-17	Pond
216-S-19	Pond
216-S-25	Crib
216-S-172	Control Structure
216-U-9	Ditch
2607-WZ	Septic Tank
2904-S-160	Control Structure
2904-S-170	Control Structure
2904-S-171	Control Structure

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UNIT NAME: 216-S-5
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1954
END DATE: March 1957

COORDINATES: N32740 W77000 (center)

WASTE TYPES AND AMOUNTS: The site received process vessel cooling water and steam condensate from 202-S. The waste is acidic.

SITE DESCRIPTION: The unit contains ~16,333 cu yd of gravel fill. The side slope is 1.5:1. Two lengths of 30-in.-diameter, perforated, corrugated metal pipe form a cross with dimensions of 180 ft by 190 ft. The ends of the pipe are sealed with 1/4-in. plate covers. The plates are perforated.

CLEANUP ACTIONS: This site was surface stabilized on 8/24/90.

9 7 1 2 5 5

UNIT NAME: 216-S-6
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: November 1954
END DATE: July 1972

COORDINATES: N33250 W77850 (center)

WASTE TYPES AND AMOUNTS: Until 6/67, the site received the process vessel cooling water and steam condensate from the 202-S Building. From 6/67 to 7/67, production operations were shut down and the 202-S Building put on standby. After 7/67, the site received the steam condensate from the D-12 and D-14 waste concentrators in the 202-S Building. The waste is low salt and neutral/basic.

SITE DESCRIPTION: The unit is filled with ~116,333 cu yd of gravel fill. Waste lines are ~7 ft below the surface. The risers are ~2 ft below the surface. The surface of the unit is ~10 ft below the surrounding ground surface.

CLEANUP ACTIONS: This site was surface stabilized on 9/14/90.

UNIT NAME: 216-S-10D
UNIT TYPE: Ditch
WASTE CATEGORY: Mixed Waste

TSD: D-2-7
UNIT STATUS: Active
START DATE: August 1951

COORDINATES: N33800 W75475 (head), N31600 W77250 (end)

WASTE TYPES AND AMOUNTS: In the past, hazardous waste salts ($NaNO_2$, NaOH) were discharged (420 L) to the unit. Until 1965, the site received chemical sewer waste from 202-S and overflow from the high water tower. Since October 1984, the site no longer acted as a ditch because the 216-S-10 Pond was stabilized. No dangerous wastes have been discharged to this unit since February 1987.

SITE DESCRIPTION: The unit is unlined and uncovered.

CLEANUP ACTIONS: The site is partially stabilized.

UNIT NAME: 216-S-10P
UNIT TYPE: Pond
WASTE CATEGORY: Mixed Waste

TSD: D-2-7
UNIT STATUS: Inactive
START DATE: February 1954
END DATE: October 1984

COORDINATES: N31850 W77200

WASTE TYPES AND AMOUNTS: Until 1965, the site received the chemical sewer waste from 202-S and overflow from the high water tower via the 216-S-10 Ditch. From 1960's, the site received the bearing cooling water from 202-S.

SITE DESCRIPTION: The unit is backfilled over. It includes four finger leader trenches. The pond and ditch cover 13.2 acres.

CLEANUP ACTIONS: The site was stabilized in October 1984.

UNIT NAME: 216-S-11
UNIT TYPE: Pond
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: May 1954
END DATE: August 1965

COORDINATES: N32450 W76725 (center of #1), N32000 W76900 (center of #2)

WASTE TYPES AND AMOUNTS: The site received the waste from air conditioning and drains in 202-S and the chemical sewer waste from 202-S via the 216-S-10 Ditch. In 8/65, earth dammed the 216-S-10 Ditch to this unit, diverting all building effluent to the 216-S-10 Pond.

CLEANUP ACTIONS: The site has been stabilized.

UNIT NAME: 216-S-16D
UNIT TYPE: Ditch
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1957
END DATE: February 1975

COORDINATES: N32250 W80900 (west end), N33200 W79400 (east end)

WASTE TYPES AND AMOUNTS: Until 6/67, the site received process cooling water and steam condensate from 202-S Building. (Note: 1/57 is believed to be the most accurate start date.) From 6/67 to 7/67, production operations were shut down, and the 202-S Building was put on standby. After 7/67, the site received condenser and vessel cooling water from concentrator boil-down operations in the 202-S Building.

SITE DESCRIPTION: The side slope is 2:1, and the unit has been backfilled.

UNIT NAME: 216-S-16P
UNIT TYPE: Pond
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1957
END DATE: February 1975

COORDINATES: N32250 W81600 (center of pond complex)

WASTE TYPES AND AMOUNTS: Until 6/67, the site received process cooling water and steam condensate from the 202-S Building. From 6/67 to 7/67, production operations were shut down and 202-S put on standby. After 7/67, the site received condenser and vessel cooling water from concentrator boil-down operations in the 202-S Building.

SITE DESCRIPTION: Four smaller ponds separated by dikes and a leach trench, 10 ft deep and 1,100 ft long, extending east from Pond #2.

KNOWN RELEASES: UPR-200-W-47, UPR-200-W-124, UPR-200-W-59.

CLEANUP ACTIONS: In 1975, this area was leveled and backfilled. A number of test plots were sealed with asphalt, and a root toxin was applied.

UNIT NAME: 216-S-17
UNIT TYPE: Pond
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: October 1951
END DATE: April 1954

COORDINATES: N32000 W78000 (center)

WASTE TYPES AND AMOUNTS: Until 1/53, the site received the process cooling water and steam condensate from the 202-S Building. After 1/53, the site received the 202-S effluent and the overflow from 216-U-10 Pond via the 216-U-9 Ditch.

CLEANUP ACTIONS: The site has been stabilized.

UNIT NAME: 216-S-19
UNIT TYPE: Pond
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: February 1952
END DATE: October 1984

COORDINATES: N32000 W72775 (center)

WASTE TYPES AND AMOUNTS: Until 12/54, the site received effluents from the 222-S/SA Laboratory ventilation cooling water and miscellaneous wastes from lab hoods and decontamination sinks via the 207-SL Retention Basin. From 12/54 to 10/55, the site was inactive. The radionuclide concentration in the 207-SL Retention Basin liquid waste was above the prescribed disposal guidelines. The building effluents were rerouted to the 216-S-20 Crib. After 10/84, the site received ventilation cooling water and miscellaneous wastes from laboratory hoods and decontamination sinks in the 222-S Building via the 207-SL Retention Basin. The potential existed for the disposal of hazardous chemicals; however, no documentation exists to substantiate this. See DOE-RL 1986a.

KNOWN RELEASES: In December 1953, surface dose rates up to 200 mR/h were detected at the edge of this unit. Over the ensuing years, the beta/gamma radioactivity has decayed off until presently there is no activity detectable with radiation monitoring field instruments.

CLEANUP ACTIONS: The site was stabilized in October 1984. The wastes were rerouted to the 216-S-26 Crib.

UNIT NAME: 216-S-25
UNIT TYPE: Crib
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: November 1973

COORDINATES: N35520 W76250, N35520 W76825 (centerline)

WASTE TYPES AND AMOUNTS: Until 11/80, the site received the 242-S Evaporator process steam condensate. Since 11/80, the 242-S Evaporator has been in standby mode. The site has received only 241-SX Tank Farm cooling water.

SITE DESCRIPTION: A distribution pipe is located 7 ft below grade. The site contains ~41,000 cu ft of gravel.

UNIT NAME: 216-S-172
UNIT TYPE: Control Structure
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1956
END DATE: 1976

COORDINATES: N32940 W77150 (N33200 W76800)*

WASTE TYPES AND AMOUNTS: The unit contains unquantified amounts of low-level radioactive solid waste. The maximum radiation reading is 25 mR/h.

SITE DESCRIPTION: The unit includes a weir box. It is a reinforced concrete box, 13 by 7 by 8 ft tall with 10-in.-thick walls and a 12-in.-thick bottom. The structure extends 6 in. above grade and 7 ft below grade. Float wells consisting of 16-in.-diameter pipe centered in 2-ft 4-in. columns are attached vertically to the north and south outside walls of the structure. Piping includes one 10-in. inlet pipe and three 12-in. outlet pipes, and a 24-in. vitrified clay inlet pipe that enters from the floor. Visible above grade are two float well covers, three handwheels for operating sluice gates, a Stevens Recorder, and a manhole cover.

CLEANUP ACTIONS: The site was interim stabilized in 1991.

* Conflicting Coordinates

UNIT NAME: 216-U-9
UNIT TYPE: Ditch
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: December 1952
END DATE: April 1954

COORDINATES: N35810 W78010 (head of ditch), N32590 W78066 (end of ditch)

WASTE TYPES AND AMOUNTS: The site received the overflow from the 216-U-10 Pond.

SITE DESCRIPTION: The site connects 216-U-10 Pond with 216-S-17 Pond. The ditch is cutting into the side of the 216-S-16 Ditch, which went to the 216-S-16 Pond. This unit may have gone first to the 216-S-16 Ditch and then to 216-S-17 Pond. The side slope is 1:2.

KNOWN RELEASES: UPR-200-W-139.

CLEANUP ACTIONS: This unit became contaminated in September 1953 and was covered in the spring of 1954 with 2 ft of clean soil. The unit has been released from radiation zone status.

UNIT NAME: 2607-WZ
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1944

COORDINATES: N34850 W76050

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 22.6 cu m/d.

SITE DESCRIPTION: The unit includes a drain field.

UNIT NAME: 2904-S-160
UNIT TYPE: Control Structure
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1954
END DATE: 1976

COORDINATES: N33190 W77140 (N33450 W76750)*

WASTE TYPES AND AMOUNTS: The unit contains low-level contaminated concrete and piping. The quantity of contaminated waste has not been determined. There is 5,000 ct/min beta/gamma in the soil and up to 300 ct/min smearable on the surfaces of the box.

SITE DESCRIPTION: The unit extends 6 in. above grade. It is a pentagonal structure consisting of 1-ft-thick reinforced concrete walls, floor, and roof. It is 9 ft high with two walls measuring 5 ft 4 in. and the other walls measuring 5 ft, 6 ft 2 in., and 4 ft 1 in. in length. Piping includes two 24-in.-diameter vitrified clay outlet pipes and one 24-in-diameter vitrified clay inlet pipe. There is a manhole and two handwheels for sluice gate operation visible above grade.

CLEANUP ACTIONS: The site was interim stabilized in 1991.

* Conflicting Coordinates

UNIT NAME: 2904-S-170
UNIT TYPE: Control Structure
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1954
END DATE: 1976

COORDINATES: N33490 W74140 (N34400 W74300)*

WASTE TYPES AND AMOUNTS: This unit contains low-level contaminated concrete and piping. The quantity of contaminated waste has not been determined. There is less than 200 ct/min beta/gamma smearable contamination and less that 7 mR/h penetrating, plus nonpenetrating radiation present.

SITE DESCRIPTION: The unit is constructed of reinforced concrete with 10-in.-thick walls and top and a 12-in.-thick bottom. The box extends 6 in. above grade and 9.5 ft below grade. It contains a sluice gate with hand wheel operator, a liquid level recorder, and piping. Piping includes one inlet and one outlet pipe, both of 30-in.-diameter vitrified clay pipe. Two float well caps, a flow meter, and manhole cover are visible above grade. Building 2904-SA covers 3 ft 2 in. of the weir's south end.

* Conflicting Coordinates

UNIT NAME: 2904-S-171
UNIT TYPE: Control Structure
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1954
END DATE: 1976

COORDINATES: N35560 W78280

WASTE TYPES AND AMOUNTS: This unit contains low-level contaminated concrete and piping. The quantity of contaminated waste has not been determined. There is less than 100 ct/min beta/gamma smearable contamination and 20 mR/h reading at contact with an open or closed window Cutie Pie.

SITE DESCRIPTION: The unit is constructed of reinforced concrete with 10-in.-thick walls and top and a 12-in.-thick bottom. The box extends 6 in. above grade and 9.5 ft below grade. Float wells are attached vertically to the north and south outside walls. Float wells are 16-in.-diameter metal pipes centered in 24-ft 4-in. square concrete columns. Piping includes an 18-in.-diameter vitrified clay inlet pipe and a 18-in.-diameter galvanized corrugated metal outlet pipe. Visible above grade are the stem gate valve with handwheel to operate the weir sluice gate, flow meter, vent riser, and manhole cover.

Waste Units Assigned to this Operable Unit

207-S Retention Basin	Retention Basin
216-S-1 & 2	Crib
216-S-3	French Drain
216-S-7	Crib
216-S-8	Trench
216-S-9	Crib
216-S-13	Crib
216-S-15	Pond
216-S-18	Trench
216-S-23	Crib
218-W-9	Burial Ground
241-S-151	Diversion Box
241-S-302A	Catch Tank
241-SX-302	Catch Tank
UN-200-W-32	Unplanned Release
UN-200-W-34	Unplanned Release
UN-200-W-41	Unplanned Release
UN-200-W-42	Unplanned Release
UN-200-W-49	Unplanned Release
UN-200-W-50	Unplanned Release
UN-200-W-52	Unplanned Release
UN-200-W-69	Unplanned Release
UN-200-W-82	Unplanned Release
UN-200-W-83	Unplanned Release
UN-200-W-108	Unplanned Release
UN-200-W-109	Unplanned Release
UN-200-W-114	Unplanned Release
UN-200-W-123	Unplanned Release
UN-200-W-127	Unplanned Release

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UNIT NAME: 207-S Retention Basin
UNIT TYPE: Retention Basin
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: October 1951
END DATE: April 1954

COORDINATES: N34153 W75133, N34287 W75133, N34287 W75267, N34153 W75267

WASTE TYPES AND AMOUNTS: The site received process cooling water and steam condensate from the 202-S Building. These were then discharged to the 216-S-17 Pond or 216-S-16 Pond.

SITE DESCRIPTION: Concrete structure with a volume of 853,000 gal and a surface area of 4,599 sq ft. The walls are ~10 in. thick, and the floors are 8 in. thick. The system includes ~2,000 ft of 24-in.-diameter vitrified clay pipe used to convey the waste water to and from the unit.

KNOWN RELEASES: A number of leaks in process vessel coils in the REDOX Plant released radioactivity into the unit from late 1952 until the unit was taken out of service. UPR-200-W-13, UPR-200-W-15, UPR-200-W-95.

CLEANUP ACTIONS: The concrete floors and walls of the basin were filled with dirt to prevent contamination spread. In June 1975, the soil was treated with herbicides and covered with 9 in. of gravel to stop radioactive weed growth.

UNIT NAME: 216-S-1 & 2
UNIT TYPE: Crib
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1952
END DATE: January 1956

COORDINATES: N35444 W75214 (center of 216-S-1), N35419 W75170 (center of 216-S-2)

WASTE TYPES AND AMOUNTS: The site received cell drainage from D-1 Receiver Tank and redistilled condensate from D-2 Receiver Tank in 202-S Building.

SITE DESCRIPTION: The unit consists of two cribs, 12 by 12 by 9 ft deep, made of 6-in. by 6-in. timbers. The two structures are 50 ft from center to center in one excavation. 216-S-2 received the overflow from 216-S-1.

KNOWN RELEASES: UPR-200-W-36.

UNIT NAME: 216-S-3
UNIT TYPE: French Drain
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: September 1953
END DATE: August 1956

COORDINATES: N35964 W75480 (drain #1), N36064 W75480 (drain #2)

WASTE TYPES AND AMOUNTS: The site received condensate from condensers on the 101-S and 104-S tanks in the 241-S Tank Farm. The waste is low salt and neutral/basic.

SITE DESCRIPTION: The unit consists of two structures, each with 10-ft by 10-ft bottom surface dimensions, spaced 50 ft apart.

UNIT NAME: 216-S-7
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1956
END DATE: July 1965

COORDINATES: N35152 W74510 (center of site)

WASTE TYPES AND AMOUNTS: Until 4/59, the site received cell drainage from D-1 Receiver Tank, process condensate from D-2 Receiver Tank, and condensate from H-6 Condenser in 202-S. After 4/59, the site received the same waste except rerouted the H-6 condensate to U.G.S.

SITE DESCRIPTION: Two 16- by 16- by 5-ft wooden structures, 34 ft apart, in one excavation. The wooden structures are suspended in gravel fill and covered with 15 ft of dirt.

CLEANUP ACTIONS: The site was stabilized in 1991.

UNIT NAME: 216-S-8
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: November 1951
END DATE: February 1952

COORDINATES: N35300 W75370 (center)

WASTE TYPES AND AMOUNTS: The site received unirradiated start-up waste from the 202-S Building.

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UNIT NAME: 216-S-9
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: July 1965
END DATE: January 1969

COORDINATES: N35920 W74455, N36290 W74550 (centerline)

WASTE TYPES AND AMOUNTS: The site received process condensate from the D-2 Receiver Tank in the 202-S Building. The waste is acidic.

SITE DESCRIPTION: The unit is a gravel structure with a side slope of 1:1.5. Waste flowed into the unit through the distribution system, which consists of 581 ft of 6-in. V.C.T. perforated pipe in a U shape, 15 ft by 295 ft, and connected by 24 ft of 3-in. SCH 10 pipe in a Y shape. The entire distribution system is 21 ft below grade.

UNIT NAME: 216-S-13
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1952
END DATE: July 1972

COORDINATES: N34610 W74625 (center)

WASTE TYPES AND AMOUNTS: Until 6/67, the site received liquid waste from the 203-S Decontaminated Metal Storage Facility, the 204-S UNH Lag Storage Facility, and the 276-S Organic Solvent Make-up Facility. After 6/67, the site received occasional sump waste from the 204-S facility. The waste is low salt and neutral/basic.

SITE DESCRIPTION: The unit is a 12- by 12- by 9-ft wooden structure, ~1,200 ft of 6-in. by 8-in. lumber, enclosed on four sides with 1-in. sheathing and open on the bottom. The top is ~20 ft below grade. The side slope is 1:1.

UNIT NAME: 216-S-15
UNIT TYPE: Pond
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: December 1951
END DATE: October 1952

COORDINATES: N36066 W75450 (center)

WASTE TYPES AND AMOUNTS: The site received condenser spray cooling water from 110-S Tank in the 241-S Tank Farm. The waste is low salt and neutral/basic. No radionuclide inventory is available.

UNIT NAME: 216-S-18
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: October 1954
END DATE: October 1954

COORDINATES: N35750 W74910 (center)

WASTE TYPES AND AMOUNTS: The site received vehicle decontamination waste.

CLEANUP ACTIONS: In October 1972, this site was dug up and the remaining radioactive objects found (a few feet of 3/4-in. piping, 1 lab sink, and ~2 cu yd of soil). These objects were taken to the 200 West Dry Waste Burial Ground for burial. The site was released from radiation zone status.

UNIT NAME: 216-S-23
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1969
END DATE: July 1972

COORDINATES: N36669 W74709, N37020 W74790 (centerline)

WASTE TYPES AND AMOUNTS: The site received REDOX process condensate from D-2 Receiver Tank in the 202-S Building. The waste is low salt and neutral/basic.

SITE DESCRIPTION: A gravel fill of ~4,320 cu feet is 2 ft above the bottom. A 6-in. I.D. perforated pipe runs the length of the unit, 1 ft above the bottom. The side slope is 1:1.

UNIT NAME: 218-W-9
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: September 1954
END DATE: September 1954

COORDINATES: N35647 W74556, N35508 W74555, N35511 W74458, N35648 W74458

WASTE TYPES AND AMOUNTS: The unit contains an unknown amount of metal scrap, including the 211-S Tank taken from the REDOX facility. Waste contains less than 0.1 Ci total beta activity.

SITE DESCRIPTION: The burial area is 137 ft by 975 ft. The location is designated by four corner posts. No data is available regarding depth, slope, or actual actual area used inside the fenced area.

CLEANUP ACTIONS: The site was interim stabilized in 1991.

UNIT NAME: 241-S-151
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1952

COORDINATES: N35635 W75410

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

SITE DESCRIPTION: The unit is a reinforced concrete structure.

KNOWN RELEASES: UPR-200-W-51, UPR-200-W-20.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-S-302A
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1952

COORDINATES: N35670 W75360

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It contains 54 gal of waste.

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UNIT NAME: 241-SX-302
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1954
END DATE: 1983

COORDINATES: N35590 W75420

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

CLEANUP ACTIONS: This unit was isolated in 1985.

UNIT NAME: UN-200-W-32 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** 1954
WASTE CATEGORY: Mixed Waste

COORDINATES: N35020 W74340

WASTE TYPES AND AMOUNTS: UNH solution.

KNOWN RELEASES: A UNH transfer line en route to 224-U from REDOX broke, discharging UNH solution to the ground.

CLEANUP ACTIONS: The contamination was covered with clean soil. The area was removed from radiation zone status in February 1971.

UNIT NAME: UN-200-W-34 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** May 1955
WASTE CATEGORY: Mixed Waste

COORDINATES: N34730 W74650

WASTE TYPES AND AMOUNTS: A maximum dose rate of 1 R/h at ground surface.

KNOWN RELEASES: Overflow from an open ditch to REDOX Chemical Sewer Trenches.

UNIT NAME: UN-200-W-41 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** July 7, 1956
WASTE CATEGORY: Mixed Waste

COORDINATES: N34920 W74250

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 1,000 mR/h.

KNOWN RELEASES: A burial box in transit provided ground contamination in the S Plant area.

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UNIT NAME: UN-200-W-42 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** February 3, 1957
WASTE CATEGORY: Mixed Waste

COORDINATES: N33920 W74250

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 500 mR/h.

KNOWN RELEASES: Contamination spots were found on the ground in S Plant near a railroad shack. The cause of the contamination is unknown.

CLEANUP ACTIONS: The ground was cleaned to 2,000 to 5,000 ct/min background.

UNIT NAME: UN-200-W-49 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** July 31, 1958
WASTE CATEGORY: Mixed Waste

COORDINATES: N35180 W75550

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 150 mR/h and a single spot up to 10 R/h.

KNOWN RELEASES: Ground outside the southeast corner of the 241-SX Tank Farm was contaminated by that farm.

CLEANUP ACTIONS: Recommendations were made to establish a radiation zone.

UNIT NAME: UN-200-W-50 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** August 25, 1958
WASTE CATEGORY: Mixed Waste

COORDINATES: N35500 W75430

WASTE TYPES AND AMOUNTS: Beta/gamma readings of 40,000 ct/min with spots up to 100 mR/h.

KNOWN RELEASES: Release from the 241-SX Tank Farm.

CLEANUP ACTIONS: Camden Avenue was roped off and posted as a radiation zone.

UNIT NAME: UN-200-W-52 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** September 15, 1958
WASTE CATEGORY: Mixed Waste

COORDINATES: N34090 W75310

KNOWN RELEASES: Leakage from the 241-S Diversion Box caused ground contamination in the immediate vicinity.

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UNIT NAME: UN-200-W-69 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** March 2, 1973
WASTE CATEGORY: Mixed Waste

COORDINATES: N34860 W74220

WASTE TYPES AND AMOUNTS: Beta/gamma with readings from 2,000 to 50,000 ct/min to 5,000 mR/h at the railroad gate and from 5,000 to 100,000 ct/min outside of the REDOX exclusion fence.

KNOWN RELEASES: The cause of the release is unknown.

CLEANUP ACTIONS: The area was surveyed, and zones were established.

UNIT NAME: UN-200-W-82 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** January 15, 1980
WASTE CATEGORY: Mixed Waste

COORDINATES: N35700 W75450

WASTE TYPES AND AMOUNTS: Beta/gamma with spots outside of the zone that read up to 80,000 ct/min.

KNOWN RELEASES: Traffic from daily routine surveillance deposited specks outside the radiation zone.

CLEANUP ACTIONS: Specks outside the zone were picked up and removed to the burial ground.

UNIT NAME: UN-200-W-83 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** November 23, 1981
WASTE CATEGORY: Mixed Waste

COORDINATES: N34860 W74235

WASTE TYPES AND AMOUNTS: Radioactive contamination, amount unknown.

KNOWN RELEASES: Spill to ground.

UNIT NAME: UN-200-W-108 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** January 8, 1969
WASTE CATEGORY: Mixed Waste

COORDINATES: N35850 W74450

WASTE TYPES AND AMOUNTS: REDOX process condensate from the D-2 Receiver Tank in the 202-S Building with beta/gamma and dose rate readings of 40 R/h at the bottom of the waste line.

KNOWN RELEASES: During the tie-in of the 216-S-9 Crib waste line to the new 216-S-23 Crib, contaminated water was encountered coming from a break at the junction of the two crib lines. Further excavation disclosed a severe expansion buckle in the line at that point with a similar buckle 6 ft up the line toward the 202-S Building. There is no way of determining how long the line had been leaking or how much waste was discharged to the ground.

CLEANUP ACTIONS: Dose rates were shielded with lead to reduce dose rates to personnel to 400 mR/h. ~30 gal of waste solution were discharged into a hole in the ground dug below the opening of the line. This hole is ~20 ft below ground surface at that location.

UNIT NAME: UN-200-W-109 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** January 24, 1969
WASTE CATEGORY: Mixed Waste

COORDINATES: N35575 W74450

WASTE TYPES AND AMOUNTS: REDOX process condensate from the D-2 receiver tank in the 202-S Building containing acidic unknown beta/gamma. Dose rates of the liquid were 450 mR/h at the surface. As the water sank back into the ground, surface dose rates dropped to 20 mR/h.

KNOWN RELEASES: During the tie-in of the 216-S-9 Crib waste line to the new 216-S-23 Crib, contaminated water was encountered coming from a break at the junction of the two crib lines.

UNIT NAME: UN-200-W-114 **SWMU:** Yes
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** September 1980
WASTE CATEGORY: Mixed Waste

COORDINATES: N35400 W75250

KNOWN RELEASES: Radioactive particulate matter resulting from operations activities in the 241-SX Tank Farm, the 241-SX-151 Diversion, and the 241-S-151 Diversion Box spread over the ground surface of the subject area during the many years of operations.

CLEANUP ACTIONS: A number of cleanup campaigns reduced the amount of contamination, but a residue of the original remains on the ground.

UNIT NAME: UN-200-W-123 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** January 18, 1979
WASTE CATEGORY: Mixed Waste

COORDINATES: N34860 W74235

WASTE TYPES AND AMOUNTS: The release consisted of radioactive liquid waste.

KNOWN RELEASES: Frozen discharge line.

CLEANUP ACTIONS: The contaminated ground beneath the tank car was cleaned up.

UNIT NAME: UN-200-W-127 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** February 26, 1980
WASTE CATEGORY: Mixed Waste

COORDINATES: N36700 W75575

WASTE TYPES AND AMOUNTS: An unknown liquid.

KNOWN RELEASES: A pool of liquid was found on the ground at the east side of 242-S Building.

CLEANUP ACTIONS: The spill area was covered with clean dirt.

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Other Waste Units Located Within the Operable Unit Area

203-S & 205-S UNH Processing Facilities	Test Treatment or Support Facility
244-S Receiver Tank	Receiving Vault
276-S Solvent Facility	Test Treatment or Support Facility
276-S-141	Storage Tank
276-S-142	Storage Tank
296-S-12	Stack
2904-SA Sample Building	Building

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SWMU: Yes

UNIT NAME: 203-S & 205-S UNH Processing Facilities
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

UNIT STATUS: Inactive
END DATE: 1976

COORDINATES: N34920 W74780

WASTE TYPES AND AMOUNTS: The unit contains radioactively contaminated solid waste. It is estimated that 0.2 Ci mixed fission products remain buried in piping, concrete, and soil.

SITE DESCRIPTION: The site currently contains one above-ground feature: the main steam line to the REDOX Plant. Underneath the 2-ft (or deeper) layer of clean soil, a number of large radioactive and nonradioactive structures remain: the 203-S Basin, the remnant of the 204-S Basin, the 205-S Vault, the 205-S Building Pad, the still-active concrete pipe encasement from the REDOX Plant to the tank farm system, and the REDOX Chemical Sewer. Various underground piping and electrical conduits also remain.

UNIT NAME: 244-S Receiver Tank
UNIT TYPE: Receiving Vault
WASTE CATEGORY: Mixed Waste

TSD: S-2-3
UNIT STATUS: Active
START DATE: 1987

COORDINATES: N36000 W75460

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation. It contains 10,954 gal of waste.

SITE DESCRIPTION: This unit is constructed of carbon steel and has a design capacity of 20,280 gal. It sets vertically inside a reinforced concrete, steel-lined vault with 1-ft-thick walls and a 4.5-ft-thick base. The bottom of the vault is 49.5 ft below grade.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks.

UNIT NAME: 276-S Solvent Facility
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1952
END DATE: 1967

COORDINATES: N34620 W74180

WASTE TYPES AND AMOUNTS: This unit contains contaminated surfaces inside pumps and tanks. No inventory has been determined. Direct reading on the pumps show 8 mR/h and a general reading of 200 ct/min beta/gamma. Less than 200 dis/min alpha is obtained on smears.

SITE DESCRIPTION: The building is 23 ft tall. The process area has three 2-ft-thick concrete walls. The fourth wall and the roof are made of structural steel and transite siding. The floor is about 12 ft below grade. Three 13-ft-diameter by 13-ft-high stainless steel tanks are located in the process area. Other tanks in the building include three 5.5-in.-diameter by 7.5-ft-high stainless steel tanks and two 26-gal-capacity carbon-steel tanks.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as medium in comparison with other 200 Area surplus facilities.

UNIT NAME: 276-S-141
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

TSD: TS-2-2
UNIT STATUS: Inactive
START DATE: January 1951
END DATE: 1969

COORDINATES: N34600 W74220

WASTE TYPES AND AMOUNTS: The unit contained slightly contaminated hexone, ~18,000 gal of nearly pure hexone (4-methyl 2-pentanone). Radionuclide content was estimated at 2 Ci beta.

SITE DESCRIPTION: The unit has a 23,000-gal capacity and is constructed of 3/8-in. carbon steel. It is buried 4 ft below grade.

CLEANUP ACTIONS: Nearly all the liquid was removed from the unit during distillation operations in 1990.

UNIT NAME: 276-S-142
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

TSD: TS-2-2
UNIT STATUS: Inactive
START DATE: January 1951
END DATE: 1969

COORDINATES: N34600 W74220

WASTE TYPES AND AMOUNTS: The unit contained slightly contaminated hexone (60%), NPH (normal paraffin hydrocarbon) and TBP (tributyl phosphate) mixture (19%) (12,700 gal). In addition, it contains ~2,000 gal of water containing 1% to 3% organics. Radionuclide content was estimated at 2 Ci beta,.

SITE DESCRIPTION: The unit has a 23,000-gal capacity and is constructed of 3/8-in. carbon steel. It is buried 4 ft below grade.

CLEANUP ACTIONS: Nearly all the liquid was removed from the unit during distillation operations in 1990.

UNIT NAME: 296-S-12
UNIT TYPE: Stack
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Inactive

COORDINATES: N34620 W74180

WASTE TYPES AND AMOUNTS: The unit received exhaust air from the 276-S Operating Gallery.

SITE DESCRIPTION: Two units, each 21 in. square and 10.5 ft high.

UNIT NAME: 2904-SA Sample Building
UNIT TYPE: Building
WASTE CATEGORY: Mixed Waste

SWMU: No
UNIT STATUS: Inactive
START DATE: 1956
END DATE: 1976

COORDINATES: N33915 W74250

WASTE TYPES AND AMOUNTS: This unit contains trace amounts of low-level radioactive surface contamination.

SITE DESCRIPTION: The unit is a prefabricated metal building, 7 ft high.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities.

Waste Units Assigned to this Operable Unit

207-SL Retention Basin	Retention Basin
216-S-12	Trench
216-S-14	Trench
216-S-20	Crib
216-S-22	Crib
216-S-26	Crib
218-W-7	Burial Ground
240-S-151	Diversion Box
240-S-152	Diversion Box
240-S-302	Catch Tank
2607-W6	Septic Tank
UN-200-W-35	Unplanned Release
UN-200-W-43	Unplanned Release
UN-200-W-56	Unplanned Release
UN-200-W-61	Unplanned Release
UN-200-W-116	Unplanned Release

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UNIT NAME: 207-SL Retention Basin
UNIT TYPE: Retention Basin
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: February 1952

COORDINATES: N34263 W732469, N34263 W73415

WASTE TYPES AND AMOUNTS: Until 12/54, the site received low-level waste, including ventilation cooling water and miscellaneous wastes from laboratory hoods and sinks in the 222-S Laboratory. These were then discharged to the 216-S-19 Pond. From 12/54 to 10/55, the site was inactive (radioactivity levels of waste exceeded set limits). Since 10/55, the site has been receiving the same as 2/52 to 12/54 (above). This unit originally discharged to the 216-S-19 Pond and now discharges to the 216-S-26 Crib.

SITE DESCRIPTION: The unit has reinforced concrete walls 12 to 16 in. thick, and the floor is 15 in. thick. A 7-ft chain link fence on top of the walls lines the perimeter of the unit.

UNIT NAME: 216-S-12
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: July 1954
END DATE: July 1954

COORDINATES: N34965 W73384 (northwest corner)

WASTE TYPES AND AMOUNTS: The site received flush water from the 291-S Stack. The site was retired when the flush of the 291-S-1 Stack was complete.

UNIT NAME: 216-S-14
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: December 1951
END DATE: January 1952

COORDINATES: N33100 W73700 (center)

WASTE TYPES AND AMOUNTS: The site received the contaminated hexone from the initial test runs in the 202-S Building. The site was retired when discharge of hexone to the unit was completed.

UNIT NAME: 216-S-20
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1952
END DATE: May 1973

COORDINATES: N34296 W73312 (center)

WASTE TYPES AND AMOUNTS: Until 7/53, the site received miscellaneous waste from lab hoods and decontamination sinks in the 222-S Building via the 219-S Retention Building. From 7/53 to 9/63, the site received the above effluent via the 207-SL Retention Basin and 219-S Retention Building and 300 Area laboratory waste via the manhole. From 9/63 to 1/69, the site received miscellaneous waste from lab hoods and decontamination sinks in 222-S via 219-S Retention Building. Rerouted the 300 Area lab wastes to the 216-T-28 Crib. From 1/69 to 11/72, the site was inactive--ground caving in above the unit. Valved out the pipelines to the unit in 219-S and at the 207-SL Retention Basin and rerouted the 222-S effluents to 202-S Building concentrators for boildown and discharge to U.G.S. After 11/72, the ground was filled in. The site received miscellaneous wastes from lab hoods and decontamination sinks in 222-S via the 219-S Retention Building.

SITE DESCRIPTION: The unit contains two 12- by 12- by 9-ft wooden structures, 50 ft apart, with the top of each ~17 ft below grade. The side slope is 1:1. The bottom of each wooden structure is suspended in a gravel fill 4 ft above the bottom of the unit.

UNIT NAME: 216-S-22 | **SWMU:** Yes
UNIT TYPE: Crib | **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste | **START DATE:** October 1957
END DATE: 1967

COORDINATES: N34533 W73183, N34533 W73080 (centerline)

WASTE TYPES AND AMOUNTS: The site received liquid waste from the acid recovery facility in the 293-S Building.

SITE DESCRIPTION: Gravel structure with a side slope of 1:1.5. A 4-in. V.C. pipe enters the unit 7 ft below grade, branches out at right angles downwards to the bottom, and runs along the bottom for the length of the unit. The pipe has open joints along the entire section along the bottom.

UNIT NAME: 216-S-26 | **SWMU:** Yes
UNIT TYPE: Crib | **UNIT STATUS:** Active
WASTE CATEGORY: Low-Level Waste | **START DATE:** October 1984

COORDINATES: N33763 W73415, N33826 W72970 (centerline)

WASTE TYPES AND AMOUNTS: The site receives steam condensate and sink wastes, which are byproduct radioactive wastes, from the 222-S Laboratory via the 207-SL Retention Basin. The wastes contain a variety of chemicals, including acetone, nitric acid, and lesser amounts of sulfuric and hydrofluoric acids.

SITE DESCRIPTION: A 6-in. vitrified clay, perforated distribution pipe runs the length of the unit, 1.5 ft above the bottom. 2.5 ft of 1.5- to 3-in. gravel lines the bottom, covered with a membrane barrier and 9.5 ft of earth. One gage well with a liquid level indicator is located 100 ft from the west end, and a vent riser is located at the east end.

KNOWN RELEASES: During the week of 10/20/84, a spill occurred at the 222-S Lab resulting in the release of water contaminated with Sr-90 to the 207-SL Retention Basin. Concentrations averaged 2 to 3 times the Sr-90 guide but did not exceed RHO-MA-139 standards. The water was released to the new 216-S-26 Crib.

UNIT NAME: 218-W-7
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1952
END DATE: 1960

COORDINATES: N34129 W73540 (center)

WASTE TYPES AND AMOUNTS: This vault received dry, packaged laboratory and sampler waste from the 222-S Laboratory.

SITE DESCRIPTION: Carbon steel burial vault, with one coat of hot coal tar enamel, 14 ft deep, resting on a 1-ft concrete foundation. The vault has a dome and vent structure that extends 10.5 ft to the surface.

UNIT NAME: 240-S-151
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1950
END DATE: March 1987

COORDINATES: N34700 W73860

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. This unit has been isolated and weather covered.

UNIT NAME: 240-S-152
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1977
END DATE: 1980

COORDINATES: N34940 W73900

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. This unit has been isolated and weather covered.

UNIT NAME: 240-S-302
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1950
END DATE: March 1987

COORDINATES: N34700 W73860

WASTE TYPES AND AMOUNTS: This unit receives low-level, dilute laboratory waste containing 0.021 mol/L Na; greater than 0.01 mol/L OH; greater than 0.011 mol/L NO2; and 0.000078 g/L total plutonium. Approximately 50,000 gal/yr of waste are transferred through the 240-S-151 Diversion Box from the 222-S Laboratory. The unit contains 2,380 gal of waste.

KNOWN RELEASES: Approximately 600 gal, consisting mainly of rainwater, were released between June 1985 and January 1986. The unit has been taken out of service as a "leaker".

RELEASE POTENTIAL: No release potential exists; the unit has been removed from service.

UNIT NAME: 2607-W6
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1951

COORDINATES: N33800 W73500

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Rate of waste generation is 34.8 cu m/d.

SITE DESCRIPTION: The unit includes a drain field.

UNIT NAME: UN-200-W-35
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: September 1955

COORDINATES: N35015 W73154

WASTE TYPES AND AMOUNTS: UNH solution.

KNOWN RELEASES: A leak in the UNH line from REDOX to U Plant.

CLEANUP ACTIONS: The contamination was removed to the 200 West Solid Waste Burial Ground. The area was removed from radiation zone status in January 1972.

UNIT NAME: UN-200-W-43 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** February 12, 1957
WASTE CATEGORY: Mixed Waste

COORDINATES: N34740 W73340

WASTE TYPES AND AMOUNTS: Alpha with readings to 2,000 dis/min.

KNOWN RELEASES: Wind-blown contamination from a nearby radiation zone affected an area in S Plant.

CLEANUP ACTIONS: The area was posted as a radiation zone pending cleanup.

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UNIT NAME: UN-200-W-56 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** February 6, 1961
WASTE CATEGORY: Mixed Waste

COORDINATES: N34965 W73384

WASTE TYPES AND AMOUNTS: Beta/gamma with readings at 30,000 ct/min in the gravel and 80,000 ct/min in the blacktop.

KNOWN RELEASES: Heavy rainfall washed contamination from a radiation zone.

CLEANUP ACTIONS: The contaminated area was immediately roped off from traffic.

UNIT NAME: UN-200-W-61 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** April 24, 1966
WASTE CATEGORY: Mixed Waste

COORDINATES: N34460 W74120

WASTE TYPES AND AMOUNTS: Beta/gamma with readings from 4,000 to 100,000 ct/min.

KNOWN RELEASES: A fire hose ruptured while flushing the H-10 to the 241-SX transfer line.

CLEANUP ACTIONS: Contaminated walkways were washed down and released from radiation zone status. The top 6 in. of contaminated soil were removed.

UNIT NAME: UN-200-W-116 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** 1968
WASTE CATEGORY: Mixed Waste

COORDINATES: N35250 W73550

KNOWN RELEASES: This area became contaminated with particulate matter spread by wind from the 204-S Waste Storage Tank exhaust and the related railroad tanker waste unloading station.

Other Waste Units Located Within the Operable Unit Area

202-S REDOX	Building
219-S-102	Storage Tank
219-S-103	Storage Tank
222-S Storage Pad	Storage Pad
233-S Plutonium Concentration Facility	Test Treatment or Support Facility
233-SA Filter Building	Building
291-S Fan and Filter Building	Equipment
291-S-1	Stack
292-S Jet Pit House	Building
293-S Off Gas Treatment	Test Treatment or Support Facility
296-S-1	Stack
296-S-2	Stack
296-S-4	Stack
296-S-6	Stack
296-S-7	Stack
296-S-13	Stack
296-S-16	Stack
296-S-21	Stack
2711-S Stack Monitoring Building	Building
2718-S Filter Monitoring Building	Building
727-S Nonradioactive Dangerous Waste Storage	Storage Facility

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UNIT NAME: 202-S REDOX
UNIT TYPE: Building
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1952
END DATE: 1967

COORDINATES: N34490 W73930

WASTE TYPES AND AMOUNTS: The unit contains solid radioactive waste (estimated 1,500 Ci plutonium and 9,000 Ci beta).

SITE DESCRIPTION: The unit is made of reinforced concrete extending 25 ft below grade and 60 to 120 ft above grade. It contains equipment and piping for separation and decontamination of uranium and plutonium as well as the equipment for waste concentration, waste neutralization, and solvent recovery.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as high in comparison with other 200 Area surplus facilities.

UNIT NAME: 219-S-102
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

TSD: TS-2-1
UNIT STATUS: Active
START DATE: June 1, 1951

WASTE TYPES AND AMOUNTS: Waste from the 222-S Laboratories is treated with NaOH to a pH greater than 12 and NaNO2 to a concentration greater than 600 p/M. Treated waste is then sent to 200 West double-shell tank farms.

SITE DESCRIPTION: The unit has a maximum capacity of 4,000 gal.

UNIT NAME: 219-S-103
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

TSD: TS-2-1
UNIT STATUS: Active
START DATE: June 1, 1951

WASTE TYPES AND AMOUNTS: Waste from the 222-S Laboratories is treated with NaOH to a pH greater than 12 and NaNO2 to a concentration greater than 600 p/M. Treated waste is then sent to 200 West double-shell tank farms.

SITE DESCRIPTION: The unit has a maximum capacity of 1,500 gal.

UNIT NAME: 222-S Storage Pad
UNIT TYPE: Storage Pad
WASTE CATEGORY: Mixed Waste

TSD: TS-2-1
UNIT STATUS: Active
START DATE: June 1, 1951

COORDINATES: N43200 W73880

WASTE TYPES AND AMOUNTS: The waste has not been tested and analyzed. Waste codes presented in the Part A Permit Application are an estimate based on past operations.

SITE DESCRIPTION: The unit consists of two metal storage sheds, 19 ft by 8 ft by 8 ft 6 in., on top of a 10-in.-thick concrete pad. Design capacity is 3,300 gal of 55-gal drums.

SWMU: Yes

UNIT NAME: 233-S Plutonium Concentration Facility
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Low-Level Waste

UNIT STATUS: Inactive
END DATE: 1976

COORDINATES: N34610 W74000

WASTE TYPES AND AMOUNTS: The unit received radioactive liquids. The structure and equipment are contaminated: viewing room/stairwell, 338 g of plutonium (estimated); process area, 1,900 g of plutonium (estimated).

SITE DESCRIPTION: The building is constructed of reinforced concrete and structural steel, with insulated metal siding. The height of the building ranges from 10 to 33 ft. The building contains tanks, pumps, piping, control room controls and valves.

KNOWN RELEASES: UPR-200-W-57.

RELEASE POTENTIAL: Prioritization for decommissioning classifies the relative radiological hazard of this facility as high in comparison with other 200 area surplus facilities.

SWMU: No

UNIT NAME: 233-SA Filter Building
UNIT TYPE: Building
WASTE CATEGORY: Low-Level Waste

UNIT STATUS: Active
START DATE: 1967

COORDINATES: N34500 W74100

WASTE TYPES AND AMOUNTS: The unit contains contaminated equipment (estimated 1 Ci Pu).

SITE DESCRIPTION: A one-story, reinforced concrete structure, 8.5 ft high. It houses two banks of double HEPA filters, each with its own exhaust fan, stack, and radiation monitoring instrumentation.

KNOWN RELEASES: UPR-200-W-96.

UNIT NAME: 291-S Fan and Filter Building
UNIT TYPE: Equipment
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Active
START DATE: 1952

COORDINATES: N34600 W73400

WASTE TYPES AND AMOUNTS: The unit received exhaust air from the 202-S Process Building.

SITE DESCRIPTION: The fan house is a concrete structure with outside dimensions of 14 ft by 20 ft by 10 ft 6 in. high and 1-ft-thick walls, 10-in.-thick roof, and 5-in.-thick floor. The sand filter is a below-grade concrete structure with 1-ft-thick walls and roof. Its outside dimensions are ~85 ft by 85 ft by 12 ft 5 in. deep. Tar and gravel over the concrete roof is visible above grade.

KNOWN RELEASES: UPR-200-W-87.

UNIT NAME: 291-S-1
UNIT TYPE: Stack
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Active
START DATE: 1952

COORDINATES: N34600 W73400

WASTE TYPES AND AMOUNTS: Exhaust air from the 202-S Process Building.

SITE DESCRIPTION: Double-shell structure; the outer shell is made of reinforced concrete and the inner shell is constructed of acid-resistant brick and mortar.

UNIT NAME: 292-S Jet Pit House
UNIT TYPE: Building
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1952
END DATE: 1967

COORDINATES: N34650 W73400

WASTE TYPES AND AMOUNTS: The unit contains radioactively contaminated surfaces on tanks, piping, and concrete (preliminary estimate is 4 Ci beta).

SITE DESCRIPTION: A concrete building 11 ft high. Most of the concrete is 10 in. thick. An exhaust jet is located beneath the unit. The structure contains a 5-ft-diameter by 7.5-ft-high tank, 1,000 ft of 2-in.-diameter tubing, and 300 ft of larger pipe up to 6 in. in diameter.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as high in comparison with other 200 Area surplus facilities.

UNIT NAME: 293-S Off Gas Treatment
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1958
END DATE: 1967

COORDINATES: N34440 W73400

WASTE TYPES AND AMOUNTS: This unit and structure are radioactively contaminated.

SITE DESCRIPTION: The building extends 12 ft below grade to 30 ft above grade and is constructed of reinforced concrete. The main floor houses the absorption towers with a pipe valve pit in the basement. A corrugated metal lean-to, 8.5 ft by 28 ft, is attached to the south wall. It houses control room and SWP with its concrete basement housing control piping. Underground acid storage, 14 ft by 13 ft, is provided adjacent to the main building's west side. Also, ventilation supply equipment is present above ground adjacent to the south end of the lean-to structure.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as high in comparison with other 200 Area surplus facilities.

UNIT NAME: 296-S-1
UNIT TYPE: Stack
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Inactive
START DATE: 1950
END DATE: 1976

COORDINATES: N34450 W73710

WASTE TYPES AND AMOUNTS: The unit contains surface radioactive contamination, exact amount unknown (1,000 ct/min beta/gamma direct). The unit discharged filtered air from the south sample gallery and sample hoods of 202-S.

SITE DESCRIPTION: Constructed of metal, it extends from grade level to 6 ft above the roof.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as high in comparison with other 200 Area surplus facilities.

UNIT NAME: 296-S-2
UNIT TYPE: Stack
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Active

COORDINATES: N34940 W73900

WASTE TYPES AND AMOUNTS: The unit contains surface radioactive contamination, amount unknown. The unit discharged filtered air from the north sample gallery and sample hoods of 202-S.

SITE DESCRIPTION: Constructed of metal, it extends from the sample gallery level to above the roof. The fan and motor are in place. The fan and base are on a contaminated surface.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities.

UNIT NAME: 296-S-4 **SWMU:** No
UNIT TYPE: Stack **UNIT STATUS:** Active
WASTE CATEGORY: Low-Level Waste

COORDINATES: N34460 W73610

WASTE TYPES AND AMOUNTS: The unit contains trace amounts of surface radioactive contamination. The unit discharged filtered air from the decontamination room and regulated shop and unfiltered air from the regulated tool room low-level decontamination sink and SWP lobby.

SITE DESCRIPTION: Constructed of metal, it extends from grade level to 6 ft above the roof. The fan and motor are in place. The fan and stack base are in a surface contaminated area.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities.

UNIT NAME: 296-S-6 **SWMU:** No
UNIT TYPE: Stack **UNIT STATUS:** Active
WASTE CATEGORY: Low-Level Waste

COORDINATES: N34510 W74000

WASTE TYPES AND AMOUNTS: The unit contains trace amounts of surface radioactive contamination. The unit discharged unfiltered air from the silo gallery, organic feed tank, and sample elevator.

SITE DESCRIPTION: Constructed of metal, it extends from the fan base in the feed tank area to 11 ft 6 in. above the roof.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities.

UNIT NAME: 296-S-7 **SWMU:** No
UNIT TYPE: Stack **UNIT STATUS:** Active
WASTE CATEGORY: Low-Level Waste

COORDINATES: N34660 W74000

WASTE TYPES AND AMOUNTS: The units contain surface radioactive contamination, amount unknown. Only trace amounts of concentration are expected. The unit discharged air from 233-S. This unit did not exhaust filtered air in 1988.

SITE DESCRIPTION: Two units, constructed of metal, extending from the fan base to above roof level. The unit includes a 20-ft intake duct and 2 electric drive fans. The systems are run one at a time and are alternated weekly.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities.

UNIT NAME: 296-S-13 **SWMU:** No
UNIT TYPE: Stack **UNIT STATUS:** Inactive
WASTE CATEGORY: Low-Level Waste

COORDINATES: N34170 W73590

UNIT NAME: 296-S-16
UNIT TYPE: Stack
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Inactive

COORDINATES: N34340 W73610

UNIT NAME: 296-S-21
UNIT TYPE: Stack
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Inactive

COORDINATES: N34040 W73650

UNIT NAME: 2711-S Stack Monitoring Building
UNIT TYPE: Building
WASTE CATEGORY: Mixed Waste

SWMU: No
UNIT STATUS: Active

COORDINATES: N34940 W73450

WASTE TYPES AND AMOUNTS: The unit contains radioactively contaminated equipment. Although contamination levels of 4 Ci of beta have been estimated, no surface contamination has been found.

SITE DESCRIPTION: Wooden shelter, 8 ft high, with a sloped roof. Contains motor, pump, and instrumentation for gas sampling. The building is in deteriorated condition.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities.

UNIT NAME: 2718-S Filter Monitoring Building
UNIT TYPE: Building
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active

COORDINATES: N34520 W73600

WASTE TYPES AND AMOUNTS: The unit contains trace amounts of radioactively contaminated solid waste (less than 5,000 ct/min beta/gamma).

SITE DESCRIPTION: The structure is 9 ft high. Equipment contained in the building includes office furniture and a Magnahelic with associated vacuum pump, piping, and electrical wiring. Inspection of the wooden exterior revealed minor deterioration.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities.

TSD: S-2-5

UNIT NAME: 2727-S Nonradioactive Dangerous Waste Storage

UNIT TYPE: Storage Facility

UNIT STATUS: Inactive

WASTE CATEGORY: Hazardous Waste

START DATE: March 1983

END DATE: December 1986

COORDINATES: N35210 W72700

WASTE TYPES AND AMOUNTS: The unit was used for storage of dangerous wastes generated on the Hanford Site. The wastes consisted of listed wastes, wastes from nonspecific sources, characteristic wastes, and state-only wastes.

SITE DESCRIPTION: The facility stored waste inside a building and outside on a concrete pad. Occasionally, waste inventory would exceed the capacity of the concrete pad, and containers would be stored on the solids adjacent to the concrete pad. All waste containers were removed from the facility.

KNOWN RELEASES: Small spills have occurred on the concrete pad outside of the building. All spills were absorbed and spill material drummed for shipment offsite and disposal as hazardous waste.

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Waste Units Assigned to this Operable Unit

241-S-101	Single-Shell Tank
241-S-102	Single-Shell Tank
241-S-103	Single-Shell Tank
241-S-104	Single-Shell Tank
241-S-105	Single-Shell Tank
241-S-106	Single-Shell Tank
241-S-107	Single-Shell Tank
241-S-108	Single-Shell Tank
241-S-109	Single-Shell Tank
241-S-110	Single-Shell Tank
241-S-111	Single-Shell Tank
241-S-112	Single-Shell Tank
241-S-152	Diversion Box
241-S-302B	Catch Tank
241-S-A	Valve Pit
241-S-B	Valve Pit
241-S-C	Valve Pit
241-S-D	Valve Pit
241-SX-101	Single-Shell Tank
241-SX-102	Single-Shell Tank
241-SX-103	Single-Shell Tank
241-SX-104	Single-Shell Tank
241-SX-105	Single-Shell Tank
241-SX-106	Single-Shell Tank
241-SX-107	Single-Shell Tank
241-SX-108	Single-Shell Tank
241-SX-109	Single-Shell Tank
241-SX-110	Single-Shell Tank
241-SX-111	Single-Shell Tank
241-SX-112	Single-Shell Tank
241-SX-113	Single-Shell Tank
241-SX-114	Single-Shell Tank
241-SX-115	Single-Shell Tank
241-SX-151	Diversion Box
241-SX-152	Diversion Box
UN-200-W-10	Unplanned Release
UN-200-W-80	Unplanned Release
UN-200-W-81	Unplanned Release

9 2 1 2 4 7 1 3 1 1

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UNIT NAME: 241-S-101
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: July 17, 1953
END DATE: 1980

COORDINATES: N36226 W75665

WASTE TYPES AND AMOUNTS: REDOX high-level wastes; REDOX coating waste; and supernatant containing PNL 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, -S, and -SX tank farms.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-102
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1953
END DATE: 1980

COORDINATES: N36226 W75767

WASTE TYPES AND AMOUNTS: REDOX high-level wastes; $HNO_3/KMnO_4$ solution; and supernatant containing REDOX high-level waste, evaporator bottoms, noncomplexed waste, double-shell slurry feed, and partial neutralization feed from 241-S, -SX, -SY, and -U tank farms.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-103
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: November 1, 1953
END DATE: 1980

COORDINATES: N36226 W75869

WASTE TYPES AND AMOUNTS: REDOX high-level waste; REDOX coating waste; $HNO_3/KMnO_4$ solution; and supernatant containing REDOX high-level waste, evaporator bottoms, noncomplexed waste, partial neutralization feed, and double-shell slurry feed from 241-S, -SX, -SY, and -U tank farms.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-104
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: February 9, 1953
END DATE: 1968

COORDINATES: N36124 W75665

WASTE TYPES AND AMOUNTS: REDOX coating waste; REDOX high-level waste; and supernatant containing REDOX high-level waste from 241-S Tank Farm.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: A jet pump saltwell system was installed and placed in operation during August 1978, and the unit is now "Primary Stabilized".

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-105
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1953
END DATE: 1974

COORDINATES: N36124 W75767

WASTE TYPES AND AMOUNTS: REDOX coating waste and REDOX high-level waste.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: A jet pump saltwell system was installed and operations for the removal of interstitial liquid were commenced during August 1978.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-106
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1953
END DATE: 1979

COORDINATES: N36124 W75869

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing REDOX high-level wastes and evaporator bottoms from 241-S Tank Farm.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: A jet pump saltwell system was installed and placed in operation during August 1978.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-107
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: August 25, 1952
END DATE: 1980

COORDINATES: N36022 W75665

WASTE TYPES AND AMOUNTS: REDOX high-level waste; REDOX coating waste; and supernatant containing REDOX high-level waste, decontamination waste, B Plant high-level and low-level waste, PNL 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, -C, -S, -SX, -SY, and -U tank farms.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-108
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: October 30, 1952
END DATE: 1979

COORDINATES: N36022 W75767

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing REDOX high-level waste and evaporator bottoms from 241-S and -SX tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-109
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: December 23, 1952
END DATE: 1979

COORDINATES: N36022 W75869

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing evaporator bottoms from 241-S-102 Tank.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-110
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1952
END DATE: 1979

COORDINATES: N35920 W75869

WASTE TYPES AND AMOUNTS: REDOX high-level waste; REDOX coating waste; and supernatant containing REDOX ion exchange waste, 224-U waste, coating waste, decontamination waste, B Plant low-level waste, and organic wash waste from 241-BX, -S, -SX, -T, -TX, and -U tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: A jet pump saltwell system was installed and placed in operation during August 1978.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-111
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1952
END DATE: 1975

COORDINATES: N35920 W75767

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing evaporator bottoms from 241-S tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-112
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: July 27, 1952
END DATE: 1974

COORDINATES: N35920 W75665

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing REDOX high-level wastes and evaporator bottoms from 241-S tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a reinforced concrete shell. The structure is 37 ft high with a capacity of 758,000 gal. The bottom of the structure is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation tank design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: A jet pump saltwell system was installed and placed in operation during August 1978.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-S-152
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1977
END DATE: November 1980

COORDINATES: N36500 W75700

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

UNIT NAME: 241-S-302B
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1952

COORDINATES: N36265 W75550

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It contains 3,240 gallons of waste.

CLEANUP ACTIONS: This unit was isolated in 1985.

UNIT NAME: 241-S-A
UNIT TYPE: Valve Pit
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1952

COORDINATES: N36170 W75724

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: The unit drains to a double-shell or single-shell tank.

UNIT NAME: 241-S-B
UNIT TYPE: Valve Pit
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1952

COORDINATES: N36170 W75720

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: The unit drains to a double-shell or single-shell tank.

UNIT NAME: 241-S-C
UNIT TYPE: Valve Pit
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1952

COORDINATES: N35975 W75724

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: The unit drains to a double-shell or single-shell tank.

UNIT NAME: 241-S-D
UNIT TYPE: Valve Pit
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1952

COORDINATES: N35975 W75720

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: The unit drains to a double-shell or single-shell tank.

UNIT NAME: 241-SX-101
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: May 1954
END DATE: 1980

COORDINATES: N35552 W75665

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing REDOX ion exchange waste, evaporator bottoms, partial neutralization feed, and complexed waste from 241-S, -BX, -SX, and -U tank farms.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-102
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: May 1954
END DATE: 1980

COORDINATES: N35552 W75767

WASTE TYPES AND AMOUNTS: REDOX high-level waste; carbonate waste; concrete; and supernatant containing REDOX high-level waste, REDOX ion exchange waste, evaporator bottoms, and partial neutralization feed from 241-BX, -SX, -TX, and -S tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

CLEANUP ACTIONS: The waste has been pumped to a minimum supernatant heel.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-103
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: May 1954
END DATE: 1980

COORDINATES: N35552 W75869

WASTE TYPES AND AMOUNTS: REDOX high-level waste; concrete; and supernatant containing REDOX high-level waste, coating waste, evaporator bottoms, organic wash waste, and partial neutralization feed from 241-BX, -SX, and -S tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

CLEANUP ACTIONS: The waste has been pumped to a minimum supernatant heel.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-104
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: February 1955
END DATE: 1980

COORDINATES: N35450 W75665

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing REDOX ion exchange waste, double-shell slurry feed, and evaporator bottoms from 241-S and -SX tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

CLEANUP ACTIONS: The waste has been pumped to a minimum supernatant heel.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-105
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: February 1955
END DATE: 1980

COORDINATES: N35450 W75767

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing REDOX high-level waste, REDOX ion exchange waste, double-shell slurry feed, evaporator bottoms, and partial neutralization feed from 241-BX, -S, -X, and -U tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

CLEANUP ACTIONS: The waste has been pumped to a minimum supernatant heel.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-106
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1954
END DATE: 1980

COORDINATES: N35450 W75869

WASTE TYPES AND AMOUNTS: Hanford laboratory waste; PNL waste; $HNO_3/KMnO_4$ solution; and supernatant containing REDOX and waste fractionization ion exchange waste, evaporator bottoms, B Plant low-level waste, PUREX low-level waste, coating waste, REDOX high-level waste, and complexed and noncomplexed waste, and partial neutralization feed from 241-B, -BX, -C, -S, -SX, -SY, -TX, and -U tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-107
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: April 1956
END DATE: 1964

COORDINATES: N35348 W75665

WASTE TYPES AND AMOUNTS: REDOX high-level waste; REDOX coating waste; concrete; and supernatant containing REDOX high-level waste from 241-SX Tank Farm. The unit contains 41 small bottles of neutralized waste (100-F), each containing less than 1 g Pu-239.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

KNOWN RELEASES: UPR-200-W-140.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-108
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: November 1955
END DATE: 1962

COORDINATES: N35348 W75767

WASTE TYPES AND AMOUNTS: REDOX high-level waste, concrete, and supernatant containing REDOX high-level waste from 241-SX Tank Farm.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

KNOWN RELEASES: UPR-200-W-141.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-109
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: September 1955
END DATE: 1965

COORDINATES: N35348 W75869

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing REDOX high-level waste from 241-SX Tank Farm.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

KNOWN RELEASES: UPR-200-W-142.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-110
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: November 1960
END DATE: 1976

COORDINATES: N35246 W75665

WASTE TYPES AND AMOUNTS: REDOX high-level waste; concrete; and supernatant containing REDOX high-level waste, PNL waste, B Plant low-level waste, ion exchange waste, evaporator bottoms, and 224-U waste from 241-B, -BX, and -SX tank farms. 16 plastic bottles or containers (3 in. in diameter by 54 in. long) containing the following: natural U, 113g; depleted U, 52g; enriched U, 6g; Pu239, 204g; were added to this unit.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-111 | **TSD:** S-2-4
UNIT TYPE: Single-Shell Tank | **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste | **START DATE:** 6/56 (1958)*
END DATE: May 1974

COORDINATES: N35246 W75767

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing REDOX high-level waste and REDOX ion exchange waste from 241-SX tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

KNOWN RELEASES: UPR-200-W-143.

CLEANUP ACTIONS: Pump-out of the supernatant was begun on May 4, 1974, and completed on May 20. A saltwell system was then installed for final removal of interstitial liquor.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

* Conflicting Dates

UNIT NAME: 241-SX-112 | **TSD:** S-2-4
UNIT TYPE: Single-Shell Tank | **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste | **START DATE:** 2/56 (1959)*
END DATE: 1969

COORDINATES: N35246 W75869

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing REDOX high-level waste from 241-SX tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

KNOWN RELEASES: UPR-200-W-144.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

* Conflicting Dates

UNIT NAME: 241-SX-113
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: February 1958
END DATE: June 1958

COORDINATES: N35144 W75665

WASTE TYPES AND AMOUNTS: REDOX high-level waste. Diatomaceous earth added in 1962.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

KNOWN RELEASES: UPR-200-W-145.

CLEANUP ACTIONS: The unit was stabilized with diatomaceous earth, and photographs indicate that no liquid is present.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-114
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: November 1956
END DATE: 1972

COORDINATES: N35144 W75767

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing REDOX high-level waste, REDOX ion exchange waste, and evaporator bottoms from 241-SX tanks.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-115
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: September 1958
END DATE: 1965

COORDINATES: N35144 W75869

WASTE TYPES AND AMOUNTS: REDOX high-level waste and supernatant containing REDOX high-level waste.

SITE DESCRIPTION: The unit is comprised of a carbon steel liner within a 2-ft-thick reinforced concrete shell. The unit is 44 ft high (inside dimensions) with a capacity of 1M gal. The bottom is 50 ft below grade, and the dome is also below grade for shielding purposes. This type has an operating depth of 31 ft and a dished bottom.

KNOWN RELEASES: UPR-200-W-146.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-SX-151
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1954
END DATE: October 1983

COORDINATES: N35580 W75535

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations from within the unit. This unit has been isolated and weather covered.

UNIT NAME: 241-SX-152
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1954
END DATE: May 1981

COORDINATES: N35655 W75620

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations from within the unit. This unit has been isolated and weather covered.

UNIT NAME: UN-200-W-10
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: Summer 1952

COORDINATES: N35500 W75870

WASTE TYPES AND AMOUNTS: Uranium with a maximum reading of 10,000 ct/min at 1 in.

KNOWN RELEASES: Spotty contamination was detected from an unknown source.

CLEANUP ACTIONS: The contaminated area was covered with asphalt and posted with radiation zone signs.

UNIT NAME: UN-200-W-80 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** October 24, 1978
WASTE CATEGORY: Mixed Waste

COORDINATES: N35800 W75700

WASTE TYPES AND AMOUNTS: Sr-90 and Cs-137 with readings to 60,000 ct/min.

KNOWN RELEASES: The 241-S and 241-SX tank farms contaminated the 244-S Catch Station construction site and other areas adjacent to the two tank farms.

UNIT NAME: UN-200-W-81 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** January 2, 1979
WASTE CATEGORY: Mixed Waste

COORDINATES: N35800 W75700

WASTE TYPES AND AMOUNTS: Beta/gamma with readings from 500 to over 100,000 ct/min.

KNOWN RELEASES: Airborne migration of contamination from the 241-S and 241-SX tank farms.

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Other Waste Units Located Within the Operable Unit Area

241-SX-401	Building
241-SX-402	Building
241-SY-101	Double-Shell Tank
241-SY-102	Double-Shell Tank
241-SY-103	Double-Shell Tank
241-SY-A	Diversion Box
241-SY-B	Diversion Box
242-S Evaporator	Evaporator

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UNIT NAME: 241-SX-401
UNIT TYPE: Building
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1954
END DATE: Prior to 1976

COORDINATES: N35525 W76000

WASTE TYPES AND AMOUNTS: The unit contains radioactively contaminated equipment and concrete. The quantity of waste has not been determined. Radiation levels are high, with 1 R/h read in the condenser room in general and 20 R/h spot contamination below the condenser.

SITE DESCRIPTION: The unit is constructed of reinforced concrete with the walls varying from 1 to 2.5 ft thick for shielding purposes with 17.5 ft above grade and 7 ft below grade. The unit contains 6 condensers, 31 hand wheel operators, instrumentation, and 2 condensate receiving tanks. Attached to the south end is a single-story, 12- by 8-ft control room made of wood and plaster board.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities.

UNIT NAME: 241-SX-402
UNIT TYPE: Building
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1954
END DATE: Prior to 1976

COORDINATES: N35425 W76000

WASTE TYPES AND AMOUNTS: The unit contains radioactively contaminated equipment and concrete. The quantity of waste has not been determined. The unit is only mildly contaminated.

SITE DESCRIPTION: The walls vary from 1 to 2.5 ft thick for shielding purposes. The unit contains 6 condensers, 31 hand wheel valve operators, instrumentation, and 2 condensate receiving tanks. Attached to the south end is a single-story, 12- by 8-ft control room made of wood and plaster board.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities.

UNIT NAME: 241-SY-101
UNIT TYPE: Double-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-3
UNIT STATUS: Active
START DATE: April 1977

COORDINATES: N36405 W75455

WASTE TYPES AND AMOUNTS: First double-shell slurry (DSS) run, April 25, 1977: 100.1 in.; Evaporator run from 102-SY, November 1, 1977: 132.7 in.; Transfer from 106-SX, June 25, 1978: 48.4 in.; Transfer from 111-U, August 14, 1978: 21.6 in.; Second DSS run, October 29, 1980: 84.0 in. Since the final addition to this unit, this waste has been sampled for the following components: Al, OH, NO2, NO3, CO3, PO4, SO4, F, Cl, Na, B, Ca, Cr, Ni, P, K, Mg, Si, As, Hg, Se, Am, C, Cs, I-129, Pu-239, Pu-140, Sr-89, Sr-90, HEDTA, EDTA, and total organic carbon. The unit received supernatant containing double-shell slurry and complexed waste.

SITE DESCRIPTION: The unit is composed of a heat-treated, stress-relieved primary steel liner and a nonstress-relieved outer steel liner, both inside the reinforced concrete shell. The unit has a diameter of 75 ft (primary), 80 ft (secondary), a height of 47 ft, and a capacity of 1M gal. The top of the dome is located below grade for shielding. This type has an operating depth of 30 ft and a flat bottom.

RELEASE POTENTIAL: The unit is designed to provide containment of radioactive waste for a minimum of 50 yr. Operating specification limits are set to prevent excessive corrosion and structural stresses. A leak from the primary tank would be contained in the annular space between the two tanks and detected early by annulus exhaust monitoring, annulus conductivity probes, primary tank liquid-level devices, etc.

UNIT NAME: 241-SY-102 **TSD:** S-2-3
UNIT TYPE: Double-Shell Tank **UNIT STATUS:** Active
WASTE CATEGORY: Mixed Waste **START DATE:** April 1977

COORDINATES: N36405 W75562

WASTE TYPES AND AMOUNTS: This unit receives miscellaneous laboratory waste from the 222-S Facility, decontamination wastes from T Plant operations, byproduct wastes from the PFP laboratory facility, West area noncomplexed salt well liquid, the Remote Mechanical "C" Line (RMC), and the Plutonium Reclamation Facility (RPF) of the Plutonium Finishing Plant (PFP). These three streams are analyzed prior to shipment for the following: PFP: Pu and U-235 (g/L), AM (g/L), NO3 (mol/L), NO2 (mol/L), OH (mol/L), and solids (vol%); T Plant: Pu (g/gal), NO2 (ppm), OH (mol/L), PO4 (g/gal), SO4 (g/gal), total organic carbon; 222-S labs: OH (mol/L), NO2 (ppm), and Pu (g/gal). The unit received HNO3/KMnO4 solution and supernatant containing partial neutralization feed, double-shell slurry feed, double-shell slurry, and noncomplexed wastes from 241-S, -SX, -TX, and -U tank farms, primarily used as an evaporator feed tank.

SITE DESCRIPTION: The unit is composed of a heat-treated, stress-relieved primary steel liner and a nonstress-relieved outer steel liner, both inside the reinforced concrete shell. The unit has a diameter of 75 ft (primary), 80 ft (secondary), a height of 47 ft, and a capacity of 1M gal. The top of the dome is located below grade for shielding. This type has an operating depth of 30 ft and a flat bottom.

RELEASE POTENTIAL: The unit is designed to provide containment of radioactive waste for a minimum of 50 yr. Operating specification limits are set to prevent excessive corrosion and structural stresses. A leak from the primary tank would be contained in the annular space between the two tanks and detected early by annulus exhaust monitoring, annulus conductivity probes, primary tank liquid-level devices, etc.

UNIT NAME: 241-SY-103 **TSD:** S-2-3
UNIT TYPE: Double-Shell Tank **UNIT STATUS:** Active
WASTE CATEGORY: Mixed Waste **START DATE:** April 1977

COORDINATES: N36298 W75455

WASTE TYPES AND AMOUNTS: The waste currently in this unit is comprised of two major sequential additions: 1977 to 1980, complexant concentrate heel 45.8 in.; October 28, 1980, second DSS run 132.5 in. Since the final addition to this unit, this waste has been sampled for the following components: $NaAlO_2$, $NaOH$, $NaNO_2$, $NaNO_3$, Na_2CO_3, Na_3PO_4, Na_2SO_4, Cs-137, Sr-90, Pu, and total organic carbon. The unit received supernatant containing complexed waste and double-shell slurry from 241-S and -SY tanks from the 242-A Evaporator.

SITE DESCRIPTION: The unit is composed of a heat-treated, stress-relieved primary steel liner and a nonstress-relieved outer steel liner, both inside the reinforced concrete shell. The unit has a diameter of 75 ft (primary), 80 ft (secondary), a height of 47 ft, and a capacity of 1M gal. The top of the dome is located below grade for shielding. This type has an operating depth of 30 ft and a flat bottom.

RELEASE POTENTIAL: The unit is designed to provide containment of radioactive waste for a minimum of 50 yr. Operating specification limits are set to prevent excessive corrosion and structural stresses. A leak from the primary tank would be contained in the annular space between the two tanks and detected early by annulus exhaust monitoring, annulus conductivity probes, primary tank liquid-level devices, etc.

UNIT NAME: 241-SY-A
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1977

COORDINATES: N36350 W75500

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-SY-B
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1977

COORDINATES: N36350 W75460

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 242-S Evaporator
UNIT TYPE: Evaporator
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1973

COORDINATES: N36510 W76000

WASTE TYPES AND AMOUNTS: The unit received single-shell tank supernate, phosphate waste, complexed radioactive waste, and miscellaneous dilute radioactive waste.

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Waste Units Assigned to this Operable Unit

200-E Powerhouse Ditch	Ditch
216-C-1	Crib
216-C-2	Reverse Well
216-C-3	Crib
216-C-4	Crib
216-C-5	Crib
216-C-6	Crib
216-C-7	Crib
216-C-9	Pond
216-C-10	Crib
218-C-9	Burial Ground
241-CX-70	Storage Tank
241-CX-71	Neutralization Tank
241-CX-72	Storage Tank
2607-E5	Septic Tank
2607-E7A	Septic Tank
Hot Semiworks Valve Pit	Valve Pit
UN-200-E-36	Unplanned Release
UN-200-E-37	Unplanned Release
UN-200-E-98	Unplanned Release
UN-200-E-141	Unplanned Release

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UNIT NAME: 200-E Powerhouse Ditch
UNIT TYPE: Ditch
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active

COORDINATES: N41640 W49800

UNIT NAME: 216-C-1
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1953
END DATE: June 1957

COORDINATES: N42069 W50235 (center)

WASTE TYPES AND AMOUNTS: Until 9/55, the site received high salt waste (HSW), cold-run waste, and the process condensate from the 201-C Building. From 9/55 to 6/57, the site received the HSW cold-run waste from the 201-C Building. The waste is high salt and neutral/basic.

SITE DESCRIPTION: The structure is 23 by 8 by 5.5 ft, constructed of 8-ft by 8-in. by 8-in. concrete ties, 8-ft by 8-in. by 4-in. spacer blocks, and 3.66-ft by 8-ft by 6-in. roof slabs. The unit has 5 ft (4,200 cu ft) of gravel fill backfilled over with 2 ft of soil, leaving 5 ft of the excavation unfilled. The distance from the release point to the site bottom is 4 ft. The side slope is 1:2.

CLEANUP ACTIONS: The 216-C-1, C-3, C-4, and C-5 crib complex along the south fence line of the Hot Semiworks, 200 East Area, was decontaminated and the ground surface stabilized against wind erosion and plant root invasion. The work was done as follows: 4 in. of ground surface was bladed off and the soil deposited in the cavity above the unit; the ground was covered with a 4-in. sand pad; ureabor herbicide was applied at the rate of 500 lb/acre; 10-mil plastic sheeting was installed over the entire surface; a 12-in. pad of sand was installed over the plastic; and the surface stabilized with 4 in. of pit run gravel.

UNIT NAME: 216-C-2
UNIT TYPE: Reverse Well
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1953
END DATE: May 16, 1988

COORDINATES: N42300 W50000 (center)

WASTE TYPES AND AMOUNTS: The site received 291-C Stack drainage and the seal water drainage from the stack ventilation filters. The volume discharged to the unit is unknown. The waste is low salt and neutral/basic. The site contains less than 1 Ci total beta activity.

SITE DESCRIPTION: The unit extends to a cap ~1 ft above grade, surrounded by a concrete collar at grade. The perforated section is 25 ft long. The entire unit is ~40 ft long.

CLEANUP ACTIONS: The unit was decommissioned in 1988 and buried in place.

UNIT NAME: 216-C-3
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1953
END DATE: March 1954

COORDINATES: N42055 W50390 (center)

WASTE TYPES AND AMOUNTS: The site received acid waste from the 201-C, 215-C, and 271-C buildings. The waste is acidic.

SITE DESCRIPTION: The side slope is 1:1.

CLEANUP ACTIONS: The 216-C-1, C-3, C-4, and C-5 crib complex along the south fence line of the Hot Semiworks, 200 East Area, was decontaminated and the ground surface stabilized against wind erosion and plant root invasion. The work was done as follows: 4 in. of ground surface was bladed off and the soil deposited in the cavity above the 216-C-1 Crib; the ground was covered with a 4-in. sand pad; ureabor herbicide was applied at the rate of 500 lb/acre; 10-mil plastic sheeting was installed over the entire area; a 12-in. pad of sand was installed over the plastic; the surface was stabilized with 4 in. of pit run gravel.

UNIT NAME: 216-C-4
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: July 1955
END DATE: May 1965

COORDINATES: N42060 W50430 (center)

WASTE TYPES AND AMOUNTS: The site received contaminated organic waste from the 276-C Building. The waste is low salt and neutral/basic.

SITE DESCRIPTION: The unit is composed of 6-in.-diameter galvanized, corrugated, perforated piping placed horizontally at 11.5 ft below grade. Two 20-ft lengths are placed perpendicularly to the inlet pipe, forming an H pattern. The side slope is 1:1. The site contains ~6 ft (2,600 cu ft) of gravel fill and has been backfilled. The waste release point is 5 ft from the site bottom.

CLEANUP ACTIONS: The 216-C-1, C-3, C-4, and C-5 crib complex along the south fence line of the Hot Semiworks, 200 East Area, was decontaminated and the ground surface stabilized against wind erosion and plant root invasion. The work was done as follows: 4 in. of ground surface was bladed off and covered with a 4-in. sand pad; ureabor herbicide was applied at the rate of 500 lb/acre; 10-mil plastic sheeting was installed over the entire surface; a 12-in. pad of sand was installed over the plastic; and the surface was stabilized with 4 in. of pit run gravel.

UNIT NAME: 216-C-5
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1955
END DATE: June 1955

COORDINATES: N42030 W50360 (center)

WASTE TYPES AND AMOUNTS: The site received the high salt waste (HSW) cold run waste from the 201-C Building. The waste is high salt.

SITE DESCRIPTION: The unit is composed of 6-in.-diameter galvanized, corrugated, perforated piping placed horizontally at 11 ft below grade. Two 20-ft lengths are placed perpendicularly to the inlet pipe, forming an H pattern. The side slope is 1:1. The site contains ~6 ft (2,600 cu ft) of gravel fill and has been backfilled. The waste release point is 5 ft from the site bottom.

CLEANUP ACTIONS: The 216-C-1, C-3, C-4, and C-5 crib complex along the south fence line of the Hot Semiworks, 200 East Area, was decontaminated and the ground surface stabilized against wind erosion and plant root invasion. The work was done as follows: 4 in. of ground surface was bladed off and the soil deposited in the cavity above the 216-C-1 Crib; the ground was covered with a 4-in. sand pad; ureabor herbicide was applied at the rate of 500 lb/acre; 10-mil plastic sheeting was installed over the entire surface; a 12-in. pad of sand was installed over the plastic; and the surface stabilized with 4 in. of pit run gravel.

UNIT NAME: 216-C-6
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: September 1955
END DATE: September 1964

COORDINATES: N42015 W50066 (center)

WASTE TYPES AND AMOUNTS: The site received the process condensate from the 201-C Building and the 241-CX Vault floor drainage in the 241-CX area. The waste is acidic.

SITE DESCRIPTION: The unit is composed of 6-in.-diameter galvanized, corrugated, perforated piping placed horizontally at 11 ft below grade. Two 20-ft lengths are placed perpendicularly to the inlet pipe, forming an H pattern. The side slope is 1:1. The site contains ~6 ft (2,600 cu ft) of gravel fill and has been backfilled. The waste release point is 5 ft from the site bottom.

UNIT NAME: 216-C-7
UNIT TYPE: Crib
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: May 1961

COORDINATES: N42000 W50672 (center)

WASTE TYPES AND AMOUNTS: The site has received liquid waste from the 209-E Building Critical Mass Laboratory. The site was placed on standby in 1983.

SITE DESCRIPTION: The unit is composed of 6-in.-diameter, perforated V.C.P., placed horizontally 9 ft below grade. Two 20-ft lengths of the same V.C.P. are placed perpendicularly to the first, forming an H pattern. The site contains 6 ft (4,100 cu ft) of gravel fill and has been backfilled. The waste release point is 3.75 ft from the site bottom. The side slope is 1:1.

UNIT NAME: 216-C-9
UNIT TYPE: Pond
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: June 1953

COORDINATES: N42581 W50694 (head), N42581 W49870 (end)

WASTE TYPES AND AMOUNTS: Until 8/60, the site received process cooling water from the 201-C Building; 201-C, 215-C, 271-C, and 276-C building floor drains; and miscellaneous water from the 209-E Building and the Hot Semiworks facilities. From 8/60 to 10/69, the site received the same effluents as above plus miscellaneous wastewater from the 209-E Building. From 10/69 to 12/85, the site received miscellaneous wastewater from the Hot Semiworks facilities and the 209-E Building.

SITE DESCRIPTION: The site is backfilled with 3 ft (180,000 cu ft) of 3/4-in. to 1 1/2-in. washed gravel. The slope is 2:1.5. A field observation and engineering drawings confirmed that the original unit was ~8 ft deep. The distribution lines for the original section are ~5 ft above bottom, and the lines for the new section are 1 ft above the bottom.

CLEANUP ACTIONS: All liquid discharges to the site were isolated, and it was stabilized in 1989.

UNIT NAME: 216-C-10
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: November 1964
END DATE: October 1969

COORDINATES: N42100 W49870 (center)

WASTE TYPES AND AMOUNTS: The site received process condensate and liquid waste from the 201-C Building. The waste is acidic.

SITE DESCRIPTION: The unit consists of a 3-in.-diameter SST pipe, located horizontally, 4 ft below grade. The side slope is 1:1.5. The side contains 4 ft (1,700 cu ft) of gravel fill and has been backfilled with dirt.

UNIT NAME: 218-C-9 **SWMU:** Yes
UNIT TYPE: Burial Ground **UNIT STATUS:** Active
WASTE CATEGORY: Low-Level Waste **START DATE:** 1985

COORDINATES: N42717 W50106, N42716 W49855, N42471 W49857, N42473 W50108

WASTE TYPES AND AMOUNTS: The waste consists of rags, paper, cardboard, plastic, equipment, and various other dry waste.

SITE DESCRIPTION: There is only one trench located at the disposal site.

CLEANUP ACTIONS: The site was interim stabilized in 1989 with ash from the 200 East Ash Pile.

UNIT NAME: 241-CX-70
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-9
UNIT STATUS: Inactive
START DATE: 1952
END DATE: 1957

COORDINATES: N42100 W50200

WASTE TYPES AND AMOUNTS: The unit was used to store high-level process waste in support of the Semiworks process. Before sluicing, the unit contained 10,300 gal of sludge containing: Pu-239/240, 20 Ci; Cs-137, 500 Ci; Sr-90, 2900 Ci; $NaNO_3$, 7.8 ton; $NaNO_2$, 1.1 ton; NaF, 1.2 ton; $Al_2(SO_4)_3$, 0.5 ton; Na_2CrO_4, 0.2 ton. After sluicing a small quantity of solids and residual caustic/water remain. The tank now contains ~4.75 ft of sludge. The estimated contamination levels for piping and equipment are 3 Ci Pu and 6,000 Ci beta/gamma.

SITE DESCRIPTION: Concrete with a 1-in.-thick stainless steel plate liner. The sides and top are 1-ft-thick concrete and the bottom thickness varies from 2 ft at the edges to 9 in. at the center. It is located below grade, with several risers and vents visible above grade.

CLEANUP ACTIONS: In 1979, the liquid waste was pumped out via overground transfers to CR-Vault and Tank Farms. From 1987 to 1988, the solid waste was removed using a sluicing/pumping system. This unit is included in the Strontium Semiworks Decommissioning Project. Decommissioning operations are continuing.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as high in comparison with other 200 Area surplus facilities.

UNIT NAME: 241-CX-71
UNIT TYPE: Neutralization Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: December 1952
END DATE: June 1957

COORDINATES: N42107 W50914

WASTE TYPES AND AMOUNTS: The unit was used for neutralizing the 201-C process condensate and the coil and condenser cooling water. It received process condensates from the REDOX and PUREX pilot plant processes. From November 1956, the unit received flush wastes during decontamination. The unit contains ~2,300 gal of solids (primarily limestone) and ~1,500 gal of water. Estimated radiological inventory is 6 Ci plutonium and 6,000 Ci beta/gamma. This estimate is highly subjective; apparently in the past the same estimate was given to most of the tanks. It has been determined that the unit contains hazardous waste, and it will be permitted.

SITE DESCRIPTION: Stainless steel, buried with a gooseneck vent riser visible above grade.

CLEANUP ACTIONS: The unit was filled with a bulk-fill grade of concrete in 1986. The breather riser and moisture trap were removed and buried.

RELEASE POTENTIAL: Small.

UNIT NAME: 241-CX-72
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1957
END DATE: 1976

COORDINATES: N41900 W50100

WASTE TYPES AND AMOUNTS: The unit contains solid radioactive waste. The estimated current inventory is 3 Ci of plutonium and 6,000 Ci of beta/gamma.

SITE DESCRIPTION: This unit is an agitator tank. It is set inside a caisson, which is a carbon steel cylinder 6 ft in diameter and 36 ft 6 in. long, buried upright ~14 ft below grade. Several risers extend from the top and are visible above grade. The associated vault is located below grade next to the unit. The vault is 20 ft by 7 ft by 12 ft, constructed of reinforced concrete and divided into two major sections, with a smaller sample pit section on the north side. Exterior walls and floor are 1-ft-thick concrete. There are two pit covers visible above grade with concrete metal cover blocks and lids, respectively.

CLEANUP ACTIONS: The unit was filled with a bulk-fill grade of grout and decommissioned in situ in FY 1986. Operations are planned to remove the grout and waste.

RELEASE POTENTIAL: There is no potential for release.

UNIT NAME: 2607-E5
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1944

COORDINATES: N42400 W50850

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 2.21 cu m/d.

SITE DESCRIPTION: This unit includes a drain field. It is 12 ft 6 in. deep, constructed of reinforced concrete, and has a 292-person capacity (35 gal per capita) with an average detention period of 24 h. The walls and floor are 10 in. thick. The tile field is constructed of 4-in. vitrified pipe, concrete pipe or drain tile with a minimum of 8 linear feet per capita. The laterals are open jointed and spaced 8 ft apart.

UNIT NAME: 2607-E7A
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1983

COORDINATES: N42400 W51100

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 1.64 cu m/d.

SITE DESCRIPTION: This unit includes a drain field. It is 8 ft 4 in. deep, constructed of reinforced concrete, and has an 8-person capacity (35 gal per capita) with an average detention period of 24 h. The walls are 8 in. thick, and the floor is 6 in. thick. The tile field is constructed of 4-in. vitrified pipe, concrete pipe, or drain tile with a minimum of 8 linear feet per capita. The laterals are open jointed and spaced 8 ft apart.

UNIT NAME: Hot Semiworks Valve Pit
SWMU: Yes
UNIT TYPE: Valve Pit
UNIT STATUS: Inactive
WASTE CATEGORY: Mixed Waste

COORDINATES: N43220 W51760

UNIT NAME: UN-200-E-36
SWMU: No
UNIT TYPE: Unplanned Release
OCCURRENCE DATE: July 24, 1967
WASTE CATEGORY: Mixed Waste

COORDINATES: N42585 W50400

WASTE TYPES AND AMOUNTS: Beta/gamma with readings of 30,000 to 80,000 ct/min.

KNOWN RELEASES: While in transit, two pumps that had been removed from a cell contaminated the roadway near the Hot Semiworks Plant (200-C).

CLEANUP ACTIONS: The roadways were flushed with water. A program for decontamination was instated.

UNIT NAME: UN-200-E-37 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** July 31, 1967
WASTE CATEGORY: Mixed Waste

COORDINATES: N42375 W49950

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 200 mR/h.

KNOWN RELEASES: On July 31, 1967, residual contamination was detected from the UN-200-E-36 incident of July 24, 1967.

CLEANUP ACTIONS: Sprinklers were set in the contaminated areas, and the blacktop was cleaned.

UNIT NAME: UN-200-E-98 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** September 1980
WASTE CATEGORY: Mixed Waste

COORDINATES: N42250 W50000

WASTE TYPES AND AMOUNTS: Primarily Sr-90.

KNOWN RELEASES: Radioactive particulate matter from the Hot Semiworks operations (1955 to 1965) was inadvertently spread to the ground surface. Residue contamination still remains at the site.

CLEANUP ACTIONS: The contamination has been removed and the site stabilized.

UNIT NAME: UN-200-E-141 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** September 1984
WASTE CATEGORY: Mixed Waste

COORDINATES: N42000 W50790

WASTE TYPES AND AMOUNTS: The release consisted of a 450-g/L solution of uranyl nitrate (corrosive), 84% U-235 (source radioactive).

KNOWN RELEASES: The spill was caused by container failure due to corrosion.

RELEASE POTENTIAL: No potential for release exists.

Other Waste Units Located Within the Operable Unit Area

201-C Process Building	Building
215-C Gas Preparation Building	Test Treatment or Support Facility
291-C Fan and Filter Building	Equipment
291-C-1	Stack

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UNIT NAME: 201-C Process Building
UNIT TYPE: Building
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1949
END DATE: 1976 (1967)*

COORDINATES: N42200 W50300

WASTE TYPES AND AMOUNTS: The unit consists of the radioactively contaminated structure, piping, and equipment. Contamination levels are estimated at less than 10 Ci of plutonium; 100,000 ct/min beta/gamma direct and smearable, and a dose rate of 4.5 R/h in one cell (estimated 9,000 Ci beta/gamma).

SITE DESCRIPTION: Part of the Strontium Semiworks Project, the unit is constructed of concrete and transite. 30 ft is above grade and 30 ft below. There are more than 25 tanks in the cells with miscellaneous pumps and large amounts of process and service piping.

CLEANUP ACTIONS: The facility was decommissioned in situ.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as high in comparison with other 200 Area surplus facilities.

* Conflicting Dates

UNIT NAME: 215-C Gas Preparation Building
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

SWMU: No
UNIT STATUS: Inactive
END DATE: 1976

COORDINATES: N42500 W50200

WASTE TYPES AND AMOUNTS: The unit consists of previously radioactively contaminated structure and equipment. The facility was part of the Hot Semiworks Project.

SITE DESCRIPTION: A single-story concrete structure in good condition. Visual inspection of the exterior revealed minor spalling in the concrete. The building is 13 ft high, has 4-in. concrete floors and a flat 6-in. concrete slab roof. There is a cylinder storage deck lean-to on the south side of the building. All equipment was removed from the building; it is now used for storage.

CLEANUP ACTIONS: In 1985, the unit was decontaminated to background radiation levels.

RELEASE POTENTIAL: There is no potential for release.

UNIT NAME: 291-C Fan and Filter Building
UNIT TYPE: Equipment
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Inactive
END DATE: August 1987

COORDINATES: N42340 W50050

SITE DESCRIPTION: The unit includes an air tunnel from the 201-C cells, glass fiber filters, HEPA filters, and the fan house. The air tunnel is concrete with inside dimensions of 44 in. by 44 in. and is 8 to 10 in. thick. It is about 200 ft long, with the first 100 ft 20 ft below grade and the second 100 ft 5 ft below grade. There are forty removable aluminum cartridge glass fiber filters (5 by 5 by 4 ft) and an array of 22 HEPA filters. The fan house is a wood frame building 36 by 21.5 by 11 ft high on a 4-in. concrete slab. It has a flat built-up tar and gravel roof. It contains two 70- and one 30-HP electric fans and one 70-HP steam turbine fan. Visual inspection of the exterior revealed slight roof sag and deterioration of the walls.

CLEANUP ACTIONS: This building was demolished just prior to the 291-C-1 Stack in 1988.

UNIT NAME: 291-C-1
UNIT TYPE: Stack
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Inactive
END DATE: August 1987

COORDINATES: N42340 W50050

SITE DESCRIPTION: This unit is a double-shell structure. The outer shell is made of reinforced concrete, and the inner shell is constructed of acid-resisting brick and mortar.

CLEANUP ACTIONS: The unit was demolished and buried in August 1988.

Waste Units Assigned to this Operable Unit

200-E Powerhouse Ash Pit	Ash Pit
218-E-3	Burial Ground
2607-E1	Septic Tank
2607-E7B	Septic Tank
2607-E8	Septic Tank
2607-EH	Septic Tank
2607-EK	Septic Tank
2607-EM	Septic Tank
2607-EP	Septic Tank
2607-EQ	Septic Tank
2607-ER	Septic Tank
2607-GF	Septic Tank
Chemical Tile Field North of 2703-E	Drain Field

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UNIT NAME: 200-E Powerhouse Ash Pit
UNIT TYPE: Ash Pit
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1943

COORDINATES: N40000 W51500

WASTE TYPES AND AMOUNTS: The unit receives ash from the 200 East Area Powerhouse. The ash was analyzed using the EP Toxicity Test in accordance with WAC 173-303, and no hazardous materials were found. The rate of ash generation is ~9,480 cu yd/yr, and the pit contains ~81,020 cu yd of ash.

UNIT NAME: 218-E-3
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1954
END DATE: 1954

COORDINATES: N37525 W56550

CLEANUP ACTIONS: The site has been exhumed and released from radiation zone status, and the fence has been removed.

UNIT NAME: 2607-E1 **SWMU:** No
UNIT TYPE: Septic Tank **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1970

COORDINATES: N41150 W52700

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 11.7 cu m/d.

SITE DESCRIPTION: The unit includes a drain field. It is 13 ft deep, constructed of reinforced concrete, and has a 400-person capacity (35 gal per capita) with an average detention period of 24 h. The walls and floor are 10 in. thick. The tile field is constructed of 4-in. vitrified pipe, concrete pipe, or drain tile with a minimum of 8 linear feet per capita. The laterals are open jointed and spaced 8 ft apart.

UNIT NAME: 2607-E7B **SWMU:** No
UNIT TYPE: Septic Tank **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive

COORDINATES: N40275 W53150

UNIT NAME: 2607-E8 **SWMU:** No
UNIT TYPE: Septic Tank **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1978

COORDINATES: N38800 W52550

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 6.24 cu m/d.

SITE DESCRIPTION: The unit includes a drain field.

UNIT NAME: 2607-EH **SWMU:** No
UNIT TYPE: Septic Tank **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1983

COORDINATES: N39050 W53250

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 1.36 cu m/d.

SITE DESCRIPTION: The unit includes a drain field.

UNIT NAME: 2607-EK
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1980

COORDINATES: N38650 W52550

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 39.2 cu m/d.

SITE DESCRIPTION: The unit includes a drain field.

UNIT NAME: 2607-EM
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1984

COORDINATES: N39775 W56500

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 6.14 cu m/d.

SITE DESCRIPTION: The unit includes a drain field.

UNIT NAME: 2607-EP
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1984

COORDINATES: N39775 W56300

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 0.80 cu m/d.

SITE DESCRIPTION: The unit includes a drain field.

UNIT NAME: 2607-EQ
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1985

COORDINATES: N38300 W54300

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 13.5 cu m/d.

SITE DESCRIPTION: The unit includes a drain field.

UNIT NAME: 2607-ER
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active

COORDINATES: N39775 W56400

UNIT NAME: 2607-GF
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active

COORDINATES: N41000 W51150

WASTE TYPES AND AMOUNTS: The unit is not in use.

SITE DESCRIPTION: The unit includes a drain field.

UNIT NAME: Chemical Tile Field North of 2703-E
UNIT TYPE: Drain Field
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive

COORDINATES: N40800 W53250

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Other Waste Units Located Within the Operable Unit Area

2101-M Pond	Pond
2703-E HWSA	Staging Area
2704-E HWSA	Staging Area
2715-EA HWSA	Staging Area

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UNIT NAME: 2101-M Pond
UNIT TYPE: Pond
WASTE CATEGORY: Nonhazardous/Nonradioactive

TSD: D-2-1
UNIT STATUS: Active
START DATE: 1983

COORDINATES: N39000 W54000

WASTE TYPES AND AMOUNTS: The unit typically receives small volumes of swamp-cooler condensate and overflow drain wastewater from the 2101-M air conditioning system. From 1983 to July 1984, laboratory wastes such as barium chloride solutions were discharged to the unit. Quantities are estimated at less than 500 gal/yr. Nitric acid and hydrochloric acid discharge quantities are estimated at 1 to 10 kg/yr.

UNIT NAME: 2703-E HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1984

COORDINATES: N40300 W53200

WASTE TYPES AND AMOUNTS: Typical wastes contained in staging in the past year: ~11,126 kg of alkaline liquids and sodium hydroxide, 500 kg of sodium dichromate containing process solutions, and 415 kg of waste acids.

SITE DESCRIPTION: All waste containers are stored on the asphalt pad.

UNIT NAME: 2704-E HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: November 1984

COORDINATES: N40300 W53600

WASTE TYPES AND AMOUNTS: Typical wastes contained in staging over the past year: 1,433 kg antifreeze, 60 kg grease, 186 kg diesel fuel, and 190 kg asphalt.

UNIT NAME: 2715-EA HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: November 1984

COORDINATES: N39550 W53120

WASTE TYPES AND AMOUNTS: Typical wastes contained in staging in the past year: ~675 kg of waste paint and thinning solvents.

SITE DESCRIPTION: Waste containers are stored on cement pad.

Waste Units Assigned to this Operable Unit

200-W Ash Disposal Basin	Ash Pit
200-W Burning Pit	Burning Pit
200-W Powerhouse Ash Pit	Ash Pit
216-W-LWC	Crib
2607-W1	Septic Tank
2607-W2	Septic Tank
UN-200-W-88	Unplanned Release

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UNIT NAME: 200-W Ash Disposal Basin
UNIT TYPE: Ash Pit
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active

WASTE TYPES AND AMOUNTS: This site received various hazardous organic chemicals.

UNIT NAME: 200-W Burning Pit
UNIT TYPE: Burning Pit
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1950
END DATE: 1970

COORDINATES: N39300 W72300

WASTE TYPES AND AMOUNTS: The unit was used to burn nonradioactive material. The site received construction and office waste (15,000 cu m), paint waste, and chemical solvents (1,000 L).

KNOWN RELEASES: UPR-200-W-37, UPR-200-W-70

UNIT NAME: 200-W Powerhouse Ash Pit
UNIT TYPE: Ash Pit
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1943

COORDINATES: N40500 W73800

WASTE TYPES AND AMOUNTS: The unit receives ash from the 200 West Area Powerhouse. The ash has been analyzed using the EP Toxicity test in accordance with WAC 173-303, and no hazardous materials were found. The rate of ash generation is ~8,890 cu yd/yr, and the pit contains ~57,290 cu yd of ash.

UNIT NAME: 216-W-LWC
UNIT TYPE: Crib
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: September 7, 1981

COORDINATES: N40850 W72304, N40649 W72304, N40850 W71910, N40649 W71910

WASTE TYPES AND AMOUNTS: The site receives all the process wastewater from 2724-W and 2723-W buildings.

SITE DESCRIPTION: The unit consists of two independent crib structures (drain fields) with bottom dimensions of 150 ft by 133 ft for each. Each structure consists of an 8-in. P.V.C. central distribution pipe running east-west, 14 ft below grade, from which six 4-in. P.V.C. perforated drain lines extend the length of the unit of both sides (150 ft). The drain lines run parallel to each other, 23 ft apart. Beneath each lies a 5-ft-deep rock-filled trench, giving the bottom a serrated appearance. A 7-ft layer of gravel fill (5,546 cu yd) was backfilled over to grade. The side slope is 1.5:1.

UNIT NAME: 2607-W1 **SWMU:** No
UNIT TYPE: Septic Tank **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1944

COORDINATES: N41050 W73950

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 18.3 cu m/d.

SITE DESCRIPTION: The unit includes a drain field. It is 13 ft deep, constructed of reinforced concrete, and has a 400-person capacity (35 gal per capita) with an average detention period of 24 h. The walls and floor are 10 in. thick. The tile field is constructed of 4-in. vitrified pipe, concrete pipe, or drain tile with a minimum of 8 linear feet per capita. The laterals are open jointed and spaced 8 ft apart.

UNIT NAME: 2607-W2 **SWMU:** No
UNIT TYPE: Septic Tank **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1980

COORDINATES: N40850 W71250

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 10.2 cu m/d.

SITE DESCRIPTION: The unit includes a drain field. It is 11 ft deep, constructed of reinforced concrete, and has a 125-person capacity (35 gal per capita) with an average detention period of 24 h. The walls and floor are 10 in. thick. The tile field is constructed of 4-in. vitrified pipe, concrete pipe, or drain tile with a minimum of 8 linear feet per capita. The laterals are open jointed and spaced 8 ft apart.

UNIT NAME: UN-200-W-88 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** May 28, 1984
WASTE CATEGORY: Mixed Waste

COORDINATES: N41200 W71750

WASTE TYPES AND AMOUNTS: The contamination consisted of beta/gamma with readings from 300 to 650 ct/min.

KNOWN RELEASES: Contaminated liquid was spilled from a uranyl nitrate trailer.

CLEANUP ACTIONS: All detected contamination was chipped out of the roadway blacktop.

RELEASE POTENTIAL: None; all detectable contamination has been removed.

Other Waste Units Located Within the Operable Unit Area

200-W Ashpit Demolition Site	Ash Pit

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UNIT NAME: 200-W Ashpit Demolition Site
UNIT TYPE: Ash Pit
WASTE CATEGORY: Hazardous Waste

TSD: T-2-2
UNIT STATUS: Active
START DATE: August 1984

COORDINATES: N40100 W72140

WASTE TYPES AND AMOUNTS: 1984 detonations: p-dioxane 3.4 kg; tetrahydronaphthalene 3.76 kg; tetrahydrofuran 9.08 kg; benzene 9.47 kg; diisopropyl benzene 6.06 kg; bromobenzene 15.1 kg; 1,4-dioxane 757 g; polyethylene glycol monoethyl ether 757 g; 1,2-bis(2-chlorethoxy)ethane 3.02 kg; dioxane 567 g; 2-butoxyethanol 3.02 kg. 1985 detonations: none. 1986 detonations: tetrahydrofuran 6.1 kg; triethylborane 500 g; lithium hydride 230 g; acrolein 400 g; hydrazine 1 kg; aluminum chloride 450 g; unsymmetrical dimethyl hydrazine 10 g; p-nitrobenzoyl chloride 100 g; sodium peroxide 340 g; benzene/butyl lithium solution 900 g; hexane/benzene/butyl lithium/tetrahydrofuran 1 kg; chromium metal powder 454 g; toluene/ ether/benzene/ethylacetate 4 kg; heptane/diethyl ether 4 kg; ethyl ether/allyl magnesium bromide 1 kg; benzene/ethyl acetate/ tertahydrofuran/ether/toluene/ hydrogen sulfide/methanol 4 kg; ethyl ether 29.7 kg; picric acid 460 g; isopropyl ether 1 kg; butoxyethanol 946 g; butyl cellosolve 89 g; carbon trichloride 445 g; butyl ethanol 9.46 kg; phenylether 235 g.

SITE DESCRIPTION: Thermal detonation pit.

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Waste Units Assigned to this Operable Unit

216-T-5	Trench
216-T-7TF	Crib
216-T-21	Trench
216-T-22	Trench
216-T-23	Trench
216-T-24	Trench
216-T-25	Trench
216-T-32	Crib
216-T-36	Crib

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UNIT NAME: 216-T-5
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: May 1955
END DATE: May 1955

COORDINATES: N43550 W76200, N43500 W76200 (centerline)

WASTE TYPES AND AMOUNTS: The site received the second-cycle supernatant waste from the 221-T Building via the 112-T Tank in the 241-T Tank Farm. The waste is high salt and neutral/basic.

SITE DESCRIPTION: The unit has a 1:1 side slope.

UNIT NAME: 216-T-7TF
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: April 1948
END DATE: November 1955

COORDINATES: N43300 W76000 (crib), N43300 W76000, N43300 W76305 (tile field)

WASTE TYPES AND AMOUNTS: Until 6/51, the site received second-cycle supernatant waste from the 221-T Building via the 112-T Tank in the 241-T Tank Farm. From 6/51 to 6/52, the site received the above building effluent plus cell drainage from Tank 5-6 in the 221-T Building via the 112-T Tank in the 241-T Tank Farm. From 6/52 to 11/55, the site received the above building effluents plus waste from the 224-T Building via the 112-T Tank in the 241-T Tank Farm. The waste is high salt and neutral/basic.

SITE DESCRIPTION: A wooden structure with bottom dimensions of 12 by 12 ft. An associated tile field has bottom dimension of 310 ft by 84 ft (26,200 sq ft). The site is backfilled with 129,336 cu ft of gravel. The side slope is 1.5:1. The liquid release point is 20 ft below grade.

UNIT NAME: 216-T-21
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: June 1954
END DATE: August 1954

COORDINATES: N41530 W76690, N41530 W76450 (centerline)

WASTE TYPES AND AMOUNTS: The site received the first-cycle supernatant waste from the 221-T Building via the 109, 110, and 111-TX tanks in the 241-TX Tank Farm. The waste is high salt and neutral/basic.

KNOWN RELEASES: In September 1969, Russian thistle containing radioactivity to a maximum of greater than 100,000 ct/min (15 mR/h) were found growing on the surface of the site.

CLEANUP ACTIONS: The weeds were removed and buried. In May 1970, the surface of the ground within the confines of the radiation zone was treated with a herbicide to prevent the growth of weeds. As of December 1977, the area had recovered its vegetation cover, but no radioactive weeds were observed.

UNIT NAME: 216-T-22
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: July 1954
END DATE: August 1954

COORDINATES: N41620 W76450, N41620 W76690 (centerline)

WASTE TYPES AND AMOUNTS: The site received the first-cycle supernatant waste from the 221-T Building via the 109, 110, and 111-TX tanks in the 241-TX Tank Farm. The waste is high salt and neutral/basic.

CLEANUP ACTIONS: In May 1970, the surface of the ground within the confines of the radiation zone was treated with a herbicide to prevent the growth of radioactive weeds (see 216-T-21 and 216-T-24). As of December 1977, the area had recovered its vegetation cover.

UNIT NAME: 216-T-23
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: July 1954
END DATE: August 1954

COORDINATES: N41710 W76450, N41710 W76690 (centerline)

WASTE TYPES AND AMOUNTS: The site received the first-cycle supernatant waste from the 221-T Building via the 109, 110, and 111-TX tanks in the 241-TX Tank Farm. The waste is high salt and neutral/basic.

CLEANUP ACTIONS: In May 1970, the surface of the ground within the confines of the radiation zone was treated with a herbicide to prevent the growth of radioactive weeds (see 216-T-21 and 216-T-24). As of December 1977, the area had recovered its vegetation cover.

UNIT NAME: 216-T-24
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: August 1954
END DATE: August 1954

COORDINATES: N41800 W76450, N41800 W76690 (centerline)

WASTE TYPES AND AMOUNTS: The site received the first-cycle supernatant waste from the 221-T Building via the 109, 110, and 111-TX tanks in the 241-TX Tank Farm. The waste is high salt and neutral/basic.

KNOWN RELEASES: In September 1969, Russian thistle containing radioactivity to a maximum of greater than 100,000 ct/min (15 mR/h) were found growing on the surface of the site.

CLEANUP ACTIONS: The weeds were removed and buried. In May 1970, the surface of the ground within the confines of the radiation zone was treated with a herbicide to prevent the growth of weeds. As of December 1977, the area had recovered its vegetation cover, but no radioactive weeds were observed.

UNIT NAME: 216-T-25
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: September 1954
END DATE: September 1954

COORDINATES: N41890 W76485, N41890 W76690 (centerline)

WASTE TYPES AND AMOUNTS: The site received the first-cycle evaporator bottoms from the 242-T Building via the 101 and 102-TY tanks in the 241-TY Tank Farm. The waste is high salt and neutral/basic.

UNIT NAME: 216-T-32
UNIT TYPE: Crib
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: November 1946
END DATE: May 1952

COORDINATES: N43397 W76058 (center #1), N43447 W76000 (center #2)

WASTE TYPES AND AMOUNTS: The site received waste from the 224-T Building via the 201-T Tank in the 241-T Tank Farm. The waste is high salt and neutral/basic.

SITE DESCRIPTION: The structure consists of two wooden sumps, 12 by 12 by 4 ft deep, 40 ft apart. The side slope is 1.5:1.

UNIT NAME: 216-T-36 | **SWMU:** Yes
UNIT TYPE: Crib | **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste | **START DATE:** May 1967
END DATE: February 1969

COORDINATES: N43093 W76000, N43093 W76160 (centerline)

WASTE TYPES AND AMOUNTS: The site received steam condensate decontamination waste and miscellaneous waste from the 221-T and 221-U buildings. The waste is low salt and neutral/basic.

SITE DESCRIPTION: The side slope is 1:1. The dispersal system consists of one 4-in. VCT perforated pipe, 160 ft long, lying horizontally 11 ft below grade, 4 ft above the bottom and terminating 5 ft before the west end.

KNOWN RELEASES: No surface contamination has been found on this site.

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Waste Units Assigned to this Operable Unit

200-W Powerhouse Pond	Pond
216-T-13	Trench
216-T-18	Crib
216-T-19TF	Crib
216-T-20	Trench
216-T-26	Crib
216-T-27	Crib
216-T-28	Crib
216-T-31	French Drain
241-TX-152	Diversion Box
241-TX-155	Diversion Box
241-TX-302B	Catch Tank
UN-200-W-14	Unplanned Release
UN-200-W-29	Unplanned Release
UN-200-W-99	Unplanned Release
UN-200-W-113	Unplanned Release
UN-200-W-135	Unplanned Release

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UNIT NAME: 200-W Powerhouse Pond
UNIT TYPE: Pond
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: August 1984

COORDINATES: N41390 W75380

WASTE TYPES AND AMOUNTS: The unit receives wastes from steam production and water treatment activities. The major components of the powerhouse effluent discharges to the unit include quench water for the boiler, basin flush water, softener backflush from the filter systems, and boiler blowdown. Approximately 23.8M L/mo of liquid waste are discharged to this unit.

UNIT NAME: 216-T-13
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: June 1954
END DATE: June 1964

COORDINATES: N42850 W75840 (center)

WASTE TYPES AND AMOUNTS: The site received vehicle decontamination waste.

SITE DESCRIPTION: The site is covered with 10 ft of backfill.

CLEANUP ACTIONS: The site has been surface stabilized.

UNIT NAME: 216-T-18
UNIT TYPE: Crib
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: December 8, 1953
END DATE: December 21, 1953

COORDINATES: N42647 W75274 (center)

WASTE TYPES AND AMOUNTS: The site received the first-cycle scavenged TBP supernatant waste from the 221-T Building. The waste is high salt and neutral/basic.

SITE DESCRIPTION: The unit consists of a 14-in. SCH 40 steel inlet pipe reducing to a 10-in. SCH 40 steel pipe, 8 ft below grade. This pipe branches into four 8-in. SCH steel pipes, each one extending to a 4-ft-long by 4-ft-diameter concrete open-end sewer pipe. These structures lie in an excavation with a side slope of 1:1.5. A gravel fill of ~8 ft (14,112 cu ft) in the excavation is covered by 7 ft of earth backfill.

CLEANUP ACTIONS: This site was surface stabilized on 5/22/90.

UNIT NAME: 216-T-19TF
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: September 1951
END DATE: July 24, 1980

COORDINATES: N41270 W75608 (crib), N41270 W74508, N40870 W75608 (tile field)

WASTE TYPES AND AMOUNTS: Until to 7/55, the site received the process condensate from the waste evaporator in the 242-T Building. From 7/55 to 12/55, the site was inactive, the 242-T Building was on standby, and the evaporator was shut down. From 12/55 to 8/56, the site received cell drainage from Tank 5-6, second-cycle supernatant waste from 221-T, and waste from 224-T Building. From 8/56 to 12/65, the site was inactive; T-Plant production operations were shut down. From 1/66 to 4/76, the site received process condensate and steam condensate from the waste evaporator in the 242-T Building. From 4/76 until the site was retired; the evaporator was shut down. Only a small amount of cold cell drainage was received from the Evaporator Building. The waste is low salt and basic.

SITE DESCRIPTION: The unit is a wooden structure, 12 by 12 ft, and a tile field, 390 by 85 ft, containing 394 ft of 8-in. VC trunk line with ten 6-in. VC pipe laterals branching at 45 degrees, both perforated on the bottom and placed ~23 ft below grade. From 1956 to 1965, the unit was abandoned after a cavein occurred. An 8-in. bypass line was installed.

UNIT NAME: 216-T-20
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: November 1952
END DATE: November 1952

COORDINATES: N41380 W74720 (center)

WASTE TYPES AND AMOUNTS: The site received contaminated nitric acid from 241-TX-155 Diversion Box Catch Tank. The waste is acidic.

SITE DESCRIPTION: The unit is an excavation, like a pit.

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UNIT NAME: 216-T-26
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: August 1955
END DATE: November 1956

COORDINATES: N42445 W75330 (center)

WASTE TYPES AND AMOUNTS: The site received the first-cycle scavenged TBP supernatant waste from the 221-T Building via the 101, 103, and 104-TY tanks in the 241-TY Tank. The waste is high salt and neutral/basic.

SITE DESCRIPTION: The unit consists of a 14-in. SCH 40 steel inlet pipe reducing to a 10-in. SCH 40 steel pipe, 9 ft below grade. This pipe branches to four 8-in. SCH 10 steel pipes, each one extending to a 4-ft-long by 4-ft-diameter concrete open-end sewer pipe. These structures lie in an excavation with a side slope of 1:1.5. A gravel fill of ~8 ft (14,112 cu ft) is covered by 8 ft of earth backfill.

KNOWN RELEASES: A few scattered Russian thistles containing strontium and cesium radioactivity were found growing each year for the past ten years or more on the surface of this site. Most of the thistles were removed when found, but some escaped detection and subsequently deteriorated, releasing contamination to the ground surface. A radiation survey in May 1975 revealed spotty surface contamination to a maximum of 30,000 ct/min.

CLEANUP ACTIONS: Remedial action in June and July 1975 included blading 6 in. of soil from the affected areas and disposing of the soil in the 200 West Dry Waste Burial Grounds. The ground surface was then covered with clean fill dirt back to its original level. This site was surface stabilized on 5/21/90.

UNIT NAME: 216-T-27
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: September 1965
END DATE: November 1965

COORDINATES: N42360 W75330 (center)

WASTE TYPES AND AMOUNTS: The site received 300 Area laboratory waste from the 340 Facility. The waste is low salt and neutral/basic.

SITE DESCRIPTION: The unit consists of a 14-in. SCH 40 steel inlet pipe reducing to a 10-in. SCH 40 steel pipe, 8 ft below grade. This pipe branches to four 8-in. SCH-10 steel pipes, each one extending to a 4-ft-long by 4-ft-diameter concrete open-end sewer pipe. These structures rest in an excavation with a side slope of 1:1.5. An 8-ft (14,112 cu ft) gravel fill is covered by 7 ft of earth backfill.

KNOWN RELEASES: A few scattered Russian thistles containing strontium and cesium radioactivity were found growing each year for the past ten years or more on the surface of this site. Most of the thistles were removed when found, but some escaped detection and subsequently deteriorated, releasing contamination to the ground surface. A radiation survey in May 1975 revealed spotty surface contamination to a maximum of 30,000 ct/min.

CLEANUP ACTIONS: Remedial action in June and July 1975 included blading 6 in. of soil from the affected areas and disposing of the soil in the 200 West Dry Waste Burial Grounds. The ground surface was then covered with clean fill dirt back to its original level. This site was surface stabilized on 5/21/90.

UNIT NAME: 216-T-28
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: February 1960
END DATE: February 1966

COORDINATES: N42475 W75330 (center)

WASTE TYPES AND AMOUNTS: Until 2/63, the site received steam condensate decontamination waste and miscellaneous effluents from 221-T via the 112-T Tank in the 241-T Tank Farm. From 2/63 to 9/63, the site received the above plus decontamination waste from 2706-T Building. From 9/63 to 7/64, same as above plus 300 Area laboratory waste from 340. From 7/64 to 5/66, the site received the steam condensate decontamination waste and miscellaneous waste from the 221-T Building via the 112-T Tank in the 241-T Tank Farm and 300 Area laboratory waste from 340 facility. The decontamination waste was rerouted from the 2706 Building to the 216-T-4 Ditch. After 5/66, the site received steam condensate decontamination waste and miscellaneous waste from the 221-T via the 112-T Tank in the 241-T Tank Farm. The 300 Area laboratory waste was rerouted from the 340 Facility to 216-T-34 Crib. The waste type is low salt and neutral/basic.

SITE DESCRIPTION: The unit consists of a 14-in. SCH 40 steel inlet pipe reducing to a 10-in. SCH 40 steel pipe, 8 ft below grade. This pipe branches to four 8-in. SCH 10 steel pipes, each one extending to a 4-ft-long by 4-ft-diameter concrete open-end sewer pipe. These structures rest in an excavation with a side slope of 1:1.5. An 8-ft (14,112 cu ft) gravel fill is covered by 7 ft of earth backfill.

KNOWN RELEASES: A few scattered Russian thistles containing strontium and cesium were found growing each year for the past ten years or more on the surface of this site. Most of the thistles were removed when found, but some escaped detection and subsequently deteriorated, releasing contamination to the ground surface. A radiation survey in May 1975 revealed spotty surface contamination to a maximum of 30,000 ct/min.

CLEANUP ACTIONS: Remedial action in June and July 1975 included blading 6 in. of soil from the affected areas and disposing of the soil in the 200 West Dry Waste Burial Grounds. The ground surface was then covered with clean fill dirt back to its original level. This site was surface stabilized on 5/21/90.

UNIT NAME: 216-T-31
UNIT TYPE: French Drain
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: October 1954
END DATE: February 1962

COORDINATES: N41660 W75530 (center)

KNOWN RELEASES: The site was accidentally contaminated by contaminated steam condensate from a blowout through the steam line during efforts to unplug a waste line.

CLEANUP ACTIONS: In 1959, the contaminated gravel and soil were removed from the site and buried in the 200 West Dry Burial Ground. The site was released from radiation zone status in February 1962.

UNIT NAME: 241-TX-152
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1949

COORDINATES: N41680 W74800

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-TX-155
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1949
END DATE: December 1980

COORDINATES: N41680 W74800

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

KNOWN RELEASES: UPR-200-W-5, UPR-200-W-28.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or to single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-TX-302B
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1949
END DATE: 1982

COORDINATES: N41680 W74800

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

KNOWN RELEASES: UPR-200-W-131

UNIT NAME: UN-200-W-14 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** October 1952
WASTE CATEGORY: Mixed Waste

COORDINATES: N42910 W75310

WASTE TYPES AND AMOUNTS: Not identified in the reference.

KNOWN RELEASES: A leak in the waste line from 242-T Building to 207-T Retention Basin.

CLEANUP ACTIONS: The leak in the line was repaired and the contaminated areas were covered with about a foot of clean soil and gravel.

UNIT NAME: UN-200-W-29 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** November 15, 1954
WASTE CATEGORY: Mixed Waste

COORDINATES: N43163 W75348, N43163 W75468, N43023 W75468, N43023 W75348

WASTE TYPES AND AMOUNTS: The release consisted of first-cycle supernatant containing rare earth metals plus Y, Cs, Sb, Ce, Ru, Nb, and Te, with dose rates of 11.5 R/h at 2 in., including 3.5 R/h.

KNOWN RELEASES: A failed process line leading to the 241-TX-153 Diversion Box contaminated an area along the east side of Camden Avenue.

CLEANUP ACTIONS: The runoff area was hosed down to prevent wind-borne spread of contamination. In 1978, contaminated soil adjacent to the zone was removed on the south side to a depth of 4 ft and on the west side to a depth of 3 ft. The area was backfilled with earth and later covered with gravel.

UNIT NAME: UN-200-W-99 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** September 1968
WASTE CATEGORY: Mixed Waste

COORDINATES: N41500 W75200, N40750 W75400

WASTE TYPES AND AMOUNTS: Approximately 1 Ci of Sr-90 with maximum readings up to 700 mR/h.

KNOWN RELEASES: Ground and road contamination along Camden Avenue and adjacent ground surfaces resulted from two plumes of airborne contamination that floated northeast and southeast, originating from the 241-TX-153 Diversion Box.

CLEANUP ACTIONS: Road contamination was covered with a new tar mat, the sides of the road were fixed with tar, and the field to the east of Camden Avenue was turned under to cover the particulate matter. This site was surface stabilized on 7/11/90.

UNIT NAME: UN-200-W-113 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** Mid 1950's
WASTE CATEGORY: Mixed Waste

COORDINATES: N41450 W74900

WASTE TYPES AND AMOUNTS: Beta/gamma.

KNOWN RELEASES: During the spring and summer months of 1977, rabbit feces were found near the 241-TX-155 Diversion Box, prompting an extensive survey to determine the source of radioactive rabbit food. During this survey, low-level, beta/gamma ground surface contamination was found on the hillside below and to the west of the 241-TX-155 Diversion Box. As soil was removed in the attempt to decontaminate the site, radioactivity increased until it was evident that the source of contamination was subsurface, possibly an old leak from a nearby waste transfer line.

CLEANUP ACTIONS: The contaminated area was covered with clean gravel.

UNIT NAME: UN-200-W-135 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** April 5, 1954
WASTE CATEGORY: Mixed Waste

COORDINATES: N41380 W74720

WASTE TYPES AND AMOUNTS: Fission products. A dose rate of 5 R/h at the surface and 2.5 R/h at a depth of 3 ft was observed.

KNOWN RELEASES: A cave-in about 2 ft in diameter, ~150 ft northwest of the 155-TX Diversion Box, and a visible run-off path about 40 ft long.

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Waste Units Assigned to this Operable Unit

207-T Retention Basin	Retention Basin
216-T-4-1D	Ditch
216-T-4-2	Ditch
216-T-4A	Pond
216-T-4B	Pond
216-T-6	Crib
216-T-12	Trench
216-T-14	Trench
216-T-15	Trench
216-T-16	Trench
216-T-17	Trench
UN-200-W-7	Unplanned Release
UN-200-W-63	Unplanned Release

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UNIT NAME: 207-T Retention Basin
UNIT TYPE: Retention Basin
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: November 1944

COORDINATES: N43600 W75200

WASTE TYPES AND AMOUNTS: The unit receives potentially low-level radioactive waste from T Plant process cooling and ventilation steam condensate, which is discharged to the 214-T-4-2 Ditch. From 11/44 to the 1950's, the site received process cooling water from process equipment jackets in 221-T and 224-T buildings. From early 1950's to 1955, the site received the same, plus 242-T Evaporator cooling water. From 1955 to 1965, the site received the same minus 242-T Evaporator cooling water. From 1965 to late 1960's, the site received the same plus 242-T Evaporator cooling water. From late 1960's to 1973, the site received the same minus 242-T Evaporator cooling water. From 1973 to 1976, the site received the same plus 242-T Evaporator cooling water. Since 1976, the site has been receiving intermittent flow from 221-T, 221-TA, and 224-T 224-T buildings.

SITE DESCRIPTION: The unit is a divided concrete structure with ~1M gal capacity. The bottom dimensions for each basin are 106 by 106 ft. The total overall dimensions include the bottom, the sloped side section, and the top ledge.

KNOWN RELEASES: On September 12, 1985, 500 gal of aqueous 5% sodium hydroxide solution containing 219 lb of sodium hydroxide was released to the unit and subsequently to 214-T-4-2 Ditch. At the time of the release, pH was 12.5.

CLEANUP ACTIONS: No cleanup actions were undertaken; after 6 hr of dilution by continued condensate discharge, the pH was 7.67.

UNIT NAME: 216-T-4-1D
UNIT TYPE: Ditch
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: November 1944
END DATE: May 1972

COORDINATES: N44000 W75640, N45625 W76000 (centerline)

WASTE TYPES AND AMOUNTS: Until 9/51, the site received process cooling water from 221-T and 224-T buildings via the 207-T Retention Basin and steam condensate from 221-T Building. From 9/51 to 7/55, the site received the above plus condenser cooling water and steam condensate from 242-T Evaporator. From 7/55 to 8/56, the site received the same as 11/44 to 9/51. From 8/56 to 6/57, the site received steam condensate from 221-T. From 6/57 to 7/64, the site was on standby. From 7/64 to 12/65, the site received decontamination waste from 2706-T. From 12/65 to 11/70, the site received the above plus condenser cooling water from 242-T Building. After 11/70, the site received condenser cooling water from 242-T Building. Total Pu is 1.41 g (HDW-EIS data).

UNIT NAME: 216-T-4-2
UNIT TYPE: Ditch
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: May 1972

COORDINATES: N44000 W75630, N45350 W76700

WASTE TYPES AND AMOUNTS: The site receives steam condensate and condenser cooling water from the 242-T Evaporator and nonradioactive wastewater from 221-T air conditioning filter units and floor drains. Total Pu is 1.41 g for this unit (HDW-EIS data).

SITE DESCRIPTION: The first 50 ft from the fallout (head of unit) is common with the old covered 216-T-4-1 Ditch. At that point, it makes a 90-degree turn to the north for ~35 ft, then angles northwest, paralleling the old covered 216-T-4-1 Ditch to the railroad tracks, where it goes through a culvert and continues on to the new 216-T-4 Pond. The slope is 1:1.5.

UNIT NAME: 216-T-4A
UNIT TYPE: Pond
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: November 1944
END DATE: May 1972

COORDINATES: N44850 W76950 (SW cnr), N44900 W75925 (SE cnr), N46200 W76750 (north)

WASTE TYPES AND AMOUNTS: Until 9/51, the site received process cooling water from 221-T and 224-T buildings via 207-T Retention Basin and steam condensate from 221-T Building. From 9/51 to 7/55, same as above plus condenser cooling water and steam condensate from the 242-T Evaporator. From 7/55 to 8/56, same as 11/44 to 9/51. From 8/56 to 6/57, the site received steam condensate from 221-T Building. From 6/57 to 7/64, the site was on standby. From 7/64 to 12/65, the site received decontamination waste from 2706-T Building. From 12/65 to 11/70, same as above plus condenser cooling water from 242-T Building. After 11/70, the site received condenser cooling water from 242-T Building.

SITE DESCRIPTION: The water formed an L-shaped shallow pond covering ~16 acres.

KNOWN RELEASES: A number of process vessel leaks in the 221-T Building released radioactivity to this unit over the ensuing years. At the shutdown of the 221-T process in 1957, GM radiation readings taken around the shoreline of the unit ranged from 2,000 to 15,000 ct/min.

CLEANUP ACTIONS: The unit was backfilled in 1972. The entire surface of the bottom of the unit, to a depth of 6 to 9 in., was scraped and placed in the 218-W-2A Burial Ground, Trench #7, and covered with clean soil in February 1973. In April 1973, 5 acres of the scraped pond bottom were seeded with Siberian Wheat Grass to help stabilize the ground surface.

UNIT NAME: 216-T-4B
UNIT TYPE: Pond
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: May 1972

COORDINATES: N45200 W76750 (center)

WASTE TYPES AND AMOUNTS: The site receives steam condensate and condenser cooling water from the 242-T Evaporator and nonradioactive wastewater from 221-T air conditioning filter units and floor drains.

SITE DESCRIPTION: 1.5 acres ranging from 3 to 6 ft deep, 1,759 ft long and 8 ft wide.

UNIT NAME: 216-T-6
UNIT TYPE: Crib
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: August 1946
END DATE: June 1951

COORDINATES: N43315 W74525 (center of #2), N43315 W74463 (center of #1)

WASTE TYPES AND AMOUNTS: Until 10/46, the site received cell drainage from Tank 5-6 in the 221-T Building and waste from the 224-T Building via the overflow from 241-T-361 Setting Tank. From 10/46 to 6/51, the site received cell drainage from Tank 5-6 in the 221-T Building. Deactivated the 241-T-361 241-T-361 Setting Tank. Rerouted the 224-T Building effluent to the 216-T-32 Crib. The waste is low salt and neutral/basic.

SITE DESCRIPTION: Two wooden structures, each with a bottom dimension of 14 ft by 14 ft and a 1:1 side slope. The liquid release point is 16 ft below grade. The cribs are 62 ft apart. The No. 1 crib overflows into the No. 2 crib. Most activity is believed to be in the No. 1 crib.

UNIT NAME: 216-T-12
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: November 1954
END DATE: November 1954

COORDINATES: N43560 W75140 (center)

WASTE TYPES AND AMOUNTS: The site received contaminated sludge from 207-T Retention Basin. The waste is low salt and neutral/basic. Activity on the sludge read a maximum of 15 mR/h at the time of burial. The majority of surface readings were in the range of 2 to 5 mR/h.

SITE DESCRIPTION: The unit was dug with a backhoe.

UNIT NAME: 216-T-14
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1954
END DATE: January 1954

COORDINATES: N43740 W75250, N43960 W75250 (centerline)

WASTE TYPES AND AMOUNTS: The site received the first-cycle supernatant waste from the 221-T Building via the 104, 105 and 106-T tanks in the 241-T Tank Farm. The waste is high salt and neutral/basic.

SITE DESCRIPTION: The structure has a side slope of 1.5:1.

KNOWN RELEASES: In May 1970, radioactive Russian thistles to a maximum of 15 mR/h were found growing on this unit and trenches 216-T-15 and 216-T-16.

CLEANUP ACTIONS: The weeds were removed, and the entire surface of the radiation zone (including T-14, T-15, T-16, and T-17) was treated with Trisden-dimenthylamine salts of Trichlor Obenzoic. The herbicide treatment was completely effective until the summer of 1976, when a few nonradioactive weeds appeared.

UNIT NAME: 216-T-15
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1954
END DATE: February 1954

COORDINATES: N43740 W75165, N43980 W75165 (centerline)

WASTE TYPES AND AMOUNTS: The site received the first-cycle supernatant waste from the 221-T Building via the 104, 105 and 106-T tanks in the 241-T Tank Farm. The waste is high salt and neutral/basic.

SITE DESCRIPTION: The structure has a side slope of 1.5:1.

KNOWN RELEASES: In May 1970, radioactive Russian thistle to a maximum of 15 mR/h were found growing on trenches T-14, T-15, and T-16.

CLEANUP ACTIONS: The weeds were removed, and the entire surface of the radiation zone (including T-14, T-15, T-16, and T-17) was treated with Trisden-dimenthylamine salts of Trichlor Obenzoic. The herbicide treatment was completely effective until the summer of 1976, when a few nonradioactive weeds appeared.

UNIT NAME: 216-T-16
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: February 1954
END DATE: February 1954

COORDINATES: N43740 W75075, N43980 W75075 (centerline)

WASTE TYPES AND AMOUNTS: The site received the first-cycle supernatant waste from the 221-T Building via the 104, 105 and 106-T tanks in the 241-T Tank Farm. The waste is high salt and neutral/basic.

SITE DESCRIPTION: The structure has a side slope of 1.5:1.

KNOWN RELEASES: In May 1970, radioactive Russian thistle to a maximum of 15 mR/h were found growing on trenches T-14, T-15, and T-16.

CLEANUP ACTIONS: The weeds were removed, and the entire surface of the radiation zone (including T-14, T-15, T-16, and T-17) was treated with Trisden-dimenthylamine salts of Trichlor Obenzoic. The herbicide treatment was completely effective until the summer of 1976, when a few nonradioactive weeds appeared.

UNIT NAME: 216-T-17
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: February 1954
END DATE: June 1954

COORDINATES: N43740 W75025, N44015 W75025 (centerline)

WASTE TYPES AND AMOUNTS: The site received the first-cycle supernatant waste from the 221-T Building via the 104, 105 and 106-T tanks in the 241-T Tank Farm. The waste is high salt and neutral/basic.

SITE DESCRIPTION: The structure has a side slope of 1.5:1.

KNOWN RELEASES: In May 1970, radioactive Russian thistle to a maximum of 15 mR/h were found growing on trenches T-14, T-15, and T-16.

CLEANUP ACTIONS: The weeds were removed, and the entire surface of the radiation zone (including T-14, T-15, T-16, and T-17) was treated with Trisden-dimenthylamine salts of Trichlor Obenzoic. The herbicide treatment was completely effective until the summer of 1976, when a few nonradioactive weeds appeared.

UNIT NAME: UN-200-W-7
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: Spring 1950

COORDINATES: N43350 W75250

KNOWN RELEASES: Work done at the 241-T-151 and 241-T-152 diversion boxes provided some contamination in that area.

CLEANUP ACTIONS: A portion of the contamination was removed and the remainder covered with about a foot of clean soil. The area was delimited with rope and posted with radiation zone signs.

UNIT NAME: UN-200-W-63
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: September 21, 1966

COORDINATES: N43215 W74615

WASTE TYPES AND AMOUNTS: Sr-90 with readings of ~1 Ci.

KNOWN RELEASES: Spotty contamination on 23rd Street was found along the road and shoulder from the 241-TX-153 Diversion Box jumper. The particulate matter spread from a used diversion box jumper as it was being transported via truck from the 200 West Dry Waste Burial Ground to the 221-T Canyon. The jumper had just been removed from the 241-TX-153 Diversion Box.

Waste Units Assigned to this Operable Unit

216-T-1	Ditch
216-T-2	Reverse Well
216-T-3	Reverse Well
216-T-8	Crib
216-T-9	Trench
216-T-10	Trench
216-T-11	Trench
216-T-29	Crib
216-T-33	Crib
216-T-34	Crib
216-T-35	Crib
218-W-8	Burial Ground
241-T-361	Settling Tank
241-TX-154	Diversion Box
241-TX-302C	Catch Tank
2607-W3	Septic Tank
2607-W4	Septic Tank
UN-200-W-2	Unplanned Release
UN-200-W-3	Unplanned Release
UN-200-W-4	Unplanned Release
UN-200-W-8	Unplanned Release
UN-200-W-27	Unplanned Release
UN-200-W-38	Unplanned Release
UN-200-W-58	Unplanned Release
UN-200-W-65	Unplanned Release
UN-200-W-67	Unplanned Release
UN-200-W-73	Unplanned Release
UN-200-W-77	Unplanned Release
UN-200-W-85	Unplanned Release
UN-200-W-98	Unplanned Release
UN-200-W-102	Unplanned Release

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UNIT NAME: 216-T-1 **SWMU:** Yes
UNIT TYPE: Ditch **UNIT STATUS:** Active
WASTE CATEGORY: Low-Level Waste **START DATE:** November 1944

COORDINATES: N44455 W73050 (head),N44570 W73050 (east end),N44955 W73600 (west end)

WASTE TYPES AND AMOUNTS: Until 6/56, the site received miscellaneous waste from pilot plant experimental work, intermittent decontamination waste, and waste from the head end of the 221-T Building. From 6/56 to 1/64, inactive; the production operations at T Plant were shut down, and the 221-T Building was put on standby. From 1/64 to 6/70, the site received cooling water from the blowdown vessel in the 277-T Building and miscellaneous waste from PNL head end operations in the 221-T Building. Since 6/70, the site has been receiving the condensate from steam-heated radiators at the head end of 221-T Building. During standdown of PNL operations, the discharge of 277-T and other 221-T head end waste was discontinued. The site also receives sodium hydroxide wash water waste solution (less than 1,000 gal/mo) from the Sodium-Air-Water Reaction Emergency Air Cleaning Development-HEDL. This waste water is nonradioactive. It only wets the bottom of the unit to ~150 ft from the outfall.

SITE DESCRIPTION: The unit has a 2.5:1 side slope.

UNIT NAME: 216-T-2 **SWMU:** Yes
UNIT TYPE: Reverse Well **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste **START DATE:** January 1945
END DATE: May 1950

COORDINATES: N43682 W73173 (center)

WASTE TYPES AND AMOUNTS: The site received decontamination sink waste and sample slurper waste from the 222-T Building. The waste is acidic.

SITE DESCRIPTION: The unit consists of a pipe extending vertically 75 ft below grade, with the last 20 ft of the pipe perforated with twelve 1/2-in. holes per foot.

UNIT NAME: 216-T-3
UNIT TYPE: Reverse Well
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: June 1945
END DATE: August 1946

COORDINATES: N43335 W74250 (center)

WASTE TYPES AND AMOUNTS: The site received cell drainage from Tank 5-6 in the 221-T Building. It also received 224-T Building waste as overflow from the 241-T-361 Settling Tank. The waste is low salt and neutral/basic.

SITE DESCRIPTION: Composed of various sizes of vertical steel piping in sections, with a total length of 206 ft: 12-in. pipe, 100.25 ft long, placed below grade; 10-in. piping placed inside the 12-in. pipe, extending to 175 ft, perforated from 104.5 ft to 171.5 ft; 8-in. pipe placed inside the 10-in. pipe at 172.5 ft, extending to 206 ft and perforated from 172.6 ft to 204 ft.

CLEANUP ACTIONS: Above-ground piping was removed, all sink holes filled, and ground surface decontaminated and leveled during August 1975.

UNIT NAME: 216-T-8
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: May 1950
END DATE: September 1951

COORDINATES: N43510 W72970 (center crib #1), N43540 W72950 (center crib #2)

WASTE TYPES AND AMOUNTS: The site received the decontamination sink waste and sample slurper waste from the 222-T Building. The waste is neutral/basic.

SITE DESCRIPTION: Two structures, each with a 3-in. steel pipe placed vertically into a 12- by 12- by 7-ft wooden frame, 17 ft below grade. The bottom dimensions are 14 ft by 14 ft by 20 ft deep with a 1:1 slope. The site has been backfilled.

UNIT NAME: 216-T-9
UNIT TYPE: Trench
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Inactive
START DATE: February 1951
END DATE: March 1954

COORDINATES: N43850 W73800 (center)

WASTE TYPES AND AMOUNTS: The site received heavy equipment and vehicle decontamination waste.

CLEANUP ACTIONS: The unit was backfilled in 1954. Decontamination operations were transferred to the 216-T-13 site. In May 1972, the site was exhumed and released from radiation zone status. No radioactivity or evidence of chemical buildup was found in the site.

UNIT NAME: 216-T-10
UNIT TYPE: Trench
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Inactive
START DATE: June 1951
END DATE: March 1954

COORDINATES: N43850 W73680 (center)

WASTE TYPES AND AMOUNTS: The site received heavy equipment and vehicle decontamination waste.

CLEANUP ACTIONS: In 1954, the unit was backfilled, and decontamination operations were transferred to the 216-T-13 site. In 5/72, the site was exhumed and released from radiation zone status.

UNIT NAME: 216-T-11
UNIT TYPE: Trench
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Inactive
START DATE: June 1951
END DATE: March 1954

COORDINATES: N43850 W73680 (center of 216-T-10)

WASTE TYPES AND AMOUNTS: The site received heavy equipment and vehicle decontamination waste.

CLEANUP ACTIONS: In 1954, the unit was backfilled, and decontamination operations were transferred to the 216-T-13 site. In 5/72, the site was exhumed and released from radiation zone status.

UNIT NAME: 216-T-29
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1949
END DATE: March 1964

COORDINATES: N44130 W72790 (center)

WASTE TYPES AND AMOUNTS: The site received the condensate runoff from the 291-T Sand Filter. The waste type is potentially acidic.

SITE DESCRIPTION: Structure consisting of 60 French drains, 6 in. diameter, 3 ft 5 in. long, filled with coarse gravel and placed 13 ft 7 in. below the top of the structure. The concrete structure is 14 ft 7 in. high, and concrete blocks are arranged in rows to form lateral ducts. Drains are spaced throughout, every 10 ft lengthwise and 8 ft widthwise, all covered with 9 ft of sand and gravel, then covered with concrete slabs. A 1-ft layer of gravel lines the entire bottom, with a layer of sisalkraft paper underneath, surrounding all the drains throughout the structure.

RELEASE POTENTIAL: The 291-T Sand Filter Inlet Trenches drain to a French drain pipe extending into the ground at the north corner of the sand filter. Any moisture condensed from the canyon air on the filter bed will escape to the ground at this location. The amount and activity are both very low.

UNIT NAME: 216-T-33
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1963
END DATE: February 1963

COORDINATES: N44080 W73615 (center)

WASTE TYPES AND AMOUNTS: The site received decontamination waste from 2706-T. The waste is low salt and neutral/basic.

SITE DESCRIPTION: Structure with 4 ft of 3/4-in. by 1 1/2-in. washed gravel (1,656 cu ft) and a slope of 1.5:1. An 8-in. perforated VC pipe, ~7 ft below grade, runs the length of the unit. A 2-in. layer of clean sand has been placed above a plastic barrier, which is placed over 125 cu ft of gravel.

KNOWN RELEASES: No surface contamination has been found on this site.

UNIT NAME: 216-T-34
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: May 1966
END DATE: March 1967

COORDINATES: N44680 W74298, N44819 W74165 (centerline)

WASTE TYPES AND AMOUNTS: The site received 300 Area laboratory waste from the 340 Facility. The waste is low salt and neutral/basic.

SITE DESCRIPTION: The unit has a side slope of 1.5:1. The dispersal system consists of 420 ft of perforated 8-in. VCT line in a 15- by 195-ft rectangular structure with a 6-in. VCT perforated line extending 50 ft into the unit, all 12.2 ft below grade (elevation 694.8 ft). A 5-ft layer (38,906 cu ft) of 0.75- by 1.5-in. washed gravel is in the excavation, and the site has been backfilled over.

KNOWN RELEASES: The tanker unloading station, with underground piping still remains at the northwest corner of this unit. During the construction and tie-in of the 216-T-35 companion crib in February 1967, low-level beta/gamma soil contamination to 30,000 ct/min was found around the 216-T-34 unloading station piping.

CLEANUP ACTIONS: This site was surface stabilized on 7/26/90.

UNIT NAME: 216-T-35
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1967
END DATE: January 1968

COORDINATES: N44558 W74575, N45015 W74520 (centerline)

WASTE TYPES AND AMOUNTS: The site received 300 Area laboratory waste from the 340 Building.

SITE DESCRIPTION: The side slope is 2:1. One perforated 6-in. VCT drain distribution line, 100 ft long, and one 6-in. VCT perforated crib waste distribution line, 450 ft long, are in parallel, with both lines placed horizontally 9.5 ft below grade (3.5 ft above bottom) and covered by 5 ft of 3/4-in. by 3-in. gravel (~40,000 cu ft). The site has been backfilled.

KNOWN RELEASES: A small area at the unloading station has low-level underground contamination (see 216-T-34 Crib). There has never been any radioactive surface contamination above this unit.

CLEANUP ACTIONS: This site was surface stabilized on 7/26/90.

UNIT NAME: 218-W-8
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1945
END DATE: 1952

COORDINATES: N43721 W73007, N43696 W72972, N43630 W73019, N43655 W73054

WASTE TYPES AND AMOUNTS: This site contains laboratory process sample waste from the 222-T Building.

SITE DESCRIPTION: Three underground vaults are contained in this site. The two original vaults are 10 ft by 10 ft by 12 ft deep, made of 2-in. by 12-in. wooden planking, with the tops 5 ft below grade. The replacement vault is a concrete culvert pipe encasement 8 ft in diameter and 25 ft long and 3 ft 2 in. below grade. The top of the encasement is a 9-in. precast concrete cover and the bottom is a 12-in.-thick concrete floor. The disposal chutes for the wooden vault were removed, and 15 yd of fill soil were hauled in to fill the sink holes.

UNIT NAME: 241-T-361 | **SWMU:** Yes
UNIT TYPE: Settling Tank | **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste | **END DATE:** 1976

COORDINATES: N43225 W74000

WASTE TYPES AND AMOUNTS: The unit received radioactively contaminated liquid and is now estimated to contain 28,000 gal of sludge (2 kg plutonium, 15,500 Ci beta/gamma). This unit received drainage from T-Plant.

SITE DESCRIPTION: The unit is constructed of 6-in. reinforced, prestressed concrete. The top is 6 ft below grade.

CLEANUP ACTIONS: This unit was isolated in 1985.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as high in comparison with other 200 Area surplus facilities.

UNIT NAME: 241-TX-154 | **SWMU:** Yes
UNIT TYPE: Diversion Box | **UNIT STATUS:** Active
WASTE CATEGORY: Mixed Waste | **START DATE:** 1949

COORDINATES: N43950 W73130

WASTE TYPES AND AMOUNTS: The unit transports radioactive waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from within the unit.

UNIT NAME: 241-TX-302C
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1949

COORDINATES: N43900 W73130

WASTE TYPES AND AMOUNTS: This unit is used for transfer of radioactive waste solutions from processing and decontamination operations. Volumes are variable according to specific plant operation. It contains 2,788 gal of waste.

KNOWN RELEASES: UPR-200-W-21, UPR-200-W-160 (216-T-30).

UNIT NAME: 2607-W3
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1944

COORDINATES: N43225 W73650

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 14.2 cu m/d.

SITE DESCRIPTION: This unit includes a drain field. It is 12 ft 6 in. deep, constructed of reinforced concrete, and has a 292-person capacity (35 gal per capita) with an average detention period of 24 h. The walls and floor are 10 in. thick. The tile field is constructed of 4-in. vitrified pipe, concrete pipe, or drain tile with a minimum of 8 linear feet per capita. The laterals are open jointed and spaced 8 ft apart.

UNIT NAME: 2607-W4 **SWMU:** No
UNIT TYPE: Septic Tank **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1944

COORDINATES: N44350 W72850

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 10.6 cu m/d.

SITE DESCRIPTION: This unit includes a drain field. It is 8 ft 4 in. deep, constructed of reinforced concrete, and has an 8-person capacity (35 gal per capita) with an average detention period of 24 h. The walls are 8 in. thick, and the floor is 6 in. thick. The tile field is constructed of 4-in. vitrified pipe, concrete pipe, or drain tile with a minimum of 8 linear feet per capita. The laterals are open jointed and spaced 8 ft apart.

UNIT NAME: UN-200-W-2 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** 1947
WASTE CATEGORY: Mixed Waste

COORDINATES: N43880 W73200

WASTE TYPES AND AMOUNTS: Not identified in reference.

KNOWN RELEASES: A waste line failed and discharged to the ground. The contamination was measured to a depth of 10 to 11 ft below the surface. A spare waste line was placed in service.

UNIT NAME: UN-200-W-3 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** 1949
WASTE CATEGORY: Mixed Waste

COORDINATES: N44680 W74298

WASTE TYPES AND AMOUNTS: Not specified in reference.

KNOWN RELEASES: Contaminated equipment being hauled to the 200 West Burial Ground from T Plant contaminated an area near the railroad.

CLEANUP ACTIONS: The contamination was covered with ~10 in. of clean gravel in the spring of 1950.

UNIT NAME: UN-200-W-4 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** 1949
WASTE CATEGORY: Mixed Waste

COORDINATES: N44680 W74298

WASTE TYPES AND AMOUNTS: Beta/gamma with readings averaging 7 mrem/h.

KNOWN RELEASES: Contamination spread from a burial box in transit.

UNIT NAME: UN-200-W-8 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** 1950
WASTE CATEGORY: Mixed Waste

COORDINATES: N42500 W73350

WASTE TYPES AND AMOUNTS: Fission products with ~1 Ci and a maximum dose rate of 45 R/h at the surface.

KNOWN RELEASES: Spotty contamination from an unknown source was detected in the old burning ground.

CLEANUP ACTIONS: The contaminated area was covered with 10 ft of soil. The area was removed from radiation zone status August 1972.

UNIT NAME: UN-200-W-27 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** December 20, 1954
WASTE CATEGORY: Mixed Waste

COORDINATES: N43985 W73085

WASTE TYPES AND AMOUNTS: First-cycle process waste.

KNOWN RELEASES: Failure of an unencased first-cycle waste line from T Plant resulted in a cave-in, run-off of solution, and high ground-surface dose rates.

UNIT NAME: UN-200-W-38 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** 1956
WASTE CATEGORY: Mixed Waste

COORDINATES: N44085 W72910

WASTE TYPES AND AMOUNTS: Beta/gamma with radiation readings of 1.2 R/h at a distance of 80 ft.

KNOWN RELEASES: The rupture of an underground process line near the 241-TX-154 Diversion Box caused a pool of metal waste on the ground surface.

UNIT NAME: UN-200-W-58 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** April 26, 1965
WASTE CATEGORY: Mixed Waste

COORDINATES: N44870 W73940 (beginning) N42450 W77420 (end)

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to a maximum of 5 R/h, including 100,000 ct/min.

KNOWN RELEASES: 221-T canyon cell blocks in transit for burial spread contamination from the 221-T railroad cut to the 200 West Burial Ground.

CLEANUP ACTIONS: Contaminated dirt was removed from the railroad bed.

UNIT NAME: UN-200-W-65 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** October 27, 1969
WASTE CATEGORY: Mixed Waste

COORDINATES: N44860 W73940

WASTE TYPES AND AMOUNTS: Beta/gamma with readings from 5,000 ct/min to 150 mR/h.

KNOWN RELEASES: Contamination found at the T-Plant railroad cut was from a rail car carrying radioactive material not effectively contained.

CLEANUP ACTIONS: Decontamination of the cut was started.

UNIT NAME: UN-200-W-67 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** August 5, 1970
WASTE CATEGORY: Mixed Waste

COORDINATES: N44150 W73350

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 20,000 ct/min.

KNOWN RELEASES: A contaminated electric lift located outside a radiation zone affected an area 3 ft by 24 ft on the north side of the 2706-T Building.

UNIT NAME: UN-200-W-73 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** October 16, 1974
WASTE CATEGORY: Mixed Waste

COORDINATES: N44145 W73350

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 40 mR/h.

KNOWN RELEASES: A faulty transfer box railroad car being moved for repairs contaminated the railroad right-of-way.

UNIT NAME: UN-200-W-77 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** April 4, 1978
WASTE CATEGORY: Mixed Waste

COORDINATES: N45000 W71000

WASTE TYPES AND AMOUNTS: Pu-239 and Am-241 with beta/gamma readings to 40,000 ct/min and alpha readings to 55,000 dis/min.

KNOWN RELEASES: Contaminated coyote feces were found in the northeast corner of 200 West.

CLEANUP ACTIONS: All contaminated feces were collected and sent to the laboratory for evaluation and radioisotopic analysis.

UNIT NAME: UN-200-W-85 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** April 22, 1982
WASTE CATEGORY: Mixed Waste

COORDINATES: N44595 W73490

WASTE TYPES AND AMOUNTS: The contamination consists of beta/gamma, with readings to 100,000 ct/min.

KNOWN RELEASES: Contaminated liquid was sluiced from a multipurpose transfer box.

CLEANUP ACTIONS: The area was decontaminated to background radiation levels.

RELEASE POTENTIAL: No potential for release from this spill site exists.

UNIT NAME: UN-200-W-98 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** Spring 1945
WASTE CATEGORY: Mixed Waste

COORDINATES: N43550 W73430

WASTE TYPES AND AMOUNTS: Contaminated waste from 221-T, high salt, neutral/basic fission products having ~10 Ci, with a maximum dose rate of 20 R/h at 2 in.

KNOWN RELEASES: A leak in an underground metal waste transfer line surfaced and spread an unknown amount of mixed fission contamination over a small surface area of ground. In 1968, Russian thistle containing strontium and cesium radioactivity were found to be growing over the spill site. Each subsequent year the radioactivity in the new crop of Russian thistles became less until no activity was detected after 1975.

CLEANUP ACTIONS: The area was covered with ~4 ft of clean soil. A blacktop road has since been constructed over the top of the site. The road is in daily use.

UNIT NAME: UN-200-W-102 **SWMU:** Yes
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** February 1972
WASTE CATEGORY: Mixed Waste

COORDINATES: N43565 W73180, N43430 W73275

WASTE TYPES AND AMOUNTS: This is a transuranic disposal site containing ~10 g Pu-239 (calculated from discharge data).

KNOWN RELEASES: During the remodeling of 224-T Building, gross alpha contamination was found in the soil on the back side of the building. This contamination is believed to have come from alpha-laden moisture that seeped through pipe joints from underground process tank vent lines during the years of process operation.

CLEANUP ACTIONS: 139 drums of soil containing ~72 g of plutonium were removed from the zone. The zone was posted for underground contamination.

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Other Waste Units Located Within the Operable Unit Area

221-T Containment System Test Facility	Test Treatment or Support Facility
224-T TRUSAF	Storage Facility
T Plant Treatment Tank	Storage Tank

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TSD: T-2-4

NAME: 221-T Containment System Test Facility
TYPE: Test Treatment or Support Facility
E CATEGORY: Hazardous Waste

UNIT STATUS: Active
START DATE: 1977

DINATES: N43810 W73250

E TYPES AND AMOUNTS: The unit will be used for the treatment of alkali metal stes. The wastes consist of sodium, lithium, and sodium-potassium alloy. all quantities of reactive laboratory wastes may also be treated. proximately 25,000 lb/yr of reactive dangerous wastes can be treated.

DESCRIPTION: Wastes will be treated in a tank with an off-gas system.

ASE POTENTIAL: Treatment takes place inside building. Nonhazardous aqueous droxide wastes are discharged to an existing crib.

T NAME: 224-T TRUSAF
T TYPE: Storage Facility
TE CATEGORY: Retrievable TRU/Mixed Waste

TSD: S-2-2
UNIT STATUS: Active
START DATE: September 1985

RDINATES: N43550 W73350

TE TYPES AND AMOUNTS: The facility operation consists of a nondestructive nalysis of TRU waste. The hazardous waste that may go into this facility ould be any of the listed or characteristic wastes as defined by RCRA and ashington Administrative Code 173-303. The waste is generated nationally by OE processing facilities and will eventually be shipped to the WIPP in New exico for disposal.

E DESCRIPTION: Concrete building, three floors, 40 ft tall. The storage apacity is 110,000 gal (2,000 drums).

UNIT NAME: T Plant Treatment Tank
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

TSD: T-2-7
UNIT STATUS: Active
START DATE: January 1957

COORDINATES: N44220 W72960

WASTE TYPES AND AMOUNTS: Waste is treated by addition of sodium hydroxide and sodium nitrite.

SITE DESCRIPTION: Stainless steel, ~14 ft tall, with a 14,000 gal design capacity.

Waste Units Assigned to this Operable Unit

241-TX-101	Single-Shell Tank
241-TX-102	Single-Shell Tank
241-TX-103	Single-Shell Tank
241-TX-104	Single-Shell Tank
241-TX-105	Single-Shell Tank
241-TX-106	Single-Shell Tank
241-TX-107	Single-Shell Tank
241-TX-108	Single-Shell Tank
241-TX-109	Single-Shell Tank
241-TX-110	Single-Shell Tank
241-TX-111	Single-Shell Tank
241-TX-112	Single-Shell Tank
241-TX-113	Single-Shell Tank
241-TX-114	Single-Shell Tank
241-TX-115	Single-Shell Tank
241-TX-116	Single-Shell Tank
241-TX-117	Single-Shell Tank
241-TX-118	Single-Shell Tank
241-TX-153	Diversion Box
241-TX-302A	Catch Tank
241-TXR-152	Diversion Box
241-TXR-153	Diversion Box
241-TY-101	Single-Shell Tank
241-TY-102	Single-Shell Tank
241-TY-103	Single-Shell Tank
241-TY-104	Single-Shell Tank
241-TY-105	Single-Shell Tank
241-TY-106	Single-Shell Tank
241-TY-153	Diversion Box
241-TY-302A	Catch Tank
241-TY-302B	Catch Tank
242-T-151	Diversion Box
2607-WT	Septic Tank
2607-WTX	Septic Tank
UN-200-W-17	Unplanned Release
UN-200-W-76	Unplanned Release
UN-200-W-100	Unplanned Release

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UNIT NAME: 241-TX-101
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: July 27, 1949
END DATE: 1980

COORDINATES: N41650 W75750

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste and supernatant containing REDOX and high-level waste, coating waste, tributyl phosphate waste, bismuth phosphate first-cycle waste, REDOX and waste fractionization ion exchange waste, B Plant high-level and low-level waste, noncomplexed waste, PUREX low-level waste, organic wash waste, partial neutralization feed, and evaporator bottoms and decontamination waste from 241-C, -BX, -SX, and -TX tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-102
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: January 21, 1950
END DATE: 1977

COORDINATES: N41650 W75852

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; 242-T Evaporator waste; and supernatant containing REDOX high-level waste, and evaporator bottoms from 241-TX tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: Interim stabilization (jet saltwell pumping) was initiated in December 1981 and completed in November 1982.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-103
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: July 14, 1950
END DATE: 1980

COORDINATES: N41650 W75954

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; 242-T Evaporator waste; and supernatant containing bismuth phosphate metal waste, noncomplexed waste, tributyl phosphate waste, and partial neutralization feed from 241-TX tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: Interim stabilization (jet saltwell pumping) was initiated in December 1981 and completed in June 1983.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-104
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: November 12, 1950
END DATE: 1977

COORDINATES: N41650 W76056

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; 242-T Evaporator waste; and supernatant containing REDOX ion exchange and high-level waste, PUREX organic wash waste, bismuth phosphate metal waste, B Plant low-level waste, and tributyl phosphate from 241-TY and -TX tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: The unit was interim stabilized September 18, 1979.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-105
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: March 2, 1951
END DATE: 1977

COORDINATES: N41752 W75750

WASTE TYPES AND AMOUNTS: 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 -SX tank farms.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: P-10 pumping was completed in August 1977. The unit was primary stabilized September 21, 1979. Interim stabilization (jet saltwell pumping) was initiated in March 1982 and completed August 8, 1983.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-106
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: June 16, 1951
END DATE: 1977

COORDINATES: N41752 W75852

WASTE TYPES AND AMOUNTS: 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, bismuth phosphate metal waste, evaporator bottoms, and coating waste from 241-TX tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: Interim stabilization (jet saltwell pumping) was initiated in December 1981 and completed in April 1983.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-107
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1950
END DATE: 1977

COORDINATES: N41752 W75954

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; 242-T Evaporator waste; and supernatant containing bismuth phosphate metal waste, and REDOX high-level waste from 241-TX tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: A submersible pump was installed in October 1977 to remove as much of the remaining supernatant as possible; and because the solids level is less than 2 ft, the tank was not scheduled to receive a jet pump saltwell system.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-108
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1950
END DATE: 1977

COORDINATES: N41752 W76056

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; REDOX high-level waste; 242-T Evaporator waste; and supernatant containing decontamination waste, tributyl phosphate waste, and evaporator bottoms from 241-TX and -TY tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: Interim stabilization (jet saltwell pumping) was initiated in December 1981 and completed January 1983.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-109
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1949 (1950)*
END DATE: 1977

COORDINATES: N41854 W75750

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle waste; 242-T Evaporator waste; and supernatant containing bismuth phosphate first-cycle waste, and evaporator bottoms from 241-T, -TX, and -TY tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: Interim stabilization (jet saltwell pumping) was initiated in March 1982 and completed March 4, 1983.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

* Conflicting Dates

UNIT NAME: 241-TX-110
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: September 1949
END DATE: 1977

COORDINATES: N41854 W75852

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle waste and 242-T Evaporator waste.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: Interim stabilization (jet saltwell pumping) was initiated in December 1981 and completed December 15, 1982.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-111
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: March 1950
END DATE: 1977

COORDINATES: N41854 W75954

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle waste, 242-T Evaporator waste, and supernatant containing tributyl phosphate waste from 241-TX tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: Interim stabilization (jet saltwell pumping) was initiated in January 1982 and completed December 15, 1982.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-112
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: August 24, 1950
END DATE: 1974

COORDINATES: N41854 W76056

WASTE TYPES AND AMOUNTS: 242-T Evaporator waste; bismuth phosphate first-cycle waste; and supernatant containing evaporator bottoms from 241-TX tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: Interim stabilization (jet saltwell pumping) was initiated in December 1981 and completed November 17, 1982.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-113
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: December 1950
END DATE: 1971

COORDINATES: N41956 W75750

WASTE TYPES AND AMOUNTS: 242-T Evaporator waste and supernatant containing evaporator bottoms from 241-TX tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

KNOWN RELEASES: UPR-200-W-129.

CLEANUP ACTIONS: P-10 saltwell pumping was completed in 1976. Interim stabilization (jet saltwell pumping) was initiated in March 1982 and completed May 11, 1982.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-114
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: April 1951
END DATE: 1971

COORDINATES: N41956 W75852

WASTE TYPES AND AMOUNTS: 242-T Evaporator waste and supernatant containing bismuth phosphate first-cycle waste and evaporator bottoms from 241-TX tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: Interim stabilization was initiated in January 1982 and completed November 24, 1982.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-115
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1951
END DATE: 1977

COORDINATES: N41956 W75954

WASTE TYPES AND AMOUNTS: 242-T Evaporator waste; tributyl phosphate waste; coating waste; decontamination waste; and supernatant containing bismuth phosphate metal waste, decontamination waste, coating waste, and evaporator bottoms from 241-U, -S, -T, and -TX tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: P-10 saltwell pumping was completed in 1977. Interim stabilization was initiated in April 1982 and completed November 24, 1982.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-116
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1951
END DATE: 1969

COORDINATES: N42058 W75750

WASTE TYPES AND AMOUNTS: Supernatant containing evaporator bottoms from 241-TX tanks. Diatomaceous earth was added in 1969.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: An unsuccessful stabilization attempt was made by the addition of diatomaceous earth. A P-10 saltwell system was subsequently installed for the removal of supernatant liquor, and more than 100,000 gal was removed before the unit was considered stabilized. However, radiation readings recorded for Dry Well 51-16-11 in 1974 indicate that there may have been recent leakage from the unit. Saltwell pumping was therefore reinstituted, but no measurable amount of liquid was removed.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

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UNIT NAME: 241-TX-117
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: April 1951
END DATE: 1969

COORDINATES: N42058 W75852

WASTE TYPES AND AMOUNTS: Supernatant containing first-cycle waste and evaporator bottoms from 241-TX tanks. Diatomaceous earth "mounded" in 1969.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: An unsuccessful attempt was made to stabilize the unit by the addition of diatomaceous earth. Interim stabilization was initiated in December 1981 and completed June 6, 1982.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-118
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: April 1951
END DATE: November 17, 1980

COORDINATES: N42058 W75954

WASTE TYPES AND AMOUNTS: 242-T Evaporator feed tank waste, 234-Z and 235-Z buildings waste; caustic solution; tributyl phosphate waste; decontamination waste; and supernatant containing tributyl phosphate waste, bismuth phosphate first-cycle waste, evaporator bottoms, decontamination waste, partial neutralization feed, and coating waste from 241-T, -TX, -TY, and -U tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The inner structure is 37 ft high. The capacity is 758,000 gal. The bottom is 45 ft below grade, and the dome is also below grade for shielding purposes. This is a second-generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: Jet saltwell pumping was initiated in February 1982 and completed on February 11, 1983. This unit was interim stabilized on April 5, 1983, and interim isolated in August 1984.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TX-153
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1949
END DATE: July 1982

COORDINATES: N41600 W75640 (southeast corner)

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solution from processing and decontamination operations. Volumes were variable according to specific plant operation.

SITE DESCRIPTION: The unit is a reinforced concrete structure. All nozzles are 3-in. Hanford style.

KNOWN RELEASES: UPR-200-W-126.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

UNIT NAME: 241-TX-302A
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1949
END DATE: 1982

COORDINATES: N41600 W75650

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

UNIT NAME: 241-TXR-152
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1949
END DATE: August 1980

COORDINATES: N41700 W75660

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

UNIT NAME: 241-TXR-153
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1949
END DATE: December 1980

COORDINATES: N41700 W75660

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

UNIT NAME: 241-TY-101
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1953
END DATE: 1973

COORDINATES: N42604 W75852

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle waste and supernatant containing bismuth phosphate first-cycle waste; tributyl phosphate waste; and evaporator bottoms from 241-TY, -TX, and -SX tank farms.

SITE DESCRIPTION: This unit is carbon steel lined, with a reinforced concrete shell, dome, and base. The inner structure is 37 ft high. The capacity is 758,000 gal. The liner is 24 ft high. There is earth covering the dome for shielding. This is a second generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: P-10 saltwell pumping was completed June 1975. Saltwell jet pumping was completed February 1983. This unit was interim stabilized in August 1983.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TY-102
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1953
END DATE: 1979

COORDINATES: N42604 W75954

WASTE TYPES AND AMOUNTS: Supernatant containing B Plant low-level, REDOX high-level waste, PUREX organic wash waste, REDOX ion exchange waste, and evaporator bottoms from 241-TX and -TY tanks.

SITE DESCRIPTION: This unit is carbon steel lined, with a reinforced concrete shell, dome, and base. The inner structure is 37 ft high. The capacity is 758,000 gal. The liner is 24 ft high. There is earth covering the dome for shielding. This is a second generation design with a dished bottom and an operating depth of 23 ft.

CLEANUP ACTIONS: The unit was interim stabilized in 1979.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TY-103
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: July 16, 1953
END DATE: 1973

COORDINATES: N42502 W75852

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle waste; tributyl phosphate waste; and supernatant containing bismuth phosphate first-cycle waste, tributyl phosphate waste, PUREX organic wash waste, REDOX ion exchange waste, coating waste, evaporator bottoms, and decontamination waste from 241-BX, -T, -TX, -TY, and -AX tanks.

SITE DESCRIPTION: This unit is carbon steel lined, with a reinforced concrete shell, dome, and base. The inner structure is 37 ft high. The capacity is 758,000 gal. The liner is 24 ft high. There is earth covering the dome for shielding. This is a second generation design with a dished bottom and an operating depth of 23 ft.

KNOWN RELEASES: In February 1976, overflow of the 155-TX Diversion Box catch tank backflowed into the unit, depositing 1.30 in. of waste. Dry wells showed no significant increase that was attributable to this flooding. UPR-200-W-150.

CLEANUP ACTIONS: P-10 saltwell pumping was completed in March 1976. Jet saltwell pumping was completed in December 1982. This unit was interim stabilized in February 1983.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TY-104
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: August 10, 1953
END DATE: March 1974

COORDINATES: N42502 W75954

WASTE TYPES AND AMOUNTS: Tributyl phosphate waste; supernatant containing REDOX ion exchange waste; PUREX organic wash waste, bismuth phosphate first-cycle waste, tributyl phosphate waste, and decontamination waste from 241-TX and -TY tank farms.

SITE DESCRIPTION: This unit is carbon steel lined, with a reinforced concrete shell, dome, and base. The inner structure is 37 ft high. The capacity is 758,000 gal. The liner is 24 ft high. There is earth covering the dome for shielding. This is a second generation design with a dished bottom and an operating depth of 23 ft.

KNOWN RELEASES: UPR-200-W-151.

CLEANUP ACTIONS: P-10 saltwell pumping was completed November 1974.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TY-105
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: January 29, 1953
END DATE: September 1960

COORDINATES: N42400 W75852

WASTE TYPES AND AMOUNTS: Tributyl phosphate waste.

SITE DESCRIPTION: This unit is carbon steel lined, with a reinforced concrete shell, dome, and base. The inner structure is 37 ft high. The capacity is 758,000 gal. The liner is 24 ft high. There is earth covering the dome for shielding. This is a second generation design with a dished bottom and an operating depth of 23 ft.

KNOWN RELEASES: UPR-200-W-152.

CLEANUP ACTIONS: A saltwell jet pump system has been installed to remove the pumpable interstitial liquid. P-10 saltwell pumping was completed in January 1976. Jet saltwell pumping was completed in December 1982.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TY-106
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: June 27, 1953
END DATE: 1959

COORDINATES: N42400 W75954

WASTE TYPES AND AMOUNTS: Tributyl phosphate waste. Diatomaceous earth was added in 1969.

SITE DESCRIPTION: This unit is carbon steel lined, with a reinforced concrete shell, dome, and base. The inner structure is 37 ft high. The capacity is 758,000 gal. The liner is 24 ft high. There is earth covering the dome for shielding. This is a second generation design with a dished bottom and an operating depth of 23 ft.

KNOWN RELEASES: UPR-200-W-153.

CLEANUP ACTIONS: The unit has been stabilized by the addition of diatomaceous earth.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-TY-153
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1953
END DATE: May 1981

COORDINATES: N42275 W75665

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solution from processing and decontamination operations. Volumes were variable according to specific plant operation.

SITE DESCRIPTION: The unit is a reinforced concrete structure. All nozzles are 3-in. Hanford style.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-TY-302A
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1953
END DATE: 1981

COORDINATES: N42338 W75673

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solution from processing and decontamination operations. Volumes were variable according to specific plant operation.

CLEANUP ACTIONS: This unit was isolated in 1985.

UNIT NAME: 241-TY-302B
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1953
END DATE: 1981

COORDINATES: N42610 W75684

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solution from processing and decontamination operations. Volumes were variable according to specific plant operation.

CLEANUP ACTIONS: This unit was isolated in 1985.

UNIT NAME: 242-T-151
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive

COORDINATES: N42040 W75700

UNIT NAME: 2607-WT
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1952

COORDINATES: N42275 W75650

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 0.02 cu m/d.

SITE DESCRIPTION: This unit includes a drain field.

UNIT NAME: 2607-WTX
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1950

COORDINATES: N41550 W76075

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 0.74 cu m/d.

SITE DESCRIPTION: This unit includes a drain field.

UNIT NAME: UN-200-W-17
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: September 11, 1952

COORDINATES: N42100 W75750

WASTE TYPES AND AMOUNTS: Cerium, cesium, nobelium, ruthenium, strontium, and zirconium with readings of 2,000 ct/min to a maximum of 35,000 ct/min.

KNOWN RELEASES: Contamination spread to the 241-TX Tank Farm and adjacent major construction area during the transfer of a temporary process waste pump from the 241-TX-106 Tank to the 241-TX-114 Tank.

UNIT NAME: UN-200-W-76 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** August 24, 1977
WASTE CATEGORY: Mixed Waste

COORDINATES: N42035 W76065

WASTE TYPES AND AMOUNTS: Cs-137, Cs-134, Eu-155, Eu-154, and Sr-90.

KNOWN RELEASES: Contaminated rabbit fecal pellets.

CLEANUP ACTIONS: The contaminated pellets and soil were removed from the TX-155 excavation hole and taken to dry waste burial. The remaining contamination was covered with clean soil.

UNIT NAME: UN-200-W-100 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** November 1954
WASTE CATEGORY: Mixed Waste

COORDINATES: N41750 W75950

WASTE TYPES AND AMOUNTS: First-cycle waste, high salt, neutral/basic. Fission products with ~10 Ci and a maximum dose rate of 4.5 R/h at 4 ft.

KNOWN RELEASES: A leak in the process line from 241-TX-105 to 241-TX-118 Tank.

CLEANUP ACTIONS: The contaminated area was covered with 1 ft of clean soil.

Other Waste Units Located Within the Operable Unit Area

242-T Evaporator	Evaporator
244-TX Receiver Tank	Receiving Vault

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UNIT NAME: 242-T Evaporator
UNIT TYPE: Evaporator
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: Early 1950's
END DATE: November 1986

COORDINATES: N42540 W75720

WASTE TYPES AND AMOUNTS: During the 1950's, the unit received byproduct cake solution and waste solution from the first decontamination waste cycle containing ~10% of original fission activity and 1% plutonium in solution with phosphates, nitrates, and sulfates. During the 1960's to the late 1970's, the unit received single-shell supernatant waste (low-level waste of high activity), complexed radioactive waste, and dilute miscellaneous radioactive waste. During the 1980's, the control area of the facility was used in support of the salt-well pumping program. During its active life, the facility received 33,652,000 gal of waste.

SITE DESCRIPTION: The unit is a process neutralization facility.

KNOWN RELEASES: UPR-200-W-12.

UNIT NAME: 244-TX Receiver Tank
UNIT TYPE: Receiving Vault
WASTE CATEGORY: Mixed Waste

TSD: S-2-3
UNIT STATUS: Active
START DATE: December 1981

COORDINATES: N41460 W75800

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation. It contains 28,651 gal of waste.

SITE DESCRIPTION: This unit is constructed of carbon steel and has a design capacity of 31,000 gal. It sets lengthwise in a reinforced concrete, steel-lined vault. The bottom of the vault is 28 ft below grade.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

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Waste Units Assigned to this Operable Unit

241-T-101	Single-Shell Tank
241-T-102	Single-Shell Tank
241-T-103	Single-Shell Tank
241-T-104	Single-Shell Tank
241-T-105	Single-Shell Tank
241-T-106	Single-Shell Tank
241-T-107	Single-Shell Tank
241-T-108	Single-Shell Tank
241-T-109	Single-Shell Tank
241-T-110	Single-Shell Tank
241-T-111	Single-Shell Tank
241-T-112	Single-Shell Tank
241-T-151	Diversion Box
241-T-152	Diversion Box
241-T-153	Diversion Box
241-T-201	Single-Shell Tank
241-T-202	Single-Shell Tank
241-T-203	Single-Shell Tank
241-T-204	Single-Shell Tank
241-T-252	Diversion Box
241-T-301	Catch Tank
241-T-302	Catch Tank
241-TR-152	Diversion Box
241-TR-153	Diversion Box
UN-200-W-62	Unplanned Release
UN-200-W-64	Unplanned Release
UN-200-W-97	Unplanned Release

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UNIT NAME: 241-T-101
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 12/44 (1945)*
END DATE: 1979

COORDINATES: N43648 W75638

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste, tributyl phosphate waste; REDOX coating waste; and supernatant containing coating waste, REDOX ion exchange waste, REDOX high-level waste, PNL waste, B Plant low-level waste, decontamination waste, evaporator bottoms, and 224-U waste from 241-BX, -SX, and -T tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

* Conflicting Dates

UNIT NAME: 241-T-102
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: September 1945
END DATE: 1976 (1974)*

COORDINATES: N43648 W75738

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; REDOX coating waste; and supernatant containing REDOX high-level waste, evaporator bottoms, coating waste, B Plant ion exchange waste, and B Plant low-level waste from 241-C and -T tank farms.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

CLEANUP ACTIONS: P-10 saltwell pumping was completed December 1978.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

* Conflicting Dates

UNIT NAME: 241-T-103
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: March 1946
END DATE: 1974

COORDINATES: N43648 W75838

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; coating waste; and supernatant containing B Plant low-level waste, REDOX ion exchange waste, REDOX high-level waste, ion exchange waste, and evaporator bottoms from 241-C and -T tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

KNOWN RELEASES: UPR-200-W-147.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-104
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: March 1946
END DATE: 1974

COORDINATES: N43548 W75638

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle waste.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

CLEANUP ACTIONS: P-10 saltwell pumping was completed December 1978.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-105
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1945
END DATE: 1976 (1974)*

COORDINATES: N43548 W75738

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle and second-cycle waste; REDOX coating waste; decontamination waste; Hanford Laboratory operation waste; and supernatant containing B Plant low-level waste, bismuth phosphate first-cycle waste, decontamination waste, and ion exchange waste from 241-BX, -S, and -T tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

CLEANUP ACTIONS: P-10 saltwell pumping was completed June 1978.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

* Conflicting Dates

UNIT NAME: 241-T-106
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: June 1947
END DATE: 1973

COORDINATES: N43548 W75838

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle waste and supernatant containing coating waste, B Plant low-level waste and ion exchange waste from 241-S, -T, and -U tank farms.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

KNOWN RELEASES: UPR-200-W-148. The unit was removed from service and categorized a Confirmed Leaker as a result of a leak estimated to be 115,000 gal.

CLEANUP ACTIONS: The unit was pumped to a minimum heel in June 1973 and was further pumped down to a residual layer of less than 6 in. in July 1974.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-107
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 12/44 (1945)*
END DATE: April 1976

COORDINATES: N43448 W75638

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle waste; tributyl phosphate; and supernatant containing bismuth phosphate first-cycle waste, tributyl phosphate waste, ion exchange waste, and coating waste from 241-C, -BX, and -T tank farms.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

CLEANUP ACTIONS: P-10 saltwell pumping was completed August 1977.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

* Conflicting Dates

UNIT NAME: 241-T-108
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: September 1945
END DATE: 1974

COORDINATES: N43448 W75738

WASTE TYPES AND AMOUNTS: Tributyl phosphate; bismuth phosphate first-cycle waste; Hanford Laboratory operations waste; and supernatant containing tributyl phosphate waste, B Plant low-level waste, bismuth phosphate first-cycle waste, ion exchange waste, and evaporator bottoms from the 241-T and -TX tank farms.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

CLEANUP ACTIONS: P-10 saltwell pumping was completed June 1975.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-109
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: December 1945
END DATE: 1974

COORDINATES: N43448 W75838

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle waste; tributyl phosphate waste; evaporator bottoms; and supernatant containing tributyl phosphate waste, B Plant low-level waste, bismuth phosphate first-cycle waste, ion exchange waste, and PNL waste from 241-T and -TX tank farms.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

CLEANUP ACTIONS: P-10 saltwell pumping was completed May 1978.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-110
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: December 1944
END DATE: 1976

COORDINATES: N43348 W75638

WASTE TYPES AND AMOUNTS: Bismuth phosphate second-cycle waste and 224-U Building waste.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

CLEANUP ACTIONS: P-10 saltwell pumping was completed November 1978.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-111
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: October 1945
END DATE: March 1974

COORDINATES: N43348 W75738

WASTE TYPES AND AMOUNTS: Bismuth phosphate second-cycle waste and 224-U Building waste.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

CLEANUP ACTIONS: P-10 saltwell pumping was completed December 1978.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-112
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: January 1946
END DATE: 1977

COORDINATES: N43348 W75838

WASTE TYPES AND AMOUNTS: Bismuth phosphate second-cycle waste; PNL waste; decontamination waste; and supernatant containing B Plant low-level waste and ion exchange waste from the 241-T tanks.

SITE DESCRIPTION: This unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-151
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1944
END DATE: October 1980

COORDINATES: N43296 W75367

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

SITE DESCRIPTION: The unit is a reinforced concrete structure. All nozzles are 3-in. Hanford style.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

UNIT NAME: 241-T-152
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1944
END DATE: September 1983

COORDINATES: N43253 W75422

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

SITE DESCRIPTION: The unit is a reinforced concrete structure.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

UNIT NAME: 241-T-153 **TSD:** S-2-4
UNIT TYPE: Diversion Box **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste

COORDINATES: N43350 W75523

SITE DESCRIPTION: The unit is a reinforced concrete structure.

7 1 4 7 7

UNIT NAME: 241-T-201 **TSD:** S-2-4
UNIT TYPE: Single-Shell Tank **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste **START DATE:** 1952
END DATE: 1976

COORDINATES: N43473 W75938

WASTE TYPES AND AMOUNTS: 224-U Building waste.

SITE DESCRIPTION: This unit is composed of a steel liner within a concrete shell. The inner structure is 25 ft tall. The capacity is 55,000 gal. The bottom is 37 ft below grade, and the top of the shell is also below grade for shielding purposes. This unit was built to the original design, having a dished bottom.

CLEANUP ACTIONS: P-10 saltwell pumping was completed October 1978.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-202
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1952
END DATE: April 1976

COORDINATES: N43423 W75938

WASTE TYPES AND AMOUNTS: 224-U Building waste.

SITE DESCRIPTION: This unit is composed of a steel liner within a concrete shell. The inner structure is 25 ft tall. The capacity is 55,000 gal. The bottom is 37 ft below grade, and the top of the shell is also below grade for shielding purposes. This unit was built to the original design, having a dished bottom.

CLEANUP ACTIONS: P-10 saltwell pumping was completed May 1979.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-203
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1952
END DATE: April 1976

COORDINATES: N43373 W75938

WASTE TYPES AND AMOUNTS: 224-U Building waste.

SITE DESCRIPTION: This unit is composed of a steel liner within a concrete shell. The inner structure is 25 ft tall. The capacity is 55,000 gal. The bottom is 37 ft below grade, and the top of the shell is also below grade for shielding purposes. This unit was built to the original design, having a dished bottom.

CLEANUP ACTIONS: P-10 saltwell pumping was completed May 1979.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-204
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1976
END DATE: April 1976

COORDINATES: N43323 W75938

WASTE TYPES AND AMOUNTS: 224-U Building waste.

SITE DESCRIPTION: This unit is composed of a steel liner within a concrete shell. The inner structure is 25 ft tall, with a capacity of 55,000 gal. The bottom is 37 ft below grade, and the top of the shell is also below grade for shielding purposes. This unit was built to the original design, having a dished bottom.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-T-252
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1944
END DATE: September 1983

COORDINATES: N43233 W75901

WASTE TYPES AND AMOUNTS: This unit transported waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

SITE DESCRIPTION: This unit is a reinforced concrete structure.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

UNIT NAME: 241-T-301
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive

COORDINATES: N43235 W75837

UNIT NAME: 241-T-302
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive

COORDINATES: N43550 W75500

UNIT NAME: 241-TR-152
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1944
END DATE: November 1980

COORDINATES: N43522 W75520

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

SITE DESCRIPTION: The unit is a reinforced concrete structure. All nozzles are 4-in. REDOX style.

RELEASE POTENTIAL: Diversion boxes drain to catch tanks or to single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

UNIT NAME: 241-TR-153
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1944
END DATE: November 1983

COORDINATES: N43425 W75520

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

SITE DESCRIPTION: The unit is a reinforced concrete structure.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. This unit has been isolated and weather covered.

UNIT NAME: UN-200-W-62 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** May 4, 1966
WASTE CATEGORY: Mixed Waste

COORDINATES: N43215 W75450

WASTE TYPES AND AMOUNTS: Contaminated second-cycle waste consisting of bismuth phosphate, with readings from 20 to 5,000 mR/h, including a maximum of 3 R/h.

KNOWN RELEASES: Ruptured transfer line.

CLEANUP ACTIONS: The area was isolated and covered with sand and gravel.

UNIT NAME: UN-200-W-64 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** February 13, 1969
WASTE CATEGORY: Mixed Waste

COORDINATES: N43210 W75450

WASTE TYPES AND AMOUNTS: Cs-137 with readings to 600 ct/min.

KNOWN RELEASES: Contamination is believed to have spread from a nearby radiation zone to the east.

UNIT NAME: UN-200-W-97
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: May 1966

COORDINATES: N43163 W75348, N43163 W75468, N43023 W75468, N43023 W75348

WASTE TYPES AND AMOUNTS: Liquid waste solution, high salt, neutral/basic, with fission products at ~10 Ci. Readings were up to 60,000 ct/min.

KNOWN RELEASES: Liquid waste solution spilled from a broken underground line on the southeast corner of 23rd and Camden, surfaced, and ran across the road to the west but did not run down the side of the road as it did in the 1954 spill.

CLEANUP ACTIONS: All surface contamination was removed to a depth of 3 ft and buried in the 200 West Burial Grounds. In 1978, contaminated soil adjacent to the zone was removed on the south side to a depth of 4 ft and on the west side to a depth of 3 ft. The area was backfilled with earth and later covered with clean soil.

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Waste Units Assigned to this Operable Unit

216-S-4	French Drain
216-S-21	Crib
216-U-10	Pond
216-U-11	Ditch
216-U-13	Trench
216-Z-1D	Ditch
216-Z-11	Ditch
216-Z-19	Ditch
216-Z-20	Crib
2607-W9	Septic Tank
UN-200-W-68	Unplanned Release

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UNIT NAME: 216-S-4
UNIT TYPE: French Drain
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: August 1953
END DATE: August 1956

COORDINATES: N36070 W76615 (center)

WASTE TYPES AND AMOUNTS: Until 9/53, the site received condensate and cooling water from condensers on the 101-S and 104-S tanks in the 241-S Tank Farm. After 9/53, the site received the same cooling water as above but rerouted the condensate to the 216-S-3 Crib.

SITE DESCRIPTION: Two structures with 30-in.-diameter rock-filled encasements. Their construction consisted of 2 culvert metal pipes placed end to end. Radioactivity accumulated at the bottom of the pipes.

UNIT NAME: 216-S-21
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: November 1954
END DATE: February 1969

COORDINATES: N35920 W76400 (center)

WASTE TYPES AND AMOUNTS: The site received 241-SX condensate from the condensers in the 401-SX Condenser Facility via the 206-SX Tank in the 241-SX Tank Farm. The waste is low salt and neutral/basic.

SITE DESCRIPTION: The unit is a 16-ft by 15-ft by 9-ft 10-in. wooden structure, 8.25 ft below grade with a side slope of 1:1. The fill lines are ~9 ft below grade, one from the 401-SX condenser and the other capped to the north of the unit at N35970. The bottom of the wooden structure is 4 ft above the bottom of the unit, suspended in gravel fill.

UNIT NAME: 216-U-10
UNIT TYPE: Pond
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: July 1944
END DATE: 1985

COORDINATES: N36500 W77500 (center)

WASTE TYPES AND AMOUNTS: The site received the following effluents at various times: 284-W Powerhouse process cooling water; steam condensate from 231-Z and 234-5 buildings via 216-Z-1 Ditch; wastewater from 2723-W mask cleaning station and 2724-W laundry via 216-U-14 Ditch; chemical sewer wastes from 221-U Building; cooling water from 224-U Building, 231-Z laboratory wastes via 216-Z-1 Ditch; 241-U-110 Tank condenser water via 216-U-14 Ditch; vacuum pump seal water from 291-Z Building; Hanford Laboratory waste and PNL operations waste from 231-Z via 216-U-14 Ditch; and 242-S Evaporator steam condensate via 216-U-14 Ditch. From 4/80 to 9/81, the site received the same as above minus wastes from 231-Z, 234-5Z, 2723-W, 2724-W wastes and 242-S Evaporator steam condensate. From 9/81 to 7/84, the site received the same as above minus 221-U, 224-U, and 271-U. After 7/84, the site only received 242-S cooling water.

SITE DESCRIPTION: The unit now covers 30 acres. The stabilized area also includes UN-216-W-14, UN-216-W-15, UN-216-W-16, and UN-216-W-17.

KNOWN RELEASES: UPR-200-W-104, UPR-200-W-105, UPR-200-W-106, UPR-200-W-107.

CLEANUP ACTIONS: The site was backfilled over and stabilized in 3/85.

UNIT NAME: 216-U-11
UNIT TYPE: Ditch
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: November 1944
END DATE: 1957

COORDINATES: N37450 W78375, N36630 W78670, N36630 W79575, N37760 W78685

WASTE TYPES AND AMOUNTS: Until August 1955, the old unit received the overflow from the 216-U-10 Pond. The old unit was retired in August 1955. From July 1955 to 1957, the new unit received the overflow from the 216-U-10 Pond. The new unit was retired in 1957. The site contains less than 0.1 Ci beta activity.

SITE DESCRIPTION: Bottom dimensions of the original unit were 1,880 ft by 5 ft and 10 ft wide at the surface level. Bottom dimensions of the new unit are 3,440 ft by 5 ft, which includes 810 ft of the old, original unit.

CLEANUP ACTIONS: The site has been surface stabilized.

UNIT NAME: 216-U-13
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1952
END DATE: March 1956

COORDINATES: N37980 W76020, N38180 W76020 (#1), N37980 W76070, N38180 W76070 (#2)

WASTE TYPES AND AMOUNTS: The site received drainage from the equipment decontamination processes within the trenches.

SITE DESCRIPTION: The site consists of two units. Both ends of the units were sloped so that automotive equipment could be driven down into them.

CLEANUP ACTIONS: Contaminated soils in the bottom of the pits were removed and buried in the 200 West Burial Ground.

UNIT NAME: 216-Z-1D
UNIT TYPE: Ditch
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: December 1944
END DATE: March 1959

COORDINATES: N37050 W76950 (head), N40829 W76505 (end)

WASTE TYPES AND AMOUNTS: Until 7/49, the site received process cooling water and steam condensate from the 231-Z Building. From 7/49 to 5/53, the site received the above building effluents, the process cooling water and steam condensate from the 234-5 Building, and the vacuum pump seal water from the 291-Z Building. After 5/58, the site received the process cooling water and steam condensate from the 234-5 Building, the vacuum pump seal water from the 291-Z Building, and the Hanford Laboratory waste from the 231-Z Building.

SITE DESCRIPTION: In July 1949, the upper 1,725 ft (N40830/W76505 to N39329/W76020) was backfilled and replaced by a pipeline. In 1959, 2,005 ft (N39420/W75991 to N37495/W76460) from the pipeline outlet to 665 ft northeast of 216-U-10 Pond was backfilled after a contamination release from 231-Z Building. The last 665 ft (N37495/W76460 to N37050/W76950) were in common with the 216-Z-11 Ditch. The first 120 ft of the unit (starting at the 231-Z outfall) is common with 216-Z-11 and 216-Z-19. In 1971, 425 ft of this unit immediately south of the above section was exhumed while digging the head end of 216-Z-19 Ditch.

KNOWN RELEASES: UPR-200-W-110.

UNIT NAME: 216-Z-11 **SWMU:** Yes
UNIT TYPE: Ditch **UNIT STATUS:** Inactive
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed **START DATE:** March 1959
END DATE: May 1971

COORDINATES: N39420 W75991 (head), N37050 W76950 (end)

WASTE TYPES AND AMOUNTS: Until 11/65, the site received process cooling water and steam condensate from the 234-5 Building, the cooling and seal water from the 291-Z Building, and Hanford Laboratories waste from 231-Z Building. After 11/65, the site received the process cooling water and steam condensate from the 234-5 Building, the cooling seal water from the 291-Z Building, and the cooling water from PNL operations in the 231-Z Building.

SITE DESCRIPTION: The southernmost 665 ft (N37485/W76460 to N37050/W76950) was part of the previously used 216-Z-1 Ditch. The first 120 ft of the unit (starting at N39420/W75991) is in common with 216-Z-1 Ditch and 216-Z-19 Ditch. For a short time in 1971, 216-Z-19 Ditch flowed through a 900-ft section of this unit (N37720/W76400, to N37050/W76950), which includes the 665-ft section mentioned above.

CLEANUP ACTIONS: The unit was backfilled to grade with clean soil when it was retired.

UNIT NAME: 216-Z-19 **SWMU:** Yes
UNIT TYPE: Ditch **UNIT STATUS:** Inactive
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed **START DATE:** May 1971
END DATE: September 24, 1981

COORDINATES: N39420 W75991 (head), N37050 W76950 (end)

WASTE TYPES AND AMOUNTS: The site received the process cooling waste and steam condensate from the 234-5 Building, the vacuum pump seal water from the 291-Z Building, and the cooling water from PNL operations in the 231-Z Building.

SITE DESCRIPTION: ~550 ft of the head end of the unit is in common with the 216-Z-1 Ditch, and the first 120 ft is in common with 216-Z-11 Ditch.

KNOWN RELEASES: In March 1976, an estimated 30 to 60 g of alpha contamination was released from 234-5Z Building. The discharge volume was subsequently reduced. Three earth dams were constructed to impound the water and allow contaminants to settle. Sprinklers were used to keep the downstream sections from drying and blowing. The dams were removed in June 1978. UPR-200-W-110.

CLEANUP ACTIONS: The unit was backfilled, and wastes were diverted to the 216-Z-20 Crib.

UNIT NAME: 216-Z-20
UNIT TYPE: Crib
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: September 24, 1981

COORDINATES: N37830 W76523, N39280 W76130 (centerline)

WASTE TYPES AND AMOUNTS: The site has been receiving cooling water, steam condensate, storm sewer, building drains, HEDL RADTU cooling water, and chemical drains waste from the 234-5Z Building; cooling water steam condensate and laboratory drains from the 231-Z Building; and miscellaneous drains waste from 291-Z, 232-Z, and 236-Z buildings. The unit will also receive wastes from 2736-Z Building, which is now under construction (Project B-246).

SITE DESCRIPTION: The structure has varied depths of 9 to 29 ft below ground surface. Three 6-in. perforated PVC distribution pipes are located 3.5 ft apart along the length to within 1 ft of the south end, where the pipes are capped. A set of 3 risers stem from the distribution pipes, rising to 1.5 ft above grade at 4 locations throughout the unit. ~57,150 cu ft of 0.5-in. to 2.5-in. gravel fill is backfilled over with soil. The side slope is 1:2.

KNOWN RELEASES: On February 2, 1986, a release of 0.02 uCi/L alpha (amount unknown) occurred to this unit from 234-5Z Building tank leakage. On December 20, 1984, a release of 107 uCi/L unknown radionuclides (amount unknown) occurred to this unit from 234-5Z Building tank leakage. This unit received a spill of 7,594 lb of nitric acid on September 26, 1984.

UNIT NAME: 2607-W9
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1950

COORDINATES: N36550 W76075

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 1.02 cu m/d.

SITE DESCRIPTION: This unit includes a drain field.

UNIT NAME: UN-200-W-68
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: February 8, 1972

COORDINATES: N35800 W78105

WASTE TYPES AND AMOUNTS: Beta/gamma with readings from 5,000 to 80,000 ct/min.

KNOWN RELEASES: The cause of the contamination was not conclusively determined.

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Waste Units Assigned to this Operable Unit

200-W Construction Surface Laydown Area	Burial Ground
207-U Retention Basin	Retention Basin
216-U-1 & 2	Crib
216-U-3	French Drain
216-U-4	Reverse Well
216-U-4A	French Drain
216-U-4B	French Drain
216-U-5	Trench
216-U-6	Trench
216-U-7	French Drain
216-U-8	Crib
216-U-12	Crib
216-U-14	Ditch
216-U-15	Trench
216-U-16	Crib
216-U-17	Crib
241-U-151	Diversion Box
241-U-152	Diversion Box
241-U-361	Settling Tank
241-UX-154	Diversion Box
241-UX-302A	Catch Tank
241-WR Vault	Receiving Vault
2607-W5	Septic Tank
2607-W7	Septic Tank
UN-200-W-6	Unplanned Release
UN-200-W-19	Unplanned Release
UN-200-W-33	Unplanned Release
UN-200-W-39	Unplanned Release
UN-200-W-46	Unplanned Release
UN-200-W-48	Unplanned Release
UN-200-W-55	Unplanned Release
UN-200-W-60	Unplanned Release
UN-200-W-78	Unplanned Release
UN-200-W-86	Unplanned Release
UN-200-W-101	Unplanned Release
UN-200-W-117	Unplanned Release
UN-200-W-118	Unplanned Release
UN-200-W-161	Unplanned Release

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SWMU: Yes

UNIT NAME: 200-W Construction Surface Laydown Area
UNIT TYPE: Burial Ground
WASTE CATEGORY: Hazardous Waste

UNIT STATUS: Inactive
START DATE: 1945
END DATE: 1950

COORDINATES: N37500 W72550

WASTE TYPES AND AMOUNTS: This site was used to dispose of unusable valves, piping, and other plumbing materials.

SITE DESCRIPTION: The site consists of a shallow trench.

CLEANUP ACTIONS: The area was cleaned and grubbed in 1987 prior to the construction of the 216-U-17 Crib.

UNIT NAME: 207-U Retention Basin
UNIT TYPE: Retention Basin
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1952

COORDINATES: N38000 W75200

WASTE TYPES AND AMOUNTS: Until 1972, the unit received steam condensate and cooling water from 224-U Building and chemical sewer waste from 221-U Building. Since 1972, the unit has received only cooling water from 224-U Building. It was temporarily replaced by 216-U-16 Crib but was reactivated when U-16 shut down. Effluent is routed to the 216-U-14 ditch.

SITE DESCRIPTION: The unit is concrete and divided, with ~1M gal capacity, 6.5 ft deep. The bottom dimensions for each basin are 106 by 106 ft. The total overall dimensions including bottom, sloped side section and top ledge are 246 by 123 ft.

KNOWN RELEASES: On August 6, 1986, ~796 gal of 50% reprocessed nitric acid was released to the basin and subsequently to 216-U-14 Ditch. The total release to the environment consisted of ~225,000 lb of corrosive solution (pH less than 2.0) and 100 lb of uranium. UPR-200-W-111, UPR-200-W-112.

CLEANUP ACTIONS: In the 1960's, sludge was scraped from the north basin and buried in a 40- by 10- by 8-ft-deep trench on the north side of the north basin, within 10 ft of the basin (see 216-W-22). A similar action was taken to clean out the south basin. The burial trench is on the south side of the south basin (see 216-W-21).

UNIT NAME: 216-U-1 & 2
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 11/51 (Crib 1)
END DATE: 6/67 (Crib 1)

COORDINATES: N37860 W74247 (center)

WASTE TYPES AND AMOUNTS: From 3/52 (Crib 2) to 6/57, the site received cell drainage from Tank 5-6 in the 221-U Building and waste from the 224-U Building via the overflow from the 241-U-361 Settling Tank. From 6/57 to 7/57, the site received waste from the 224-U Building via the overflow from the 241-U-361 Settling Tank and contaminated solvent from the 276-U Settling Tank Solvent Storage area. The discharge of 221-U waste was discontinued during shutdown of production operations. From 7/57 to 5/67, the site received waste from the 224-U Building and equipment decontamination and reclamation wastes from CPD Services Operations in the 221-U Building canyon. Crib 2 was deactivated in 5/67 5/67. The waste is low salt and neutral/basic.

SITE DESCRIPTION: Two wooden structures that operate in series, with bottom dimensions of 12 ft by 12 ft each. The side slope for each is 1:1.

RELEASE POTENTIAL: The wooden structure may collapse. Prompt remedial action would be required to prevent the spread of contamination.

UNIT NAME: 216-U-3
UNIT TYPE: French Drain
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: May 1954
END DATE: August 1955

COORDINATES: N37620 W75630 (center)

WASTE TYPES AND AMOUNTS: The site received condensed vapors from the condenser on the 110-U Tank in the 241-U Tank Farm. The waste is low salt and neutral/basic.

SITE DESCRIPTION: The unit has a rock-filled bottom and a side slope of 3:1.

UNIT NAME: 216-U-4
UNIT TYPE: Reverse Well
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1947
END DATE: August 1955

COORDINATES: N38209 W73218 (center)

WASTE TYPES AND AMOUNTS: The site received decontamination waste from 222-U Laboratory hood sinks. The waste is acidic (Pu and fission products). The waste contains less than 1 Ci beta activity.

SITE DESCRIPTION: The unit is made of a 3-in.-diameter pipe. The bottom 25 ft of pipe are perforated with twelve 0.5-in. holes per foot. The end of the pipe is nearly closed by flattening.

UNIT NAME: 216-U-4A
UNIT TYPE: French Drain
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: July 1955
END DATE: July 1970

COORDINATES: N38215 W73215 (center)

WASTE TYPES AND AMOUNTS: Until 1/65, the site received decontamination waste from hood sinks in the 222-U Building via the overflow line from the 216-U-4 Reverse Well. After 1/65, the site received PNL Operations decontamination waste from a hood sink in the 222-U Building via the overflow line from the 216-U-4 Reverse Well. The waste is acidic

SITE DESCRIPTION: The unit is made of 51.5-in. I.D. concrete pipe with a 5-in.-thick removable lid. The minimum length of the pipe is 4 ft. The top of the unit is buried ~5 ft below grade.

UNIT NAME: 216-U-4B
UNIT TYPE: French Drain
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1960
END DATE: September 1968

COORDINATES: N38248 W73100 (center)

WASTE TYPES AND AMOUNTS: Until 1/65, the site received waste from a hot cell and hood in the 222-U Building. After 1/65, the site received PNL Operations waste from a hot cell and hood in the 222-U Building. The waste is low salt and neutral/basic.

UNIT NAME: 216-U-5
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1952
END DATE: March 1952

COORDINATES: N38975 W72880, N39025 W72925 (centerline)

WASTE TYPES AND AMOUNTS: The site received the unirradiated uranium waste from the cold start-up run at U-Plant.

UNIT NAME: 216-U-6
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1952
END DATE: March 1952

COORDINATES: N39030 W73020, N39085 W73095 (centerline)

WASTE TYPES AND AMOUNTS: In 3/52, the site received the unirradiated uranium waste from the cold start-up run at U-Plant.

UNIT NAME: 216-U-7
UNIT TYPE: French Drain
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1952
END DATE: June 1957

COORDINATES: N38519 W73112 (center)

WASTE TYPES AND AMOUNTS: The site received waste from counting box floor drainage.

SITE DESCRIPTION: The unit is composed of concrete pipe in 3-ft sections. A 3.5-ft layer of gravel fill is in the pipe.

KNOWN RELEASES: UPR-200-W-138: In June 1953, an unplanned release of an estimated 300 lb of uranium (UNH) overflowed into the 221-U Building counting box and then to the ground through this unit. An estimated 13.6 kg of uranium was discharged to the site.

UNIT NAME: 216-U-8
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: June 1952
END DATE: March 1960

COORDINATES: N36860 W73100 (center of #2)

WASTE TYPES AND AMOUNTS: The site received process condensate from 221-U and 224-U buildings and the 291-U Stack drainage. The waste is acidic.

SITE DESCRIPTION: The unit consists of wooden structures, three in series, each structure 16 by 16 by 10 ft. The site is backfilled with 1/2-in. crushed stone to the tops of the wooden structures. There is ~73,000 cu ft of gravel fill.

UNIT NAME: 216-U-12
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

TSD: D-2-8
UNIT STATUS: Inactive
START DATE: April 1960
END DATE: January 1, 1988

COORDINATES: N36350 W73100

WASTE TYPES AND AMOUNTS: From 4/60 to 5/67, the site received waste from the 291-U-1 Stack drainage, 244-WR Vault waste, and 224-U process condensate via C-5 Tank. Disposal of contaminated water from 244-WR Vault was accomplished in October 1965 and included 3.14 kg thorium. From 5/67 to 9/72, the site received the above wastes excluding the 244-WR Vault waste and occasional waste via the C-7 Tank in the 244-U Building. From 9/72 to 11/81, the site was taken out of service. Since 11/81, the site has been receiving process condensate (corrosive: typical pH less than 1) from the 224-U Building. In the past, this facility also received miscellaneous storm drain wastes from 224-U Building.

SITE DESCRIPTION: The bottom is filled with gravel (~9,320 cu ft). A perforated 12-in. V.C.P. pipe is placed horizontally the length of the unit, 10 ft below grade.

UNIT NAME: 216-U-14
UNIT TYPE: Ditch
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: July 1944

COORDINATES: N41270 W74710 (head), N36845 W76910 (end)

WASTE TYPES AND AMOUNTS: From 7/44 to 9/44, the site received wastewater from the 284-W Powerhouse. From 9/44 to 1/50, the same plus waste from 2723-W. From 1/50 to 3/52, received wastewater from 284-W and 2724-W Laundry Building. From 3/52 to 5/54, the same plus chemical sewer waste from 221-U and cooling water from 224-U. From 5/54 to 8/55, the same plus cooling water from 241-U-110 condenser tank. From 8/55 to 11/73, the same plus 271-U cooling water. From 11/73 to 4/80, the same plus 242-S Evaporator condensate and cooling water. From 4/80 to 9/81, the same minus 242-S condensate, 2723-W and 2724-W waste. From 9/81 to 7/84, the same minus 221-U, 224-U, and 271-U waste. Since 7/84, the site has been receiving only 242-S Evaporator cooling water.

SITE DESCRIPTION: The side slope is 2.5:1. The unit contains one 48-in.-diameter, 150-ft-long culvert for continuing the flow under 16th Street and three 24-in. R.C.P.s laid end to end to continue the flow under 19th Street.

KNOWN RELEASES: On August 6, 1986, ~796 gal of 50% reprocessed nitric acid was released to the unit. The total release to the environment consisted of ~225,000 lb of corrosive solution (pH less than 2.0) and 100 lb of uranium.

CLEANUP ACTIONS: Approximately 3/4 of the unit has been backfilled and surface stabilized.

UNIT NAME: 216-U-15
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: May 1957
END DATE: May 1957

COORDINATES: N38270 W73900 (center)

WASTE TYPES AND AMOUNTS: Approximately 7,000 gal of interface crud, activated charcoal, and diatomaceous earth, containing ~1 Ci. The waste was transferred from the 388-U Tank in the 276-U Solvent Storage Area to a hole at the above coordinates.

SITE DESCRIPTION: An excavated hole that was immediately backfilled after completing the discharge of waste to the hole.

UNIT NAME: 216-U-16
UNIT TYPE: Crib
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: July 20, 1984
END DATE: 1987

COORDINATES: N37421 W74158, N37209 W74376, N37375 W74538, N37588 W74320

WASTE TYPES AND AMOUNTS: The site received 224-U steam condensate, 224-U chemical sewer waste, 271-U compressor cooling water, 221-U chemical sewer waste, and 224-U process condensate.

SITE DESCRIPTION: The unit is 15 to 17 ft deep. Two header pipes, 8 in. reducing to 6 in., are located 3 ft above the bottom, running the length of the unit, one on each side. At each end of the pipe is a 6-in. vent pipe. Connecting the two header pipes are twenty-two 4-in. perforated pipes running the width of the unit, equally spaced, 3 ft above the bottom. Each pipe has a 4-in. vent unit at the center. There are three 6-in. gage wells, one near the north and south ends and one near the center. The bottom is filled with gravel to 5 ft above bottom. Covering the gravel is a 36-mil, reinforced polyethylene liner extending 8 ft up the sides of the excavation, backfilled over to grade. A 6-in. subdrainage pipe runs the width of the unit at the west side.

RELEASE POTENTIAL: A concrete block has been installed to prevent discharge to the unit.

UNIT NAME: 216-U-17
UNIT TYPE: Crib
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: January 31, 1988

COORDINATES: N37575,W72480 to N37575,W72250

WASTE TYPES AND AMOUNTS: The unit receives U03 plant process condensate. A neutralization system was placed into operation before startup of this unit to preclude the discharge of process condensate outside the range of 2.0 to 12.5 pH.

SITE DESCRIPTION: The unit is 18 ft below the surface, covered with a 10-mil PVC membrane vapor barrier and backfill. Flow is even over the entire unit from a distribution line within a 6- by 10- by 150-ft aggregate field.

UNIT NAME: 241-U-151
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1946

COORDINATES: N37845 W75390

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-U-152
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1946

COORDINATES: N37800 W75400

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-U-361
UNIT TYPE: Settling Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1951
END DATE: 1957

COORDINATES: N37830 W74160

WASTE TYPES AND AMOUNTS: The unit received radioactively contaminated liquid. It is presently estimated to contain 27,500 gal of sludge of unknown plutonium content (estimated at 2,125 Ci beta/gamma). This unit received drainage from U-Plant.

SITE DESCRIPTION: The unit is constructed of 6-in. reinforced, pre-stressed concrete. The top is 6 ft below grade. There are several risers visible above grade, one equipped with manual tape and one with two dip tubes for liquid level measurement.

CLEANUP ACTIONS: This unit was interim stabilized and the manual tape removed in 1985.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as high in comparison with other 200 Area surplus facilities.

UNIT NAME: 241-UX-154
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1946

COORDINATES: N38460 W73115

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

SITE DESCRIPTION: A concrete pit, 11 ft deep, with 2-ft-thick walls covered with 5-ft-1-in.-thick cover blocks.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-UX-302A
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active

COORDINATES: N38400 W73175

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solution from processing and decontamination operations. Volumes were variable according to specific plant operation. It contains 7,643 gal of waste.

UNIT NAME: 241-WR Vault
UNIT TYPE: Receiving Vault
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
END DATE: 1976

COORDINATES: N38800 W72900

WASTE TYPES AND AMOUNTS: The unit contains radioactively contaminated equipment and structure. Preliminary estimate of the contamination level is 60 Ci beta.

SITE DESCRIPTION: The entire structure is below grade. The structure is reinforced concrete, 45 ft deep. There are 9 compartments arranged in 2 rows with a 50,000-gal tank in each compartment in a 24 sq ft pit. A 3-ft concrete wall separates the two rows of tanks. In addition to the tanks, the facility contains miscellaneous agitators, pumps, and valves.

CLEANUP ACTIONS: All the above ground fixtures and vents have been removed and sealed. The facility has been sealed with plasticized foam.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as medium in comparison with other 200 Area surplus facilities.

UNIT NAME: 2607-W5
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1944

COORDINATES: N37825 W74050

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Rate of waste generation is 12.2 cu m/d.

SITE DESCRIPTION: This unit includes a drain field. It is 12 ft 6 in. deep, constructed of reinforced concrete, and has a 292-person capacity (35 gal per capita) with an average detention period of 24 h. The walls and floor are 10 in. thick. The tile field is constructed of 4-in. vitrified pipe, concrete pipe, or drain tile with a minimum of 8 linear feet per capita. The laterals are open jointed and spaced 8 ft apart.

UNIT NAME: 2607-W7 **SWMU:** No
UNIT TYPE: Septic Tank **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1954

COORDINATES: N38800 W73000

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Rate of waste generation is 1.02 cu m/d.

SITE DESCRIPTION: The unit includes a drain field. It is 8 ft 4 in. deep, constructed of reinforced concrete, and has an 8-person capacity (35 gal per capita) with an average detention period of 24 h. The walls are 8 in. thick and the floor is 6 in. thick. The tile field is constructed of 4-in. vitrified pipe, concrete pipe, or drain tile with a minimum of 8 linear feet per capita. The laterals are open jointed and spaced 8 ft apart.

UNIT NAME: UN-200-W-6 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** Spring 1950
WASTE CATEGORY: Mixed Waste

COORDINATES: N37900 W75470

WASTE TYPES AND AMOUNTS: Beta/gamma with a maximum dose rate of 20 mR/h at the surface.

KNOWN RELEASES: Work done at the 241-U-151 and 152 diversion boxes provided some contamination in that area.

CLEANUP ACTIONS: The contamination was covered with a foot of clean soil. The area was delimited with rope and posted with radiation zone signs.

UNIT NAME: UN-200-W-19 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** Spring 1953
WASTE CATEGORY: Mixed Waste

COORDINATES: N37800 W74200

WASTE TYPES AND AMOUNTS: Organic waste and cell drainage with readings to 11.5 R/h at 3 in.

KNOWN RELEASES: Drainage from the TBP and UO3 plants overflowed tank and crib vents.

CLEANUP ACTIONS: Decontamination was attempted, and the area was then backfilled.

UNIT NAME: UN-200-W-33 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** March 1955
WASTE CATEGORY: Mixed Waste

COORDINATES: N38050 W73200

KNOWN RELEASES: A flange leak in the C-5 condensate line caused the contamination.

CLEANUP ACTIONS: The top 4 in. of contaminated dirt was removed and new dirt filled in. The area was removed from radiation zone status in December 1970.

UNIT NAME: UN-200-W-39 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** March 1954
WASTE CATEGORY: Mixed Waste

COORDINATES: N37925 W73270

WASTE TYPES AND AMOUNTS: Uranium, with less than 0.02 Ci/m3.

KNOWN RELEASES: A leak at the 224-U Building.

CLEANUP ACTIONS: The contamination was buried in a trench and covered with 3 ft of soil. The area was removed from radiation zone status in June 1972 and is now under the 224-UA addition.

UNIT NAME: UN-200-W-46 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** January 21, 1958
WASTE CATEGORY: Mixed Waste

COORDINATES: N38250 W73000

KNOWN RELEASES: Burial operation of an H-2 centrifuge from REDOX resulted in spotty contamination in the Z and U plant areas. Fumes were observed coming from the centrifuge shortly after it was placed in the box. After four hours of this condition and unsuccessful attempts to control it, fumes escaped the tunnel and began circulating throughout the building via the vent system. Considerable contamination was deposited on all horizontal surfaces, including construction work areas outside the building.

UNIT NAME: UN-200-W-48 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** July 9, 1958
WASTE CATEGORY: Mixed Waste

COORDINATES: N39310 W73760

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 9 R/h.

KNOWN RELEASES: Leakage from a contaminated jumper in transit.

CLEANUP ACTIONS: Recommendations were made to establish a temporary radiation zone boundary and of the necessary decontamination.

UNIT NAME: UN-200-W-55 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** April 12, 1960
WASTE CATEGORY: Mixed Waste

COORDINATES: N38075 W73102

WASTE TYPES AND AMOUNTS: 1.5 tons of uranium powder that had been separated from fission products.

KNOWN RELEASES: A broken loading hose caused the contamination of the 224-U asphalt loading ramp and a nearby roadway.

CLEANUP ACTIONS: Most of the powder was swept up and put into drums for recovery. The rest was washed off the asphalt and into the ground surface.

UNIT NAME: UN-200-W-60
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: February 25, 1966

COORDINATES: N39310 W73760

WASTE TYPES AND AMOUNTS: Beta/gamma with readings from a few thousand counts per minute to a maximum of 1 R/h.

KNOWN RELEASES: A defective transfer box containing PUREX equipment was contaminated.

CLEANUP ACTIONS: The contamination was isolated and cleaned.

UNIT NAME: UN-200-W-78
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: August 21, 1970

COORDINATES: N37850 W73550

WASTE TYPES AND AMOUNTS: UO3 powder.

KNOWN RELEASES: A spill from a loading pallet during movement contaminated an area up to 20,000 ct/min.

CLEANUP ACTIONS: The contaminated dirt was removed.

UNIT NAME: UN-200-W-86 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** October 27, 1981
WASTE CATEGORY: Mixed Waste

COORDINATES: N39600 W75550

WASTE TYPES AND AMOUNTS: Contamination consisted of pigeon feces containing Cs-134, Cs-137, Sr-90, and Ru-106, with readings from 10,000 dis/min beta/gamma to 40 mR/h.

KNOWN RELEASES: Contaminated pigeon feces.

CLEANUP ACTIONS: The north 204-S Basin was decontaminated to background radiation levels, and the affected area around 221-U was chained off and posted as a radiation area.

RELEASE POTENTIAL: No potential for release from this spill site exists; radioactive contamination has been removed to background levels.

UNIT NAME: UN-200-W-101 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** March 1957
WASTE CATEGORY: Mixed Waste

COORDINATES: N38730 W73050 N38550 W73230

WASTE TYPES AND AMOUNTS: Reclaimed acid containing Sr-90 fission products to ~1 Ci. A radiological survey on 9/76 revealed surface contamination up to 300 ct/min. This is a low activity waste site containing ~1 Ci fission products (at the time of discharge).

KNOWN RELEASES: Reclaimed acid spilled onto the ground.

CLEANUP ACTIONS: The area was covered with 3 in. of sand and gravel.

UNIT NAME: UN-200-W-117 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** Mid 1950's
WASTE CATEGORY: Mixed Waste

COORDINATES: N39235 W73725

KNOWN RELEASES: This site is the result of contaminated liquid and particulate matter dropping from railroad cars servicing the 221-U facility during the Uranium Recovery Program, Equipment Decontamination Program, and the various storage and unloading activities. These activities started in 1952 with the Uranium Recovery Program (1952-1957) and have continued intermittently to the present.

CLEANUP ACTIONS: The site was designated as a radiation zone but has since been released as contamination has decayed to background levels.

UNIT NAME: UN-200-W-118 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** 1960-1972
WASTE CATEGORY: Mixed Waste

COORDINATES: N38575 W73490

WASTE TYPES AND AMOUNTS: Reclaimed nitric acid.

KNOWN RELEASES: This site is the result of drippings and spills from the reclaimed nitric acid unloading stations in the 211-U Chemical Tank Farm. Wind-borne particulate matter spread to the ground surface outside the concrete unloading station.

CLEANUP ACTIONS: This site was designated a radiation zone but has since been released as contamination has decayed to background levels.

UNIT NAME: UN-200-W-161 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:**
WASTE CATEGORY: Low-Level Waste

COORDINATES: N38500 W75000

WASTE TYPES AND AMOUNTS: The general contamination was 250 to 450 ct/min with spots of 600 to 800 ct/min. One 5-ft by 5-ft area was contaminated up to 8,000 ct/min. Soil sample results indicate that the main radionuclide present is strontium (2.93E+03 pCi/g).

SITE DESCRIPTION: Surface contamination that covers ~2 acres.

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Other Waste Units Located Within the Operable Unit Area

221-U Building	Building
224-U Condensate Neutralization Tank	Neutralization Tank
224-U HWSA	Staging Area
271-U Building	Building
276-U Solvent Facility	Test Treatment or Support Facility
291-U Fan and Filter Building	Equipment
291-U-1	Stack
296-U-10	Stack

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UNIT NAME: 221-U Building
UNIT TYPE: Building
WASTE CATEGORY: Mixed Waste

SWMU: No
UNIT STATUS: Inactive
START DATE: 1952
END DATE: 1958

COORDINATES: N38450 W73250

WASTE TYPES AND AMOUNTS: This unit contains radioactively contaminated equipment and structure (estimated at 10,000 Ci beta).

SITE DESCRIPTION: Massive concrete structure 102 ft tall. There are twenty 40-ft-long reinforced concrete sections. A wall ranging in thickness from 5 to 9 ft divides the unit along its length. All major items of equipment last used in the uranium recovery process are still in position in the cells.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as medium in comparison with other 200 Area surplus facilities.

SWMU: Yes

UNIT NAME: 224-U Condensate Neutralization Tank
UNIT TYPE: Neutralization Tank
WASTE CATEGORY: Mixed Waste

UNIT STATUS: Active
START DATE: August 1987

COORDINATES: N38070 W73380

WASTE TYPES AND AMOUNTS: Under normal conditions, this site receives process condensate that is neutralized from an initial pH of 0.5 to a final pH of ~7 at the rate of 11,500 to 14,400 gal/d. When the plant is in standby mode, the initial pH is greater than 1.9, and the condensate generation rate is 1,440 to 2,600 gal/d. Neutralization is done with sodium hydroxide.

UNIT NAME: 224-U HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: July 1986

COORDINATES: N38070 W73380

WASTE TYPES AND AMOUNTS: Typical wastes contained in staging in the past year: ~1,454 kg of paint and solvents.

UNIT NAME: 271-U Building
UNIT TYPE: Building
WASTE CATEGORY: Mixed Waste

SWMU: No
UNIT STATUS: Inactive
START DATE: 1952

COORDINATES: N38450 W73250

SITE DESCRIPTION: The basement and three-story structure consists of reinforced concrete foundation, floors and pillars, pumice block walls, and a built-up asphalt gravel roof. The structure is 65 ft 10 in. high with 10 ft 6 in. below grade. It is physically attached to the gallery side of the 221-U Canyon Building.

UNIT NAME: 276-U Solvent Facility
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1952
END DATE: 1976

COORDINATES: N38050 W73600

WASTE TYPES AND AMOUNTS: This unit contains radioactive surface contamination on tanks and concrete; amounts have not been determined. There is 20,000 ct/min smearable beta/gamma fixed by paint, less than 500 ct/min direct and smearable alpha, and 300 mrem/h penetrating.

SITE DESCRIPTION: The facility is an uncovered, reinforced concrete basin containing three tanks (#380,381,388) and three vacant concrete tank pads and a large amount of pipe. Two tanks are carbon steel and one is stainless steel. The capacities of the tanks are 29,000 gal, 6,000 gal, and 2,500 gal respectively. Three of the six original tanks have been removed.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities. The concrete basin can hold the contents of all tanks in case of a rupture.

UNIT NAME: 291-U Fan and Filter Building
UNIT TYPE: Equipment
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Active
START DATE: 1952

COORDINATES: N38500 W72900

SITE DESCRIPTION: The unit consists of reinforced concrete foundation and floor, concrete and block walls, and a concrete slab roof covered with asphalt and gravel, trimmed in wood. It is a one-story (14 ft high), one-room building with wooden doors.

UNIT NAME: 291-U-1
UNIT TYPE: Stack
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Active
START DATE: 1952

COORDINATES: N38500 W72900

SITE DESCRIPTION: The unit consists of reinforced concrete, lined with acid-resistant brick. It rests on an octagonal, two-tiered foundation of brick and concrete. The foundation is 23 ft across and 7 ft thick at its greatest points. The unit is 14 ft in diameter at the base.

UNIT NAME: 296-U-10
UNIT TYPE: Stack
WASTE CATEGORY: Low-Level Waste

SWMU: No
UNIT STATUS: Inactive
END DATE: 1976

COORDINATES: N38500 W73400

WASTE TYPES AND AMOUNTS: The unit consists of carbon steel with trace amounts of surface contamination.

SITE DESCRIPTION: The unit rests on the rooftop of the 271-U Building and is supported by the 221-U Building wall.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities.

Waste Units Assigned to this Operable Unit

241-U-101	Single-Shell Tank
241-U-102	Single-Shell Tank
241-U-103	Single-Shell Tank
241-U-104	Single-Shell Tank
241-U-105	Single-Shell Tank
241-U-106	Single-Shell Tank
241-U-107	Single-Shell Tank
241-U-108	Single-Shell Tank
241-U-109	Single-Shell Tank
241-U-110	Single-Shell Tank
241-U-111	Single-Shell Tank
241-U-112	Single-Shell Tank
241-U-153	Diversion Box
241-U-201	Single-Shell Tank
241-U-202	Single-Shell Tank
241-U-203	Single-Shell Tank
241-U-204	Single-Shell Tank
241-U-252	Diversion Box
241-U-301	Catch Tank
241-U-A	Diversion Box
241-U-B	Diversion Box
241-U-C	Diversion Box
241-U-D	Diversion Box
241-UR-151	Diversion Box
241-UR-152	Diversion Box
241-UR-153	Diversion Box
241-UR-154	Diversion Box
244-UR Vault	Receiving Vault
2607-WUT	Septic Tank
UN-200-W-71	Unplanned Release

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UNIT NAME: 241-U-101
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: February 26, 1946
END DATE: November 1959

COORDINATES: N38198 W75638

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste and supernatant containing bismuth phosphate metal waste and REDOX high-level waste from -U and -SX tank farms. The unit also received a variety of solid waste items between the period of May 1969 to June 1971. These included experimental fuel elements, shroud tubes and Samarium balls ("poison" ceramic balls). The total fissile material content of the waste was 1,530 g of 4.5 % enrichment uranium, 6 g of Pu, 180 KCi CO-60 and 130 Ci mixed fission products, plus 60 cobalt slugs with 70 KCi CO-60.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

KNOWN RELEASES: UPR-200-W-154: this unit was removed from service as a "Confirmed Leaker." Liquid level measurements were resumed in March 1974, when new photographs indicated liquid in the unit. Two additional dry wells drilled in 1974 and 1975 have only background activity.

CLEANUP ACTIONS: The unit was interim stabilized in September 1979.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-102
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: June 23, 1946
END DATE: 1979

COORDINATES: N38198 W75738

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; 242-T Evaporator waste; HNO4/KMnO4 solution; and supernatant containing REDOX high-level waste, evaporator bottoms, bismuth phosphate metal waste, and noncomplexed waste from 241-C, -SX, -SY, -TX, and -U tanks.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-103
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: February 28, 1947
END DATE: 1978

COORDINATES: N38198 W75838

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; 242-T Evaporator waste; HNO4/KMnO4 solution; and supernatant containing REDOX high-level waste and ion exchange waste, B Plant low-level waste, decontamination waste, coating waste, evaporator bottoms, and PNL waste from 241-SX, -SY, -TX, and -U tanks.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

KNOWN RELEASES: UPR-200-W-128.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-104
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: July 21, 1947
END DATE: 1961 (1951)*

COORDINATES: N38098 W75638

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste. Diatomaceous earth was added in 1969.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

KNOWN RELEASES: UPR-200-W-155. The unit was removed from service as a "Confirmed Leaker." A rupture in the bottom of the unit was first detected in 1956, when installation of a heel jet could not be accomplished.

CLEANUP ACTIONS: The unit was stabilized by the addition of diatomaceous earth.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

* Conflicting Dates

UNIT NAME: 241-U-105
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: December 15, 1947
END DATE: 1978

COORDINATES: N38098 W75738

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste, 242-T Evaporator, and supernatant containing coating waste from 241-U Tank.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-106
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: May 28, 1948
END DATE: May 1977

COORDINATES: N38098 W75838

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste and supernatant containing bismuth phosphate metal waste, REDOX high-level waste, PUREX low-level waste, B Plant low-level waste, and evaporator bottoms from 241-C and -U tanks.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-107
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: September 29, 1948
END DATE: November 17, 1980

COORDINATES: N37998 W75638

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; $HNO_4/KMnO_4$ solution; N Reactor waste PNL waste; decontamination waste; laboratory waste; and supernatant containing decontamination waste, PNL waste, coating waste, double-shell slurry feed, REDOX high-level waste, N Reactor waste, evaporator bottoms, and complexed and noncomplexed waste from 241-S, -SX, -T, -U, and -SY tanks.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-108
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: January 4, 1949
END DATE: 1979

COORDINATES: N37998 W75738

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; REDOX coating waste; and supernatant containing coating waste, N Reactor waste, decontamination waste, laboratory waste, PNL waste, and evaporator bottoms from 241-S and -U tanks.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-109
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: March 16, 1949
END DATE: 1978

COORDINATES: N37998 W75838

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste and supernatant containing REDOX high-level waste, metal waste, coating waste, and evaporator bottoms from 241-TX and -U tanks.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-110
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: July 22, 1946
END DATE: 1975

COORDINATES: N37898 W75638

WASTE TYPES AND AMOUNTS: Bismuth phosphate metal waste; REDOX coating and high-level waste; laboratory waste; and PNL waste.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

KNOWN RELEASES: UPR-200-W-156.

CLEANUP ACTIONS: P-10 saltwell pumping was completed February 1976.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-111
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: April 1947
END DATE: October 10, 1980

COORDINATES: N37898 W75738

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle waste; $HNO_4/KMnO_4$; and supernatant containing REDOX high-level waste, N Reactor waste, PNL waste, decontamination waste, evaporator bottoms, partial neutralization feed, and complexed waste from 241-SY, -TY, and -U tanks.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-112
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: October 1947
END DATE: 1970

COORDINATES: N37898 W75838

WASTE TYPES AND AMOUNTS: Bismuth phosphate first-cycle waste and supernatant containing bismuth phosphate first-cycle waste and REDOX high-level waste from 241-U tanks.

SITE DESCRIPTION: The unit is composed of a carbon steel liner within a reinforced concrete shell. The capacity is 533,000 gal. The bottom is 37 ft below grade, and the dome is also below grade for shielding purposes. This type was built to the original design, having a dished bottom and an operating depth of 17 ft.

KNOWN RELEASES: UPR-200-W-157.

CLEANUP ACTIONS: The last saltwell pumping, in April 1978, recovered one gallon. Pictures taken after pumping show a liquid-covered surface.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-153
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1946
END DATE: April 1981

COORDINATES: N37200 W75500 (N37900 W75523)*

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

SITE DESCRIPTION: The unit is a reinforced concrete structure. All nozzles are 3-in. Hanford style.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

* Conflicting Coordinates

UNIT NAME: 241-U-201
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1956
END DATE: 1977

COORDINATES: N38023 W75933

WASTE TYPES AND AMOUNTS: Supernatant containing REDOX high-level waste from 241-U tanks.

SITE DESCRIPTION: This unit is composed of a steel liner within a concrete shell. The inner structure is 25 ft tall with a capacity of 55,000 gal. The bottom is 37 ft below grade, and the top of the shell is also below grade for shielding purposes. This type was built to the original design with a dished bottom.

CLEANUP ACTIONS: The liquid level was reduced from 255.75 in. to 27.75 in. during pumping in August 1977.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-202
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1956
END DATE: 1977

COORDINATES: N37973 W75933

WASTE TYPES AND AMOUNTS: Supernatant containing REDOX high-level waste from 241-U tanks.

SITE DESCRIPTION: This unit is composed of a steel liner within a concrete shell. The inner structure is 25 ft tall with a capacity of 55,000 gal. The bottom is 37 ft below grade, and the top of the shell is also below grade for shielding purposes. This type was built to the original design with a dished bottom.

CLEANUP ACTIONS: The liquid level was reduced from 266.75 in. to 27.75 in. during pumping in August 1977.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-203
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1956
END DATE: 1977

COORDINATES: N37923 W75933

WASTE TYPES AND AMOUNTS: Supernatant containing REDOX high-level waste from 241-U tanks.

SITE DESCRIPTION: This unit is composed of a steel liner within a concrete shell. The inner structure is 25 ft tall with a capacity of 55,000 gal. The bottom is 37 ft below grade, and the top of the shell is also below grade for shielding purposes. This type was built to the original design with a dished bottom.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-204
UNIT TYPE: Single-Shell Tank
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1956
END DATE: 1977

COORDINATES: N37873 W75933

WASTE TYPES AND AMOUNTS: Supernatant containing REDOX high-level waste from 241-U tanks.

SITE DESCRIPTION: This unit is composed of a steel liner within a concrete shell. The inner structure is 25 ft tall with a capacity of 55,000 gal. The bottom is 37 ft below grade, and the top of the shell is also below grade for shielding purposes. This type was built to the original design with a dished bottom.

CLEANUP ACTIONS: The liquid level was reduced from 265.75 in. to 18.00 in. during pumping in August 1977.

RELEASE POTENTIAL: This information is contained in DOE/EIS-0113.

UNIT NAME: 241-U-252
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1946
END DATE: November 1983

COORDINATES: N37783 W75901 (N37810 W74500)*

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

SITE DESCRIPTION: The unit is a reinforced concrete structure. All nozzles are 3-in. Hanford style.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

* Conflicting Coordinates

UNIT NAME: 241-U-301
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1946

COORDINATES: N37790 W74700

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation. It contains 4,958 gal of waste.

UNIT NAME: 241-U-A
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1946

COORDINATES: N38136 W75698

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-U-B
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1946

COORDINATES: N38136 W75677

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-U-C
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1946

COORDINATES: N37936 W75698

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-U-D
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1946

COORDINATES: N37936 W75677

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

UNIT NAME: 241-UR-151 **TSD:** S-2-4
UNIT TYPE: Diversion Box **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste

COORDINATES: N38350 W75650 (N38400 W75604)*

SITE DESCRIPTION: This unit is a reinforced concrete structure. All nozzles are 3- and 4-in. REDOX style.

* Conflicting Coordinates

UNIT NAME: 241-UR-152 **TSD:** S-2-4
UNIT TYPE: Diversion Box **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste

COORDINATES: N38177 W75520 (N38159 W75560)*

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

SITE DESCRIPTION: This unit is a reinforced concrete structure. All nozzles are 4-in. REDOX style.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

* Conflicting Coordinates

UNIT NAME: 241-UR-153
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1946
END DATE: November 1983

COORDINATES: N38080 W75520 (N38059 W75560)*

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

SITE DESCRIPTION: This unit is a reinforced concrete structure. All nozzles are 4-in. REDOX style.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

* Conflicting Coordinates

UNIT NAME: 241-UR-154
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

TSD: S-2-4
UNIT STATUS: Inactive

COORDINATES: N37970 W75520 (N37959 W75560)*

WASTE TYPES AND AMOUNTS: This unit was used for transfer of waste solutions from processing and decontamination operations. Volumes were variable according to specific plant operation.

SITE DESCRIPTION: This unit is a reinforced concrete structure. All nozzles are 4-in. REDOX style.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. This unit has been isolated and weather covered.

* Conflicting Coordinates

UNIT NAME: 244-UR Vault
UNIT TYPE: Receiving Vault
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
END DATE: Prior to 1976

COORDINATES: N38390 W75830

WASTE TYPES AND AMOUNTS: This unit contains radioactively contaminated tank and concrete surfaces and asbestos. The preliminary contamination level estimate is 50 Ci of beta. The asbestos is on a 30-in. pipe encased in concrete.

SITE DESCRIPTION: The 2-ft-thick concrete structure is divided into four sections. Each section is sized to house one of four stainless steel tanks: TK-UR-001 is a 50,000-gal slurry accumulator tank, 20 ft in diameter; TK-UR-002 and TK-UR-003 are identical 15,000-gal blend tanks, 14 ft in diameter; TK-UR-004 is a process tank 10 ft in diameter and 14 ft high. The entire structure is below grade. There are also above-ground service facilities that include four instrument shelters, an inlet filter enclosure, and six risers used to measure liquid level in tanks and sumps.

KNOWN RELEASES: UPR-200-W-24.

CLEANUP ACTIONS: The sumps located in the sections occupied by TK-UR-001, -002 and -003 were interim stabilized in 1985, and their manual tapes were removed.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as medium in comparison with other 200 Area surplus facilities.

UNIT NAME: 2607-WUT
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1951

COORDINATES: N38400 W75800

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 1.02 cu m/d.

SITE DESCRIPTION: This unit includes a drain field.

UNIT NAME: UN-200-W-71
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: January 24, 1974

COORDINATES: N38130 W75560, N42450 W77420

WASTE TYPES AND AMOUNTS: A heel-jet from the 102-U Tank.

KNOWN RELEASES: A heel jet from the 102-U Tank in transit to the burial ground.

CLEANUP ACTIONS: The roadway was cleaned and released after extensive effort.

Other Waste Units Located Within the Operable Unit Area

244-U Receiver Tank Receiving Vault

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UNIT NAME: 244-U Receiver Tank
UNIT TYPE: Receiving Vault
WASTE CATEGORY: Mixed Waste

TSD: S-2-3
UNIT STATUS: Active
START DATE: 1987

COORDINATES: N37810 W75570

WASTE TYPES AND AMOUNTS: The unit transports waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

SITE DESCRIPTION: This unit is constructed of carbon steel and has a design capacity of 31,000 gal. It sets lengthwise in a reinforced concrete, steel-lined vault. The bottom of the vault is 28 ft below grade.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks. They are designed to contain leaks from transfers and drainage from operations within the unit.

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Waste Units Assigned to this Operable Unit

216-Z-1 & 2TF	Crib
216-Z-1A	Drain Field
216-Z-3	Crib
216-Z-12	Crib
216-Z-13	French Drain
216-Z-14	French Drain
216-Z-15	French Drain
216-Z-18	Crib
241-Z-361	Settling Tank
2607-Z	Septic Tank
UN-200-W-11	Unplanned Release
UN-200-W-23	Unplanned Release
UN-200-W-74	Unplanned Release
UN-200-W-75	Unplanned Release
UN-200-W-89	Unplanned Release
UN-200-W-90	Unplanned Release
UN-200-W-91	Unplanned Release
UN-200-W-103	Unplanned Release
UN-200-W-159	Unplanned Release

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UNIT NAME: 216-Z-1 & 2TF
UNIT TYPE: Crib
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: June 1949
END DATE: April 1969

COORDINATES: N39739 W76601 (center of #1) N39411 W76601 (center of #2)

WASTE TYPES AND AMOUNTS: Until 6/52, the site received lab wastes from 234-5Z via 241-Z Settling Tanks. From 6/52 to 3/59, the site was bypassed, and the above waste went to 216-Z-1A TF. From 3/59 to 5/64, all parts of this site were inactive. From 5/64 to 8/64, 216-Z-1A received aqueous waste from 236-Z Building. From 8/64 to 5/66, same as above plus 242-Z Building waste. From 5/66 to 6/66, the site received 236-Z and 242-Z building waste. The discharge pit in 216-Z-1A was moved 100 ft down the main trunk. From 6/66 to 10/67, the site was inactive. 216-Z-1A received 236-Z and 242-Z wastes, while the discharge point on 216-Z-1A was moved 75 ft further down the main trunk. From 10/67 to 3/68, the site was inactive and 216-Z-1A TF received the 236-Z and 242-Z building wastes. From 3/68 to 4/69, 216-Z-1A continued to receive the above wastes, and the site received uranium wastes from 236-Z Building . The volume of CCl_4 thought to have been disposed of by PRF to the 216-Z-1 Crib Complex (216-Z-1 & -2 Cribs and 216-Z-1A Tile Field) and the 216-Z-18 Crib ranges between 240,000 and 310,000 liters.

SITE DESCRIPTION: The unit consists of two wooden box structures, each constructed of 6-in. by 6-in. by 12-ft-long timbers, each 12 ft by 12 ft, standing 14 ft high, with an open bottom. Each box stands within a crib. The 216-Z-2 Crib overflowed into the 216-Z-1 Crib which then overflowed into the 216-Z-1A Tile Field.

UNIT NAME: 216-Z-1A
UNIT TYPE: Drain Field
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1949
END DATE: 1969

COORDINATES: N39190 W76601 (center of tile field)

WASTE TYPES AND AMOUNTS: The unit received waste from Z-Plant facilities and various other related disposal sites. For a more complete history, please see 216-Z-1 & 2 Tile Field.

SITE DESCRIPTION: The unit consists of a 260-ft trunk with 7 pairs of 70-ft laterals placed in an excavation 115 ft by 276 ft by 19 ft deep (average). All tile field piping is 8-in. V.C.P..

UNIT NAME: 216-Z-3
UNIT TYPE: Crib
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: June 1952
END DATE: March 1959

COORDINATES: N39385 W76521 (center)

WASTE TYPES AND AMOUNTS: The site received process waste, analytical and development laboratory wastes from the 235-5 Building via the 241-Z Settling Tanks. The waste is neutral/basic.

SITE DESCRIPTION: The unit is composed of three 4-ft-diameter by 22-ft-long, perforated, corrugated culverts placed end to end in the excavation. The culvert is placed horizontally 15 ft above the bottom of the unit. A 17-ft layer of 2.5-in. to 3.0-in. gravel (1,500 cu yd) is covered with two layers of asphalt roofing paper (5,000 sq ft each). The excavation has been backfilled to grade.

UNIT NAME: 216-Z-12
UNIT TYPE: Crib
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1959
END DATE: May 1973

COORDINATES: N41113 W76892, N41113 W77072 (centerline)

WASTE TYPES AND AMOUNTS: The site received process waste and analytical and development laboratory waste from the 234-5 Building via the 241-Z-361 Settling Tank. The waste is slightly acidic. Low salt waste was adjusted to a pH of 8 to 10 before disposal.

SITE DESCRIPTION: The excavation contains 5 ft of gravel (11,250 cu ft) in the bottom and is backfilled to grade. A 12-in.-diameter, perforated V.C. pipe runs the length of the unit 4 ft above the bottom. In July 1968, a 6-in.-diameter SCH 10 pipe was placed parallel to and 30 ft west of the above line. The new line bypasses 100 ft of the original line. The original line is plugged upstream from the junction of the two lines.

UNIT NAME: 216-Z-13
UNIT TYPE: French Drain
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: June 1949

COORDINATES: N39769 W76762 (center)

WASTE TYPES AND AMOUNTS: The site receives the steam condensate from the turbine from the ET-8 exhaust fan and floor drainage from the 291-Z Buildings. Radiological inventories are not available; however, low levels have been assumed.

SITE DESCRIPTION: Two 3-ft-diameter by 3-ft-high tile culverts placed vertically, end to end, 9 ft below grade. The unit is filled with coarse gravel.

UNIT NAME: 216-Z-14
UNIT TYPE: French Drain
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: June 1949

COORDINATES: N39774 W76822 (center)

WASTE TYPES AND AMOUNTS: The site receives the steam condensate from the turbine for the ET-9 exhaust fan in the 291-Z Building. Radionuclide inventories are not available; however, low levels have been assumed.

SITE DESCRIPTION: Two 3-ft-diameter by 3-ft-high tile culverts placed vertically, end to end, 9 ft below grade. The unit is filled with coarse gravel.

UNIT NAME: 216-Z-15
UNIT TYPE: French Drain
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: June 1949

COORDINATES: N39911 W76810 (center)

WASTE TYPES AND AMOUNTS: The site receives the drainage from the S-12 Evaporator Cooler in the 291-Z Building. Radiological inventories are not available; however, low levels have been assumed.

SITE DESCRIPTION: Two 3-ft-diameter by 3-ft-high tile culverts placed vertically, end to end, 16 ft below grade. The unit is filled with coarse gravel.

UNIT NAME: 216-Z-18
UNIT TYPE: Crib
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: April 1969
END DATE: May 1973

COORDINATES: N38922 W76807, N38679 W76807, N38679 W77103, N38922 W77103

WASTE TYPES AND AMOUNTS: The site received waste from the 236-Z Building. The waste is high salt, acidic, organic waste with phosphate, 75% carbon tetrachloride . The volume of CCl_4 thought to have been disposed of by PRF to the 216-Z-1 Crib Complex (216-Z-1 & -2 Cribs and 216-Z-1A Tile Field) and the 216-Z-18 Crib ranges between 240,000 and 310,000 liters.

SITE DESCRIPTION: Five parallel excavations, 207 ft by 10 ft, ranging from 15 to 18 ft deep. A 300-ft-long, 3-in.-diameter steel pipe runs east and west, bisecting the length of each excavation. Two 100-ft-long, 3-in-diameter perforated fiberglass-reinforced epoxy pipes exit each side of the above line in each excavation, 2 lines north, 2 lines south. The distribution pipes are 1 ft above the bottom of the unit in a 2-ft-thick bed of 1.5-in. to 3-in. gravel (5,200 cu ft) per excavation. The excavation is backfilled to grade.

UNIT NAME: 241-Z-361
UNIT TYPE: Settling Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1949
END DATE: 1976

COORDINATES: N39500 W76600

WASTE TYPES AND AMOUNTS: The unit received radioactively contaminated liquid estimated to contain 30 to 75 kg plutonium (1 mrem/h gamma; 0.8 mrem/h neutron).

SITE DESCRIPTION: The unit is an underground reinforced concrete structure lined with steel. The inside dimensions are 26 by 13 ft with 2-ft-thick walls . The bottom slopes, resulting in a height variation between 19 and 20 ft. The top is 2 ft below grade. There are two manhole covers and frames and several risers visible above grade that are covered with plastic and taped.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as high in comparison with other 200 Area surplus facilities.

UNIT NAME: 2607-Z
SWMU: No
UNIT TYPE: Septic Tank
UNIT STATUS: Active
WASTE CATEGORY: Nonhazardous/Nonradioactive

COORDINATES: N39630 W76465

UNIT NAME: UN-200-W-11
SWMU: No
UNIT TYPE: Unplanned Release
OCCURRENCE DATE: 1952
WASTE CATEGORY: Mixed Waste

COORDINATES: N40160 W77009

WASTE TYPES AND AMOUNTS: Plutonium.

KNOWN RELEASES: A fire in the 200 West Burial Garden spread contamination in the vicinity of Z Plant.

UNIT NAME: UN-200-W-23 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** June 1953
WASTE CATEGORY: Mixed Waste

COORDINATES: N40085 W76530

WASTE TYPES AND AMOUNTS: Plutonium with readings to 10,000 dis/min.

KNOWN RELEASES: A fire in a waste box.

CLEANUP ACTIONS: The area was covered with blacktop and posted with "DANGER--DO NOT EXCAVATE IN THIS AREA WITHOUT SWP PERMISSION" signs.

UNIT NAME: UN-200-W-74 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** May 18, 1976
WASTE CATEGORY: Mixed Waste

COORDINATES: N39600 W76415

WASTE TYPES AND AMOUNTS: Alpha, with maximum readings of 8,000 dis/min.

KNOWN RELEASES: A leak in the line from the effluent header D-3 to the D-8 tank in 241-Z.

CLEANUP ACTIONS: The contaminated soil was picked up and packaged for burial.

UNIT NAME: UN-200-W-75
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: January 9, 1975

COORDINATES: N39600 W76415

WASTE TYPES AND AMOUNTS: Beta/gamma with readings from 2,000 dis/min to over 40,000 dis/min direct and smearable to 20,000 dis/min.

KNOWN RELEASES: Contaminated equipment inside the D-7 Sample Cabinet.

CLEANUP ACTIONS: The contaminated dirt was placed in a 55-gal barrel for burial.

UNIT NAME: UN-200-W-89
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: May 29, 1985

COORDINATES: N39900 W76625

WASTE TYPES AND AMOUNTS: The contamination consists of alpha with readings to 50,000 dis/min.

KNOWN RELEASES: A recycle container (RC) fell from a forklift platform.

CLEANUP ACTIONS: The RC was double-bagged and placed in a burial box. The area was decontaminated to background radiation levels and released on April 4, 1985.

RELEASE POTENTIAL: No potential for release from this spill site exists.

UNIT NAME: UN-200-W-90 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** May 2, 1985
WASTE CATEGORY: Mixed Waste

COORDINATES: N39900 W76625

WASTE TYPES AND AMOUNTS: The contamination consists of alpha with readings to 10,000 dis/min.

KNOWN RELEASES: The contamination spread occurred during the loading of pipe sections into burial boxes.

CLEANUP ACTIONS: The affected area was decontaminated to background radiation levels.

RELEASE POTENTIAL: No potential for release from this spill site exists.

UNIT NAME: UN-200-W-91 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** December 11, 1985
WASTE CATEGORY: Mixed Waste

COORDINATES: N40100 W77050

WASTE TYPES AND AMOUNTS: The contamination consists of alpha with readings to 20,000 dis/min.

KNOWN RELEASES: A recycle container (RC) overturned during transport.

CLEANUP ACTIONS: Due to snow cover on the ground, the area was covered and contained with plastic.

UNIT NAME: UN-200-W-103 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** April 1971
WASTE CATEGORY: Mixed Waste

COORDINATES: N39750 W76650

WASTE TYPES AND AMOUNTS: ~10 g of Pu-239 with gross alpha contamination at 7.6E+7 dis/min per 100 cm3 of ground.

KNOWN RELEASES: The 216-Z-18 Crib line from 234-5 complex broke ~6 ft south and 12 ft west of the southwest corner of 236-Z Building.

CLEANUP ACTIONS: Approximately one hundred 55-gal barrels of contaminated soil were removed and buried in 200 West Area Pu "Storage for Recovery" Burial Ground. Much contamination still remains under 6 ft of clean soil.

UNIT NAME: UN-200-W-159 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** May 1985
WASTE CATEGORY: Hazardous Waste

COORDINATES: N39710 W77140

WASTE TYPES AND AMOUNTS: The release consisted of an unknown amount of 50% aqueous sodium hydroxide.

KNOWN RELEASES: Corrosive liquid was spilled to ground.

CLEANUP ACTIONS: The soil was removed, packaged, and disposed of offsite as hazardous waste.

Other Waste Units Located Within the Operable Unit Area

232-Z Incineration Facility	Test Treatment or Support Facility
234-5Z HWSA	Staging Area
241-Z Treatment Tank	Neutralization Tank

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UNIT NAME: 232-Z Incineration Facility
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1959
END DATE: 1976

COORDINATES: N39670 W76930

WASTE TYPES AND AMOUNTS: There is stabilized contamination on the building surfaces, including low levels of alpha.

SITE DESCRIPTION: Concrete block building with a 15-ft single-story and a 19-ft two-story section. The first floor contains a storage room, electrical equipment room, a process room containing waste handling equipment, a chemical mixing room, and a change room. The second story houses the building heating and ventilation equipment.

RELEASE POTENTIAL: Prioritization of this facility for decommissioning classifies the relative radiological hazard as low in comparison with other 200 Area surplus facilities.

UNIT NAME: 234-5Z HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: May 2, 1985

COORDINATES: N40010 W76930

WASTE TYPES AND AMOUNTS: Typical wastes contained in staging over a 1-yr period: ~2,481 kg of waste nitrates and other oxidizers; 65 kg of benzenes and halogenated benzenes; 840 kg of toxic process chemicals; 14 kg of carbon tetrachloride and other extremely hazardous hydrocarbons; 437 kg of acids; 1,720 kg of sodium hydroxide and alkaline liquids; 4.06 kg of poisonous laboratory chemicals; 7.51 kg of miscellaneous laboratory chemicals; 17 kg of flammable liquids; 127 kg of paints, thinners, resins, and asphalts; and 280 kg of nonflammable refrigerant gas.

RELEASE POTENTIAL: An asphalt pad was installed east of the 234-5Z Building in August 1986. All waste containers are now stored on this pad.

UNIT NAME: 241-Z Treatment Tank
UNIT TYPE: Neutralization Tank
WASTE CATEGORY: Mixed Waste

TSD: T-2-5
UNIT STATUS: Active
START DATE: November 24, 1948

COORDINATES: N40100 W76800

WASTE TYPES AND AMOUNTS: The unit receives waste from 234-5Z. Before treatment, the waste is corrosive (less than pH 2.0) containing predominately nitric acid. Additional constituents known to be present include chromium, lead, aluminum nitrate, aluminum fluoride, and lower concentrations of potassium hydroxide, potassium fluoride, magnesium nitrate, ferric nitrate, calcium nitrate, and other trace metal ions. Treatment occurs in a batch process consisting of the addition of sodium hydroxide, ferric nitrate and sodium nitrate. Nominal outflow is 10,200 gal/week and maximum expected outflow is 14,000 gal/week.

SITE DESCRIPTION: The unit has a 5,000-gal capacity.

Waste Units Assigned to this Operable Unit

207-Z Retention Basin	Retention Basin
216-Z-4	Trench
216-Z-5	Crib
216-Z-6	Crib
216-Z-7	Crib
216-Z-8	French Drain
216-Z-9	Trench
216-Z-10	Reverse Well
216-Z-16	Crib
216-Z-17	Trench
2607-W8	Septic Tank
2607-WA	Septic Tank
2607-Z8	Septic Tank
UN-200-W-79	Unplanned Release
UN-200-W-130	Unplanned Release

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UNIT NAME: 207-Z Retention Basin
UNIT TYPE: Retention Basin
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1949 (approx.)
END DATE: 1959 (approx.)

COORDINATES: N39573 W76530

WASTE TYPES AND AMOUNTS: The site received potentially contaminated waste. Steam condensate and cooling water, via the D-3 piping system, was sent to this holding facility then released to the 216-Z-1 Ditch.

SITE DESCRIPTION: Two concrete basin structures within one concrete structure. The basins are separated by a 1-ft-thick concrete wall. There is a woven wire fence around the top perimeter, 6 ft high. Each basin contains a sump with a sump pump.

UNIT NAME: 216-Z-4
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: June 1945
END DATE: June 1945

COORDINATES: N40875 W76475 (center)

WASTE TYPES AND AMOUNTS: The site received the process and laboratory waste from the 231-Z Building. The waste is neutral/basic.

CLEANUP ACTIONS: This excavation was backfilled after use. The site was interim stabilized in 1990.

RELEASE POTENTIAL: This unit was used as a percolation trench.

UNIT NAME: 216-Z-5
UNIT TYPE: Crib
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: June 1945
END DATE: February 1947

COORDINATES: N40985 W76600 (center #1), N40920 W76600 (center #2)

WASTE TYPES AND AMOUNTS: The site received process waste from the 231-Z Building via the 231-W-151 Sump Tank.

SITE DESCRIPTION: Two wooden boxes, 12 ft by 12 ft by 4 ft high, each in a 14-sq-ft excavation. Excavations are 18 ft deep with 1:1 side slopes. The structures are 65 ft apart. Each box is constructed of ~800 linear ft of 6-in. by 6-in. timbers.

CLEANUP ACTIONS: This site was interim stabilized in 1990.

UNIT NAME: 216-Z-6
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: June 1945
END DATE: June 1945

COORDINATES: N40712 W76480, N40753 W76508 (centerline)

WASTE TYPES AND AMOUNTS: The site received process waste from the 231-Z Building via the 231-W-151 Sump Tank. The waste is neutral/basic.

SITE DESCRIPTION: 50-ft by 6.5-ft by 2-ft-high wooden box structure in an excavation. The box is constructed of timbers of the following dimensions: 500 linear ft of 2-in. by 12-in.; 300 linear ft 2-in. by 10-in.; 325 ft of 2-in. by 8-in.; and 35 linear ft of 4-in. by 4-in.

CLEANUP ACTIONS: The site was surface stabilized in February 1990.

UNIT NAME: 216-Z-7 **SWMU:** Yes
UNIT TYPE: Crib **UNIT STATUS:** Inactive
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed **START DATE:** February 1947
END DATE: February 1967

COORDINATES: N40900 W76050, N40900 W76200 (centerline)

WASTE TYPES AND AMOUNTS: Until 5/53, the site received process waste from the 231-Z Building via the 231-W-151 Sump Tank. From 5/53 to 11/65, the site received Hanford Laboratory waste from the 231-Z Building via the 231-W-151 Sump Tank. After 11/65, the site received waste from PNL operations in 231-Z Building and 300 Area laboratory waste from the 340 Facility.

SITE DESCRIPTION: Two wooden structures in parallel in 150-ft by 5-ft by 2-ft-deep trenches within a 210-ft by 44-ft by 5-ft-deep excavation. Each wooden structure is three-tiered and constructed of the following: 900 linear ft of 2-in. by 6-in. planking; 700 linear ft of 4-in. planking; 300 linear ft of 2-in. planking; and 1,800 linear ft of 3-in. by 6-in. assemblies, material unknown. A 150-ft-long, 3-in. or 4-in. perforated distribution pipe runs above the second tier. Each of the two trenches is covered by 1,650 sq ft of 2-in. planking and then tar paper. The large excavation has been backfilled.

CLEANUP ACTIONS: The site was interim stabilized in 1990.

UNIT NAME: 216-Z-8 **SWMU:** Yes
UNIT TYPE: French Drain **UNIT STATUS:** Inactive
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed **START DATE:** July 1955
END DATE: April 1962

COORDINATES: N40000 W76250 (center)

WASTE TYPES AND AMOUNTS: The site received neutral to basic Recuplex waste via overflow from the silica slurry tank.

SITE DESCRIPTION: Two sections of 3-ft-high standard clay tile culverts, stacked vertically underground. The culverts are filled with and rest on a 5-ft-diameter by 3-ft-deep bed of gravel with a slope of 2.5:1. The culverts have a 4-in.-thick concrete top that is 8 ft below grade.

UNIT NAME: 216-Z-9
UNIT TYPE: Trench
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: July 1955
END DATE: June 1962

COORDINATES: N39830 W75910, N39890 W75910 (center line)

WASTE TYPES AND AMOUNTS: The site received Recuplex Current Acid Waste (CAW) and aqueous and organic waste from the 234-5 Building. The waste is low in salt and acidic. The volume of CCl_4 thought to have been disposed of by RECUPLEX ranges between 60,000 and 370,000 liters.

SITE DESCRIPTION: Two 1.5-in. SST pipes discharged liquid 17 ft above the bottom. The unit is concrete covered.

UNIT NAME: 216-Z-10
UNIT TYPE: Reverse Well
WASTE CATEGORY: TRU-Contaminated Soil Site/Mixed

SWMU: Yes
UNIT STATUS: Inactive
START DATE: February 1945
END DATE: June 1945

COORDINATES: N40804 W76535 (center)

WASTE TYPES AND AMOUNTS: The site received process and laboratory wastes from the 231-Z Building via the 241-W-151 Sump Tank. The waste is neutral/basic. The site received an estimated 50 g of plutonium in 260,000 gal of waste. No other radionuclides were reported.

SITE DESCRIPTION: The unit is made of SCH 40 steel pipe and extends ~1 ft above grade into a blind flange.

CLEANUP ACTIONS: The site was interim stabilized in 1990.

UNIT NAME: 216-Z-16
UNIT TYPE: Crib
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1968
END DATE: January 1977

COORDINATES: N41113 W76892, N41113 W77072 (centerline)

WASTE TYPES AND AMOUNTS: The site received waste from PNL operations in the 231-Z Building. The waste is neutral/basic.

SITE DESCRIPTION: An excavation with 5 ft of gravel (500 cu yd) in the bottom. A 4-in.-diameter PVC pipe with a 5/16-in. hole every 3 ft runs down the center, 4 ft above the bottom. Over the gravel is a membrane barrier (4,140 sq ft), 4 in. of sand (1,200 cu ft), and earth backfill to grade.

UNIT NAME: 216-Z-17
UNIT TYPE: Trench
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: February 1967
END DATE: February 1968

COORDINATES: N40595 W76435, N40795 W76435 (centerline)

WASTE TYPES AND AMOUNTS: The site received waste from PNL operations in the 231-Z Building. The waste is neutral/basic.

SITE DESCRIPTION: The unit has a slope of 1:1.

CLEANUP ACTIONS: The excavation was backfilled after use. The unit remained open a number of years (~7 yr) before it was finally covered. The ground surface is presently free from radioactive contamination. The site was interim stabilized in 1990.

UNIT NAME: 2607-W8 **SWMU:** No
UNIT TYPE: Septic Tank **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1959

COORDINATES: N40950 W76700

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 5.45 cu m/d.

SITE DESCRIPTION: The unit includes a drain field. It is 11 ft 6 in. deep, constructed of reinforced concrete, and has an 100-person capacity (35 gal per capita) with an average detention period of 24 h. The walls and floor are 10 in. thick. The tile field is constructed of 4-in. vitrified pipe, concrete pipe or drain tile with a minimum of 8 linear feet per capita. The laterals are open jointed and spaced 8 ft apart.

UNIT NAME: 2607-WA **SWMU:** No
UNIT TYPE: Septic Tank **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1968

COORDINATES: N40270 W75631 (west unit), N40270 W75574 (east unit)

WASTE TYPES AND AMOUNTS: The unit receives sanitary wastewater and sewage from Z Plant Trailers M0250, M0249, M0244 and M0011. Estimated rate of waste generation is 5.83 cu m/d.

SITE DESCRIPTION: This unit includes two 1,000-gal, double-chamber septic tanks and two corresponding drain fields. The design capacity is 1,100 gal/d. The bottom dimensions of each drain field are 74 ft long by 18 ft wide.

UNIT NAME: 2607-Z8 **SWMU:** No
UNIT TYPE: Septic Tank **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1965

COORDINATES: N39475 W76200

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 0.75 cu m/d.

SITE DESCRIPTION: This unit includes a drain field.

UNIT NAME: UN-200-W-79 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** October 6, 1978
WASTE CATEGORY: Mixed Waste

COORDINATES: N39600 W76415

WASTE TYPES AND AMOUNTS: Alpha, with readings from 500 to 2,000 dis/min.

KNOWN RELEASES: Failure of pH line at the 241-Z Sump. Contamination was limited to two small areas: 1) under the pH meter lines, and 2) north of the D-7 and D-8 sample cabinets outside the 241-Z Sump radiation zone fence.

UNIT NAME: UN-200-W-130
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: January 20, 1967

COORDINATES: N41000 W76699

WASTE TYPES AND AMOUNTS: Alpha, beta, and gamma readings to 40,000 dis/min, consisting of 100 mrem/h of beta and 500 mrem/h of gamma.

KNOWN RELEASES: An excavation uncovered a leaking flange.

Waste Units Assigned to this Operable Unit

218-W-1	Burial Ground
218-W-1A	Burial Ground
218-W-2	Burial Ground
218-W-2A	Burial Ground
218-W-3	Burial Ground
218-W-4A	Burial Ground
218-W-11	Burial Ground
2607-WWA	Septic Tank
UN-200-W-44	Unplanned Release
UN-200-W-132	Unplanned Release
Z Plant Burning Pit	Burning Pit

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UNIT NAME: 218-W-1
UNIT TYPE: Burial Ground
WASTE CATEGORY: Pre-1970 TRU/Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1944
END DATE: 1953

COORDINATES: N41641 W77458, N42099 W77458, N42099 W77979, N41641 W77979

WASTE TYPES AND AMOUNTS: This site received miscellaneous dry waste.

SITE DESCRIPTION: The site contains 15 trenches that run east and west. Twelve of these trenches are 8 ft deep, 5 ft wide, and 16 ft long at ground level. The other 3 trenches are 9 ft deep, flat-bottom trenches with a 24-ft surface width. Two gravel roads run east and west through the unit.

KNOWN RELEASES: UPR-200-W-45, UPR-200-W-84, UPR-200-W-134.

UNIT NAME: 218-W-1A
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1944
END DATE: March 1954

COORDINATES: N45464 W74930, N45114 W74431, N45072 W74460, N45053 W74668, N44597 W74844, N44624 W75113, N44781 W75175, N45102 W75209

WASTE TYPES AND AMOUNTS: An unknown amount of industrial waste is buried here.

SITE DESCRIPTION: The site contains ~10 trenches. Several areas are used as individual burial holes, but definite locations are not known. Site depths are only available for Trench #6, which is 5 ft deep, and Trench #7, which is 20 ft deep.

UNIT NAME: 218-W-2
UNIT TYPE: Burial Ground
WASTE CATEGORY: Pre-1970 TRU/Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1953
END DATE: December 1956

COORDINATES: N41052 W77979, N41052 W77458, N41641 W77458, N41641 W77979

WASTE TYPES AND AMOUNTS: This site received miscellaneous dry waste.

SITE DESCRIPTION: The site contains 20 miscellaneous dry waste trenches, running east-west, with bottom widths of 5 ft and lengths ranging from 463 ft to 471 ft.

CLEANUP ACTIONS: The site has been stabilized.

9 2 1 2 9 7 1 3 7 6

UNIT NAME: 218-W-2A
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1954
END DATE: 1985

COORDINATES: N43230 W76944, N44563 W76079, N44940 W77151, N43227 W77600, N43947 W77659, N44340 W77515, N44580 W77515, N44580 W77150

WASTE TYPES AND AMOUNTS: The unit contains (for the most part) miscellaneous radioactive solid waste from facilities located in the 200 West area. The solid waste consists mainly of tanks, concrete blocks, facility wastes, and process equipment. Sixteen trenches are filled with dry industrial waste. Trench #27 contains contaminated soil scraped from the 216-T-4-1 Pond. Waste buried since November 1980 does not contain hazardous materials. It is possible that wastes disposed of prior to this date may contain hazardous wastes. Of the 887,000 cu ft of waste contained in the unit, only 12,000 were disposed of after November 1980. The waste disposed of before November 1980 is both low-level and byproduct, while the waste disposed of since that date is strictly low-level.

SITE DESCRIPTION: An industrial waste burial site containing 19 trenches numbered #1 to #11, and #20 to #27. Trenches #11 through #15 are considered a cell block area and are located between Trenches #24 and #27. All trenches were dug with centerlines running northwest from the railroad tracks, except Trenches #1 to #3, which are shorter trenches, grouped in the extreme southwest corner of the site and Trench #16, which is located outside the fence east of Trench #24.

CLEANUP ACTIONS: The site is partially stabilized.

UNIT NAME: 218-W-3
UNIT TYPE: Burial Ground
WASTE CATEGORY: Pre-1970 TRU/Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: January 1957
END DATE: July 1961

COORDINATES: N43945 W78090, N43227 W78038, N43227 W77600, N43945 W77600, N43312 W78090

WASTE TYPES AND AMOUNTS: This site received miscellaneous unsegregated mixed TRU and non-TRU wastes.

SITE DESCRIPTION: This site contains 20 dry waste trenches. Trenches #1 to #3 are 400 ft long and Trenches #4 to #20 are 475 ft long. Estimation of the road space running parallel with the trenches is difficult because exact trench widths are unknown. As a result, there is no access between the trenches.

CLEANUP ACTIONS: The site has been stabilized.

9 2 1 2 1 9 7 1 3 7 8

UNIT NAME: 218-W-4A
UNIT TYPE: Burial Ground
WASTE CATEGORY: Low-Level/Pre-1970 TRU/Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1958
END DATE: 1968

COORDINATES: N42278 W78079, N42278 W77431, N43158 W77012, N43158 W78079

WASTE TYPES AND AMOUNTS: This site received miscellaneous dry, unsegregated mixed TRU and non-TRU waste. For specific trench contents, see drawing for site.

SITE DESCRIPTION: The unit contains 21 filled trenches and a miscellaneous trench, 77 ft long, running north-east, and located east of Trench #11. The trenches are all 30 ft wide and range in length from 490 ft to 969 ft. The site also contains 2 caissons. One is located between Trenches #17 and #18 and the other is located between Trenches #18 and #19. Both consist of a 12-in. gage well casing, 26 in. in diameter and extending 48 ft below grade. Six 15-ft-deep dry wells were installed in Trench #16 at coordinates N42918 W77465, N42918 W77390. The wells were made of 55-gal steel drums welded together with the ends cut out (except the bottom of the lower drum) and placed on end.

KNOWN RELEASES: UPR-200-W-16, UPR-200-W-26, UPR-200-W-53, UPR-200-W-72.

CLEANUP ACTIONS: The site has been stabilized.

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UNIT NAME: 218-W-11
UNIT TYPE: Burial Ground
WASTE CATEGORY: Low-Level/Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1960
END DATE: 1960

COORDINATES: N42099 W77458, N42278 W77458, N42278 W77979, N42099 W77979

WASTE TYPES AND AMOUNTS: This unit was used for burial of low-level, contaminated sluicing equipment that had been used in the uranium recovery program. Some of the equipment was later taken from the unit and used in the strontium/cesium recovery program.

SITE DESCRIPTION: An above-ground storage area and two filled burial trenches running east-west. Trench #1 is 258 ft long, and Trench #2 is 150 ft long.

CLEANUP ACTIONS: The site has been stabilized.

UNIT NAME: 2607-WWA
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1955

COORDINATES: N40425 W78925

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. Estimated rate of waste generation is 3.41 cu m/d.

SITE DESCRIPTION: The unit includes a drain field.

UNIT NAME: UN-200-W-44 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** October 25, 1957
WASTE CATEGORY: Low-Level Waste

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 2 R/h.

KNOWN RELEASES: A burial box in transit fell from a flatcar.

CLEANUP ACTIONS: No cleanup action specified.

UNIT NAME: UN-200-W-132 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** July 6, 1956
WASTE CATEGORY: Mixed Waste

COORDINATES: N38500 W76600

WASTE TYPES AND AMOUNTS: Uranium feed solution.

KNOWN RELEASES: An uncontrolled contaminated spread occurred when a uranium feed solution for the TBP process overflowed from the diversion box.

CLEANUP ACTIONS: The area was excavated and barricaded. A radiation survey was made, and the area was backfilled.

UNIT NAME: Z Plant Burning Pit
UNIT TYPE: Burning Pit
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1950
END DATE: 1960

COORDINATES: N39000 W77800 (center)

WASTE TYPES AND AMOUNTS: Combustion of office and laboratory waste (2.0E+3 cu m) and chemicals (<1.0E+3 cu m).

SITE DESCRIPTION: Nonradioactive waste thermal treatment area.

9 2 1 2 1 9 7 1 5 3 2

Other Waste Units Located Within the Operable Unit Area

218-W-3A	Burial Ground
218-W-3AE	Burial Ground
218-W-4B	Burial Ground
218-W-4C	Burial Ground
218-W-5	Burial Ground
218-W-6	Burial Ground
Radioactive Mixed Waste Storage Facility	Storage Facility
WRAP	Test Treatment or Support Facility

9 2 1 2 4 9 7 1 5 3 3

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UNIT NAME: 218-W-3A
UNIT TYPE: Burial Ground
WASTE CATEGORY: Retrievable TRU/Mixed Waste

TSD: D-2-9
UNIT STATUS: Active
START DATE: 1970

COORDINATES: N46505 W78090, N43945 W78090, N44580 W77150, N46505 W77120, N44995 W77120, N44580 W77515, N44340 W77515, N43947 W77658

WASTE TYPES AND AMOUNTS: Trench #8 contains non-TRU and TRU waste. Trenches #17 and #5 contain TRU waste. Trench #40 contains industrial waste. Trench #14 contains ten large concrete burial boxes of radioactive soil from the 241-S Tank Farm following a salt waste spill from the 102-S Tank transfer piping in 1973. Dose rates at site of the spill before removal of the ground ranged to a maximum of 9 mR/h. Trench #17 contains fiberglass reinforced polyester (FRP) plywood boxes in various sizes from the Division of Military Application (DMA) and related weapons decommissioning programs. Trench #7 contains waste from the cleanup efforts at Three Mile Island Nuclear Plant (TMI-2) . This site also received irradiated fuel elements from General Electric, Vallecitos, CA. All remaining filled trenches contain dry and industrial waste. This site also received waste from Livermore National Lab, Colorado Springs; General Electric, Walla Walla, WA; 100 N Areas; HEHF; Energy Systems Group; Battelle Columbus Laboratory; and various other onsite and offsite locations.

SITE DESCRIPTION: The site contains 61 dry and industrial waste trenches running in an east-west direction. Seven are 535 ft long, thirty-five are 930 ft long, and ten are 900 ft long. The remaining trenches range in length from 403 ft to 512 ft. The side slopes are 1:1 or as required to match the natural angle of repose. Trench depths range from 12 to 19 ft.

RELEASE POTENTIAL: Specific waste type, hydrogeologic and climatological data illustrate the very low potential for a release to occur from this unit.

UNIT NAME: 218-W-3AE
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

TSD: D-2-9
UNIT STATUS: Active
START DATE: March 31, 1981

COORDINATES: N46505 W77070, N46505 W75872, N45215 W77070, N44680 W76050, N45650 W75605

WASTE TYPES AND AMOUNTS: The site has been receiving miscellaneous wastes such as rags, paper, rubber gloves, disposable supplies, broken tools, etc. and industrial waste such as failed equipment, tanks, pumps, ovens, agitators, heaters, hoods, jumpers, and accessories.

SITE DESCRIPTION: The site consists of 24 trenches. Trench #2E is 1,246 ft by 18 ft (bottom), 1,330 ft by 46 ft (surface), and 16 ft deep, with a minimum of 8 ft of backfill. Trench #5E is 1,075 ft by 48 ft (bottom), 1,385 ft by 108 ft (surface), and 20 ft deep, with a minimum of 8 ft of backfill. Trench #10E is 1,195 ft by 40 ft (bottom), 1,505 ft by 94 ft (surface), and 18 ft deep, with a minimum of 8 ft of backfill.

RELEASE POTENTIAL: Specific waste type, hydrogeologic and climatological data illustrate the very low potential for a release to occur from these units.

UNIT NAME: 218-W-4B **TSD:** D-2-9
UNIT TYPE: Burial Ground **UNIT STATUS:** Active
WASTE CATEGORY: Low-Level/Pre-1970 TRU/Mixed Waste **START DATE:** 1967

COORDINATES: N40450 W78079, N40450 W77458, N41052 W77458, N41052 W78079

WASTE TYPES AND AMOUNTS: The site receives miscellaneous radioactive solid waste, the majority from facilities in 200 West area. Solid waste consists of rags, paper, cardboard, plastic, pumps, tanks, process equipment, and other miscellaneous dry waste. Trenches #1-6 and #8 contain unsegregated mixed TRU and non-TRU waste. Trench #9 contains unsegregated TRU waste. Trenches #10, #12, and #13 contain non-TRU waste. Trenches #7 and #11 contain 20-year retrievable TRU storage pads. The site contains 114,300 cu ft of segregated (post-1970) TRU waste.

SITE DESCRIPTION: One section of Trench #7 is an experimental trench for TRU storage containing barrels of TRU waste in a concrete-lined V trench. The row of caissons includes 5 alpha caissons for TRU waste, one UNI silo type caisson (for high activity from N Reactor), and 6 MFP caissons (for non-TRU and nonsegregated waste). The 6 MFP caissons consist of 1 silo type (#6), 1 alpha type (#5), and 4 dry waste caissons. The alpha type caissons weigh 26,000 lb. They have an 8.75-ft diameter and are 10 ft high, constructed primarily of concrete and a steel cover fitted with lifting lugs. The silo-type caissons are 30 ft tall and 10 ft in diameter and are placed on a concrete base. Waste is placed beneath a concrete slab 15 ft below grade. Dry waste caissons are 8 ft in diameter and 10 ft high, constructed of corrugated metal with a concrete top and bottom.

CLEANUP ACTIONS: The site is partially stabilized.

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UNIT NAME: 218-W-4C
UNIT TYPE: Burial Ground
WASTE CATEGORY: Retrievable TRU/Mixed Waste

TSD: D-2-9
UNIT STATUS: Active
START DATE: 1974

COORDINATES: N40360 W78079, N40360 W77457, N38990 W77457, N38990 W77322, N38510 W77322, N38485 W76550, N37820 W76550, N37820 W78079

WASTE TYPES AND AMOUNTS: The Navy Reactor Core Trench contains a number of core barrels from Bettis Naval Station near Seattle, WA. Trench #1 contains drums with plutonium-contaminated soil from the 216-Z-9 Crib and noncombustible TRU waste. Trench #4 contains drums of assorted combustible TRU waste and one module of noncombustible TRU waste. Trench #1, 4, 7, 20, 24, and 25 and the easterly end of Trench #19 contain retrievable waste. Trench #23, 28, 48, 53, and 58 and the remainder of Trench #19 receive buried low-level waste. The remaining trenches are proposed. This site also received waste from 100-N Area, 100-K Area, 100-B Area, General Electric, Babcock & Wilcox, Fermi National Laboratory, Exxon, Bartleville Energy Technology Center, Battelle Columbus Laboratory, and Chemical Nuclear Systems. Spent fuel is stored at this site.

SITE DESCRIPTION: The unit will ultimately contain up to 65 trenches. Forty-eight trenches run east-west. Twenty-four of these are 602 ft long, nineteen are 719 ft long, four are 594 ft long, and one trench is 299 ft long. Seventeen trenches run north-south. Of these, fourteen trenches are 665 ft long and three trenches are 508 ft long.

RELEASE POTENTIAL: Specific waste type and information on container packaging systems designed to contain liquids, and hydrogeologic and climatological data, illustrating the very low potential for a release to occur from these units.

UNIT NAME: 218-W-5 **TSD:** D-2-9
UNIT TYPE: Burial Ground **UNIT STATUS:** Active
WASTE CATEGORY: Low-Level/Mixed Waste **START DATE:** August 29, 1986

COORDINATES: N45570 W79450, N43270 W79145, N43270 W78250, N46480 W78250, N46535 W79450

WASTE TYPES AND AMOUNTS: This unit is designed to store non-TRU waste and retrievable TRU waste. There are five distinct storage and disposal areas within the expansion: 1) FFTF and FMEF Disposal Cask Area; 2) Ultra-heavy Reactor Component Disposal Area; 3) Large Concrete Box and Navy Core Barrel Disposal Area; 4) Low Specific Activity Rubble and Nonstackable Waste Disposal; and 5) Packaged (stackable) Non-TRU Waste Disposal Area. There is also a non-TRU expansion area located in the northwest section.

SITE DESCRIPTION: The unit contains 56 trenches, all oriented east to west. The widths and depths of 34 of the trenches have been determined. Twenty-seven trenches are 15 ft wide (bottom) and 17 ft deep. Of these 27 trenches, 18 are 1,160 ft long, 4 are 430 ft long, 3 are 530 ft long, and 2 are 1,060 ft long. Seven trenches are 1,160 ft long, 40 ft wide (bottom), and 17 to 20 ft deep.

RELEASE POTENTIAL: Specific waste type, hydrologic, and climatological data illustrate the very low potential of release from this unit.

UNIT NAME: 218-W-6 **TSD:** D-2-9
UNIT TYPE: Burial Ground **UNIT STATUS:** Inactive
WASTE CATEGORY: Low-Level/Mixed Waste

WASTE TYPES AND AMOUNTS: The site is proposed to consist of 27 unlined drag-off trenches and one lined drag-off trench.

TSD: TS-2-4

UNIT NAME: Radioactive Mixed Waste Storage Facility
UNIT TYPE: Storage Facility
WASTE CATEGORY: Mixed Waste

UNIT STATUS: Active
START DATE: 1988

WASTE TYPES AND AMOUNTS: The unit receives designated mixed waste.

SITE DESCRIPTION: The site consists of 12 safety storage modules, which are temporary compliant prefabricated Butler type buildings.

UNIT NAME: WRAP
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

TSD: TS-2-4
UNIT STATUS: Inactive

COORDINATES: N42000 W78500

WASTE TYPES AND AMOUNTS: The unit consists of a proposed treatment facility for TRU, low-level, low-level/mixed, and nonradioactive dangerous waste.

SITE DESCRIPTION: The design capacity is up to 12,000 cu m/yr.

5.0 300 AGGREGATE AREA OPERABLE UNITS

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Waste Units Assigned to this Operable Unit

300 Area Ash Pits	Ash Pit
300 Area Filter Backwash Pond	Pond
300 Area RLWS and 340 Complex	Sewer
300 Area Retired Filter Backwash Pond	Pond
300 Area Retired RLWS	Sewer
300 Area Sanitary Sewer System	Sewer
307 Retention Basin	Retention Basin
316-1	Pond
316-2	Pond
316-3	Trench
316-5	Trench
618-4	Burial Ground
618-5	Burial Ground
618-12	Burial Ground
628-4	Burning Pit
UN-300-1	Unplanned Release
UN-300-2	Unplanned Release
UN-300-11	Unplanned Release
UN-300-14	Unplanned Release
UN-300-31	Unplanned Release
UN-300-41	Unplanned Release
UN-300-FF-1	Unplanned Release

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UNIT NAME: 300 Area Ash Pits
UNIT TYPE: Ash Pit
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1975

COORDINATES: N54550 E15850

WASTE TYPES AND AMOUNTS: Coal flyash is periodically sluiced from the 384 Powerhouse to the pits with water at the rate of 15M gal/yr. Analysis of the flyash according to 173-303 WAC indicates it is non-EP toxic.

SITE DESCRIPTION: The unit consists of two separate excavations that are 15 to 20 ft deep.

RELEASE POTENTIAL: When the flyash is dry, it is hauled for disposal to a pit west of the 300 Area.

UNIT NAME: 300 Area Filter Backwash Pond
UNIT TYPE: Pond
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: April 14, 1987

COORDINATES: N54550 E16275

WASTE TYPES AND AMOUNTS: The unit receives 20M gal/yr of water and nonhazardous alum from backwashing filters. Analysis of the backwash has shown it to be nonhazardous.

SITE DESCRIPTION: The unit consists of a single basin about 20 to 25 ft deep.

UNIT NAME: 300 Area RLWS and 340 Complex
UNIT TYPE: Sewer
WASTE CATEGORY: Mixed Waste

SWMU: No
UNIT STATUS: Active
START DATE: 1954

COORDINATES: N54470 E15350

WASTE TYPES AND AMOUNTS: The unit receives radioactive wastes from various 300 Area research and development laboratories. Wastes consist primarily of water with small quantities of various chemicals from the laboratories, decontamination solutions, and acids and bases. The waste is stored for less than 90 days and is then transported to the 200 West Area for storage or disposal.

SITE DESCRIPTION: Piping is stainless steel with an outer pipe of fiberglass, reinforced plastic and continuous leak detection systems between the inner and outer pipes. Waste is accumulated in stainless steel tanks at the 340 Complex. An underground vault houses two 15,000-gal neutralization tanks. The 340 Building provides a control room and decontamination facility. The 340-A Building contains six above-ground liquid radioactive waste storage tanks. The 340-B Building is divided lengthwise by a concrete shield wall. The east side contains the rail car loadout facility. The west side is a radioactive waste storage area.

RELEASE POTENTIAL: Underground tanks are enclosed in concrete vaults and have leak detection systems. Above-ground tanks are enclosed in a building and located in a concrete catchment basin to prevent any leaks from reaching the environment. Tank car loading operations take place in an enclosed building with physical spill protection and containment systems. Tanks are continuously monitored for leaks.

UNIT NAME: 300 Area Retired Filter Backwash Pond
UNIT TYPE: Pond
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1975
END DATE: January 1987

COORDINATES: N54950 E16210

WASTE TYPES AND AMOUNTS: The unit received 10M to 20M gal/yr of water and nonhazardous alum from backwashing filters. Analysis of the backwash has shown it to be nonhazardous.

SITE DESCRIPTION: This interim backwash pond was an inactive gravel pit.

RELEASE POTENTIAL: Sediments from the portion of the retired south pond used for the filter backwash pond were tested before the pond was put into use. Some residual contamination from previous south pond operations was noted. Leach tests did not indicate a potential for contaminants to leach into groundwater.

UNIT NAME: 300 Area Retired RLWS
UNIT TYPE: Sewer
WASTE CATEGORY: Mixed Waste

SWMU: No
UNIT STATUS: Inactive
START DATE: 1954
END DATE: 1975

COORDINATES: N54260 E16700

WASTE TYPES AND AMOUNTS: The unit received radioactive wastes from various 300 Area facilities including the fuel fabrication and research and development laboratories. Wastes consisted primarily of water with small quantities of various chemicals from laboratories, decontamination solutions, aqueous solutions from fuel fabrication, and acids and bases. Approximately 100,000 gal/yr were received from the sewer.

SITE DESCRIPTION: The pipes are ~4,062 ft long, buried 10 ft below grade. The pipe outlet is at the 340 Facility.

CLEANUP ACTIONS: The pipes were drained and left in place.

RELEASE POTENTIAL: The liquids were drained from the pipe before retirement, but the pipe contains residual radioactive contamination. The pipe is stainless steel and is not expected to corrode significantly in the alkaline soils of the 300 Area. The system has been replaced with a double-encased sewer pipe.

UNIT NAME: 300 Area Sanitary Sewer System
SWMU: No
UNIT TYPE: Sewer
UNIT STATUS: Active
WASTE CATEGORY: Hazardous Waste
START DATE: 1975

WASTE TYPES AND AMOUNTS: This unit receives ~109.5M gal/yr of sanitary wastes and air conditioner cooling water. Prior to 1985, discharges from the 3713 Sign Shop included an estimated 1 gal/wk of miscellaneous photochemicals used in the process.

SITE DESCRIPTION: The unit is comprised of a series-parallel septic tank arrangement that empties into two 1,000-ft-long trenches.

RELEASE POTENTIAL: This unit serves an area containing laboratories, shops, and production facilities. There is potential for accidental disposal of hazardous materials to the sewer.

UNIT NAME: 307 Retention Basin
SWMU: Yes
UNIT TYPE: Retention Basin
UNIT STATUS: Active
WASTE CATEGORY: Mixed Waste

COORDINATES: N54370 E15430

WASTE TYPES AND AMOUNTS: Process waste water from 300 area facilities is routed through these units prior to discharge to the 300 Area Process Trench. The flow is about 1M to 4M gal/d.

SITE DESCRIPTION: This unit consists of four 50,000-gal basins used for the waste water collection system.

UNIT NAME: 316-1
UNIT TYPE: Pond
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1945
END DATE: May 1975

COORDINATES: N55225 E16250,N54750 E16280,N54713 E15584,N55200 E15441,N55387 E15789

WASTE TYPES AND AMOUNTS: The site received cooling water and low-level liquid wastes from the 3706 and 321 buildings, process waste from the 321 Building, wastes from the Hot Semiworks Laboratory, organic wastes, and water from 303 Building floor drains. This unit has contained large amounts of copper and uranium, but most of these contaminants were removed when the bottom of the unit was periodically dredged. The total site inventory is 2.0 Ci.

SITE DESCRIPTION: An 8-acre area containing 5 separate pond sections. Ponds 1, 2, and 3 are separated by two 30-ft dikes, with the largest pond (No. 4) separated from 1, 2, and 3 (west side) by a 16-ft dike and from Pond No. 5 (east side) by 100 ft of land. The dikes were bulldozed into 3 sections, and the fill was used to cover loose material.

KNOWN RELEASES: UPR-300-34, UPR-300-35, UPR-300-36, UPR-300-37.

CLEANUP ACTIONS: In 1949 and 1953, the unit was dredged, and the sludge was removed and buried on the edge of the pond and the dikes. The unit has since dried out.

UNIT NAME: 316-2
UNIT TYPE: Pond
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1949
END DATE: May 1974

COORDINATES: N57000 E15880, N56310 E16050, N56133 E15325, N56752 E15325

WASTE TYPES AND AMOUNTS: The site received low-level radionuclide liquid wastes and cooling water from 3706 and 321 buildings, aqueous wastes containing unirradiated uranium from the Hot Semiworks Laboratory, and water from the floor drains in the 303 Buildings. The waste flowed through the 307 Retention Basin en route to this unit.

SITE DESCRIPTION: This site consists of 7 separate sections separated by 12-ft-wide dikes, with the entire 10-acre area surrounded by a dike 15 ft wide and ~10 ft high.

KNOWN RELEASES: UPR-300-34, UPR-300-35, UPR-300-36, UPR-300-37.

CLEANUP ACTIONS: Some subdividing dikes have been bulldozed to cover the bottom of the site. The unit has since dried out.

UNIT NAME: 316-3
UNIT TYPE: Trench
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1953
END DATE: 1963

COORDINATES: N54265 E16000, N54185 E16000, N54185 E15475, N54265 E15475

WASTE TYPES AND AMOUNTS: The site received wastes from the Hot Semiworks Laboratory area (329 Biophysics Laboratory, 327 Radiometallurgy Building, 324 Radiochemistry Building, 326 Pile Technology Building, and 329 Mechanical Development Building) and sludge from 316-1 Pond. These wastes went through the 307 Retention Basin before releasing to this unit.

SITE DESCRIPTION: Two trenches, each ~450 ft long, 10 ft wide at the east end, and 30 ft wide at the west end. The depth varies from at least 12 ft to 27 ft. The trenches run in an east and west direction, ~20 ft apart, and each contains a 5-in. V.C.P. line running the entire length of the unit. The method of waste release from piping is unknown. Two parallel trenches, 600 ft by 10 ft by 20 ft deep.

CLEANUP ACTIONS: The unit was filled in.

UNIT NAME: 316-5 **TSD:** D-3-1
UNIT TYPE: Trench **UNIT STATUS:** Active
WASTE CATEGORY: Mixed Waste **START DATE:** May 1975

COORDINATES: S21691 E13623, S21695 E13293, S23226 E13641, S23230 E13311

WASTE TYPES AND AMOUNTS: This unit serves as the discharge site for the 300 Area Process Sewer system. The site receives ~2.6M gal of water per day. This water was chlorinated by the water filter plant for the 300 Area and contains minerals added to the water during use. Water discharged to the process sewer is used primarily for cooling purposes and is not modified. Other sources of discharge include steam condensates, janitorial solutions from washing and waxing floors, water treatment (primarily salt), laboratories, process water from fuel fabrication and other aqueous solutions not designated as dangerous wastes by WAC-173-303. The annual waste quantity is one billion pounds per year and reflects the total flow to the unit, not a volume of dangerous waste discharged to the unit. No dangerous wastes have been discharged to the unit since November 1985.

SITE DESCRIPTION: Two trenches running north-south, 60 ft apart (between centerlines). Each trench is 1,535 ft long, 10 ft wide and 12 ft deep, with a side slope of 1:1.5. Separating the trenches is an earth dike, 50 ft wide at the bottom (top width varies) and 12 ft high.

KNOWN RELEASES: UPR-300-8, UPR-300-9, UPR-300-15, UPR-300-19, UPR-300-20, UPR-300-21, UPR-300-22, UPR-300-23, UPR-300-24, UPR-300-25, UPR-300-26, UPR-300-27, UPR-300-28, UPR-300-29, UPR-300-30, UPR-300-32, UPR-300-33.

UNIT NAME: 618-4
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1955
END DATE: 1961

COORDINATES: N57832 E14546 (southwest corner)

WASTE TYPES AND AMOUNTS: The site contains an unknown quantity of uranium-contaminated miscellaneous materials.

SITE DESCRIPTION: The unit contains elongated pits that were filled and covered with clean dirt.

KNOWN RELEASES: UPR-600-15.

UNIT NAME: 618-5
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1945
END DATE: 1962

COORDINATES: N57245 E15429 (southwest corner)

WASTE TYPES AND AMOUNTS: The site was used for the disposal of uranium-bearing trash. This site was also used as an above-ground storage area for uranium-bearing materials.

SITE DESCRIPTION: The site contains a burning trench oriented northeast-southwest by its largest dimension.

CLEANUP ACTIONS: The unit was covered and filled with 4 ft of clean soil. This site was surface stabilized in September 1990.

UNIT NAME: 618-12
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1949
END DATE: 1964

COORDINATES: N56300 E15350, N56625 E15275, N57000 E15275, N56800 E15350

WASTE TYPES AND AMOUNTS: This site was used for disposal of uranium-contaminated soil that was scraped from the 316-2 Pond (North Process Pond) and some uranium-contaminated soil that was removed from beneath the 321 Building during excavation for hydraulic core mockup.

SITE DESCRIPTION: The North Process Pond Scraping Disposal Area extends ~200 ft south of the North Process Ponds.

CLEANUP ACTIONS: The site has been backfilled with ashes.

UNIT NAME: 628-4
UNIT TYPE: Burning Pit
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1962

WASTE TYPES AND AMOUNTS: The unit was used mainly for burning paper, wood, paint cans, and other operations debris; however, some incidental radioactive materials may have also been burned.

SITE DESCRIPTION: At present (8-22-91), the site is covered with flyash (stabilized). The stabilized area is 4 ft above grade and covered with light vegetation.

CLEANUP ACTIONS: A photo taken in May 1974 shows the unit was decommissioned and filled.

UNIT NAME: UN-300-1 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** December 9, 1969
WASTE CATEGORY: Mixed Waste

COORDINATES: N54445 E15405

WASTE TYPES AND AMOUNTS: Process waste consisting of transuranic fission products.

KNOWN RELEASES: A leak was discovered in the transfer line from the retention basins to the crib waste system. Crib waste was backed up, the bottom half of a short carbon steel transition piece was eroded away, and contaminated waste leaked to the soil. The extent of the contamination was believed to be confined within a cylindrical section of earth ~25 ft deep and 12 ft in diameter.

CLEANUP ACTIONS: The top 2 ft of contaminated soil was placed in drums and removed to a 200 Area burial ground. Further removal of contaminated soil was considered a threat to adjacent structures.

UNIT NAME: UN-300-2 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** January 1954
WASTE CATEGORY: Mixed Waste

COORDINATES: N54445 E15405

WASTE TYPES AND AMOUNTS: Cs-137, reading ~10 mCi.

UNIT NAME: UN-300-11 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** October 21, 1977
WASTE CATEGORY: Mixed Waste

COORDINATES: N54453 E15404

WASTE TYPES AND AMOUNTS: Fission products were found in soil samples, but no alpha-emitting nuclides were detected.

KNOWN RELEASES: Leaking flanges in the radioactive liquid waste line resulted in contamination of ~22 cu ft of soil in a column ~1 ft in diameter, extending to ~23 ft below grade. At that depth, contamination spread laterally in an interface between undisturbed soil and backfill. Evidence of contamination from a separate event was also found, somewhat blurring contamination boundaries. Physical conditions prevented characterization of the second contaminated soil column.

CLEANUP ACTIONS: Soil removed during hand excavation to about 8 ft below grade was placed in drums and buried in a 200 Area burial ground. About 90% of the contamination was removed, leaving ~1 Ci in place.

UNIT NAME: UN-300-14 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** July 18, 1975
WASTE CATEGORY: Hazardous Waste

COORDINATES: N55060 E15000

WASTE TYPES AND AMOUNTS: The release consisted of 93% sulfuric acid.

KNOWN RELEASES: A line break in fill Tank #32 caused the loss of sulfuric acid. The solution traveled through a concrete trench to a limestone pit designed to neutralize spilled acid.

CLEANUP ACTIONS: The flow of the acid from the elevated storage tank was stopped by closing the bottom valve on the tank and a "Saddle Pipe Support" installed. The acid was neutralized, forming calcium sulfate, carbon dioxide, and water.

UNIT NAME: UN-300-31 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** October 1974
WASTE CATEGORY: Mixed Waste

COORDINATES: N54800 E15800

WASTE TYPES AND AMOUNTS: An unknown quantity of uranium etch acids containing hydrofluoric, nitric, sulfuric, and chromic acids with copper, uranium, and zirconium in solution.

KNOWN RELEASES: Inspection of the pipe trench system revealed that extensive repairs were needed, apparently from a previous spill in the system. Drain connections leading to the process sewer system were found to be broken in various locations, allowing possible ground discharge rather than discharge into the process sewer.

UNIT NAME: UN-300-41 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** June 3, 1986
WASTE CATEGORY: Hazardous Waste

COORDINATES: N54450 E15400

WASTE TYPES AND AMOUNTS: The release consisted of phosphoric acid with the following constituents: 14,000 p/m chromium, 1,900 p/m manganese, 1,700 p/m iron, and 400 nickel. The material was an extremely hazardous waste. Wastewater, possible spills of uranium-bearing waste acid or waste etch acid containing nitric and sulfuric acid with uranium in solution, as well as nitric, hydrofluoric and chromic acids with uranium, copper, and zirconium metals in solution.

KNOWN RELEASES: A 55-gal drum containing acid developed a leak, resulting in contamination of part of an asphalt pad and an area of soil next to the pad.

RELEASE POTENTIAL: Procedures have been changed to avoid recurrence.

UNIT NAME: UN-300-FF-1 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:**
WASTE CATEGORY: Low-Level Waste

WASTE TYPES AND AMOUNTS: Primarily, contamination was associated with the soil; however, some contaminated metal and other materials were also found. GM/P-11 instrument readings range from 100 to 50,000 ct/min. Analysis of samples showed that the radiation levels were caused primarily by the presence of uranium. Some soil samples also contained relatively high concentrations of copper.

SITE DESCRIPTION: This site includes 77 individual areas of surface or near-surface contamination (R-1 through R-77). They range from 6-in. to 50-ft diameters and 0.5- by 1-in. to 80- by 200-ft areas.

KNOWN RELEASES: Surface radiation survey and sampling activities were conducted from September 1989 to December 1989 and April 1990 to June 1990.

CLEANUP ACTIONS: The contaminated material/soil has been removed from twenty of the areas: R-1, R-9, R-10, R-13, R-28, R-29, R-30, R-31, R-33, R-34, R-35, R-36, R-37, R-38, R-47, R-48, R-52, R-56, R-72, R-73. Forty-two of the areas have been stabilized: R-2, R-3, R-4, R-5, R-6, R-7, R-8, R-11, R-14, R-15, R-16, R-17 through R-27, R-32, R-39 through R-46, and R-75.

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Other Waste Units Located Within the Operable Unit Area

340 Complex HWSA Satellite Area

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UNIT NAME: 340 Complex HWSA
UNIT TYPE: Satellite Area
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1954

COORDINATES: N54420 E15400

WASTE TYPES AND AMOUNTS: The outside area typically contains miscellaneous empty drums (20 to 30 drums/mo) and nonregulated waste oils. This area is no longer used to stage hazardous waste.

KNOWN RELEASES: Small (nonregulated) quantities of oil have been spilled.

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Waste Units Assigned to this Operable Unit

300 Area Vitrification Test Site	Test Treatment or Support Facility
618-1	Burial Ground
618-2	Burial Ground
618-3	Burial Ground
618-7	Burial Ground
618-8	Burial Ground
618-9	Burial Ground
618-13	Burial Ground

9 2 1 2 9 7 1 6 1 3

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UNIT NAME: 300 Area Vitrification Test Site
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1983
END DATE: 1986

COORDINATES: N55870 E11950

WASTE TYPES AND AMOUNTS: Vitrification was performed on wastes containing the following radionuclides: Am-241, 0.0095 Ci; Pu-239, 0.0053 Ci; Pu-238, 0.0018 Ci; Cs-137, 0.020 Ci; Ru-106, 0.021 Ci; Sr-90, 0.680 Ci; Co-60, 0.010 Ci.

CLEANUP ACTIONS: All contaminated soil and equipment have been removed from the site. Field radiation surveys were conducted to verify the removal of contaminated soil to background levels.

RELEASE POTENTIAL: The site is decontaminated to background radiation levels; no release is possible.

UNIT NAME: 618-1
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1944
END DATE: 1951

COORDINATES: N55310 E14987, N55630 E14987, N55390 E14890, N55390 E14834, N55310 E14834, N55630 E14890

WASTE TYPES AND AMOUNTS: The site contains large quantities of uranium (~16 tons), and small quantities of plutonium and fission products from the 300 Area laboratories fuel fabrication with incidental additional waste from a very small laboratory operation.

SITE DESCRIPTION: The unit consisted of at least two trenches running north-south, 16 ft wide (surface) by 200 ft long by 8 ft deep. Also, a series of pits 20 ft deep by 15 ft wide run east-west.

UNIT NAME: 618-2
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1951
END DATE: 1954

COORDINATES: N55700 E15060, N55700 E14845, N56050 E14845, N56050 E15060

WASTE TYPES AND AMOUNTS: 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.

SITE DESCRIPTION: The unit contains four trenches running east-west. Each trench is 51 ft wide (top width) by 150 ft long by 15 ft deep with a bottom width of 6 ft.

CLEANUP ACTIONS: The unit was interim stabilized in 1989.

UNIT NAME: 618-3
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1954
END DATE: 1955

COORDINATES: N55703 E14677, N55703 E14832, N56045 E14677, N56045 E14832

WASTE TYPES AND AMOUNTS: The site was primarily used for the disposal of uranium waste in the form of contaminated building material derived from the 313 buildings.

SITE DESCRIPTION: The unit consists of one large trench running north-south.

CLEANUP ACTIONS: The site was interim stabilized in 1989.

UNIT NAME: 618-7
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1960 (1955)*
END DATE: 1973 (1956)*

COORDINATES: N56300 E12655, N56300 E11995, N57420 E12655, N57420 E11995

WASTE TYPES AND AMOUNTS: The site contains low-level uranium and thorium-bearing material from 300 Area fuel manufacturing. This unit contains drummed containers of solvent with moderate amounts of uranium. This material was segregated and disposed in this site because of the pyrolitic and explosive hazard of the solvent. Materials buried at this site were derived primarily from the 321 Building.

SITE DESCRIPTION: Two drive-in, east-west oriented trenches. The V-shaped pit in the center (~N56550) was used for thoria disposal.

CLEANUP ACTIONS: Both trenches were closed, backfilled, and covered with clean soil.

* Conflicting Dates

UNIT NAME: 618-8
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1943
END DATE: 1944

COORDINATES: S23665 E12766, S23665 E12666, S23068 E12759, S23069 E12659

WASTE TYPES AND AMOUNTS: The site was used mainly for the disposal of uranium-contaminated solid waste derived from reactor fuels manufacturing.

SITE DESCRIPTION: The unit contains a number of burial trenches. A parking lot was constructed over the majority of the site. Subsequently, the radiation monuments were cut down at grade.

UNIT NAME: 618-9
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1950
END DATE: 1954 (1956)*

COORDINATES: N55738 E11016, N55738 E10998, N55938 E11016, N55938 E10998

WASTE TYPES AND AMOUNTS: The site contains 55-gal drums of uranium-contaminated organic solvent (5,000 gal) from the 321 Building.

SITE DESCRIPTION: The unit consists of a trench 18 to 20 ft wide by 140 ft long (surface dimensions). Adjacent to the trench is a mound of contaminated soil from the 303 Area that was covered over with 4 ft of clean soil.

CLEANUP ACTIONS: The unit was removed from service, backfilled, identified with markers, and stabilized.

* Conflicting Dates

UNIT NAME: 618-13
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1951 (1950)*
END DATE: 1974 (1950)*

COORDINATES: N63343 W25821

WASTE TYPES AND AMOUNTS: This site received the topsoil from the 303 Building area. Total activity buried here is not known.

SITE DESCRIPTION: The unit consists of a mound of soil piled to ~50 ft high by 125 ft long by 50 ft wide, covered with 2 ft of clean soil. The mound of covered contaminated material has been posted as a radiation zone.

* Conflicting Dates

Other Waste Units Located Within the Operable Unit Area

300 Area Solvent Evaporator Evaporator

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UNIT NAME: 300 Area Solvent Evaporator
UNIT TYPE: Evaporator
WASTE CATEGORY: Mixed Waste

TSD: T-3-1
UNIT STATUS: Inactive
START DATE: 1975
END DATE: November 1985

COORDINATES: N55570 E14860

WASTE TYPES AND AMOUNTS: The unit received ~600 gal/yr of solvents and steam condensate. The solvents consisted mainly of spent trichlorethylene, perchloroethylene, 1,1,1-trichloroethane, and an ethyl acetate/bromine solution. Paint shop solvents that were potentially treated include methyl ethyl ketone, methylene chloride, and petroleum naphtha.

SITE DESCRIPTION: The unit was a treatment tank for radioactively contaminated spent solvents generated in the fuel fabrication process at 300 Area. Treatment of the wastes occurred by evaporation in a Brooks Load Lugger tank. The tank (Type A82; Series 3F) is 96 in. long, 65 in. wide (top), 50 in. wide (bottom), and 35 in. deep, with a sheet metal lid.

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Waste Units Assigned to this Operable Unit

300 Area Interim Filter Backwash Disposal	Neutralization Unit
309-TW-1	Storage Tank
309-TW-2	Storage Tank
309-TW-3	Storage Tank
315 Retired Sanitary Drain Field	Drain Field
331 LSL Drain Field	Drain Field
331 LSL Trench 1	Trench
331 LSL Trench 2	Trench
335 & 336 Retired Sanitary Drain Fields	Drain Field
618-6	Burial Ground
UN-300-4	Unplanned Release
UN-300-5	Unplanned Release
UN-300-7	Unplanned Release
UN-300-10	Unplanned Release
UN-300-12	Unplanned Release
UN-300-13	Unplanned Release
UN-300-17	Unplanned Release
UN-300-18	Unplanned Release
UN-300-39	Unplanned Release
UN-300-40	Unplanned Release
UN-300-42	Unplanned Release
UN-300-43	Unplanned Release
UN-300-44	Unplanned Release
UN-300-45	Unplanned Release

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SWMU: Yes

UNIT NAME: 300 Area Interim Filter Backwash Disposal
UNIT TYPE: Neutralization Unit
UNIT STATUS: Inactive
WASTE CATEGORY: Nonhazardous/Nonradioactive
START DATE: January 7, 1987
END DATE: April 14, 1987

COORDINATES: N55260 E12860

WASTE TYPES AND AMOUNTS: The unit received water and nonhazardous alum from backwashing filters used to filter water for sanitary and process use, ~650,000 gal. Analysis of the backwash has shown it to be nonhazardous.

UNIT NAME: 309-TW-1
SWMU: Yes
UNIT TYPE: Storage Tank
UNIT STATUS: Inactive
WASTE CATEGORY: Low-Level Waste
START DATE: 1960
END DATE: 1973

COORDINATES: N53650 E15300

WASTE TYPES AND AMOUNTS: The unit received aqueous nonhazardous radioactive wastes from the operation of the Plutonium Recycle Test Reactor (PRTR).

SITE DESCRIPTION: The capacity of the tanks is 5,026.

RELEASE POTENTIAL: The tanks are empty. The carbon-steel pipe to the 340 Complex retains residual radioactive contamination. The tanks are in a concrete underground vault.

UNIT NAME: 309-TW-2
UNIT TYPE: Storage Tank
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1960
END DATE: 1973

COORDINATES: N53650 E15300

WASTE TYPES AND AMOUNTS: The unit received aqueous nonhazardous radioactive wastes from the operation of the Plutonium Recycle Test Reactor (PRTR).

SITE DESCRIPTION: The capacity of the tanks is 5,141 gal.

RELEASE POTENTIAL: The tanks are empty. The carbon-steel pipe to the 340 Complex retains residual radioactive contamination. The tanks are in a concrete underground vault.

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UNIT NAME: 309-TW-3
UNIT TYPE: Storage Tank
WASTE CATEGORY: Low-Level Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1960
END DATE: 1973

COORDINATES: N53650 E15300

WASTE TYPES AND AMOUNTS: The unit received aqueous nonhazardous radioactive wastes from the operation of the Plutonium Recycle Test Reactor (PRTR).

SITE DESCRIPTION: The capacity of the tanks is 4,185 gal.

RELEASE POTENTIAL: The tanks are empty. The carbon-steel pipe to the 340 Complex retains residual radioactive contamination. The tanks are in a concrete underground vault.

UNIT NAME: 315 Retired Sanitary Drain Field
UNIT TYPE: Drain Field
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Inactive
START DATE: 1950
END DATE: 1978

COORDINATES: N54000 E16470

WASTE TYPES AND AMOUNTS: The unit received unknown amounts of sanitary wastes from office buildings.

UNIT NAME: 331 LSL Drain Field
UNIT TYPE: Drain Field
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Inactive
START DATE: 1970
END DATE: 1974

COORDINATES: N52250 E16600

WASTE TYPES AND AMOUNTS: The unit received ~0.66 gal/h of sanitary wastewater.

UNIT NAME: 331 LSL Trench 1
UNIT TYPE: Trench
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1966
END DATE: 1969

COORDINATES: N52200 E16600

WASTE TYPES AND AMOUNTS: The unit received ~9.0 gal/h of sanitary wastewater.

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UNIT NAME: 331 LSL Trench 2
UNIT TYPE: Trench
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1969
END DATE: 1974

COORDINATES: N52200 E16600

WASTE TYPES AND AMOUNTS: The unit received ~8.33 gal/h of sanitary wastewater.

UNIT NAME: 335 & 336 Retired Sanitary Drain Fields
UNIT TYPE: Drain Field
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Inactive
START DATE: 1973
END DATE: 1978

COORDINATES: N53870 E16140

WASTE TYPES AND AMOUNTS: The unit received unknown amounts of sanitary wastes from office buildings.

UNIT NAME: 618-6
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1944
END DATE: 1946

WASTE TYPES AND AMOUNTS: The unit contained solid uranium waste.

SITE DESCRIPTION: This unit no longer exists. It was originally located in the vicinity of the 325 Building and was moved two times thereafter due to the construction of buildings at its locations. It was first located at the site of the 325 Building from 1944 to 1946, next moved to the site of the 324 Building, existing from 1957 to 1962. In 1962, the contents were removed to the 618-10 Burial Ground when the area was needed for construction.

UNIT NAME: UN-300-4 **SWMU:** No
UNIT TYPE: Unplanned Release **START DATE:** 1945
WASTE CATEGORY: Mixed Waste **END DATE:** 1955
COORDINATES: N54280 E14200

WASTE TYPES AND AMOUNTS: Uranium.

KNOWN RELEASES: Leaks from equipment during the development of REDOX and PUREX processes.

CLEANUP ACTIONS: Removal of contaminated soil was considered a threat to the 321 Building.

UNIT NAME: UN-300-5 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** August 31, 1973
WASTE CATEGORY: Low-Level Waste

COORDINATES: N53700 E15250

WASTE TYPES AND AMOUNTS: Low-level radioactive water.

KNOWN RELEASES: The 309 Storage Basin fill line was left open, pouring water into the basin and causing it to overflow.

CLEANUP ACTIONS: The contaminated area was decontaminated. Asphalt cement was replaced over an area ~25 by 50 ft.

UNIT NAME: UN-300-7 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** August 7, 1972
WASTE CATEGORY: Hazardous Waste

COORDINATES: N54780 E14500

WASTE TYPES AND AMOUNTS: The release consisted of No. 6 fuel oil.

KNOWN RELEASES: Fuel oil overflowed a full day tank behind the 384 Building when oil was transferred from the storage bunker. The spilled oil was retained in the concrete valve pits around the day tanks and in the soil between and around these two adjacent tanks. Approximately 30 gal of oil flowed with waste water in the trench to a sewer system that empties into a sump in the southeast basement of the 384 Building.

CLEANUP ACTIONS: A portable pump air tank truck recovered ~800 gal of the oil. Conduits through the 384 Building foundation and the floor trench were flushed of all oil with hot water.

UNIT NAME: UN-300-10 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** Discovered 1977
WASTE CATEGORY: Mixed Waste

COORDINATES: N54025 E14670

WASTE TYPES AND AMOUNTS: Waste from the Radioactive Liquid Waste Sewer from the 352-B Hot Cells, including waste from dissolution of highly radioactive samples, such as irradiated reactor fuels.

KNOWN RELEASES: Leak testing of the radioactive liquid waste sewer identified a leak between the west basement wall of Room 32 in the 325 Building and the north foundation wall of Room 202.

CLEANUP ACTIONS: The line was capped and rerouted through the basement of the 325 Building.

UNIT NAME: UN-300-12 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** January 8, 1979
WASTE CATEGORY: Mixed Waste

COORDINATES: N54050 E14945

WASTE TYPES AND AMOUNTS: The site received radioactive rinse water overflow containing nitrate ions, Pr-147, fission products, and transuranic nuclides.

KNOWN RELEASES: Discharge of waste when a sewer valve was closed resulted in loss to the basement floor and leakage to the ground through a crack.

CLEANUP ACTIONS: Decontamination efforts on Room 50-A were completed. Removal of the contaminated soil was considered a threat to the 325 Building.

UNIT NAME: UN-300-13 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** July 31, 1973
WASTE CATEGORY: Mixed Waste

WASTE TYPES AND AMOUNTS: Spent process acid that included 4,432 lb of NO3, 447 lb of copper, and 3 lb (~0.005 Ci) of uranium.

KNOWN RELEASES: Spent acid leaked to the ground through a hole in a koroseal-lined mild steel receiving tank wall. The extent of contamination is not known.

CLEANUP ACTIONS: Caustic (1,910 lb) was added to neutralize the leak, and the tank was removed.

UNIT NAME: UN-300-17 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** September 2, 1979
WASTE CATEGORY: Mixed Waste

COORDINATES: N55300 E14900

KNOWN RELEASES: Rain caused uranium shavings in a garbage can to ignite. The can was inside a plastic-lined wooden burial box, which also caught on fire.

CLEANUP ACTIONS: The ground and burial box were covered with plastic.

UNIT NAME: UN-300-18 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** August 27, 1962
WASTE CATEGORY: Mixed Waste

WASTE TYPES AND AMOUNTS: Low-level cesium waste.

KNOWN RELEASES: Solution squirted unexpectedly out of drain hole when the drain plug was removed. Most of the liquid sprayed an employee. The amount released to the ground was not mentioned in the report.

CLEANUP ACTIONS: The employee was decontaminated. No mention of any cleanup to the environment.

UNIT NAME: UN-300-39 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** 1954
WASTE CATEGORY: Hazardous Waste

COORDINATES: N55100 E15375

WASTE TYPES AND AMOUNTS: Incoming caustic solution containing 50% sodium hydroxide.

KNOWN RELEASES: Leaking caustic storage tanks in the 311 Tank Farm contaminated the soil around the tanks.

UNIT NAME: UN-300-40 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** 1961
WASTE CATEGORY: Mixed Waste

COORDINATES: N55025 E14500

WASTE TYPES AND AMOUNTS: Uranium-bearing acid waste containing nitric and sulfuric acid with uranium in solution.

KNOWN RELEASES: In October 1974, broken drain connections between the pipe trench, the 303-F Building, and the process sewer were discovered. The bottom of the trench was severely eroded, indicating that a spill had occurred. The trench floor is still contaminated. Total volume of spilled material is unknown; however, evidence of uranium contamination of the soil has been found.

CLEANUP ACTIONS: Piping connections and the trench floor were repaired. Apparently, removal of contaminated soil was not pursued.

UNIT NAME: UN-300-42 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** October 12, 1983
WASTE CATEGORY: Hazardous Waste

COORDINATES: N54750 E14550

WASTE TYPES AND AMOUNTS: The release consisted of No. 6 fuel oil.

KNOWN RELEASES: Fuel oil overflowed from a tank onto the ground because of the failure of an automatic shutoff.

CLEANUP ACTIONS: Sand was spread over spill area to confine and absorb oil. Oil-soaked sand was removed from the spill area.

UNIT NAME: UN-300-43 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** July 1986
WASTE CATEGORY: Hazardous Waste

COORDINATES: N53850 E14460

WASTE TYPES AND AMOUNTS: The spill contained solvent-refined coal (light fraction), nonradioactive.

KNOWN RELEASES: The spill was caused by container failure due to corrosion.

CLEANUP ACTIONS: All discolored soil was removed.

UNIT NAME: UN-300-44 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** January 1985
WASTE CATEGORY: Mixed Waste

COORDINATES: N55320 E14350

WASTE TYPES AND AMOUNTS: 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). The spill area was possibly contaminated with byproduct waste material.

KNOWN RELEASES: While a new extrusion press was being installed, a leak was discovered in a section of process sewer line. The leak resulted in a discharge to the ground. It is unknown when the leak started. Spills in 313 Uranium Recovery Area could have entered this line, resulting in ground disposal of hazardous substances.

UNIT NAME: UN-300-45 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** Febuary 1985
WASTE CATEGORY: Mixed Waste

COORDINATES: N55050 E14510

WASTE TYPES AND AMOUNTS: The leak contained uranium-bearing waste acid identified as nitric and sulfuric with uranium in solution. Analysis showed the solution to contain 3,480 p/m NO3, 6,960 p/m SO4, and 920 p/m Uranium.

KNOWN RELEASES: A leak occurred from the uranium-bearing acid transfer line. The leak was the result of a gasket failure caused by freezing of the solution in the line.

CLEANUP ACTIONS: Some soil was exhumed, packaged, and sent to the Low-Level Burial Grounds for disposal. The effectiveness of the cleanup is undetermined.

Other Waste Units Located Within the Operable Unit Area

300 Area Powerhouse HWSA	Satellite Area
303-K Contaminated Waste Storage	Storage Facility
303-M Storage Area	Storage Facility
303-M Uranium Oxide Facility	Test Treatment or Support Facility
304 Concretion Facility	Test Treatment or Support Facility
304 Storage Area	Storage Facility
305-B Storage Facility	Storage Facility
311 Methanol Tank 1	Storage Tank
311 Methanol Tank 2	Storage Tank
311 Neutralized Waste Tank 1	Storage Tank
311 Neutralized Waste Tank 2	Storage Tank
313 Centrifuge	Equipment
313 Copper Remelt Operations	Test Treatment or Support Facility
313 East Side Storage Pad	Storage Pad
313 Filter Press	Equipment
313 Methanol Tank	Storage Tank
313 Uranium Recovery Operations	Test Treatment or Support Facility
313 Waste Acid Neutralization Tank	Neutralization Tank
323 Tank 1	Storage Tank
323 Tank 2	Storage Tank
323 Tank 3	Storage Tank
323 Tank 4	Storage Tank
324 Sodium Removal Pilot Plant	Test Treatment or Support Facility
325 Waste Treatment Facility	Test Treatment or Support Facility
331-C HWSA	Staging Area
333 Chromium Treatment Tank 1	Storage Tank
333 Chromium Treatment Tank 2	Storage Tank
333 East Side HWSA	Staging Area
333 East Side Heat Treat Salt Storage Area	Storage Facility
333 Laydown HWSA	Staging Area
333 West Side Waste Oil Tank	Storage Tank
334 Tank Farm Waste Acid Storage Tank	Storage Tank
334-A Waste Acid Storage Tank 1	Storage Tank
334-A Waste Acid Storage Tank 2	Storage Tank
350 HWSA	Staging Area
3712 Uranium Scrap Storage Area	Storage Facility
3713 Paint Shop Hazardous Waste Satellite Area	Staging Area
3713 Sign Shop Hazardous Waste Satellite Area	Satellite Area
3718-F Burn Shed	Test Treatment or Support Facility
3718-F Storage Facility	Storage Facility
3718-F Treatment Tank 1	Storage Tank
3718-F Treatment Tank 2	Storage Tank
3746-D Silver Recovery	Test Treatment or Support Facility
Biological Treatment Test Facilities	Test Treatment or Support Facility
Physical and Chemical Treatment Test Facilities	Test Treatment or Support Facility
Thermal Treatment Test Facilities	Test Treatment or Support Facility

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UNIT NAME: 300 Area Powerhouse HWSA
UNIT TYPE: Satellite Area
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1940's

COORDINATES: N54750 E14550

WASTE TYPES AND AMOUNTS: This area is no longer used to stage hazardous wastes. The outside area typically contains nonregulated waste oils.

UNIT NAME: 303-K Contaminated Waste Storage
UNIT TYPE: Storage Facility
WASTE CATEGORY: Mixed Waste

TSD: S-3-1
UNIT STATUS: Active
START DATE: 1/86 (1954)*

COORDINATES: N55050 E14220

WASTE TYPES AND AMOUNTS: The area is used for storage of containers of small quantities of miscellaneous wastes (waste oils, cutting lubricants) potentially contaminated with uranium and the occasional storage of concreted waste from the 304 Facility, heat treat salts, and solids from 313 recovery operations. Approximately fifty to one hundred 55-gal drums/yr are accumulated.

SITE DESCRIPTION: The liquid wastes are stored on a pad in a 600 sq ft area within the building. The solid wastes are stored outside the building on an asphalt and concrete pad with an area of ~3,500 sq ft. The storage area is surrounded by a chain link fence.

RELEASE POTENTIAL: Spills inside the building would typically result in releases to the process sewer system. Outside storage is primarily on asphalt. (No berms).

* Conflicting Dates

UNIT NAME: 303-M Storage Area
UNIT TYPE: Storage Facility
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: May 1983

COORDINATES: N55570 E14890

WASTE TYPES AND AMOUNTS: The area was used for storage of uranium metal chips and fines (ignitable) awaiting treatment in the 303-M Oxidation Facility. Waste quantities were estimated at 31 tons/yr (FY 1986 generation rate).

RELEASE POTENTIAL: The liquid level in the drums is maintained above the level of chips and fines for the purposes of preventing ignition. Containers are stored on a fenced concrete pad.

UNIT NAME: 303-M Uranium Oxide Facility
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

TSD: T-3-2
UNIT STATUS: Inactive
START DATE: May 1983

COORDINATES: N55570 E14890

WASTE TYPES AND AMOUNTS: The oxidation process feed material was uranium containing zircalloy-2 metal chips and fines (ignitable). Approximately 31 tons/yr uranium (FY 1986 generation rate) were converted to a nonignitable oxide via incineration.

KNOWN RELEASES: Liquids (primarily water with potentially trace quantities of metals) have been poured from drums of metal waste into the process sewer drain during processing. Sump screens are used to collect the metal fines. Based upon the applicable material safety data sheets, the liquid poured from the drums is nonhazardous. Verification analyses are underway.

RELEASE POTENTIAL: Uranium containing zircaloy-2 metal fines and chips is stored in water-filled drums prior to oxidation; drums of uranium oxide and zirconium oxide powder are stored after processing.

UNIT NAME: 304 Concretion Facility
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

TSD: TS-3-2
UNIT STATUS: Active
START DATE: 1/69 (1971)*

COORDINATES: N54900 E14210

WASTE TYPES AND AMOUNTS: Previous waste for treatment consisted of scrap metal (beryllium/zirconium alloy) lathe chips and depleted uranium (2.1%) chips and fines.

KNOWN RELEASES: Liquids (primarily water with potentially trace quantities of metals) have been poured from drums of metal waste into the 300 Area process trenches during processing. A screened sump is used to collect metal fines. Based upon a review of the applicable material safety data sheets the liquid poured from the drums has been declared nonhazardous.

RELEASE POTENTIAL: Ignitable, depleted uranium metal fines and turnings are stored in water-filled drums prior to concretion (solidification in containers); concreted drums of scrap metal are stored after processing.

* Conflicting Dates

UNIT NAME: 304 Storage Area
UNIT TYPE: Storage Facility
WASTE CATEGORY: Mixed Waste

TSD: TS-3-2
UNIT STATUS: Inactive
START DATE: 1/69 (1971)*

COORDINATES: N54900 E14220

WASTE TYPES AND AMOUNTS: Currently, no wastes are in storage at this facility. The area was used for storage of containers of miscellaneous, potentially contaminated wastes, primarily heat treat salts (sodium chloride, potassium chloride, sodium nitrate, and potassium nitrate), depleted uranium chips and fines (ignitable), and beryllium/zirconium chips and fines (ignitable and carcinogenic). The chips and fines were in storage awaiting concretion. Approximately fifty to one hundred 55-gal drums/yr were accumulated.

RELEASE POTENTIAL: Waste is stored mainly in drums on an asphalt pad.

* Conflicting Dates

UNIT NAME: 305-B Storage Facility
UNIT TYPE: Storage Facility
WASTE CATEGORY: Mixed Waste

TSD: S-3-2
UNIT STATUS: Active
START DATE: January 1978

COORDINATES: N55200 E14000

WASTE TYPES AND AMOUNTS: The wastes consist of listed wastes, wastes from nonspecific sources, characteristic wastes, and state-only wastes.

SITE DESCRIPTION: The unit is a waste assembly area that services Research and Development operations as a 300 Area satellite storage area. Wastes are brought to the facility for storage, repackaging, and/or waste consolidation. The storage design capacity is 30,000 gal.

UNIT NAME: 311 Methanol Tank 1
UNIT TYPE: Storage Tank
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1955
END DATE: 1971

COORDINATES: N55100 E14570

WASTE TYPES AND AMOUNTS: The unit contained ~10,000 gal of a 4% aqueous solution of methanol. Methanol was previously used as a drying agent for the aluminum cleaning process.

CLEANUP ACTIONS: The unit was emptied in 1987, and removed on August 30, 1989. Sampling and visual inspection indicated the area around the unit was not contaminated. The excavation was backfilled.

RELEASE POTENTIAL: This unit has an asphalt protective coating.

UNIT NAME: 311 Methanol Tank 2
UNIT TYPE: Storage Tank
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1955
END DATE: 1971

COORDINATES: N55100 E14570

WASTE TYPES AND AMOUNTS: The unit contained ~10,000 gal of a 4% aqueous solution of methanol. Methanol was previously used as a drying agent for the aluminum cleaning process.

CLEANUP ACTIONS: The unit was emptied in 1987, and removed on August 30, 1989. Sampling and visual inspection indicated the area around the unit was not contaminated. The excavation was backfilled.

RELEASE POTENTIAL: The unit has an asphalt protective coating.

UNIT NAME: 311 Neutralized Waste Tank 1
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

TSD: TS-3-1
UNIT STATUS: Inactive
START DATE: 3/73 (1971)*

COORDINATES: N55100 E14570

WASTE TYPES AND AMOUNTS: The unit is currently empty. It received 420,000 gal/yr of waste solutions consisting of neutralized liquid from the nonrecoverable uranium stream and filtrate from processing of the uranium-bearing waste stream from the 313 Building recovery operations.

SITE DESCRIPTION: Constructed of stainless steel with a 4,000-gal capacity.

RELEASE POTENTIAL: The unit is located inside concrete containment, which would permit recovery of leaked solution. One tank truck (3,000-gal capacity) is used to transport the solution to the 340 Complex.

* Conflicting Dates

UNIT NAME: 311 Neutralized Waste Tank 2 **TSD:** TS-3-1
UNIT TYPE: Storage Tank **UNIT STATUS:** Active
WASTE CATEGORY: Mixed Waste **START DATE:** 3/73 (1971)*

COORDINATES: N55100 E14570

WASTE TYPES AND AMOUNTS: The unit receives 420,000 gal/yr of waste solutions consisting of neutralized liquid from the nonrecoverable uranium stream and filtrate from processing of the uranium-bearing waste stream from the 313 Building recovery operations. Occasionally used for decanting wastes.

SITE DESCRIPTION: Constructed of stainless steel with a 5,000-gal capacity.

RELEASE POTENTIAL: The unit is located inside concrete containment, which would permit recovery of leaked solution. One tank truck (3,000-gal capacity) is used to transport the solution to the 340 Complex.

* Conflicting Dates

UNIT NAME: 313 Centrifuge **TSD:** TS-3-1
UNIT TYPE: Equipment **UNIT STATUS:** Active
WASTE CATEGORY: Mixed Waste **START DATE:** April 1973

COORDINATES: N55320 E14350

SITE DESCRIPTION: Part of the 300 Area Waste Acid Treatment System.

UNIT NAME: 313 Copper Remelt Operations
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Inactive
START DATE: Early 1970's

COORDINATES: N55320 E14350

WASTE TYPES AND AMOUNTS: Copper-silicon alloy waste from the fuel fabrication process was melted, cast, and machined in preparation for reuse. The unit processed 600 lb/d when in operation.

RELEASE POTENTIAL: The recycling process involves melting, casting and metal working.

UNIT NAME: 313 East Side Storage Pad
UNIT TYPE: Storage Pad
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: Pre-1950

COORDINATES: N55050 E14460

WASTE TYPES AND AMOUNTS: This area is no longer used to stage hazardous wastes. It was used for storage of byproduct waste materials from the fuels fabrication process, including neutralized solids (sodium fluoride; sodium nitrate; sodium sulfate; and metal precipitates, including copper uranium, zirconium) from the 313 Recovery Operations process. Approximately 320,000 lb/yr (total for this waste stream for the 313 Building, inside and outside storage, and at the 303-K Storage Pad) were accumulated.

UNIT NAME: 313 Filter Press
UNIT TYPE: Equipment
WASTE CATEGORY: Mixed Waste

TSD: TS-3-1
UNIT STATUS: Active
START DATE: April 1973

COORDINATES: N55320 E14350

SITE DESCRIPTION: Part of the 300 Area Waste Acid Treatment System.

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UNIT NAME: 313 Methanol Tank
UNIT TYPE: Storage Tank
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1955
END DATE: 1971

COORDINATES: N55320 E14350

WASTE TYPES AND AMOUNTS: Prior to 1987, the unit contained ~600 gal of an aqueous solution of methanol.

CLEANUP ACTIONS: The unit was emptied in 1987, and removed on August 30, 1989. Sampling and visual inspection indicated the area around the unit was not contaminated. The excavation was backfilled.

UNIT NAME: 313 Uranium Recovery Operations
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: Pre-1950

COORDINATES: N55370 E14350

WASTE TYPES AND AMOUNTS: The unit receives ~270,000 gal/yr of waste acids from the fuels fabrication process containing nonrecoverable and recoverable uranium. Approximately 28.4 tons of uranium are recovered (FY 1986 generation rate).

KNOWN RELEASES: UPR-300-38.

RELEASE POTENTIAL: Waste acid solutions and sodium hydroxide are contained in storage and processing tanks; uranium precipitates from filter press operation are stored in drums, sodium salts and metal precipitates from centrifugation of neutralized waste acid streams. Any spills would generally result in a release to 300 Area process trenches.

UNIT NAME: 313 Waste Acid Neutralization Tank
UNIT TYPE: Neutralization Tank
WASTE CATEGORY: Mixed Waste

TSD: TS-3-1
UNIT STATUS: Active
START DATE: April 1973

COORDINATES: N55320 E14350

SITE DESCRIPTION: Part of the 300 Area Waste Acid Treatment System.

UNIT NAME: 323 Tank 1
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1945
END DATE: 1968

COORDINATES: N54120 E14150

WASTE TYPES AND AMOUNTS: The unit received uranium-contaminated water and acid solutions from reprocessing research and development. The volume of liquid remaining is unknown.

SITE DESCRIPTION: The 20,000-gal unit is located in a vault.

RELEASE POTENTIAL: The tanks are encased in an underground concrete vault. Three of the four tanks are empty or have been filled with sand.

UNIT NAME: 323 Tank 2
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1945
END DATE: 1968

COORDINATES: N54120 E14150

WASTE TYPES AND AMOUNTS: The unit received uranium-contaminated water and acid solutions from reprocessing research and development. The volume of liquid remaining is unknown.

SITE DESCRIPTION: The 20,000-gal unit is located in a vault.

RELEASE POTENTIAL: The tanks are encased in an underground concrete vault. Three of the four tanks are empty or have been filled with sand.

UNIT NAME: 323 Tank 3
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1945
END DATE: 1968

COORDINATES: N54120 E14150

WASTE TYPES AND AMOUNTS: The unit received uranium-contaminated water and acid solutions from reprocessing research and development. The volume of liquid remaining is unknown.

SITE DESCRIPTION: The 20,000-gal unit is located in a vault.

RELEASE POTENTIAL: The tanks are encased in an underground concrete vault. Three of the four tanks are empty or have been filled with sand.

UNIT NAME: 323 Tank 4
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1945
END DATE: 1968

COORDINATES: N54120 E14150

WASTE TYPES AND AMOUNTS: The unit received uranium-contaminated water and acid solutions from reprocessing research and development. The volume of liquid remaining is unknown.

SITE DESCRIPTION: The 20,000-gal unit is located in a vault.

RELEASE POTENTIAL: The tanks are encased in an underground concrete vault. Three of the four tanks are empty or have been filled with sand.

UNIT NAME: 324 Sodium Removal Pilot Plant
TSD: T-3-3
UNIT TYPE: Test Treatment or Support Facility
UNIT STATUS: Active
WASTE CATEGORY: Mixed Waste
START DATE: 1979

COORDINATES: N54000 E15700

SITE DESCRIPTION: The unit is an RMW alkali metal treatment facility (no longer than 90 day storage). Treatment occurs in a steel tank that is used to circulate nitrogen or argon with water vapor to react with the alkali metal on the component being processed.

UNIT NAME: 325 Waste Treatment Facility
TSD: T-3-4
UNIT TYPE: Test Treatment or Support Facility
UNIT STATUS: Active
WASTE CATEGORY: Mixed Waste
START DATE: 1978

COORDINATES: N54025 E15000

WASTE TYPES AND AMOUNTS: Wastes handled in this facility include listed wastes, wastes from nonspecific sources, characteristic wastes, and state-only wastes.

SITE DESCRIPTION: The facility serves two purposes: 1) to treat small quantities of diverse chemical and radioactive mixed wastes generated from ongoing R & D activities, and 2) to serve as an R & D facility to test and evaluate the effectiveness of thermal, physical/chemical, and/or biological treatment technologies.

UNIT NAME: 331-C HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1970

COORDINATES: N52220 E16530

WASTE TYPES AND AMOUNTS: The area typically contains corrosives, ignitables, and regulated empty containers, ~600 gal/yr total.

UNIT NAME: 333 Chromium Treatment Tank 1
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

TSD: TS-3-1
UNIT STATUS: Inactive
START DATE: 1963

COORDINATES: N55450 E14770

WASTE TYPES AND AMOUNTS: The unit is empty. It was used for storage of spent etch acids (nitric and sulfuric acid with uranium in solution). Estimated accumulation rate was 60,000 gal/yr. Not all of this volume was routed to the storage tanks outdoors; most was routed to a storage tank inside the facility.

RELEASE POTENTIAL: The unit is located within a concrete containment curbing that would allow recovery of any leakage.

UNIT NAME: 333 Chromium Treatment Tank 2 **TSD:** TS-3-1
UNIT TYPE: Storage Tank **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste **START DATE:** 1963

COORDINATES: N55450 E14770

WASTE TYPES AND AMOUNTS: The unit is empty. It was used for storage of spent etch acids (nitric and sulfuric acid with uranium in solution). Estimated accumulation rate was 60,000 gal/yr. Not all of this volume was routed to the storage tanks outdoors; most was routed to a storage tank inside the facility.

RELEASE POTENTIAL: The unit is located within a concrete containment curbing that would allow recovery of any leakage.

UNIT NAME: 333 East Side HWSA **SWMU:** Yes
UNIT TYPE: Staging Area **UNIT STATUS:** Active
WASTE CATEGORY: Hazardous Waste **START DATE:** 1964

COORDINATES: N55530 E14850

WASTE TYPES AND AMOUNTS: The area contains miscellaneous small quantities of waste oils, cutting lubricants, chemicals, and solvents, etc. stored in containers. In previous years, the area was used for miscellaneous radioactive and hazardous waste storage. Approximately twenty-five to fifty 55-gal drums/yr are accumulated.

KNOWN RELEASES: For many years, the fenced area behind 333 Building has been used for storage of miscellaneous wastes in drums. There are undocumented reports of past leakage from drums. Previous storage techniques included storage on the ground, resulting in potential for spills to the ground.

SWMU: Yes

UNIT NAME: 333 East Side Heat Treat Salt Storage Area
UNIT TYPE: Storage Facility
WASTE CATEGORY: Mixed Waste

UNIT STATUS: Inactive
START DATE: 1964

COORDINATES: N55320 E14850

WASTE TYPES AND AMOUNTS: This area is no longer used for storing hazardous wastes. It has 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 55-gal drums/yr were accumulated.

UNIT NAME: 333 Laydown HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1971

COORDINATES: N55700 E14850

WASTE TYPES AND AMOUNTS: The area typically contains corrosive and EP toxic (for chromium) wastes.

KNOWN RELEASES: There have been several small incidences of spillage. Spilled materials are probably oils from excess equipment stored at the laydown area.

UNIT NAME: 333 West Side Waste Oil Tank
UNIT TYPE: Storage Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: August 1972

COORDINATES: N55500 E14760

WASTE TYPES AND AMOUNTS: The unit is used for storage of waste oil from the extrusion press sump. Waste oil is verified to be non-PCB and nonignitable prior to removal for offsite shipment. Approximately 500 to 1,000 gal/yr are accumulated.

RELEASE POTENTIAL: Waste oil is stored in an outdoor storage tank. The tank is located within a concrete containment that would permit the recovery of any leakage.

UNIT NAME: 334 Tank Farm Waste Acid Storage Tank
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1971
END DATE: January 1986

COORDINATES: N55500 E14900

WASTE TYPES AND AMOUNTS: The unit was used infrequently for storage of waste acids containing nonrecoverable uranium from the fuel fabrication process.

KNOWN RELEASES: On January 2, 1986, ~350 gal of waste acid leaked from the tank as a result of liner failure. Approximately 170 lb of hydrofluoric acid was discharged to the process sewer system, which discharges to the 300 Area Process Trenches. The tank was permanently removed from service following this spill.

CLEANUP ACTIONS: Sodium hydroxide solution (60 gal of 50% NaOH) was added to the process trenches via the 313 process sewer system to maintain a nonacidic pH at the process trenches.

UNIT NAME: 334-A Waste Acid Storage Tank 1 **TSD:** TS-3-1
UNIT TYPE: Storage Tank **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste **START DATE:** 4/73 (1/75)*

COORDINATES: N55470 E14900

WASTE TYPES AND AMOUNTS: The unit is empty. It received 210,000 gal/yr of waste acids from the fuel fabrication process. The waste contained nonrecoverable uranium (primarily hydrofluoric, nitric, sulfuric, and chromic acids, with copper, zirconium, and uranium in solution).

KNOWN RELEASES: Spills have occurred from this location. Liquids were discharged to the 300 Area process ponds or trenches through an open valve in the 334-A Pit. The valve is now kept closed. UPR-300-28.

RELEASE POTENTIAL: Spills discharge from the tank into a concrete pit, permitting the recovery of spilled solutions. A spill alarm in the pit alerts operating personnel of the presence of liquid.

* Conflicting Dates

UNIT NAME: 334-A Waste Acid Storage Tank 2 **TSD:** TS-3-1
UNIT TYPE: Storage Tank **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste **START DATE:** 4/73 (1/75)*

COORDINATES: N55470 E14900

WASTE TYPES AND AMOUNTS: The unit is empty. It received 210,000 gal/yr of waste acids from the fuel fabrication process. The waste contained nonrecoverable uranium (primarily hydrofluoric, nitric, sulfuric, and chromic acids, with copper, zirconium, and uranium in solution).

KNOWN RELEASES: Spills have occurred from this location. Liquids were discharged to the 300 Area process ponds or trenches through an open valve in the 334-A Pit. The valve is now kept closed. UPR-300-28.

RELEASE POTENTIAL: Spills discharge from the tank into a concrete pit, permitting the recovery of spilled solutions. A spill alarm in the pit alerts operating personnel of the presence of liquid.

* Conflicting Dates

UNIT NAME: 350 HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1982

COORDINATES: N52500 E14600

WASTE TYPES AND AMOUNTS: Typically, the area contains ~600 gal/yr of corrosives, 600 gal/yr of used oils and PCB-contaminated oils, and 40 nonregulated, empty containers per year.

UNIT NAME: 3712 Uranium Scrap Storage Area
UNIT TYPE: Storage Facility
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1960

COORDINATES: N55100 E14570

WASTE TYPES AND AMOUNTS: The unit is used to store uranium scrap awaiting transportation for recovery to the feed site (Fernald, Ohio). Waste quantities are estimated at 140 tons/yr (FY 1986 generation rate). Previously, the area was used to store concreted billets of ignitable uranium chips and fines.

KNOWN RELEASES: A fire occurred in this facility in July 1979 when concreted uranium chips and fines ignited and again in 1985 when uranium fines in a scrap box ignited.

CLEANUP ACTIONS: The facility was decontaminated after each fire.

SWMU: Yes

UNIT NAME: 3713 Paint Shop Hazardous Waste Satellite Area
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

UNIT STATUS: Inactive
START DATE: 1984
END DATE: 1987

COORDINATES: N54850 E13950

WASTE TYPES AND AMOUNTS: Hazardous wastes are no longer accumulated at this facility. The paint shop was moved. The area contained miscellaneous small quantities (less than 55 gal accumulated at any one time) of waste solutions, including solvents and paint shop solids from sign and paint shop operations. Approximately 55 gal/yr were accumulated.

SWMU: Yes

UNIT NAME: 3713 Sign Shop Hazardous Waste Satellite Area
UNIT TYPE: Satellite Area
WASTE CATEGORY: Hazardous Waste

UNIT STATUS: Inactive
START DATE: 1984

COORDINATES: N54850 E13950

WASTE TYPES AND AMOUNTS: Hazardous wastes are no longer staged at this facility. The area contained miscellaneous small quantities (less than 55 gal accumulated at any one time) of waste solutions (nonsolvents) from sign shop operations. Less than 55 gal/yr were accumulated.

UNIT NAME: 3718-F Burn Shed
TSD: TS-3-3
UNIT TYPE: Test Treatment or Support Facility
UNIT STATUS: Inactive
WASTE CATEGORY: Hazardous Waste
START DATE: September 1968

COORDINATES: N54130 E15950

WASTE TYPES AND AMOUNTS: Wastes consisted of sodium, lithium and sodium-potassium alloys. Small quantities of reactive laboratory wastes were also capable of being treated at this facility.

RELEASE POTENTIAL: This facility is part of the 3718-F Alkali Metal Treatment Facility used for the treatment and storage of materials contaminated with alkali metal wastes.

UNIT NAME: 3718-F Storage Facility
TSD: TS-3-3
UNIT TYPE: Storage Facility
UNIT STATUS: Inactive
WASTE CATEGORY: Hazardous Waste
START DATE: September 1968

COORDINATES: N54130 E15950

WASTE TYPES AND AMOUNTS: Hazardous wastes are no longer stored in this facility. The wastes consisted of sodium, lithium, and sodium alloys. Small quantities of reactive laboratory wastes were also capable of being treated at this facility.

SITE DESCRIPTION: Part of the 3718-F Alkali Metal Treatment Facility used for the treatment and storage of materials contaminated with alkali metal wastes.

RELEASE POTENTIAL: Typically, the largest single container is 55 gal. Waste is stored inside the building.

UNIT NAME: 3718-F Treatment Tank 1
UNIT TYPE: Storage Tank
WASTE CATEGORY: Hazardous Waste

TSD: TS-3-3
UNIT STATUS: Inactive
START DATE: September 1968

COORDINATES: N54130 E15950

WASTE TYPES AND AMOUNTS: Wastes consisted of sodium, lithium, sodium-potassium alloys, and small quantities of reactive laboratory wastes.

SITE DESCRIPTION: Part of the 3718-F Alkali Metal Treatment Facility used for the treatment and storage of materials contaminated with alkali metal wastes.

UNIT NAME: 3718-F Treatment Tank 2
UNIT TYPE: Storage Tank
WASTE CATEGORY: Hazardous Waste

TSD: TS-3-3
UNIT STATUS: Inactive
START DATE: September 1968

COORDINATES: N54130 E15950

WASTE TYPES AND AMOUNTS: Wastes consisted of sodium, lithium, sodium-potassium alloys, and small quantities of reactive laboratory wastes.

SITE DESCRIPTION: Part of the 3718-F Alkali Metal Treatment Facility used for the treatment and storage of materials contaminated with alkali metal wastes.

UNIT NAME: 3746-D Silver Recovery
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1967

COORDINATES: N54975 E13725

WASTE TYPES AND AMOUNTS: Corrosive silver containing waste photochemicals (1,530 gal/yr) are processed for reclamation of silver (1119.19 troy oz/yr).

KNOWN RELEASES: Process effluent is discharged to the 300 Area Process Trenches.

TSD: T-X-1

UNIT NAME: Biological Treatment Test Facilities
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

UNIT STATUS: Active
START DATE: January 1988

COORDINATES: N52700 E16600

WASTE TYPES AND AMOUNTS: Wastes include listed waste, waste from nonspecific sources, characteristic wastes, and state-only wastes.

SITE DESCRIPTION: These technologies treat RMW and hazardous waste constituents in soil, effluents, and groundwater through the use of microorganisms.

TSD: T-X-2

UNIT NAME: Physical and Chemical Treatment Test Facilities
UNIT TYPE: Test Treatment or Support Facility **UNIT STATUS:** Active
WASTE CATEGORY: Mixed Waste **START DATE:** January 1979

WASTE TYPES AND AMOUNTS: Waste includes listed wastes, wastes from nonspecific sources, characteristic wastes, and state-only wastes.

SITE DESCRIPTION: The treatment of RMW and hazardous waste via various physical and chemical treatment R & D processes. The primary processes are grout treatment and distillation.

UNIT NAME: Thermal Treatment Test Facilities **TSD:** T-X-3
UNIT TYPE: Test Treatment or Support Facility **UNIT STATUS:** Active
WASTE CATEGORY: Mixed Waste **START DATE:** January 1978

COORDINATES: N53925 E14900

WASTE TYPES AND AMOUNTS: Wastes include listed wastes, wastes from nonspecific sources, characteristic wastes, and state-only wastes.

SITE DESCRIPTION: The treatment of RMW and hazardous wastes via various thermal treatment R & D processes. The primary processes are in situ vitrification and waste vitrification.

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Waste Units Assigned to this Operable Unit

400 Area French Drain 1A	French Drain
400 Area French Drain 1B	French Drain
400 Area French Drain 2	French Drain
400 Area French Drain 3	French Drain
400 Area French Drain 4	French Drain
400 Area French Drain 5	French Drain
400 Area French Drain 6	French Drain
400 Area French Drain 7	French Drain
400 Area French Drain 8	French Drain
400 Area French Drain 9	French Drain
400 Area French Drain 10	French Drain
400 Area French Drain 10A	French Drain
400 Area Process Pond and Sewer System	Pond
400 Area Retired French Drains	French Drain
400 Area Retired Sanitary Pond	Pond
400 Area Retired Septic Tanks	Septic Tank
400 Area Sand Bottom Trench	Trench
400 Area Sanitary Sewer	Drain Field
400 Area Sanitary Tile Field	Drain Field
403 French Drain	French Drain
4713-B French Drain	French Drain
4721 French Drain	French Drain
4722-B French Drain	French Drain
4722-C French Drain	French Drain
4831 Laydown HWSA	Staging Area
UN-400-1	Unplanned Release

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UNIT NAME: 400 Area French Drain 1A
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1979

COORDINATES: S1020 W7560

WASTE TYPES AND AMOUNTS: The unit receives 1.6 L/h of water condensate from building air cooling systems and janitorial solutions (water and detergents).

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 400 Area French Drain 1B
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1979

COORDINATES: S1040 W7450

WASTE TYPES AND AMOUNTS: The unit receives 0.6 L/h of water condensate from building air cooling systems and janitorial solutions (water and detergents).

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 400 Area French Drain 2
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1979

COORDINATES: S1160 W7375

WASTE TYPES AND AMOUNTS: The unit receives 0.2 L/h of water condensate from building air cooling systems and janitorial solutions (water and detergents).

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

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UNIT NAME: 400 Area French Drain 3
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1979

COORDINATES: S1410 W7340

WASTE TYPES AND AMOUNTS: The unit receives 0.22 L/h of rain water.

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 400 Area French Drain 4 **SWMU:** No
UNIT TYPE: French Drain **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1979

COORDINATES: S1480 W7475

WASTE TYPES AND AMOUNTS: The unit receives ~2,000 gal/yr of dilute sodium carbonate, condensate, and floor drain effluent.

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 400 Area French Drain 5 **SWMU:** No
UNIT TYPE: French Drain **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1979

COORDINATES: S1500 W7900

WASTE TYPES AND AMOUNTS: The unit receives 0.22 L/h of water condensate from building air cooling systems, janitorial supplies (detergents and water), and 2% sodium carbonate solution.

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 400 Area French Drain 6 | **SWMU:** No
UNIT TYPE: French Drain | **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive | **START DATE:** 1979

COORDINATES: S1550 W7900

WASTE TYPES AND AMOUNTS: The unit receives 100 gal/yr of condensate from building air cooling systems and floor drain effluent.

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 400 Area French Drain 7 | **SWMU:** No
UNIT TYPE: French Drain | **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive | **START DATE:** 1979

COORDINATES: S1220 W7820

WASTE TYPES AND AMOUNTS: The unit receives 0.2 L/h of water condensate from building air cooling systems and janitorial solutions (water and detergents).

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 400 Area French Drain 8 **SWMU:** No
UNIT TYPE: French Drain **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1979

COORDINATES: S1030 W7790

WASTE TYPES AND AMOUNTS: The unit receives 7 L/h of water condensate from building air cooling systems and janitorial solutions (water and detergents).

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

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UNIT NAME: 400 Area French Drain 9 **SWMU:** No
UNIT TYPE: French Drain **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1979

COORDINATES: S1140 W7900

WASTE TYPES AND AMOUNTS: This unit receives 4.8 L/h of janitorial solutions (water and detergents), drinking water, and water softener wastewater.

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 400 Area French Drain 10
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1979

COORDINATES: S1050 W7950

WASTE TYPES AND AMOUNTS: The unit receives 0.043 L/h of water from leaking valves, etc. in the 482A and 482E Water Storage Tank buildings.

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

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UNIT NAME: 400 Area French Drain 10A
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1979

COORDINATES: S1130 W7840

WASTE TYPES AND AMOUNTS: The unit receives 0.043 L/h of water from leaking valves, etc. in the 482A and 482E Water Storage Tank buildings.

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 400 Area Process Pond and Sewer System
SWMU: Yes
UNIT TYPE: Pond
UNIT STATUS: Active
WASTE CATEGORY: Nonhazardous/Nonradioactive
START DATE: 1979

WASTE TYPES AND AMOUNTS: 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 building cooling towers contains algicides and other treatment chemicals (Endcor 4690, Dearicide 702, and Dearicide 717) in concentrations below regulatory limits. Drains and sumps collect nonhazardous leaks, spills, or rain. The flow rate to the unit is ~6M gal/yr

SITE DESCRIPTION: The unit consists of two shallow basins. The basins are used alternately.

UNIT NAME: 400 Area Retired French Drains
SWMU: Yes
UNIT TYPE: French Drain
UNIT STATUS: Inactive
WASTE CATEGORY: Nonhazardous/Nonradioactive

COORDINATES: S850 W8000

WASTE TYPES AND AMOUNTS: The unit received unknown amounts of water used during construction for washing components prior to installation.

UNIT NAME: 400 Area Retired Sanitary Pond
UNIT TYPE: Pond
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1972
END DATE: 1979

COORDINATES: S1800 W8650

WASTE TYPES AND AMOUNTS: The unit received 12,000 gal/d of aqueous wastes from a portable sanitary sewage treatment plant that was located adjacent to the pond. Sludges (nonhazardous) were hauled offsite for disposal during operation.

UNIT NAME: 400 Area Retired Septic Tanks
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Inactive
START DATE: 1979
END DATE: 1983

COORDINATES: S1780 W7450, S1860 W7240, S1890 W7190

WASTE TYPES AND AMOUNTS: The units received unknown amounts of sanitary wastes from offices.

UNIT NAME: 400 Area Sand Bottom Trench **SWMU:** Yes
UNIT TYPE: Trench **UNIT STATUS:** Inactive
WASTE CATEGORY: Nonhazardous/Nonradioactive

COORDINATES: S820 W7800

WASTE TYPES AND AMOUNTS: The unit received unknown amount of cooling tower blowdown (nonhazardous).

SITE DESCRIPTION: The unit was concrete-lined and connected to the process sewer.

716573

UNIT NAME: 400 Area Sanitary Sewer **SWMU:** No
UNIT TYPE: Drain Field **UNIT STATUS:** Active
WASTE CATEGORY: Nonhazardous/Nonradioactive **START DATE:** 1979

COORDINATES: S1760 W9120

WASTE TYPES AND AMOUNTS: The unit receives sanitary wastewater from offices. Flow through the system averages 15,000 gal/d.

UNIT NAME: 400 Area Sanitary Tile Field
UNIT TYPE: Drain Field
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1982

COORDINATES: S2050 W9420

WASTE TYPES AND AMOUNTS: The unit receives unknown amounts of sanitary wastes from offices.

UNIT NAME: 403 French Drain
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1979

COORDINATES: S950 W7580

WASTE TYPES AND AMOUNTS: The unit receives 0.043 L/h of janitorial solutions (water and detergents).

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 4713-B French Drain
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1979

COORDINATES: S1475 W8075

WASTE TYPES AND AMOUNTS: The unit receives 1,000 gal/yr of wastewater from lunchroom sinks.

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

97167

UNIT NAME: 4721 French Drain
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1979

COORDINATES: S1240 W8050

WASTE TYPES AND AMOUNTS: The unit receives 0.043 L/h of janitorial solutions (water and detergents).

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 4722-B French Drain
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1979

COORDINATES: S1900 W7850

WASTE TYPES AND AMOUNTS: The unit receives 1,000 gal/yr of wastewater from lunchroom sinks.

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 4722-C French Drain
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1979

COORDINATES: S1975 W8150

WASTE TYPES AND AMOUNTS: The unit received 2,000 gal/yr of water from a sink used to wash soluble (latex) paint from hands, brushes, and rollers. The latex paints were determined to be nonhazardous. A sample from the unit was analyzed and found to contain no hazardous constituents.

SITE DESCRIPTION: The unit consists of a concrete or vitrified clay pipe filled with gravel. The pipe is a minimum of 5 ft in length and discharges into a gravel-filled drainage area.

UNIT NAME: 4831 Laydown HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1984

COORDINATES: S600 W8560

WASTE TYPES AND AMOUNTS: The area is used for staging of miscellaneous hazardous wastes produced and collected in the 400 Area, primarily oils, solvents, ethylene glycol, and empty drums for cooling water treatment chemicals (Endcor 4690, which is acutely hazardous).

SITE DESCRIPTION: Wastes are stored on a concrete pad with a berm around the edge.

UNIT NAME: UN-400-1
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Hazardous Waste

SWMU: No
OCCURRENCE DATE: February 1984

COORDINATES: S1150 W8900

WASTE TYPES AND AMOUNTS: The release consisted of a coolant solution consisting of 50% water and 50% ethylene glycol (aircraft deicer mix).

KNOWN RELEASES: The material was spilled on the ground during construction.

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Other Waste Units Located Within the Operable Unit Area

427 HWSA	Satellite Area
437 MASF	Test Treatment or Support Facility
4713-B HWSA	Staging Area
4722 Paint Shop HWSA	Staging Area
4843 FFTF Sodium Storage	Storage Facility

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UNIT NAME: 427 HWSA
UNIT TYPE: Satellite Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1985

COORDINATES: S1180 W8850

WASTE TYPES AND AMOUNTS: The areas are used to accumulate waste, ethylene glycol and ammonium hydroxide.

UNIT NAME: 437 MASF
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

TSD: T-4-1
UNIT STATUS: Inactive

COORDINATES: S400 W7780

WASTE TYPES AND AMOUNTS: The facility will be used for the maintenance and repair of equipment used in the Fast Flux Test Facility. It will also be used to treat up to 20 L/d of alkali metal wastes by removing residual sodium, which is a reactive dangerous waste, from waste materials.

UNIT NAME: 4713-B HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1980

COORDINATES: S1525 W8100

WASTE TYPES AND AMOUNTS: The area contains primarily small quantities of oils and lubricants and some solvents.

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UNIT NAME: 4722 Paint Shop HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1980

COORDINATES: S1910 W8150

WASTE TYPES AND AMOUNTS: The area contains primarily paint solvents.

SITE DESCRIPTION: Spill pans are in place under accumulation drums.

UNIT NAME: 4843 FFTF Sodium Storage
UNIT TYPE: Storage Facility
WASTE CATEGORY: Mixed Waste

TSD: S-4-1
UNIT STATUS: Active
START DATE: April 10, 1986

COORDINATES: S530 W9100

WASTE TYPES AND AMOUNTS: The area is used for storage of mixed sodium waste, nonradioactive sodium waste, and materials used in cleaning up radioactive sodium, ~600 lb at any one time. The facility is used for the storage of waste alkali metals generated from the Fast Flux Test Facility and from various other operations on the Hanford Site. It currently houses waste radioactive sodium metal and non-waste nonradioactive lithium metal.

SITE DESCRIPTION: A fully insulated, bolted steel building rests on a concrete slab. Ceiling suspended heaters provide heat. Two 12-ft roll-up doors are used for moving supplies into and out of the building. Waste containers may include steel 55- and 30-gal drums and 5-gal containers.

RELEASE POTENTIAL: Solid waste in metal containers is stored on a concrete floor in metal buildings.

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300-IU-1

Waste Units Assigned to this Operable Unit

316-4	Crib
618-10	Burial Ground
618-11	Burial Ground
JA Jones 1	Landfill

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UNIT NAME: 316-4
UNIT TYPE: Crib
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1948
END DATE: 1955/1956

COORDINATES: S60000 E35000

WASTE TYPES AND AMOUNTS: The site received hexone-bearing uranium wastes and limited amounts of other uranium-bearing wastes from the 321 buildings. Liquid containing a total of 1,230 lb of uranium were discharged to this site.

SITE DESCRIPTION: Two units - 8-ft-diameter, 7-ft-high, open bottom, 1/4-in.-thick tanks, buried 10 ft below grade, resting on gravel strata. A waste influent line to the tanks starts 2 ft 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 8 ft above grade. The tanks are 2 ft apart, with SS overflow pipe connecting them just below the top of each tank.

UNIT NAME: 618-10
UNIT TYPE: Burial Ground
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1954
END DATE: September 1963

COORDINATES: S6200 E2883, S5818 E2592, S5530 E2982, S5982 E3329

WASTE TYPES AND AMOUNTS: The site contains a broad spectrum of low-to-high-level dry wastes, primarily fission products and plutonium from the 300 Area. Low-level wastes are buried in trenches, and medium-to-high-level beta/gamma wastes are stored in the pipe facilities.

SITE DESCRIPTION: The site consists of 12 trenches and 94 pipe facilities. The trenches range in size from 320 ft long by 70 ft wide by 25 ft deep to 50 ft by 40 ft by 25 ft. The pipe facilities are 22-in.-diameter, 15-ft-long pipes made by welding together five 55-gal drums, buried vertically. They have been backfilled and topped with concrete. The site perimeter is marked with Identification Markers 3-64-1 through 3-64-68, starting from the southernmost corner.

KNOWN RELEASES: UPR-600-1, UPR-600-2, UPR-600-3.

CLEANUP ACTIONS: The site was surface stabilized in 1983.

UNIT NAME: 618-11
UNIT TYPE: Burial Ground
WASTE CATEGORY: Pre-1970 TRU

SWMU: Yes
UNIT STATUS: Inactive
START DATE: March 1962
END DATE: December 1967

COORDINATES: N12103 W2561, N12103 W3561, N12478 W2561, N12478 W3561

WASTE TYPES AND AMOUNTS: The site contains a broad spectrum of low-to-high-level dry wastes, primarily fission products and plutonium. Low-level wastes were buried in the trenches, and high-level wastes were buried in the pipe storage units and caissons.

SITE DESCRIPTION: The site composed of three trenches, 54 pipe storage units, and 8 to 10 caissons. The trenches are 900 ft long by 50 ft wide (surface dimensions). The pipe storage units are 22 in. in diameter by 15 ft long, buried vertically, and made by welding five 55-gal drums together. The caissons are 8-ft-diameter corrugated metal pipe, 10 ft long, buried 15 ft below grade, connected to the surface by an offset 36-in.-diameter pipe with a dome type cap. The site perimeter is marked with Identification markers 2-68-1 through 2-68-28.

KNOWN RELEASES: UPR-600-4, UPR-600-5, UPR-600-6, UPR-600-7, UPR-600-8, UPR-600-9, UPR-600-10.

CLEANUP ACTIONS: The site was surface stabilized in 1983.

UNIT NAME: JA Jones 1
UNIT TYPE: Landfill
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1975
END DATE: 1979

WASTE TYPES AND AMOUNTS: This site contains miscellaneous nonradioactive solid wastes from various construction sites. It contains wood scraps, concrete, and miscellaneous construction wastes.

KNOWN RELEASES: UPR-600-11.

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6.0 1100 AGGREGATE AREA OPERABLE UNITS

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Waste Units Assigned to this Operable Unit

1100-1	Pit
1100-2	Pit
1100-3	Pit
1100-4	Storage Tank
Horn Rapids Disposal	Landfill
UN-1100-5	Unplanned Release
UN-1100-6	Unplanned Release

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UNIT NAME: 1100-1
UNIT TYPE: Pit
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1954
END DATE: 1977

WASTE TYPES AND AMOUNTS: An unknown quantity of sulfuric acid.

SITE DESCRIPTION: A sand pit used for battery acid disposal.

KNOWN RELEASES: There were no known releases.

CLEANUP ACTIONS: Periodically, when the sand was saturated, it would be scraped off and new sand added. Additional corrective action may have been provided.

716995

UNIT NAME: 1100-2
UNIT TYPE: Pit
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1954
END DATE: 1985

WASTE TYPES AND AMOUNTS: Paint thinners and solvents, ~100 gal/yr.

SITE DESCRIPTION: The unit is a sand pit.

UNIT NAME: 1100-3
UNIT TYPE: Pit
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1979
END DATE: 1985

WASTE TYPES AND AMOUNTS: Ethylene glycol, degreasing solvents, wash water from engine cleaning.

SITE DESCRIPTION: The unit is a sand pit.

UNIT NAME: 1100-4
UNIT TYPE: Storage Tank
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
END DATE: Pre-1978

COORDINATES: N364000 E230700

WASTE TYPES AND AMOUNTS: An unknown quantity of used antifreeze and ethylene glycol.

SITE DESCRIPTION: This unit is a 5,000-gal underground tank.

CLEANUP ACTIONS: The unit was certified clean and empty by Northwest EnviroServices, Inc. upon removal in 1986.

RELEASE POTENTIAL: None to slight.

UNIT NAME: Horn Rapids Disposal
UNIT TYPE: Landfill
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1950
END DATE: 1970

WASTE TYPES AND AMOUNTS: This site was used primarily for wastes generated in the 1100 Area. It contains paper, office, and minor construction wastes such as paint cans, solvents, and oils.

SITE DESCRIPTION: Site depth varies, averaging ~40 ft. The site is surrounded by a 12-ft chain link fence, kept locked and posted. It is now a designated curlew nesting area, and access is prohibited.

7 1 6 9 7

UNIT NAME: UN-1100-5
UNIT TYPE: Unplanned Release
WASTE CATEGORY: Mixed Waste

SWMU: No
OCCURRENCE DATE: August 24, 1962

WASTE TYPES AND AMOUNTS: Beta/gamma. Release was water in which metal specimens were immersed; but one metal capsule ruptured, so the water contained zirconium and plutonium oxides.

SITE DESCRIPTION: A truck containing liquid waste from Idaho developed a leak from a missing O-ring.

CLEANUP ACTIONS: The truck was decontaminated.

UNIT NAME: UN-1100-6 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:**
WASTE CATEGORY: Hazardous Waste

WASTE TYPES AND AMOUNTS: A surface grab sample taken in March 1988 indicated 170 p/m Bis(2ethylhexyl) Phthalate, 82 p/m of di-n-octyl Phthalate and 9 unknown aliphatic hydrocarbons at concentrations of 22 to 36 p/m.

SITE DESCRIPTION: An irregular patch of discolored soil ~15 to 20 ft long and 5 ft wide located in an elongated oval depression.

RELEASE POTENTIAL: None to slight.

Other Waste Units Located Within the Operable Unit Area

1100 Area Hanford Patrol Academy Demolition Site Ash Pit

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TSD: T-11-1

UNIT NAME: 1100 Area Hanford Patrol Academy Demolition Site
UNIT TYPE: Ash Pit **UNIT STATUS:** Active
WASTE CATEGORY: Hazardous Waste **START DATE:** August 1984

WASTE TYPES AND AMOUNTS: The unit is used for the treatment of shock-sensitive or potentially explosive chemical wastes. The following detonations took place: 1984: Ethyl Ether 169 g, Perchloric Acid 44.3 kg, Nitric Acid 1.42 kg; 1985: 2,4,6-Trinitrorescorcinol 25 g, 2,4-Dinitrorescorcinol 70 g, 2,4-Dinitrophenol 500 g, Alpha-Nitrosomethylisobutylketone 174 g, Trinitrotoluene 100 g, Tetrahydrofuran 36 kg, Picryl Chloride 300 g, Picric Acid 100 g, Perchloric Acid 4.4 kg, Ethyl Ether 4.7 kg, Hexadinitrophenylamine 70 g, Glycol Dimethyl Ether 500 g, Carbon Trichloride 600 g, Carbon Disulfide 1,100 g, Butyl Ethanol 9.5 kg Butyl Cellosolve 100 g, Benzene with N-Butyl Lithium 100 g; 1986: None; 1987: Ethyl Ether 20 kg, Picric Acid 200 g.

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Waste Units Assigned to this Operable Unit

700 Area Waste Solvent Tank	Storage Tank
1100 Area Bus Shop Underground Hoist Rams	Storage Tank
1100 Area HWSA	Staging Area
1100 Area Underground Steam Pad Tank 2	Storage Tank
1100 Area Underground Steam Pad Tank 3	Storage Tank
1100 Area Used Oil Tank 4	Storage Tank
1100 Area Used Oil Tank 5	Storage Tank
1100 Area Used Oil Tank 6	Storage Tank

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UNIT NAME: 700 Area Waste Solvent Tank
UNIT TYPE: Storage Tank
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Inactive
END DATE: March 1987

WASTE TYPES AND AMOUNTS: The unit contained ~500 gal of a toxic, EP-toxic, combustible solution of aliphatic hydrocarbons with 162 p/m 1,1,1-trichloroethane.

SITE DESCRIPTION: Steel, type unknown, with no leak detection or cathodic protection. Capacity is in the 500- to 1,000-gal range.

CLEANUP ACTIONS: The unit was removed on September 9, 1989. Contaminated soil was detected around the unit. The excavation was marked, backfilled, and stabilized to await remedial action.

9 7 1 7 0 5

UNIT NAME: 1100 Area Bus Shop Underground Hoist Rams
UNIT TYPE: Storage Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active

WASTE TYPES AND AMOUNTS: The units contain non-PCB hydraulic oil.

SITE DESCRIPTION: Hoist rams, numbers 12 through 15. These are single manifold, triple tank hoists. Each hoist contains two tanks at 182 gal and one tank at 244 gal.

KNOWN RELEASES: The hoists were replaced in 1986 due to leakage.

RELEASE POTENTIAL: The hoists have secondary containment.

UNIT NAME: 1100 Area HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1985

WASTE TYPES AND AMOUNTS: Wastes in staging include ~500 kg/yr of used oil, ~6,000 kg/yr of antifreeze, ~4,000 kg/yr of degreasers, ~600 kg/yr of acids, and ~1,000 kg/yr of paint-related wastes.

SITE DESCRIPTION: The waste containers are stored within a fenced perimeter on a gravel bed.

9 7 1 7 7 6

UNIT NAME: 1100 Area Underground Steam Pad Tank 2
UNIT TYPE: Storage Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1984

WASTE TYPES AND AMOUNTS: The unit receives oily water from washing buses.

SITE DESCRIPTION: Unlined, underground fiberglass-reinforced plastic, with a capacity of 4,000 gal.

UNIT NAME: 1100 Area Underground Steam Pad Tank 3
UNIT TYPE: Storage Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1984

WASTE TYPES AND AMOUNTS: The unit receives oily water from washing heavy equipment (phosphate soap residue).

SITE DESCRIPTION: Unlined, underground fiberglass-reinforced plastic, with a capacity of 4,000 gal.

UNIT NAME: 1100 Area Used Oil Tank 4
UNIT TYPE: Storage Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1953

WASTE TYPES AND AMOUNTS: The unit receives used oil designated for recycle.

SITE DESCRIPTION: Unlined, underground carbon steel with a capacity of 1,000 gal.

UNIT NAME: 1100 Area Used Oil Tank 5
UNIT TYPE: Storage Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1953

WASTE TYPES AND AMOUNTS: The unit receives used oil designated for recycle.

SITE DESCRIPTION: Unlined, underground carbon steel with a capacity of 2,000 gal.

UNIT NAME: 1100 Area Used Oil Tank 6
UNIT TYPE: Storage Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1953

WASTE TYPES AND AMOUNTS: The unit receives used oil designated for recycle.

SITE DESCRIPTION: Unlined, underground carbon steel with a capacity of 1,500 gal.

Waste Units Assigned to this Operable Unit

3000 Area 1208 HWSA	Staging Area
3000 Area 1226 HWSA	Staging Area
3000 Area 1234 Storage Yard	Staging Area
3000 Area 1240 HWSA	Staging Area
3000 Area Jones Yard HWSA	Staging Area
3000 Area Underground Used Oil Tank	Storage Tank
UN-3000-1	Unplanned Release

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UNIT NAME: 3000 Area 1208 HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1967

WASTE TYPES AND AMOUNTS: Typical wastes contained in staging include paints and solvents, ~300 gal/yr.

SITE DESCRIPTION: All waste is stored in containers on a concrete pad.

UNIT NAME: 3000 Area 1226 HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1954

WASTE TYPES AND AMOUNTS: Typical wastes contained in staging include oils, solvents, antifreeze, and degreasers in 55-gal drums, ~300 gal/yr.

SITE DESCRIPTION: All waste is stored in containers on a concrete pad.

UNIT NAME: 3000 Area 1234 Storage Yard
UNIT TYPE: Staging Area
WASTE CATEGORY: Mixed Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1981

WASTE TYPES AND AMOUNTS: Typical wastes contained in staging include radioactive, hazardous nitrates and EP toxics, ~350 thirty-gallon containers; nonradioactive, nonhazardous wastes, ~25 fifty-five-gallon drums, and 50 empty containers per year.

SITE DESCRIPTION: All waste is stored in drums and placed on pallets on a gravel pad.

KNOWN RELEASES: ~30 gal of solution leaked to the soil from 18 containers.

CLEANUP ACTIONS: Stained soil and contaminated pallets were removed.

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UNIT NAME: 3000 Area 1240 HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1951

WASTE TYPES AND AMOUNTS: Typical wastes contained in staging include lubricating oils, cutting oils, solvents, and degreasers in 55-gal drums, ~200 gal/yr.

SITE DESCRIPTION: All waste is stored in containers on a concrete pad.

UNIT NAME: 3000 Area Jones Yard HWSA
UNIT TYPE: Staging Area
WASTE CATEGORY: Hazardous Waste

SWMU: Yes
UNIT STATUS: Active
START DATE: 1965

WASTE TYPES AND AMOUNTS: A maximum of two hundred 55-gal drums of nonregulated oils were stored in this area, along with fourteen 55-gal drums of antifreeze and paint-reacted materials.

SITE DESCRIPTION: All containers are stored on pallets.

KNOWN RELEASES: In October 1986, it was discovered that many of the containers in storage had failed, and an area of the storage yard ~1 to 2 ft deep over 900 sq ft was found to be contaminated with lead, up to 978 p/m.

CLEANUP ACTIONS: All leaking drums have been over-packed and sampled to determine the origin of the lead in the soil. Approximately 1,800 cu ft of soil will be excavated from the site (down to background concentrations of lead; 21 p/m) and drummed for disposal off site as hazardous waste.

UNIT NAME: 3000 Area Underground Used Oil Tank
UNIT TYPE: Storage Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: Yes
UNIT STATUS: Active
START DATE: 1979

WASTE TYPES AND AMOUNTS: Used for storage of used oil for recycling, ~2,000 gal/yr.

SITE DESCRIPTION: 500-gal capacity.

UNIT NAME: UN-3000-1 **SWMU:** No
UNIT TYPE: Unplanned Release **OCCURRENCE DATE:** February 26, 1973
WASTE CATEGORY: Mixed Waste

WASTE TYPES AND AMOUNTS: 2.0E-06 Ci of Cs-134 in 1,650 mL of solution.

KNOWN RELEASES: A technician disposed of 1,650 mL of waste Cs-134 solution into a cold drain that empties into the Richland city sewer system.

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Other Waste Units Located Within the Operable Unit Area

Simulated High-Level Waste Slurry Treatment and Storage

Test Treatment or Support Facility

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TSD: TS-3-4

UNIT NAME: Simulated High-Level Waste Slurry Treatment and Storage

UNIT TYPE: Test Treatment or Support Facility

UNIT STATUS: Active

WASTE CATEGORY: Mixed Waste

START DATE: June 1987

WASTE TYPES AND AMOUNTS: Material to be treated is designated as ignitable corrosive due to pH less than or equal to 2.0; EP Toxic due to barium, cadmium, chromium, and silver; and radioactive due to naturally occurring elements present.

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Waste Units Assigned to this Operable Unit

6652-C SSL Active Septic Tank	Septic Tank
6652-C SSL Inactive Septic Tank	Septic Tank
6652-G ALE Field Storage Building Septic Tank	Septic Tank
6652-I ALE Headquarters Septic Tank	Septic Tank
Rattlesnake Mountain Nike Missile Base	Test Treatment or Support Facility

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UNIT NAME: 6652-C SSL Active Septic Tank
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1955

WASTE TYPES AND AMOUNTS: The unit receives ~3 gal/h of sanitary wastewater. Until 1960, the unit received sanitary sewage from U.S. Army facilities. After 1967, the unit has received sanitary sewage from PNL facilities.

SITE DESCRIPTION: The unit has a 2,500-gal capacity.

UNIT NAME: 6652-C SSL Inactive Septic Tank
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Inactive
START DATE: 1955
END DATE: 1960

WASTE TYPES AND AMOUNTS: The unit received sanitary sewage from U.S. Army facilities.

SITE DESCRIPTION: The unit has a 2,500-gal capacity.

UNIT NAME: 6652-G ALE Field Storage Building Septic Tank
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Inactive
START DATE: 1955
END DATE: 1960

WASTE TYPES AND AMOUNTS: The unit received sanitary sewage from U.S. Army facilities.

SITE DESCRIPTION: The unit has a 4,000-gal capacity.

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UNIT NAME: 6652-I ALE Headquarters Septic Tank
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

SWMU: No
UNIT STATUS: Active
START DATE: 1955

WASTE TYPES AND AMOUNTS: The unit receives ~11 gal/h of sanitary wastewater. Until 1960, the unit received sanitary sewage from the U.S. Army facilities. Since 1967, the unit has received sanitary sewage from PNL facilities. Small amounts of laboratory chemicals are used in the facilities served by this unit.

SITE DESCRIPTION: The unit has a 6,000-gal capacity.

SWMU: Yes

UNIT NAME: Rattlesnake Mountain Nike Missile Base
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Nonhazardous/Nonradioactive

UNIT STATUS: Inactive

COORDINATES: N388000 W70000

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APPENDIX A

ACRONYMS AND DEFINITIONS OF TERMS

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ACRONYM LIST

AC	alternating current
ARCHO	Atlantic-Richfield Company Hanford Operations
ASF	ammonia scrubber feed
BTU	British thermal unit
CAW	current acid waste
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	U.S. Code of Federal Regulations
CPD	Chemical Processing Department
CWS	Contaminated waste storage
DOE/RL	U.S. Department of Energy-Richland Operations Office
DSS	double-shell slurry
ECN	Engineering Change Notice
EDT	emergency dump tank
EDTA	ethylenediaminetetriacetic acid
EHW	extremely hazardous waste
EP	extraction procedure
EPA	U.S. Environmental Protection Agency
FFTF	Fast Flux Test Facility
FMEF	Fuels and Materials Examination Facility
FY	fiscal year
GTF	grout treatment facility
HEDL	Hanford Engineering Development Laboratory
HEDTA	hydroxyethylethylenediaminetriacetic acid
HEPA	high efficiency particulate air
HSW	high salt waste
HSWMUR	Hanford Site Waste Management Units Report
HWSA	hazardous waste staging area
I.D.	inside diameter
ICP	inductively coupled plasma
IL	interstitial liquid
ITS	in-tank solidification
ITS-2	in-tank solidification no. 2
MFP	mixed fission product
MSL	mean sea level
NCAW	neutralized current acid waste
NCRW	neutralized cladding removal waste
NEPA	National Environmental Protection Act
NPH	normal paraffin hydrocarbon
PCB	polychlorinated biphenyl
PFP	Plutonium Finishing Plant
PNL	Pacific Northwest Laboratory
PRF	Plutonium Reclamation Facility
PRTR	Plutonium Recycle Test Reactor
PUREX	Plutonium-Uranium Extraction (Plant)
PVC	polyvinyl chloride
R & D	research and development
RADTU	radioactive acid digestion treatment unit
RART	radioactive aerosol release tank
RC	recycle container

RCRA	Resource Conservation and Recovery Act of 1976
REDOX	reduction oxidation
RLWS	radioactive liquid waste storage
RMC	remote mechanical "C" line
RMW	radioactive mixed waste
SCH	schedule
SS	stainless steel
SST	single-shell tank
SWMU	solid waste management unit
TBP	tributyl phosphate
TRU	transuranic
TSCA	Toxic Substance Control Act
TSD	treatment, storage, and disposal
UGS	underground storage tank
UNC	United Nuclear Corporation
UNH	uranyl nitrate hexahydrate
UNI	United Nuclear Industries
UPR	unplanned release
USBR	U.S. Bureau of Reclamation
VC	vitrified clay
VCP	vitrified clay pipe
VCT	vitrified clay tile
WAC	Washington Administrative Code
WIDS	Waste Information Data System
WPPSS	Washington Public Power Supply System
WRAP	Waste Receiving and Packaging (Facility)

DEFINITION OF TERMS

Aggregate Area: a division of the Hanford site that locates the Hanford Site on the National Priorities Listing (NPL) under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). There are four aggregate areas listed on the NPL: 100 Area, 200 Area, 300 Area, and 1100 Area.

Cleanup Actions: activities that result in the removal of dangerous or radioactive waste from a waste unit.

Coordinates: location coordinates of the unit (Hanford system).

End Date: the date the unit stopped receiving wastes (blank for active sites).

Known Releases: known contamination or release of a substance to the environmental media (air, soil, groundwater, surface water) that was not intended in the design of the unit.

Location: a written location description of the unit with respect to other facilities and landmarks around it.

Occurrence Date: the date(s) an unplanned release occurred.

Operable Unit: a grouping of waste management units located within the same area and sharing similar properties. They are designed to facilitate the investigation and subsequent remedial action.

Release Potential: information characterizing the potential for a release from the waste unit.

Solid Waste Management Unit (SWMU): any discernable unit at which solid wastes have placed at any time, regardless of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility where solid wastes have been routinely and systematically released.

Start Date: the date the unit began receiving wastes.

Treatment, Storage, or Disposal (TSD) RCRA term referring to hazardous waste. Under RCRA, TSD activity can occur only at units that received or stored hazardous waste after November 19, 1980, the effective date of the RCRA regulations.

Unit Description: physical description of the waste unit.

Unit Name: the official waste unit designation.

Unit Status: the operational status of the waste unit: active or inactive. Active means the unit is receiving or is intended to receive wastes some time in the future ("standby" is considered active). Inactive means the unit is not currently receiving wastes and is not intended to at any time in the future.

Unit Type: a general structural category describing the waste unit.

Waste Category: the radionuclide and/or hazardous characteristic of the waste, or the lack of any.

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APPENDIX B

UNPLANNED RELEASES THAT ARE NOT CONSIDERED TO BE UNITS

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UNIT NAME: UPR-200-E-4 **OCCURRENCE DATE:** Fall 1951

LOCATION: Around the 241-B-151 Diversion Box

KNOWN RELEASES: Leakage from the 241-B-151 Diversion Box contaminated the soil in the immediate vicinity.

WASTE TYPES AND AMOUNTS: Fission products reading ~10 Ci.

CLEANUP ACTIONS: Most of the contamination was removed and buried. The remainder was covered with ~1 ft of clean soil.

UNIT NAME: UPR-200-E-5 **OCCURRENCE DATE:** March 20, 1951

LOCATION: Near the 102-BX Tank

KNOWN RELEASES: A cascade outlet became plugged, contaminating the soil near the 241-BX-102 Tank.

WASTE TYPES AND AMOUNTS: 22.5 tons of soil contaminated with depleted uranium.

UNIT NAME: UPR-200-E-6 **OCCURRENCE DATE:** 1954

LOCATION: Around the 241-B-153 Diversion Box

KNOWN RELEASES: Leakage from the 241-B-153 Diversion Box contaminated soil in the immediate vicinity.

WASTE TYPES AND AMOUNTS: Fission products reading ~1 Ci.

UNIT NAME: UPR-200-E-17 **OCCURRENCE DATE:** 1959

LOCATION: The ground on top of the 216-A-22 Crib

KNOWN RELEASES: The 216-A-22 Crib inlet failed and contaminated the soil.

WASTE TYPES AND AMOUNTS: Uranium.

UNIT NAME: UPR-200-E-21 **OCCURRENCE DATE:** March 20, 1959

LOCATION: Adjacent to the 216-A-6 Crib

KNOWN RELEASES: The 216-A-6 Crib overflowed and caused some soil contamination adjacent to the crib.

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 500 mR/h.

UNIT NAME: UPR-200-E-24 **OCCURRENCE DATE:** June 17, 1960

LOCATION: From the 200 East Burial Ground to the 200 East Area perimeter fence, a distance of about 2 mi (218-E-12A)

KNOWN RELEASES: A burial box collapsed during burial operations, causing spotty ground contamination.

WASTE TYPES AND AMOUNTS: Beta/gamma with readings up to 2,000 mR/h at the trench. Average radiation level inside the burial ground fence was 30 mR/h at 4 in..

UNIT NAME: UPR-200-E-29 **OCCURRENCE DATE:** January 20, 1961

LOCATION: In the area of the 216-A-6 Crib

KNOWN RELEASES: The 216-A-6 Crib overflowed outside the area of the crib.

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 30 R/h at 4 ft.

UNIT NAME: UPR-200-E-30 **OCCURRENCE DATE:** April 20, 1961

LOCATION: The majority was confined to the 200 East Area Burial Ground chained area (218-E-12A)

KNOWN RELEASES: A burial box collapsed during routine operations, spreading contamination within the burial ground.

WASTE TYPES AND AMOUNTS: Beta/gamma with readings up to 500 R/h.

CLEANUP ACTIONS: Contamination stabilization started immediately after the burial trench involved was backfilled.

UNIT NAME: UPR-200-E-32 **OCCURRENCE DATE:** November 7, 1963

LOCATION: 207-B Retention Basin and the head end of the 216-B-2-1 Ditch and a portion of the road

KNOWN RELEASES: A coil failed in the 221-B Building (6-1 Rare Earth Storage Tank) and provided a liquid release, contaminating the 207-B Retention Basin and the head end of the 216-B-2-1 Ditch.

WASTE TYPES AND AMOUNTS: Ce-144 with 30 Ci and Sr-90 with 0.05 Ci had dose rates to 500 mR/h. Tumbleweeds located at the site read up to 50 R/h at the surface.

CLEANUP ACTIONS: The north section of the basin was sealed with an oil-tar solution. The ditch was covered with clean fill dirt and plastic weed root barrier. The nearby road surfaces were scraped clean or covered with clean fill dirt.

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UNIT NAME: UPR-200-E-34 **OCCURRENCE DATE:** June 12, 1964

LOCATION: The release went directly to B-Pond and Gable Mountain Pond

KNOWN RELEASES: A coil leak in the F-15 PUREX Tank contaminated 216-B-3 (B Pond) and 216-A-25 (Gable Mountain Pond).

WASTE TYPES AND AMOUNTS: Mixed fission products measuring 10,000 Ci.

UNIT NAME: UPR-200-E-38 **OCCURRENCE DATE:** January 4, 1968

LOCATION: A fan-shaped area to the northeast of the 241-B-152 Diversion Box

KNOWN RELEASES: Leakage from the 241-B-152 Diversion Box contaminated an area northeast of the box.

WASTE TYPES AND AMOUNTS: Beta/gamma with ground readings of 2,000 to 6,000 ct/min. The blacktop area was contaminated with readings to 20 to 30 mR/h.

UNIT NAME: UPR-200-E-50 **OCCURRENCE DATE:** September 27, 1974

LOCATION: Southeast of the Overground Radioactive Equipment Storage Yard, north of 241-C Tank Farm

KNOWN RELEASES: Wind spread contamination from an adjacent radiation zone to the 241-C Tank Farm.

WASTE TYPES AND AMOUNTS: Beta/gamma with readings of 3,000 to 100,000 ct/min.

UNIT NAME: UPR-200-E-51 **OCCURRENCE DATE:** May 18, 1977

LOCATION: 202-A Building Chemical Sewer (216-B-3-3 Ditch) and B-Pond (216-B-3)

KNOWN RELEASES: Cadmium nitrate was released from the PUREX storage tank, TK-324, to the chemical sewer, 216-B-3-3 Ditch, and eventually released into the 216-B-3 Pond (B Pond).

WASTE TYPES AND AMOUNTS: Cadmium nitrate solution from which 15 kg of Cadmium was released.

UNIT NAME: UPR-200-E-53 **OCCURRENCE DATE:** October 17, 1978

LOCATION: At the south end of a waste trench in the 200 East Dry Waste Burial Ground 218-E-1

KNOWN RELEASES: During a burial operation, contamination was spread by uncovering previously buried waste.

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 150 mR/h.

UNIT NAME: UPR-200-E-59 **OCCURRENCE DATE:** May 23, 1979

LOCATION: The eaves of the 244-AR Vault and the walls of the 216-A-40 Trench

KNOWN RELEASES: Contaminated mud and tumbleweeds from the 216-A-40 Trench were used by swallows to build nests at the 244-AR Vault.

WASTE TYPES AND AMOUNTS: Contaminated mud containing Cs-137 and Co-60 with readings of 10,000 to 20,000 ct/min.

CLEANUP ACTIONS: The nests were removed from the 244-AR Vault. The tumbleweeds were removed from 216-A-40, packaged, and placed in the burial ground. The sides of the 216-A-40 were washed and the contaminated mud removed.

UNIT NAME: UPR-200-E-66 **OCCURRENCE DATE:** November 7, 1984

LOCATION: The 216-A-42 Diversion Box and immediate vicinity

KNOWN RELEASES: The wind spread contamination from the 216-A-42 Retention Basin.

WASTE TYPES AND AMOUNTS: The contamination consists of beta/gamma, with readings inside the area to 40,000 ct/min and outside to 3,000 ct/min.

CLEANUP ACTIONS: The ground was wet down and the basin flushed.

UNIT NAME: UPR-200-E-70 **OCCURRENCE DATE:** October 15, 1984

LOCATION: Around the 244-A Lift Station

KNOWN RELEASES: The contamination spread during a jumper removal at the lift station.

WASTE TYPES AND AMOUNTS: The contamination consisted of beta/gamma with readings of 1,000 to 50,000 ct/min and an isolated area at 100,000 ct/min.

CLEANUP ACTIONS: The area was decontaminated to background radiation levels and stabilized.

RELEASE POTENTIAL None; radiation contamination was removed to background levels.

UNIT NAME: UPR-200-E-73 **OCCURRENCE DATE:** 1951-1952

LOCATION: Near the 241-B-151 Diversion Box, within the 241-B Tank Farm

KNOWN RELEASES: Leakage and spills from work around the 241-B-151 Diversion Box.

WASTE TYPES AND AMOUNTS: Fission products reading ~10 Ci.

CLEANUP ACTIONS: Most of the contamination was removed and that remaining was covered with ~1 ft of clean soil. The area was delimited with a chain fence and posted "Underground Contamination".

UNIT NAME: UPR-200-E-74 **OCCURRENCE DATE:** Spring 1954

LOCATION: Around the 241-B-152 Diversion Box

KNOWN RELEASES: An area near the 241-B-152 Diversion Box was contaminated while diversion box work was being performed.

WASTE TYPES AND AMOUNTS: This is a low activity site. The site contains ~1 Ci mixed fission products.

CLEANUP ACTIONS: A portion of the contamination was removed and buried, while the rest was covered with several inches of clean fill. The area was delimited with rope and posted with radiation zone signs.

UNIT NAME: UPR-200-E-75 **OCCURRENCE DATE:** 1954-1955

LOCATION: Near the 241-B-153 Diversion Box in the southwest corner of the 241-B Tank Farm

KNOWN RELEASES: Work on the 241-B-153 Diversion Box caused a general buildup of contamination.

WASTE TYPES AND AMOUNTS: This is a low-activity site containing ~1 Ci fission products.

CLEANUP ACTIONS: The area has been covered with clean gravel and marked as a radiation zone.

UNIT NAME: UPR-200-E-77 **OCCURRENCE DATE:** 1946

LOCATION: Near the 241-B-154 Diversion Box, east of 221-B Building, near the corner of Baltimore and Seventh

KNOWN RELEASES: Metal waste solution contaminated the ground around the 241-B-154 Diversion Box as a result of work associated with a leaky jumper in the box.

WASTE TYPES AND AMOUNTS: Metal waste solution from 221-B with fission products measuring ~1 Ci. A radiological survey on 10/75 measured surface contamination to 80,000 ct/min.

CLEANUP ACTIONS: The contamination was covered with 1 ft of clean soil.

UNIT NAME: UPR-200-E-78 **OCCURRENCE DATE:** October 1955

LOCATION: An area around the 241-BX-155 Diversion Box, ~900 ft south of the 241-BX Tank Farm

KNOWN RELEASES: During pressure testing of lines and jumpers in the 241-BX-155 Diversion Box, a spill occurred causing the ground to become contaminated.

WASTE TYPES AND AMOUNTS: Mixed fission product salt waste from B Plant with ~10 Ci. The maximum dose rate was 22.6 R/h at the surface. This is a low-activity site.

CLEANUP ACTIONS: The area has been covered with clean soil.

UNIT NAME: UPR-200-E-84 **OCCURRENCE DATE:** March 1953

LOCATION: ~800 ft southwest of the 221-B Building near the 241-ER-151 Diversion Box

KNOWN RELEASES: A leak in the 241-ER-151 Catch Tank caused contaminated acid to be lost to the ground.

WASTE TYPES AND AMOUNTS: The release consisted of contaminated acid with ~10 Ci of fission products. This is a low-activity site.

UNIT NAME: UPR-200-E-106 **OCCURRENCE DATE:** September 5, 1946

LOCATION: At the burning ground (200-E Burning Pit)

KNOWN RELEASES: Considerable contamination has been found at the burning ground.

WASTE TYPES AND AMOUNTS: Contaminated paper towels. The radiation level was measured to be as high as 2.5 rep/h.

UNIT NAME: UPR-200-E-108 **OCCURRENCE DATE:** April 14, 1953

LOCATION: Near the 102-B Heel Pit and Instrument Shelter in the 241-B Tank Farm

KNOWN RELEASES: Contamination spread to the 102-B heel pit and surrounding ground area, 241-B Tank Farm, during supernatant pumping from the 241-B-102 Tank to the 241-B-101 Tank.

WASTE TYPES AND AMOUNTS: Metal waste supernatant. Visible ground contamination of up to 10 rep/h on the surface.

CLEANUP ACTIONS: The contaminated ground area was stabilized with asphalt immediately.

UNIT NAME: UPR-200-E-115 **OCCURRENCE DATE:** February 12, 1974

LOCATION: The ground adjacent to the AX-103 Pump Pit in the 241-AX Tank Farm

KNOWN RELEASES: During bleeding of air from a line, air flowed up (instead of down), causing contaminated liquid to spray on 2 employees and the ground in an area within the 241-AX Tank Farm.

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 2,000 mR/h.

UNIT NAME: UPR-200-E-116 **OCCURRENCE DATE:** November 20, 1972

LOCATION: Ground surrounding 112-BY Pump in the 241-BY Tank Farm

KNOWN RELEASES: While backflushing a 112-BY pump, an employee and his surroundings were sprayed with contamination.

WASTE TYPES AND AMOUNTS: An unknown amount of caustic flush water containing Cs-137, Y-90, and Sr-89/90 was measured up to 3 R/h at 6 in. on the west side.

CLEANUP ACTIONS: The area was immediately covered with dirt.

UNIT NAME: UPR-200-E-119 **OCCURRENCE DATE:** December 22, 1969

LOCATION: Next to 241-AX-104 Tank

KNOWN RELEASES: An employee mistakenly pulled ~15 ft of a contaminated electrode cable out of Tank 241-AX-104 and set it on the ground. He then removed his contaminated gloves and set them on the ground. Contamination was limited to a small area near the AX-104 Tank, the employee, and the change house.

WASTE TYPES AND AMOUNTS: High-level waste.

UNIT NAME: UPR-200-E-125 **OCCURRENCE DATE:** May 1975

LOCATION: The 241-A-104 Tank and soil beneath

KNOWN RELEASES: Tank 104-A was classified a "Confirmed Leaker" on April 16, 1975. The basis for declaration of status were leak detection lateral indications of increasing radiation at several locations beneath the tank.

WASTE TYPES AND AMOUNTS: 2,500 gal of waste from the 241-A-104 containing 18,000 Ci of Cs-137 with readings to 6,450 ct/min.

CLEANUP ACTIONS: The tank was pumped down to a sludge heel.

UNIT NAME: UPR-200-E-126 **OCCURRENCE DATE:** 1963

LOCATION: The 241-A-105 Tank and soil beneath

KNOWN RELEASES: The 241-A-105 Tank was suspected of leaking and was taken out of service in December 1963 but was immediately put back into service. In January 1965, soon after the tank was filled, a sudden steam release of severe intensity occurred. Investigation revealed that the bottom liner had bulged to a maximum elevation at one point of 8.5 ft, thus creating a void volume of ~80,000 gal. It is believed that the void space contained vapor plus supernatant but no appreciable quantity of sludge.

WASTE TYPES AND AMOUNTS: 5,000 gal of waste from the 241-A-105 Tank.

CLEANUP ACTIONS: The tank was pumped to a residual liquid heel. 1,000 gal of water were applied weekly to prevent sludge from overheating.

UNIT NAME: UPR-200-E-127 **OCCURRENCE DATE:** 1968

LOCATION: The soil surrounding and beneath the 241-B-107 Tank in the 241-B Tank Farm

WASTE TYPES AND AMOUNTS: 8,000 gal of waste from the 241-B-107 Tank containing 2,000 Ci of Cs-137.

UNIT NAME: UPR-200-E-128 **OCCURRENCE DATE:** 1969

LOCATION: Soil surrounding and beneath the 241-B-110 Tank in the 241-B Tank Farm

WASTE TYPES AND AMOUNTS: 8,300 gal of waste from the 241-B-110 Tank containing 4,300 Ci of Cs-137.

CLEANUP ACTIONS: Salt well installed, IL removed.

UNIT NAME: UPR-200-E-129 **OCCURRENCE DATE:** 1968

LOCATION: Soil surrounding and beneath the 241-B-201 Tank in the 241-B Tank Farm

WASTE TYPES AND AMOUNTS: 1,200 gal of waste from the 241-B-201 Tank containing 420 Ci of Cs-137.

UNIT NAME: UPR-200-E-130 **OCCURRENCE DATE:** 1951 through 1977

LOCATION: Soil surrounding and beneath 241-B-203 Tank inside the 241-B Tank Farm

WASTE TYPES AND AMOUNTS: 300 gal of waste from the 241-B-203 Tank containing lanthanum fluoride.

UNIT NAME: UPR-200-E-131 **OCCURRENCE DATE:** 1948-1971

LOCATION: 31,000 cu ft of earth at the southeast edge of the 241-BX-102 Tank inside the 241-BX Tank Farm

WASTE TYPES AND AMOUNTS: High-level, nonboiling liquid waste from the 241-BX-102 Tank containing 51,000 Ci of Cs-137.

UNIT NAME: UPR-200-E-132 **OCCURRENCE DATE:** 1974

LOCATION: Soil beneath the 241-BX-102 Tank inside the 241-BX Tank Farm

KNOWN RELEASES: Waste leaked to the ground from the 241-BX-102 Tank.

WASTE TYPES AND AMOUNTS: 2,500 gal from the 241-BX-102 Tank.

CLEANUP ACTIONS: The area was excavated and barricaded. A radiation survey was made, and the area was backfilled.

UNIT NAME: UPR-200-E-133 **OCCURRENCE DATE:** 1949-1974

LOCATION: Soil surrounding and beneath the 241-BX-108 Tank inside the 241-BX Tank Farm

WASTE TYPES AND AMOUNTS: 2,500 gal of waste from the 241-BX-108 Tank containing 500 Ci of Cs-137.

CLEANUP ACTIONS: Residual supernate was removed.

UNIT NAME: UPR-200-E-134 **OCCURRENCE DATE:** 1954-1973

LOCATION: Soil surrounding and beneath the 241-BY-103 Tank inside the 241-BY Tank Farm

WASTE TYPES AND AMOUNTS: ~5,000 gal of waste from the 241-BY-103 Tank containing PUREX coating waste.

CLEANUP ACTIONS: Salt well installed to remove interstitial liquid.

UNIT NAME: UPR-200-E-135 **OCCURRENCE DATE:** 1955-1972

LOCATION: Soil surrounding and beneath the 241-BY-108 Tank inside the 241-BY Tank Farm

WASTE TYPES AND AMOUNTS: ~5,000 gal of tributyl phosphate waste from 241-BY-108.

CLEANUP ACTIONS: A saltwell system has been installed.

UNIT NAME: UPR-200-E-136 **OCCURRENCE DATE:** 1946-1970

LOCATION: The 241-C-101 Tank and the soil beneath.

KNOWN RELEASES: Because of a liquid level decrease, Tank 101-C was categorized "Questionable Integrity" in 1970.

WASTE TYPES AND AMOUNTS: ~17,000 to 24,000 gal of waste from the 241-C-101 Tank containing 2,000 Ci.

CLEANUP ACTIONS: The tank was pumped to a minimum heel (44 in.) in December 1969, and a salt well system was installed.

UNIT NAME: UPR-200-E-137 **OCCURRENCE DATE:** 1947-1977

LOCATION: The 241-C-203 Tank and the soil beneath

KNOWN RELEASES: Over a period of 2 to 3 yr, natural water apparently entered the tank, migrated through the salt cake, and either became entrained in the salt cake or leaked out.

WASTE TYPES AND AMOUNTS: 400 gal of PUREX high-level waste from the 241-C-203 Tank.

CLEANUP ACTIONS: The tank was stabilized and isolated in 1982.

UNIT NAME: UPR-200-E-138 **OCCURRENCE DATE:** March 22, 1970

LOCATION: The 216-B-2-2 Ditch and 216-B-3 Pond

KNOWN RELEASES: A leaking manometer sensing line from the 8-1 Tank inside 221-B contaminated an area in the 216-B-2-2 Ditch and 216-B-3 Pond.

WASTE TYPES AND AMOUNTS: Approximately 1,000 Ci of Sr-90.

CLEANUP ACTIONS: The ditch was covered with clean dirt. The first 2,400 ft of the ditch was covered with a plastic sheet root barrier. A new ditch (216-B-2-3) was dug to replace 216-B-2-2.

UNIT NAME: UPR-200-W-5 **OCCURRENCE DATE:** 1950

LOCATION: The hillside to the west of 216-T-20

KNOWN RELEASES: Overflow from the 241-TX-155 Diversion Box contaminated the soil.

CLEANUP ACTIONS: The area was removed from radiation zone status in December 1970.

UNIT NAME: UPR-200-W-12 **OCCURRENCE DATE:** Spring 1951

LOCATION: On the south side of the 242-T Building

KNOWN RELEASES: While jetting concentrate from the waste evaporator, the waste was forced up and out of an open riser.

WASTE TYPES AND AMOUNTS: Beta/gamma with a maximum dose rate of 2 R/h at 2 in..

CLEANUP ACTIONS: A portion of the contamination was removed and the remainder covered with a foot of clean soil.

UNIT NAME: UPR-200-W-13 **OCCURRENCE DATE:** December 23, 1952

LOCATION: The 207-S Retention Basin and the swamp area outside the 200 West Area

KNOWN RELEASES: The H-4 oxidizer coil failed at REDOX.

WASTE TYPES AND AMOUNTS: Beta/gamma with a dose rate that increased from 6 mrep/h to 700 mrep/h over a 30-day period.

UNIT NAME: UPR-200-W-15 **OCCURRENCE DATE:** November 1952

LOCATION: The 207-S Retention Basin and the swamp area outside the 200 West Area

KNOWN RELEASES: A steam coil failed in the REDOX D-12 Waste Concentrator.

WASTE TYPES AND AMOUNTS: Beta/gamma with dose rates up to 2 rem/h, including 35 mrem/h at 1 in. from the ground.

CLEANUP ACTIONS: The swamp was diked to maintain a constant water level.

UNIT NAME: UPR-200-W-16 **OCCURRENCE DATE:** July 9, 1952

LOCATION: In the 218-W-4A burial ground and to the east and west of the burial trench

KNOWN RELEASES: A fire in the Dry Waste Burial Ground spread contamination outside the trench.

WASTE TYPES AND AMOUNTS: Plutonium with maximum readings at 200,000 dis/min inside the burial ground and 30,000 dis/min outside the burial ground.

CLEANUP ACTIONS: The contaminated soil on the south side of the trench was bulldozed into the trench. The ground on the north side was stabilized with road oil and nearby roads were washed down with water to remove spotty contamination.

UNIT NAME: UPR-200-W-20 **OCCURRENCE DATE:** Jan - Feb 1953

LOCATION: Around the 241-S-151 Diversion Box

KNOWN RELEASES: Leakage from the 241-S-151 Diversion Box contaminated an area near the 241-SX Tank Farm.

WASTE TYPES AND AMOUNTS: Beta/gamma.

UNIT NAME: UPR-200-W-21 **OCCURRENCE DATE:** July 1953

LOCATION: Areas on both sides of the road between the 221-T and 222-T buildings

KNOWN RELEASES: A cave-in of the ground above a process line near the 241-TX-154 Diversion Box. A jumper leak in 241-TX-154 Diversion Box caused 241-TX-302C Catch Tank to overflow.

WASTE TYPES AND AMOUNTS: Beta/gamma with a dose rate as high as 25 R/h at 8 in.

CLEANUP ACTIONS: The area was covered with blacktop and posted "UNDERGROUND "CONTAMINATION".

UNIT NAME: UPR-200-W-24 **OCCURRENCE DATE:** April 30, 1953

LOCATION: Road near the 241-UR Tank Farm

KNOWN RELEASES: Contamination from a violent chemical reaction in the 002 Blending Tank, 244-UR Vault.

WASTE TYPES AND AMOUNTS: Metal waste supernate with readings of 500 to 1,000 ct/min.

CLEANUP ACTIONS: The contamination was backfilled and stabilized.

UNIT NAME: UPR-200-W-26 **OCCURRENCE DATE:** November 27, 1953

LOCATION: Near the 218-W-4A Burial Ground garden and along the 200 West Area Railroad line

KNOWN RELEASES: Spotty contamination from burial operations.

WASTE TYPES AND AMOUNTS: Ruthenium with readings of 600 mrem/h to 2 rem/h.

UNIT NAME: UPR-200-W-28 **OCCURRENCE DATE:** Spring 1954

LOCATION: ~30-ft by 100-ft area west of the 241-TX-155 Diversion Box

KNOWN RELEASES: A leak from a jumper in 241-TX-155 Diversion Box.

CLEANUP ACTIONS: The area was covered with clean soil and temporarily posted as a radiation zone. The fence and signs have since disappeared.

UNIT NAME: UPR-200-W-36 **OCCURRENCE DATE:** August 4, 1955

LOCATION: The 216-S-1 & 2 Crib area

KNOWN RELEASES: Contamination spread from 216-S-1 & 2 via a ruptured test well.

WASTE TYPES AND AMOUNTS: Process waste liquid.

UNIT NAME: UPR-200-W-37 **OCCURRENCE DATE:** June 10, 1955

LOCATION: 200 West Area Burning Ground

KNOWN RELEASES: Disposed of boxes from high radiation level dry waste taken to the 200 West Burning Ground provided ground contamination in the pit.

WASTE TYPES AND AMOUNTS: Contents from a broken box were contaminated to a maximum of 100 mR/h.

CLEANUP ACTIONS: The waste cartons were removed to the proper burial trench, and the pit was decontaminated.

UNIT NAME: UPR-200-W-45 **OCCURRENCE DATE:** November 6, 1957

LOCATION: ~200 acres within 200 West Area and 1,600 acres outside 200 West Area

WASTE TYPES AND AMOUNTS: Collapse of wooden burial box during burial operations in the 200 West Area Burial Ground.

CLEANUP ACTIONS: Most of the grossly contaminated burial ground was restored to normal use by plowing, road grading, and water flushing. Adjacent road surfaces were cleaned by flushing with water. Contaminated areas not cleaned were posted as radiation zones.

UNIT NAME: UPR-200-W-47 **OCCURRENCE DATE:** June 1958

LOCATION: Outside 200 West Area, ~150 yd from the REDOX Pond dike in a westerly direction and 300 yd north and south

KNOWN RELEASES: A dike break caused the contamination of an area of the REDOX pond.

WASTE TYPES AND AMOUNTS: The ground was contaminated to a maximum of 750 mR/h.

CLEANUP ACTIONS: In 1959, the contaminated ground was bladed under and posted as a radiation zone.

UNIT NAME: UPR-200-W-51 **OCCURRENCE DATE:** September 12, 1958

LOCATION: A narrow strip of ground south of 241-S-151 Diversion Box, across 10th Street and ~100 yd beyond the area fence

KNOWN RELEASES: Leakage from the 241-S-151 Diversion Box contaminated the ground.

WASTE TYPES AND AMOUNTS: Beta/gamma with readings up to 50 mR/h within 100 ft of the diversion box and readings outside the fenced area at ~4,000 ct/min.

CLEANUP ACTIONS: The contaminated soil was saturated with water and turned over with a bulldozer.

UNIT NAME: UPR-200-W-53 **OCCURRENCE DATE:** January 8, 1959

LOCATION: ~250 acres extending in an easterly direction from the 218-W-4A Burial Ground to within 300 yd of the east perimeter fence

KNOWN RELEASES: A burial box containing REDOX cell jumpers collapsed during backfilling operations.

WASTE TYPES AND AMOUNTS: Ru-106 with readings that ranged from 50 mR/h at the burial site to 60,000 ct/min at T Plant and readings east of the limited area fence at 400 ct/min.

UNIT NAME: UPR-200-W-57 **OCCURRENCE DATE:** November 6, 1963

LOCATION: In the immediate vicinity of the 233-S Building

KNOWN RELEASES: Fire in the plutonium extraction column near the 233-S Building. A chemical reaction in the exchange column resulted in a fire that spread plutonium contamination to the equipment used in this process and throughout most of the building.

WASTE TYPES AND AMOUNTS: Plutonium.

CLEANUP ACTIONS: Parts of the building were cleaned of gross contamination and nonsmearable alpha contamination was fixed using an Amercoat paint.

UNIT NAME: UPR-200-W-59 **OCCURRENCE DATE:** September 26, 1965

LOCATION: REDOX Pond

KNOWN RELEASES: The failure of the F-1 process vessel coil in 202-S Building.

WASTE TYPES AND AMOUNTS: Beta/gamma with a maximum dose rate of 190 mR/h at the #1 Pond inlet.

UNIT NAME: UPR-200-W-70 **OCCURRENCE DATE:** January 22, 1973

LOCATION: 200 West Burning Ground

KNOWN RELEASES: Contaminated material was disposed of in a noncontaminated burning trench (the 200 West Area Burning Ground).

WASTE TYPES AND AMOUNTS: Beta/gamma contamination of 5,000 to 50,000 ct/min along the bumper rails at the edge of the combustible trench. Other contamination of 20,000 ct/min to 30 mR/h in the trench proper. A dump area on the south side of the combustible trench was found contaminated from 5,000 to 200,000 dis/min alpha.

CLEANUP ACTIONS: The area was barricaded and radiation signs posted. Fabro-film was sprayed on contaminated areas to identify and stabilize contamination.

UNIT NAME: UPR-200-W-72 **OCCURRENCE DATE:** October 21, 1975

LOCATION: Within the 218-W-4A Burial Ground

KNOWN RELEASES: The release consisted of previously buried laboratory waste.

WASTE TYPES AND AMOUNTS: Gross alpha and mixed fission product with beta/gamma readings to 100,000 ct/min and alpha readings to 70,000 dis/min.

CLEANUP ACTIONS: The contaminated waste was picked up, and the area was covered with 6 in. of sand, a layer of urea bore, a layer of 10-mil plastic, 12 to 14 in. of dirt, and 3 to 4 in. of rock.

UNIT NAME: UPR-200-W-84 **OCCURRENCE DATE:** July 23, 1980

LOCATION: Within the 218-W-1 Burial Ground

KNOWN RELEASES: A liquid spill occurred during a pump burial.

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 2,000 mR/h.

CLEANUP ACTIONS: The contaminated soil was picked up and placed in the burial trench.

UNIT NAME: UPR-200-W-87 **OCCURRENCE DATE:** January 28, 1982

LOCATION: Ground surface at the 291-S HEPA filter housing location

KNOWN RELEASES: Contaminated water was spilled from the filter housing.

WASTE TYPES AND AMOUNTS: Contamination consists of beta/gamma with readings from 300 to 2,000 ct/min.

CLEANUP ACTIONS: The contaminated soil was picked up and placed in drums.

UNIT NAME: UPR-200-W-95 **OCCURRENCE DATE:** 1952-1954

LOCATION: The REDOX Retention Basin, ~1,200 ft due west of 222-S Building

KNOWN RELEASES: From late 1952 until April 1954, a number of process vessel coil leaks from the REDOX Plant (202-S) caused the basin to become contaminated.

WASTE TYPES AND AMOUNTS: This is a low-activity site containing ~10 Ci mixed fission products.

CLEANUP ACTIONS: The gross amounts of radioactivity remaining on the concrete floors and walls were subsequently covered by an overfill of dirt.

UNIT NAME: UPR-200-W-96 **OCCURRENCE DATE:** January 9, 1969

LOCATION: Adjacent to and directly north of the 233-S Filter House (233-SA Exhaust Filter Building)

KNOWN RELEASES: Plutonium-contaminated water backed up in 233-SA Filter House drain and overflowed to a low spot in the ground directly north of 233-SA Filter House. Because of the frozen ground, the water did not drain into the ground but formed a pool.

WASTE TYPES AND AMOUNTS: The release consisted of 0.01 g of Pu-239 contaminated water from the filter house drain line. Smear samples taken of the water and surfaces involved were as follows: 1) water on the floor of the 233-SA Filter Exhaust Building was greater than 40,000 dis/min; 2) smears of the concrete pad outside the door of the filter building were 10,000 dis/min; 3) smears of the electric motor pad were 10,000 dis/min; and 4) water in the overflow pool was 600 dis/min.

CLEANUP ACTIONS: The area was covered with 78 yd of clean gravel.

UNIT NAME: UPR-200-W-104 **OCCURRENCE DATE:** Mid 1950's

LOCATION: Leach trench running northeast from the northeast corner of 216-U-10 Pond

KNOWN RELEASES: Excavation of leach trench near the 216-U-10 Pond showed some contamination present from an unknown source.

WASTE TYPES AND AMOUNTS: A trench was dug to give additional leaching surface for overflow water from the 216-U-10 Pond. There is low-level, beta/gamma and alpha activity on the ground surface in the bottom of the leach trench.

UNIT NAME: UPR-200-W-105 **OCCURRENCE DATE:** Mid 1950's

LOCATION: Leach trench running directly east from the center of the east side of 216-U-10 Pond

KNOWN RELEASES: Excavation of leach trench near the 216-U-10 Pond showed some contamination present from an unknown source.

WASTE TYPES AND AMOUNTS: A trench was dug to give additional leaching surface for overflow water from the 216-U-10 Pond. There is low-level, beta/gamma and alpha activity on the ground surface in the bottom of the leach trench.

UNIT NAME: UPR-200-W-106 **OCCURRENCE DATE:** Mid 1950's

LOCATION: Runs east from the east side of the 216-U-10 Pond, south of UN-216-W-15 Trench

WASTE TYPES AND AMOUNTS: A leach trench was dug ~400 ft long, 25 ft wide, and 8 ft deep to give additional leaching surface for overflow water from the 216-U-10 Pond. There is low-level, beta/gamma and alpha activity in the ground surface in the bottom of the leach trench.

UNIT NAME: UPR-200-W-107 **OCCURRENCE DATE:** 1952 to 1957

LOCATION: South of 216-U-10 Pond

KNOWN RELEASES: Overflow zone or flood plain was exposed by receding waters of the 216-U-10 Pond.

WASTE TYPES AND AMOUNTS: Flood plain inundated with rising water from the 216-U-10 Pond, which received wastewater from the 216-U-14 laundry ditch, the 216-Z-11 Ditch, and cooling water from the 401-SX Building condensers in the 241-SX Tank Farm.

UNIT NAME: UPR-200-W-110 **OCCURRENCE DATE:** 4/14/71 & 4/21/71

LOCATION: Adjacent and parallel to the head end of the 216-Z-19 Ditch

KNOWN RELEASES: The 216-Z-1 Ditch was contaminated with americium and plutonium originating from process leaks contaminating the Z Plant cooling water discharge system. The contamination subsequently settled out of the water or was absorbed by aquatic plant life growing on the sides and bottom of the ditch. It was mistakenly excavated during the digging of the new 216-Z-19 Ditch.

WASTE TYPES AND AMOUNTS: Americium and plutonium with readings at the bottom of the ditch of 100,000 dis/min.

UNIT NAME: UPR-200-W-111 **OCCURRENCE DATE:** Unknown

LOCATION: South side of the 207-U Retention Basin, within 10 ft of the wall

KNOWN RELEASES: Sludge was scraped from the bottom of the south retention basin on the 207-U site and put into a trench on the south side of 207-U Retention Basin. The sludge was covered with 4 ft of clean fill dirt.

WASTE TYPES AND AMOUNTS: Approximately 27 cu yd of sludge scraped from the bottom of the south retention basin of the 207-U site.

UNIT NAME: UPR-200-W-112 **OCCURRENCE DATE:** Unknown

LOCATION: North side of the 207-U Retention Basin within 10 ft of the wall

KNOWN RELEASES: Sludge was scraped from the bottom of the north retention basin on the 207-U site and put into a trench on the north side of 207-U Retention Basin. The sludge was covered with 4 ft of clean fill dirt.

WASTE TYPES AND AMOUNTS: Approximately 27 cu yd of sludge scraped from the bottom of the north retention basin of the 207-U site.

UNIT NAME: UPR-200-W-124 **OCCURRENCE DATE:** Unknown

LOCATION: In a southwest direction from the REDOX Pond dike

KNOWN RELEASES: A dike break caused the contamination of an area near the REDOX pond.

WASTE TYPES AND AMOUNTS: Not identified in the reference.

UNIT NAME: UPR-200-W-126 **OCCURRENCE DATE:** May 8, 1975

LOCATION: Next to the 241-TX-153 Diversion Box

KNOWN RELEASES: A pipefitter removed old gaskets from the 241-TX-153 Diversion Box (for replacement) and placed them in a plastic bag. Spotty contamination became airborne.

WASTE TYPES AND AMOUNTS: Readings to 2,000 ct/min on the employee.

CLEANUP ACTIONS: The affected employees were decontaminated.

UNIT NAME: UPR-200-W-128 **OCCURRENCE DATE:** January 8, 1971

LOCATION: Surrounding 241-U-103 Tank inside the 241-U Tank Farm

KNOWN RELEASES: An employee cut through a waste line in 241-U-103 Tank, resulting in contamination of two employees and surroundings.

WASTE TYPES AND AMOUNTS: Fission products.

UNIT NAME: UPR-200-W-129 **OCCURRENCE DATE:** January 7, 1971

LOCATION: The pump pit at the 214-TX-113 Tank inside the 241-TX Tank Farm

KNOWN RELEASES: Caustic solution sprayed up from a blank flange onto employee and pump pit.

WASTE TYPES AND AMOUNTS: Caustic solution with readings up to 20,000 on the employee.

CLEANUP ACTIONS: The pump pit was hosed down.

UNIT NAME: UPR-200-W-131 **OCCURRENCE DATE:** March 13, 1953

LOCATION: Contamination was observed over an area ~5 ft diameter around the 241-TX-155 Diversion Box Catch Tank risers

KNOWN RELEASES: Contamination spread to the ground area around the 241-TX-155 Diversion Box Catch Tank risers after an attempt to neutralize acid waste in the tank.

WASTE TYPES AND AMOUNTS: Dilute acid waste solution. Ground contamination up to 25 rep/h at 2 ft was observed.

CLEANUP ACTIONS: The first ground contamination was partially removed and the area papered over to prevent any further spread to adjacent ground areas.

UNIT NAME: UPR-200-W-134 **OCCURRENCE DATE:** October 27, 1975

LOCATION: 218-W-1 Burial Ground

KNOWN RELEASES: A waste drum labeled "TRANSURANIC" was improperly buried. The handling and storage of this material did not meet standards.

WASTE TYPES AND AMOUNTS: Transuranic waste.

CLEANUP ACTIONS: ARHCO personnel were contacted to assure that the location of the burial was determined as accurately as possible and that no operations would be performed that might make retrieval of the drum more difficult.

UNIT NAME: UPR-200-W-138 **OCCURRENCE DATE:** June 1953

LOCATION: Near the northwest corner of the 221-U Building near the R-3 entrance

KNOWN RELEASES: Solution overflowed to the 221-U Building vessel vent blower pit onto the ground through a French drain (216-U-7).

WASTE TYPES AND AMOUNTS: UNH solution from the 221-U Building containing an estimated 300 lb of uranium.

UNIT NAME: UPR-200-W-139 **OCCURRENCE DATE:** September 1953

LOCATION: A ditch from U Swamp to S Swamp (216-U-9)

KNOWN RELEASES: Contamination from an unknown source was detected in the 216-U-9.

CLEANUP ACTIONS: The ditch was covered in the spring of 1954 and posted with "UNDERGROUND CONTAMINATION" signs. Additional corrective action may have been provided.

UNIT NAME: UPR-200-W-140 **OCCURRENCE DATE:** 1964

LOCATION: Surrounding 241-SX-107 Tank inside the 241-SX Tank Farm

KNOWN RELEASES: Contamination spread laterally in a geologic strata 55 to 60 ft below the ground surface. The tank is inactive and was removed from service in 1964 as "Confirmed Leaker".

WASTE TYPES AND AMOUNTS: ~5,000 gal of waste containing REDOX high-level wastes, REDOX coating wastes, concrete and supernatant containing REDOX high-level wastes.

UNIT NAME: UPR-200-W-141 **OCCURRENCE DATE:** 1962

LOCATION: Surrounding 241-SX-108 Tank inside the 241-SX Tank Farm

KNOWN RELEASES: The tank is inactive and was removed from service in 1962 as "Confirmed Leaker".

WASTE TYPES AND AMOUNTS: 2,400 gal of supernatant containing REDOX high-level waste and concrete.

UNIT NAME: UPR-200-W-142 **OCCURRENCE DATE:** 1965

LOCATION: Surrounding 241-SX-109 Tank inside the 241-SX Tank Farm

KNOWN RELEASES: The tank is inactive and was removed from service in 1965 as "Confirmed Leaker".

WASTE TYPES AND AMOUNTS: ~5,000 gal of REDOX high-level waste.

CLEANUP ACTIONS: The tank was interim stabilized.

UNIT NAME: UPR-200-W-143 **OCCURRENCE DATE:** 1974

LOCATION: Surrounding 241-SX-111 Tank inside the 241-SX Tank Farm

KNOWN RELEASES: The tank is inactive and was removed from service as "Confirmed Leaker" in May 1974 on the basis of an increase in radiation reading for the center leak detection lateral.

WASTE TYPES AND AMOUNTS: 2,000 gal of supernatant containing REDOX high-level waste and ion exchange waste from 241-SX tanks.

UNIT NAME: UPR-200-W-144 **OCCURRENCE DATE:** 1969

LOCATION: Surrounding 241-SX-112 Tank inside the 241-SX Tank Farm

KNOWN RELEASES: The tank is inactive and was removed from service in 1969 as "Confirmed Leaker".

WASTE TYPES AND AMOUNTS: 30,000 gal of REDOX high-level waste.

UNIT NAME: UPR-200-W-145 **OCCURRENCE DATE:** 1962

LOCATION: Surrounding 241-SX-113 Tank inside the 241-SX Tank Farm

KNOWN RELEASES: This tank is inactive and was removed from service in 1958. It was classified a "Confirmed Leaker" in 1962.

WASTE TYPES AND AMOUNTS: 15,000 gal of REDOX high-level waste.

CLEANUP ACTIONS: The tank has been partially isolated and stabilized with diatomaceous earth, and photographs indicate that no liquid is present.

UNIT NAME: UPR-200-W-146 **OCCURRENCE DATE:** 1965

LOCATION: Surrounding 241-SX-115 Tank inside the 241-SX Tank Farm

KNOWN RELEASES: This tank was inactive and removed from service in 1965 as a "Confirmed Leaker".

WASTE TYPES AND AMOUNTS: 50,000 gal of REDOX high-level waste.

CLEANUP ACTIONS: The tank has been isolated; and photographs taken May 8, 1974, indicate no surface liquid.

UNIT NAME: UPR-200-W-147 **OCCURRENCE DATE:** 1973

LOCATION: Southeast side of the 241-T-103 Tank

KNOWN RELEASES: Failed grout seal in a spare fill entry line.

UNIT NAME: UPR-200-W-148 **OCCURRENCE DATE:** 1973

LOCATION: Extending 23 ft horizontally from the 241-T-106 Tank

KNOWN RELEASES: The tank was categorized a "Confirmed Leaker", contaminating 25,000 cu m of soil.

WASTE TYPES AND AMOUNTS: An estimated volume of 115,000 gal consisting of bismuth phosphate first-cycle waste, supernatant containing coating waste, B Plant low-level waste, and ion exchange waste from 241-S, 241-T, and 241-U tank farms.

CLEANUP ACTIONS: The tank was pumped to a residual liquid heel and removed from service.

UNIT NAME: UPR-200-W-149 **OCCURRENCE DATE:** 1977

LOCATION: Inside the 241-TX Tank Farm surrounding 241-TX-107 Tank

KNOWN RELEASES: Extensive studies were made, and high-level activity was found in Well 51-07-18 with the conclusion that the source of activity may have been liquid from 107-TX.

WASTE TYPES AND AMOUNTS: 2,500 gal of supernatant containing bismuth phosphate metal waste, REDOX high-level waste, and evaporator bottoms from 241-TX tanks.

CLEANUP ACTIONS: A submersible pump was installed in October 1977 to remove as much of the remaining supernatant as possible.

UNIT NAME: UPR-200-W-150 **OCCURRENCE DATE:** 1973

LOCATION: Inside the 241-TY Tank Farm, surrounding 241-TY-103 Tank

KNOWN RELEASES: Two dry wells, 52-03-06 and 52-03-03, had shown radiation increases, indicating leakage from 103-TY or 105-TY.

WASTE TYPES AND AMOUNTS: 3,000 gal of supernatant containing bismuth phosphate first-cycle waste, PUREX organic waste, REDOX ion exchange waste, coating waste, evaporator bottoms and decontamination waste from 241-BX, -%, -TX, -TY, and -AX tanks.

CLEANUP ACTIONS: A salt well system was installed.

UNIT NAME: UPR-200-W-151 **OCCURRENCE DATE:** 1974

LOCATION: Inside the 241-TY Tank Farm, surrounding 241-TY-104 Tank

KNOWN RELEASES: The liquid level decreased more than the 0.3-in. limit.

WASTE TYPES AND AMOUNTS: 1,400 gal of supernatant containing REDOX ion exchange waste, PUREX organic wash waste, bismuth phosphate first-cycle waste, tributyl phosphate waste, and decontamination waste from 241-TX and -TY tank farms.

CLEANUP ACTIONS: P-10 salt well pumping has been completed.

UNIT NAME: UPR-200-W-152 **OCCURRENCE DATE:** 1960

LOCATION: Inside the 241-TY Tank Farm, surrounding 241-TY-105 Tank

KNOWN RELEASES: There are two dry wells associated with this tank. The activity in both dry wells may be a result of interstitial liquid leakage from 105-TY.

WASTE TYPES AND AMOUNTS: Tributyl phosphate waste.

CLEANUP ACTIONS: A saltwell pump system has been installed to remove the pumpable interstitial liquid.

UNIT NAME: UPR-200-W-153 **OCCURRENCE DATE:** 1959

LOCATION: Inside the 241-TY Tank Farm, surrounding 241-TY-106 Tank

KNOWN RELEASES: Routine surveillance of radiation dry wells had indicated a change of profile in Dry Well 52-06-05.

WASTE TYPES AND AMOUNTS: Tributyl phosphate waste.

CLEANUP ACTIONS: The tank has been stabilized by the addition of diatomaceous earth.

UNIT NAME: UPR-200-W-154 **OCCURRENCE DATE:** 1959

LOCATION: Inside the 241-U Tank Farm, surrounding 241-U-101

KNOWN RELEASES: The tank was removed from service as a "Confirmed Leaker" in 1959.

WASTE TYPES AND AMOUNTS: 30,000 gal of bismuth phosphate metal waste and supernatant containing high-level waste.

CLEANUP ACTIONS: The tank was classified as "Interim Stabilized" in September 1979.

UNIT NAME: UPR-200-W-155 **OCCURRENCE DATE:** 1956

LOCATION: Inside the 241-U Tank Farm, surrounding 241-U-104

KNOWN RELEASES: Tank 104-U was removed from service as a "Confirmed Leaker" in 1961. A ruptured tank bottom was first detected in 1956 when installation of a heel jet could not be accomplished.

WASTE TYPES AND AMOUNTS: 55,000 gal of bismuth phosphate metal waste.

CLEANUP ACTIONS: The tank was stabilized by the addition of diatomaceous earth.

UNIT NAME: UPR-200-W-156 **OCCURRENCE DATE:** 1975

LOCATION: Inside the 241-U Tank Farm, surrounding 241-U-110

KNOWN RELEASES: Tank 110-U was removed from service as a "Confirmed Leaker" due to increasing radiation levels detected in Dry Well 60-10-07.

WASTE TYPES AND AMOUNTS: 8,100 gal of bismuth phosphate first-cycle waste and REDOX coating and high-level waste.

CLEANUP ACTIONS: The tank was pumped to a heel on July 9-10, 1975. A saltwell was installed to remove the residual heel and interstitial liquid.

UNIT NAME: UPR-200-W-157 **OCCURRENCE DATE:** 1969

LOCATION: Inside the 241-U Tank Farm, surrounding 241-U-112

KNOWN RELEASES: Tank 112-U was removed from service and categorized as "Questionable Integrity" in 1970.

WASTE TYPES AND AMOUNTS: 500 gal of supernatant containing bismuth phosphate first-cycle and recycled waste from 241-U tanks.

CLEANUP ACTIONS: A saltwell system was installed.

UNIT NAME: UPR-200-W-158 **OCCURRENCE DATE:** June 10, 1960

LOCATION: Spread generally east and southeast as far as 3 mi beyond the limited area fence

KNOWN RELEASES: A burial box collapsed during operations in the 218-W-1A, causing spotty ground contamination.

WASTE TYPES AND AMOUNTS: Beta/gamma. Readings ranged from 60 mR/h at the burial site to ~1,000 ct/min outside the limited area.

UNIT NAME: UPR-200-W-160 **OCCURRENCE DATE:** December 30, 1955

LOCATION: The ground around 241-TX-302 Catch Tank between the 221-T Building and the 222-T Building, at section R-11 of 221-T and includes the area west of and in between the double fences of 224-T

KNOWN RELEASES: This area received two releases over a total area of 160 by 90 ft. The first leak occurred in July 1953 (see UPR-200-W-21). The second consisted of highly radioactive liquid waste due to failure of an underground transfer line from the 241-TX-302C Catch Tank.

WASTE TYPES AND AMOUNTS: Several thousand gallons of primarily metal waste and rainwater. The waste was high salt and neutral/basic.

CLEANUP ACTIONS: The area was backfilled, sprayed with tar, and posted as a radiation zone. During April and May 1968, the east side of the radiation zone was cut back a distance of 10 ft. Thin concrete cell cover blocks were leaned at a 60-degree angle against the side of the cut to shield the dose rates to acceptable levels.

UNIT NAME: UPR-300-8 **OCCURRENCE DATE:** September 22, 1980

LOCATION: Originating at the 311 Tank Farm Caustic Storage Tank #2 and confined to the 300 Area Process Trench

KNOWN RELEASES: A defective valve in the storage tank steam sparge line allowed steam condensate to overflow the storage tank into the process sewer system.

WASTE TYPES AND AMOUNTS: The release consisted of 50% NaOH solution.

UNIT NAME: UPR-300-9 **OCCURRENCE DATE:** July 3, 1976

KNOWN RELEASES: Nitric acid solution drained from a storage tank in room 120 of the 306-N Building into the 300 Area process drainage system.

WASTE TYPES AND AMOUNTS: The release consisted of nitric acid solution containing 121.5 kg of depleted uranium.

CLEANUP ACTIONS: The draining system was dye-tested. Fluorescein dye was added to the floor drain and showed that the system was free of leaks.

UNIT NAME: UPR-300-15 **OCCURRENCE DATE:** August 19, 1980

LOCATION: 313 Building Process Sewer

KNOWN RELEASES: Uranium-bearing Acid Storage Tanks #3 and #4 overflowed the catch barrel and trickled over into the process sewer. Further inspection revealed that Tank #3 had discharged downward into Tank #4 through interconnected discharge lines. The discharge line for Tank #4 was wide open.

WASTE TYPES AND AMOUNTS: Uranium-bearing acid.

CLEANUP ACTIONS: The system engineer rinsed the residual caustic out of the sewer with rinse water to help neutralize the acid. The defective valves were replaced.

RELEASE POTENTIAL The spill was completely contained by the sewer system, posing no risk to any individuals or the public.

UNIT NAME: UPR-300-19 **OCCURRENCE DATE:** September 30, 1980

LOCATION: Originating at the 313 Building floor trenches and confined to the 300 Area Process Trenches

KNOWN RELEASES: Two drums of incoming deoxidization chemicals were found to be leaking. After the leaks were discovered, the floor was washed off, resulting in discharge to the process sewer. The process sewer showed high NO3, F, and pH values as a result of this incident.

WASTE TYPES AND AMOUNTS: Nitric, sulfuric and chromic acid, followed by an ammonium bifluoride and sodium hydroxide discharge with incoming acid used in copper component deoxidizing.

CLEANUP ACTIONS: Spilled material was flushed into the process sewer. Leaking drums were repackaged to prevent further release.

UNIT NAME: UPR-300-20 **OCCURRENCE DATE:** August 19, 1980

LOCATION: Originating at the 313 Building Uranium Recovery Area and confined to the 300 Area Process Trench

KNOWN RELEASES: Overflow of a storage tank in the 313 Building resulted in an overflow of the catch barrel into the process sewer system.

WASTE TYPES AND AMOUNTS: Nitric and sulfuric acids with uranium in solution, quantity unknown.

UNIT NAME: UPR-300-21 **OCCURRENCE DATE:** August 5, 1980

LOCATION: Originating at the 333 Building Chemical Bay Area and confined to the 300 Area Process Trench

KNOWN RELEASES: Nitric acid fill lines to Tanks 13, 15, and 16 in the 333 Building were removed. Some residual nitric acid from these lines was discharged into the process sewer.

WASTE TYPES AND AMOUNTS: A small quantity of nitric acid.

CLEANUP ACTIONS: The tanks were removed, and the fill lines were capped off.

UNIT NAME: UPR-300-22 **OCCURRENCE DATE:** July 21 & 28, 1980

LOCATION: Originating at the 333 Building Chemical Bay Area and confined to the 300 Area Process Trench

KNOWN RELEASES: Acid Etch Tanks No. 13 and 15 were leaking, discharging acid into the process sewer.

WASTE TYPES AND AMOUNTS: A small quantity of etch acids consisting of nitric and hydrofluoric.

CLEANUP ACTIONS: The tanks were removed from service.

UNIT NAME: UPR-300-23 **OCCURRENCE DATE:** August 1980

LOCATION: Originating at the 333 Building Trench Piping System and confined to the 300 Area Process Trench

KNOWN RELEASES: Leak inspection revealed two leaks in the nitric and sulfuric acid fill lines.

WASTE TYPES AND AMOUNTS: A small quantity of incoming etch acids consisting of nitric and sulfuric.

CLEANUP ACTIONS: The leaks were repaired.

UNIT NAME: UPR-300-24 **OCCURRENCE DATE:** August 1980

LOCATION: Originating at the 333 Building Waste Acid System and confined to the 300 Area Process Trench

KNOWN RELEASES: Leak inspection revealed two small drip leaks around a newly installed etch tank.

WASTE TYPES AND AMOUNTS: A small quantity of waste etch acids consisting of nitric and hydrofluoric.

CLEANUP ACTIONS: The leak was repaired.

UNIT NAME: UPR-300-25 **OCCURRENCE DATE:** February 15, 1980

LOCATION: Originating at the 333 Building Uranium Mill Tank and confined to the 300 Area Process Trench

KNOWN RELEASES: Leaks in steam coils in the uranium mill tank caused acid to be siphoned into the cooling coils at the nightly shutoff. During startup in the morning, steam discharged the acid in the coils into the process sewer system. This occurred for several weeks.

WASTE TYPES AND AMOUNTS: A small quantity of uranium etch acids consisting of nitric and sulfuric in uranium solution.

CLEANUP ACTIONS: The leaking coils were repaired.

UNIT NAME: UPR-300-26 **OCCURRENCE DATE:** January 12, 1980

LOCATION: 311 Tank Farm, Caustic Storage Tank

KNOWN RELEASES: Condensate from a steam heating line in the storage tank caused overflow to the process sewer.

WASTE TYPES AND AMOUNTS: A very small quantity of 50% sodium hydroxide consisting of less than 0.1 lb of sodium hydroxide.

CLEANUP ACTIONS: The release was routed to the 300 Area Process Trench for disposal. The steam line was shut off to stop the discharge.

UNIT NAME: UPR-300-27 **OCCURRENCE DATE:** October 30, 1979

LOCATION: 333 Building Uranium Bearing Acid Storage Tank

KNOWN RELEASES: Failure of a check valve in the piping system resulted in discharge of a stream of uranium-bearing acid into the process sewer system. An operator noticed the leakage and immediately shut down the transfer pump, stopping the release.

WASTE TYPES AND AMOUNTS: An unknown quantity of uranium bearing acid waste containing nitric and sulfuric acids with uranium in solution.

CLEANUP ACTIONS: The spilled solution was washed into the process sewer system.

UNIT NAME: UPR-300-28 **OCCURRENCE DATE:** June 2, 1978

LOCATION: 334A Building Spent Waste Acid Storage Tanks

KNOWN RELEASES: An open water fill line in the 333 Building caused the process tank to overflow into the 334A Storage Tanks, which overflowed into the containment pit. The pit then overflowed into the process sewer system. Overflow to the process sewer apparently began at 7:30 a.m. on June 3 and was discovered on the morning of June 5. Due to water input, overflow to the process sewer was primarily water with some acid content.

WASTE TYPES AND AMOUNTS: The release consisted of solution containing hydrofluoric, nitric, and sulfuric acids with copper, uranium, and zirconium in solution.

CLEANUP ACTIONS: The release was routed to the 300 Area Process Trench for disposal.

UNIT NAME: UPR-300-29 **OCCURRENCE DATE:** June 1975

LOCATION: 333 Building Waste Acid System

KNOWN RELEASES: Leak testing of the system revealed three leaks in the PVC piping system. In addition, one leak was found in the incoming nitric acid supply line.

WASTE TYPES AND AMOUNTS: An unknown quantity of waste etch acids containing hydrofluoric, nitric, sulfuric, and chromic acids with copper, uranium, and zirconium in solution.

CLEANUP ACTIONS: The release was routed to the 300 Area Process Trench for disposal.

UNIT NAME: UPR-300-30 **OCCURRENCE DATE:** January 30, 1975

LOCATION: 333 Building Waste Acid System

KNOWN RELEASES: A chemical reaction occurred when a carbonate-bearing solution was added to the waste acid solution. This caused foaming and eventually an overflow of the process tanks that discharged to the process sewer

WASTE TYPES AND AMOUNTS: A small quantity of waste etch acids and spent film chemicals containing hydrofluoric, nitric, sulfuric, and chromic acids.

CLEANUP ACTIONS: The release was routed to the 300 Area Process Trench for disposal.

UNIT NAME: UPR-300-32 **OCCURRENCE DATE:** August 1974

LOCATION: 333 Building Uranium Bearing Acid System

KNOWN RELEASES: Leak testing of the system revealed one leak in the piping, 3 leaking transfer pumps, and 5 leaks in the uranium mill tank.

WASTE TYPES AND AMOUNTS: An unknown quantity of uranium etch acids containing nitric and sulfuric acid with uranium in solution.

CLEANUP ACTIONS: The release was routed to the 300 Area Process Trench for disposal.

UNIT NAME: UPR-300-33 **OCCURRENCE DATE:** August 1974

LOCATION: 333 Building Waste Acid System

KNOWN RELEASES: A PVC acid drain system showed 16 leaks. Additionally, 5 leaks were found in the incoming acid fill lines (presumably nitric or sulfuric acid system).

WASTE TYPES AND AMOUNTS: An unknown quantity of waste etch acids containing hydrofluoric, nitric, and chromic acids with copper, uranium, and zirconium in solution.

CLEANUP ACTIONS: The release was routed to the 300 Area Process Trench for disposal.

UNIT NAME: UPR-300-34 **OCCURRENCE DATE:** August 1973

LOCATION: Originated in the 333 Building Waste Acid System

KNOWN RELEASES: Failure of the limestone neutralization tank resulted in a discharge to the ground. As a consequence of the tank failure, routine operations involved discharging spent waste acids directly into the process sewer system. This practice continued until about January 1975.

WASTE TYPES AND AMOUNTS: An unknown quantity of waste etch acids containing hydrofluoric, nitric, and chromic acids with copper, uranium, and zirconium in solution.

CLEANUP ACTIONS: The release was routed to the 300 Area Process Ponds for disposal. NaOH discharges to the process ponds were made to maintain a neutral or caustic pH.

UNIT NAME: UPR-300-35 **OCCURRENCE DATE:** June 1973

LOCATION: 333 Building Uranium Bearing Acid Facility

KNOWN RELEASES: A leak was discovered in the overflow alarm system in the uranium mill tank. Also, the uranium acid transfer pump was discovered leaking.

WASTE TYPES AND AMOUNTS: An unknown quantity of uranium bearing etch acids containing nitric and sulfuric acids with uranium in solution.

CLEANUP ACTIONS: The release was routed to the 300 Area Process Pond for disposal. The leaking alarm system was removed, and the leaking pump was repaired or replaced.

UNIT NAME: UPR-300-36 **OCCURRENCE DATE:** June 1973

LOCATION: 333 Building Waste Acid System

KNOWN RELEASES: Leak testing of the PVC acid drain system showed 9 leaks. Additionally, 4 leaks were found in the incoming PVC nitric acid lines.

WASTE TYPES AND AMOUNTS: An unknown quantity of waste etch acids containing hydrofluoric, nitric, and chromic acids with copper, uranium, and zirconium in solution.

CLEANUP ACTIONS: The release was routed to the 300 Area Process Pond for disposal.

UNIT NAME: UPR-300-37 **OCCURRENCE DATE:** January 1972

LOCATION: 333 Building Waste Acid System

KNOWN RELEASES: Leak testing of the PVC waste line revealed several large and numerous small leaks that discharged directly to the process sewer. During inspection, it was also discovered that the nitric-sulfuric-chromic acid stream was not connected to the neutralization tank; instead, it was discharging directly to the process sewer.

WASTE TYPES AND AMOUNTS: An unknown quantity of waste etch acids containing hydrofluoric, nitric and chromic acids with copper, uranium, and zirconium in solution.

CLEANUP ACTIONS: The release was routed to the 300 Area Process Pond for disposal.

UNIT NAME: UPR-300-38 **OCCURRENCE DATE:** Approximately 1954

LOCATION: The ground beneath the floor at the Acid Waste Neutralization Tank and Uranium Acid Neutralization Tank at the 313 Building Uranium Recovery Area

KNOWN RELEASES: During repair of a floor in the 313 Building in the early 1970's, solution was found running into a hallway from beneath the floor acid brick.

WASTE TYPES AND AMOUNTS: Uranium-bearing acid waste containing nitric and sulfuric acid contaminated with uranium in solution and neutralizing solution with 50% sodium hydroxide.

CLEANUP ACTIONS: During the floor repair, seeping material was collected and processed through the uranium recovery operation. Removal of the subfloor was not complete; apparently some material was removed.

UNIT NAME: UPR-600-1 **OCCURRENCE DATE:** July 4, 1961

LOCATION: The 618-10 Burial Ground and an area extending to 300 yd outside the fence

KNOWN RELEASES: A fire in the 618-10 Burial Ground destroyed all flammable material in the trench and contaminated the environment in the immediate vicinity.

WASTE TYPES AND AMOUNTS: Readings over 100,000 ct/min for most particles, with up to 20 particles per 100 sq ft at a distance of 50 to 75 ft from the burial ground fence and extending out for 100 yd. At 300 yd outside the fence, 3 particles per 100 sq ft were detected, ranging from 4,000 to 20,000 ct/min.

CLEANUP ACTIONS: The area was covered with dirt to preclude further loss of contaminated material.

UNIT NAME: UPR-600-2 **OCCURRENCE DATE:** February 14, 1963

LOCATION: Inside the 618-10 Burial Ground

KNOWN RELEASES: Spotty contamination occurred during routine burial of a milk bucket at 618-10 Burial Ground. Contamination was limited to a 5-ft-radius around the barrel where the milk bucket was placed, an area in front of the 618-10 Burial Ground gate, and a spot in front of the powerhouse.

WASTE TYPES AND AMOUNTS: Airborne contamination resulting in readings to 80,000 ct/min.

CLEANUP ACTIONS: The 618-10 Burial Ground was surface stabilized in 1983.

UNIT NAME: UPR-600-3 **OCCURRENCE DATE:** September 4, 1963

LOCATION: Within the 618-10 Burial Ground around the barrel

KNOWN RELEASES: An improper container was used to dispose of waste into the 618-10 Burial Ground. The lid of the container came off, causing dust to puff out of the barrel and onto the ground.

WASTE TYPES AND AMOUNTS: Readings to 400 mR/h at 2 in.

CLEANUP ACTIONS: The 618-10 Burial Ground was surface stabilized in 1983.

UNIT NAME: UPR-600-4 **OCCURRENCE DATE:** March 6, 1964

LOCATION: Within the 618-11 Burial Ground

KNOWN RELEASES: Radioactive material blew out of a waste can as it was lowered into the 618-11 Burial Ground.

WASTE TYPES AND AMOUNTS: Waste from the High-level Radiochemistry Facility. Readings were up to 10,000 ct/min.

CLEANUP ACTIONS: The 618-11 Burial Ground was surface stabilized in 1983.

UNIT NAME: UPR-600-5 **OCCURRENCE DATE:** May 18, 1964

LOCATION: Within the 618-11 Burial Ground

KNOWN RELEASES: Employees were contaminated during routine burial operations at the 618-11 Burial Ground when a fine white powder escaped from the truck chute and spilled onto the ground.

WASTE TYPES AND AMOUNTS: Airborne contamination resulting in readings to 500 ct/min of beta/gamma of gross fission products.

CLEANUP ACTIONS: The 618-11 Burial Ground was surface stabilized in 1983.

UNIT NAME: UPR-600-6 **OCCURRENCE DATE:** February 8, 1965

LOCATION: Within the 618-11 Burial Ground

KNOWN RELEASES: Winds of 32 mi/h with gusts up to 44 mi/h blew waste from a truck, over an employee, and onto the ground, causing spotty contamination at the 618-11 Burial Ground.

WASTE TYPES AND AMOUNTS: Ru-103 and Zr-Nb95 with readings from 100 ct/min to 200 mR/h.

CLEANUP ACTIONS: The 618-11 Burial Ground was surface stabilized in 1983.

UNIT NAME: UPR-600-7 **OCCURRENCE DATE:** March 1, 1965

LOCATION: Within the 618-11 Burial Ground

KNOWN RELEASES: An employee dropped a box containing a contaminated waste storage (CWS) filter from 327 Building basement from the back of a truck at the 618-11 Burial Ground. Dust came out of the box and caused spotty contamination in the immediate vicinity.

CLEANUP ACTIONS: The 618-11 Burial Ground was surface stabilized in 1983.

UNIT NAME: UPR-600-8 **OCCURRENCE DATE:** April 7, 1967

LOCATION: Within the 618-11 Burial Ground

KNOWN RELEASES: The release occurred during routine burial operations, causing either air backup from a burial tank chute or loose contamination blown from the release gate of a cask as it was operated.

WASTE TYPES AND AMOUNTS: Airborne contamination resulting in readings to 100,000 ct/min.

CLEANUP ACTIONS: The 618-11 Burial Ground was surface stabilized in 1983. The area was covered with 2 to 3 in. of clean gravel.

UNIT NAME: UPR-600-9 **OCCURRENCE DATE:** April 14, 1967

LOCATION: Within the 618-11 Burial Ground

KNOWN RELEASES: During routine burial operations in the 618-11 Burial Ground, a piece of waste became wedged in the truck chute, causing an airborne release of contamination. Contamination was limited to a fan-shaped area extending northeast from the dump chute.

WASTE TYPES AND AMOUNTS: Corroded aluminum rupture cans and pieces of an N Reactor safety rod. Readings were up to 450 mR/h at the chute.

CLEANUP ACTIONS: The 618-11 Burial Ground was surface stabilized in 1983. The area inside the fence was covered with 3 to 6 in. of gravel. Outside the fence, the top layer was bladed and covered with clean soil.

UNIT NAME: UPR-600-10 **OCCURRENCE DATE:** September 30, 1963

LOCATION: Around Barrel 327-2 at the 618-11 Burial Ground

KNOWN RELEASES: During a routine burial at the 618-11 Burial ground, a container was externally contaminated with a significant quantity of loose, highly radioactive material, causing ground contamination.

WASTE TYPES AND AMOUNTS: Airborne contamination resulting in readings to 1/4 R/h at 3 in. of high-level beta/gamma.

CLEANUP ACTIONS: The 618-11 site was surface stabilized in 1983. The contaminated ground area was washed down with 6,000 gal of water to control blowing. The most highly contaminated earth was shoveled into waste barrels, and the whole area was covered with several inches of clean sand.

UNIT NAME: UPR-600-11 **OCCURRENCE DATE:** May 29, 1980

LOCATION: 305-B berm and the J. A. Jones Construction Pit Number 1

KNOWN RELEASES: Workers excavated 100 cu yd of berm material and buried it in a clean landfill (J. A. Jones Construction Pit #1) before contamination was detected. The contamination is believed to have originated from discarded asphalt blacktop rubble at the south end of the berm.

WASTE TYPES AND AMOUNTS: Beta/gamma with readings to 4,000 ct/min in the dirt.

CLEANUP ACTIONS: The contaminated soil was initially removed from the contaminated berm and placed in the J. A. Jones Construction Pit #1. The soil was then re-excavated from the pit and placed in one of the 200 Area burial grounds. The pit is now free of any radiological constituents.

UNIT NAME: UPR-600-15 **OCCURRENCE DATE:** September 20, 1979

LOCATION: An area running north and south outside the boundary fence of the 618-4 Burial Ground

KNOWN RELEASES: Depleted uranium fuel elements were improperly discarded at the 618-4 Burial Ground.

WASTE TYPES AND AMOUNTS: Fuel elements containing 0.15% of U-235 with a dose rate of 4,000 mR/h on the surface.

CLEANUP ACTIONS: The twenty elements and some slightly contaminated soil were placed in plastic bags and delivered to UNC Fuels Operations for analysis. They were to be buried in the 218-W-3A Mixed Fission Product Trench by November 15, 1979.

APPENDIX C

OPERABLE UNIT MAPS

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200 West Area Key Plan C-30

300 Area Key Plan C-41

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600 Area C-48

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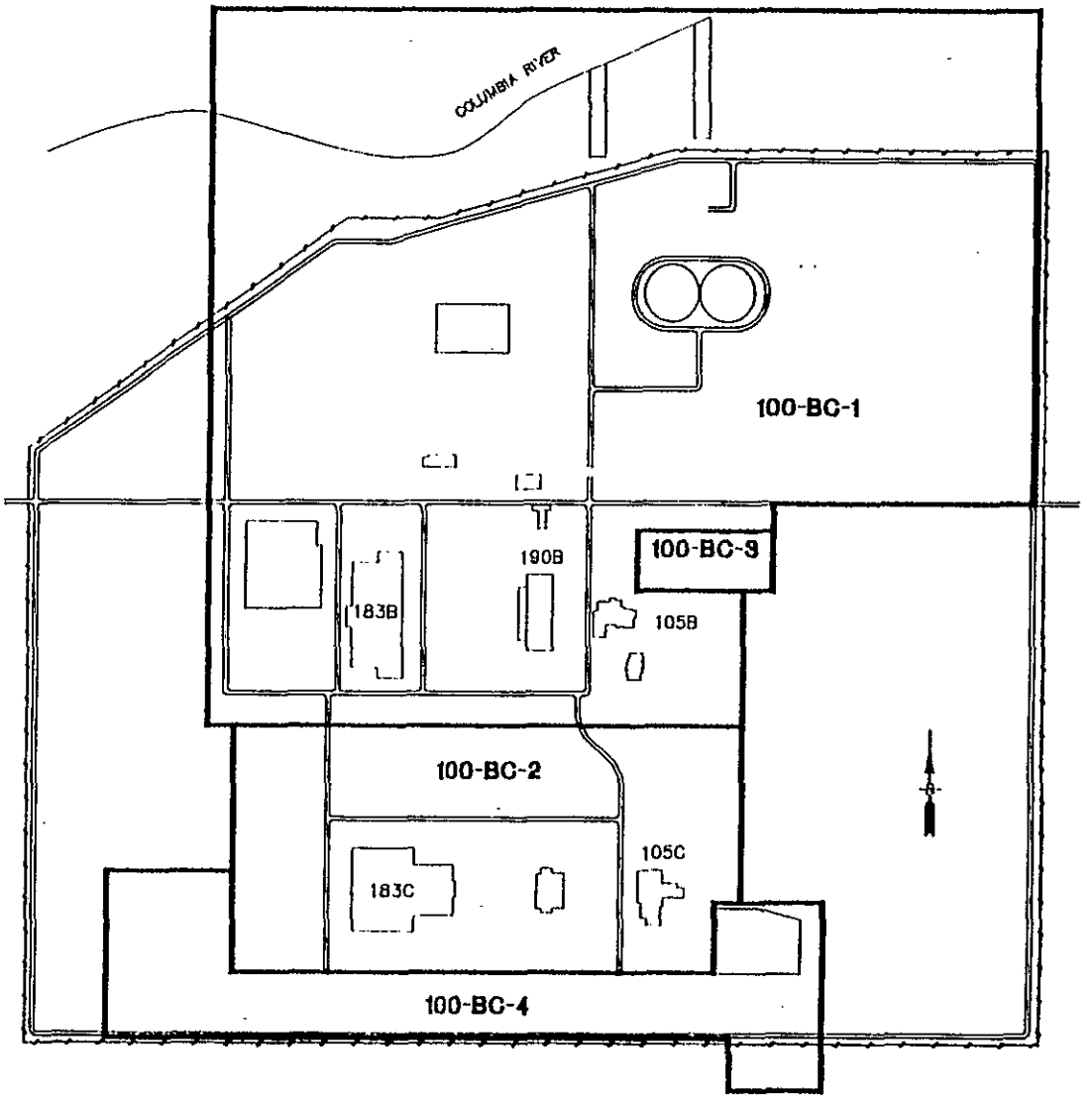

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Westinghouse Hanford Company
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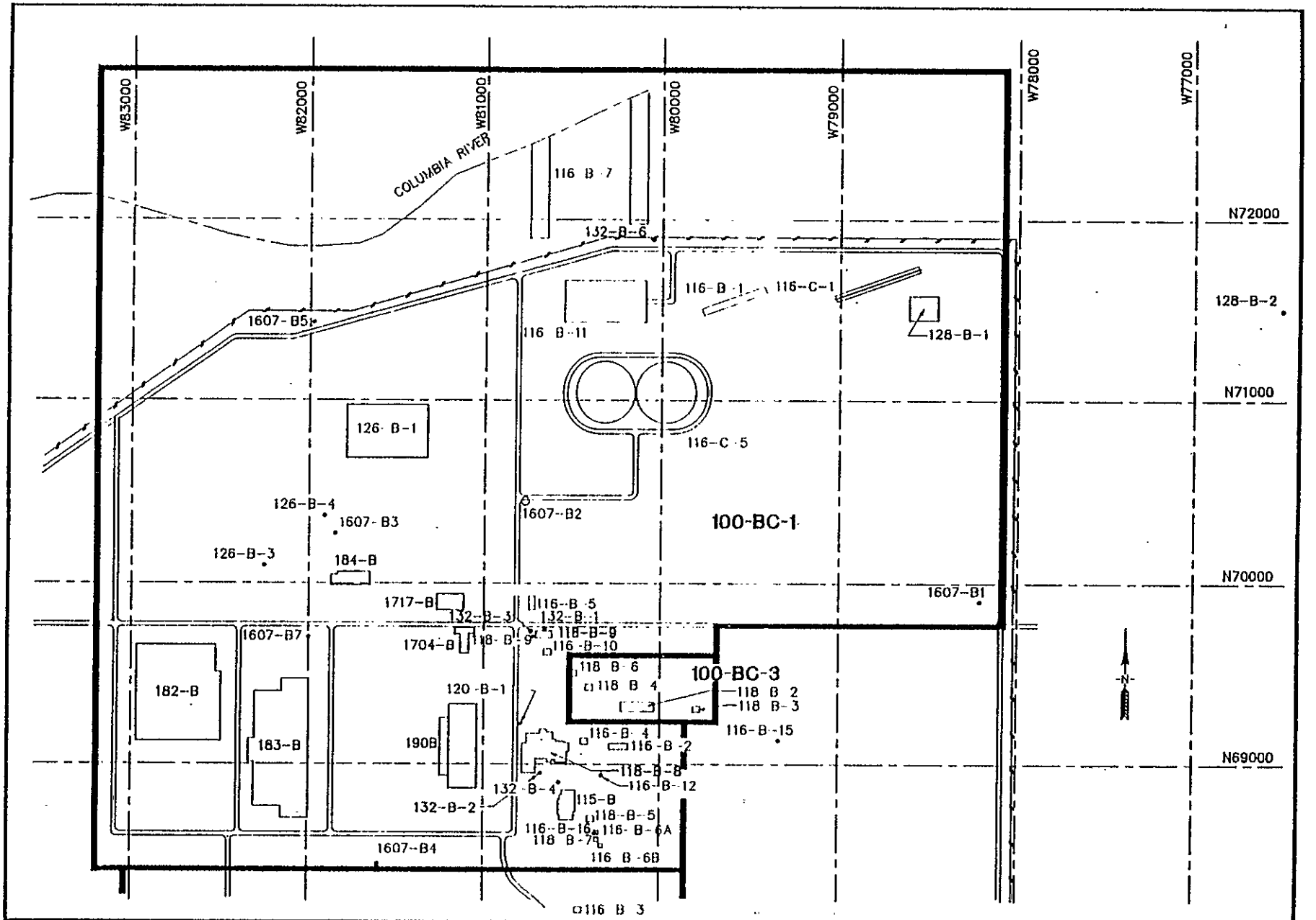
Richland, WA 99352

100-BC Area
Key Plan



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GDH			12/91	3.0	INFORMATION UPDATE

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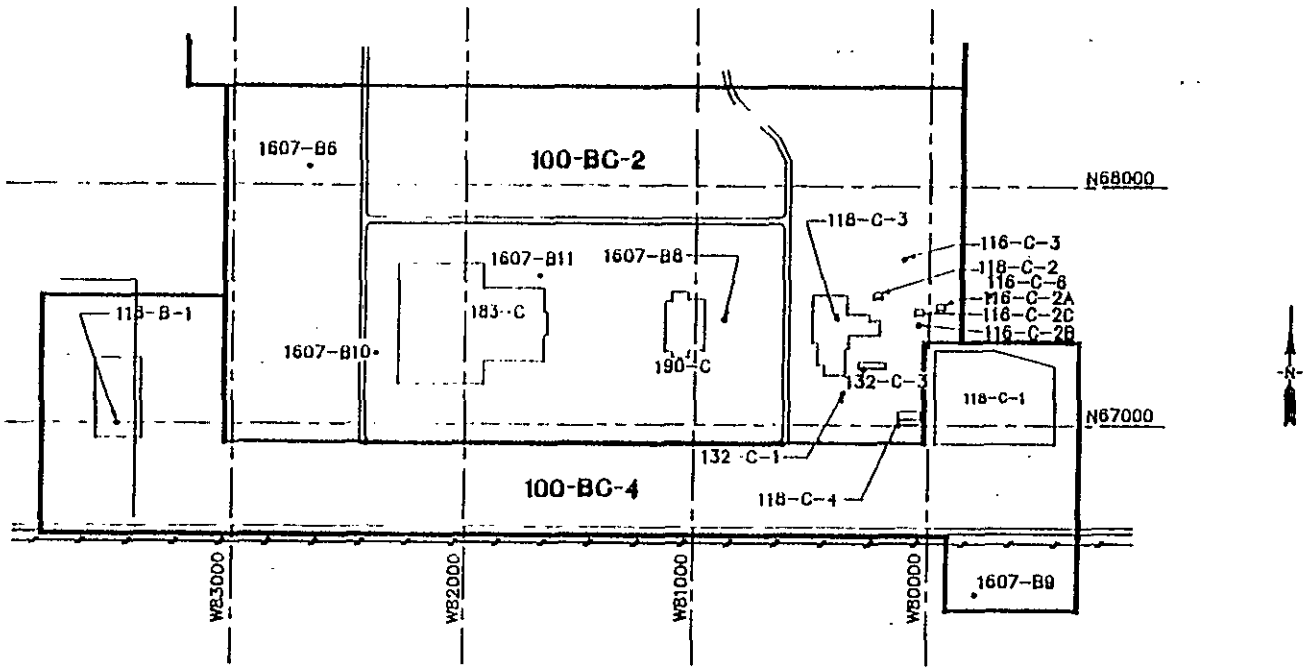
100-BC Area

Operable Units 100-BC-1 and 100-BC-3



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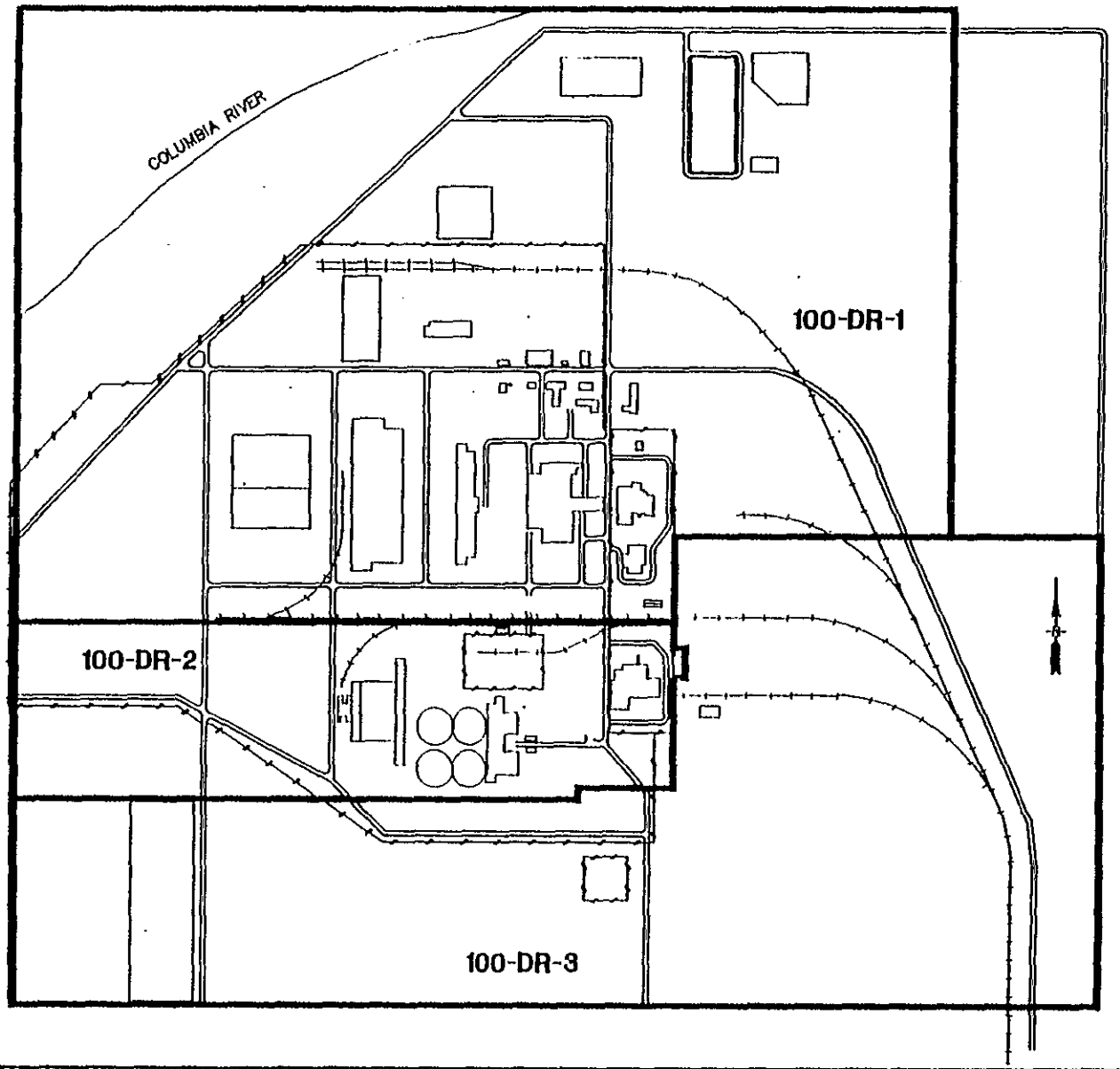
100-BC Area

Operable Units 100-BC-2 and 100-BC-4



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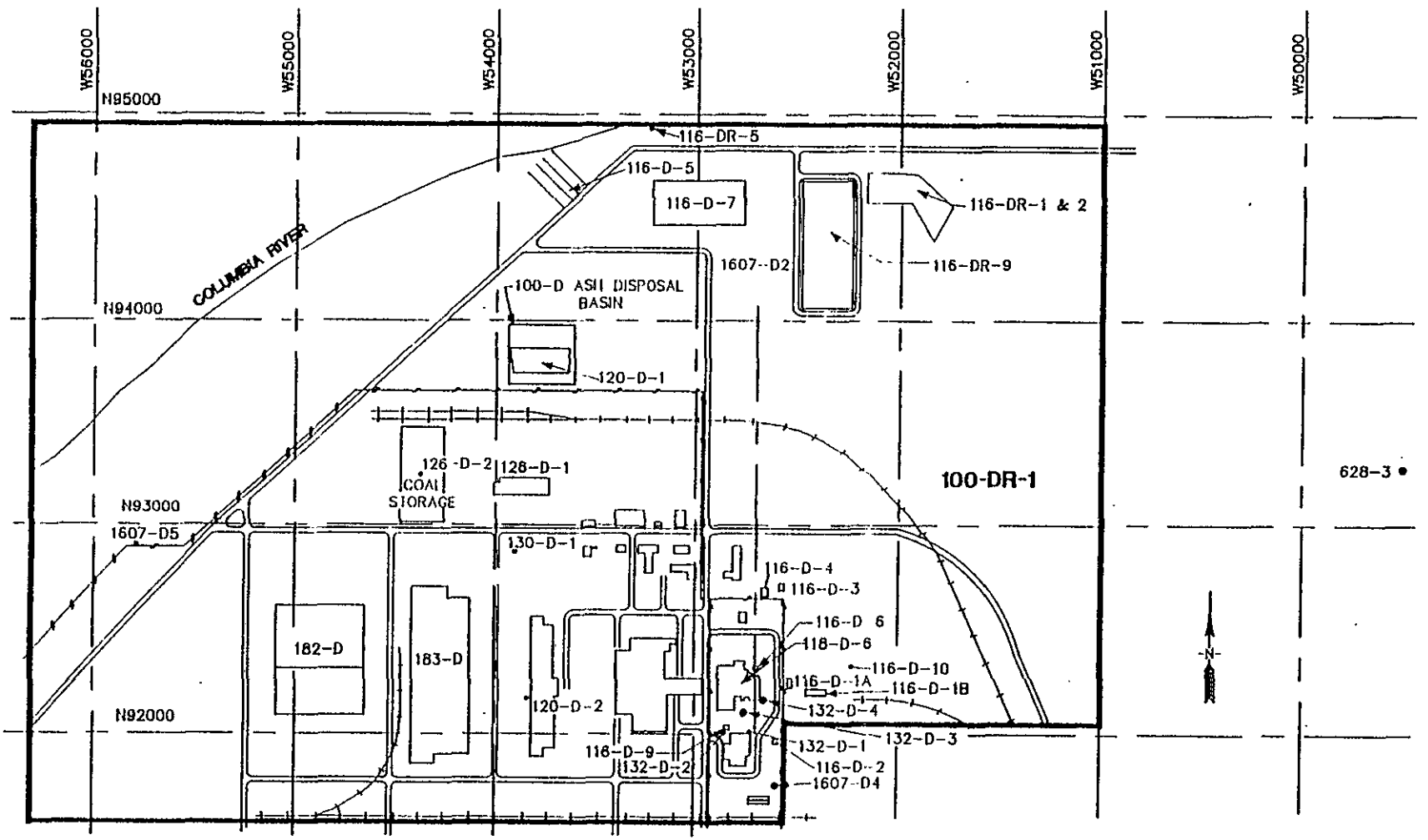
100-D/DR Area

Key Plan



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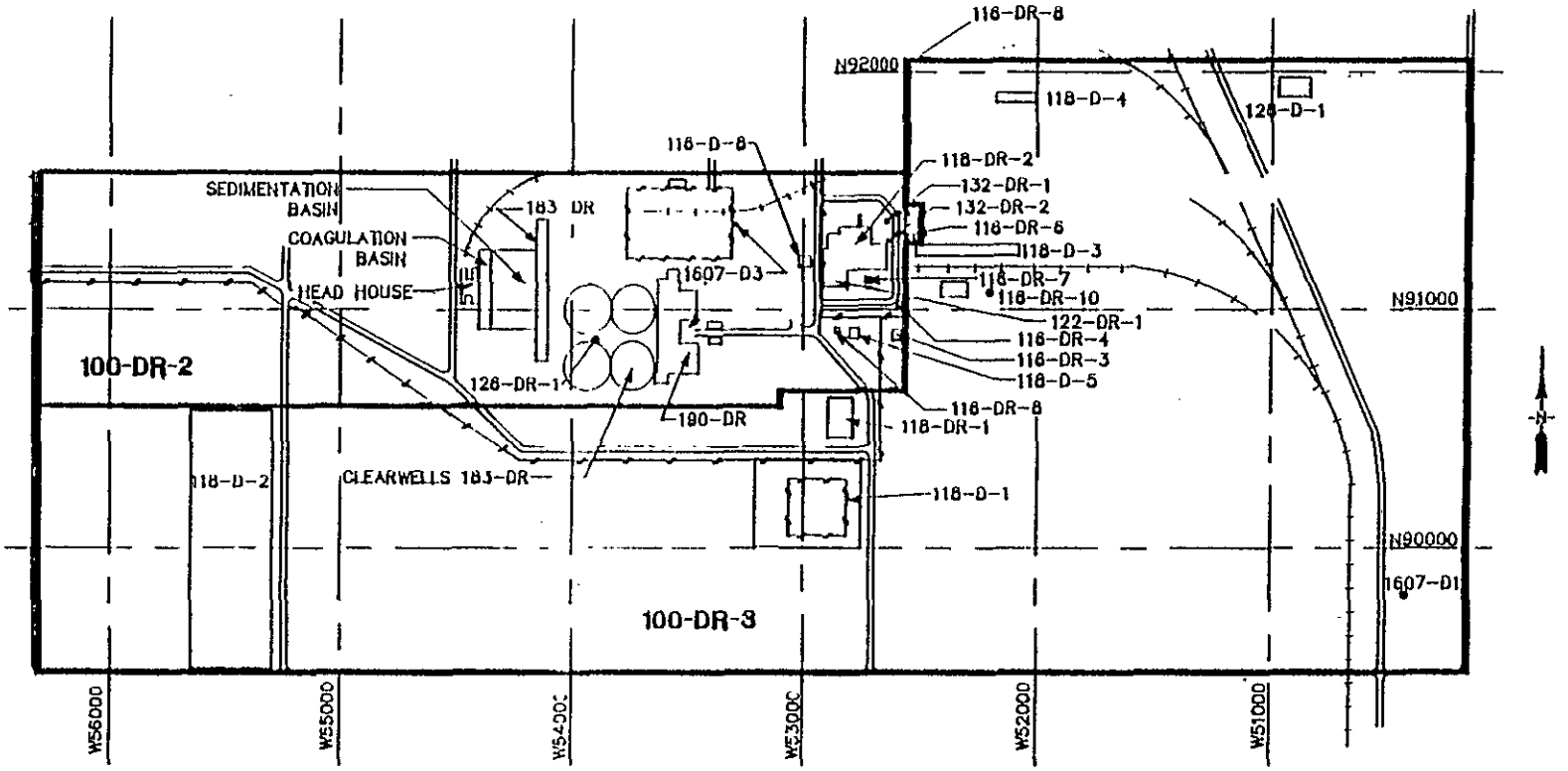
100-D/DR Area
Operable Unit 100-DR-1



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GDH			12/91	3.0	INFORMATION UPDATE

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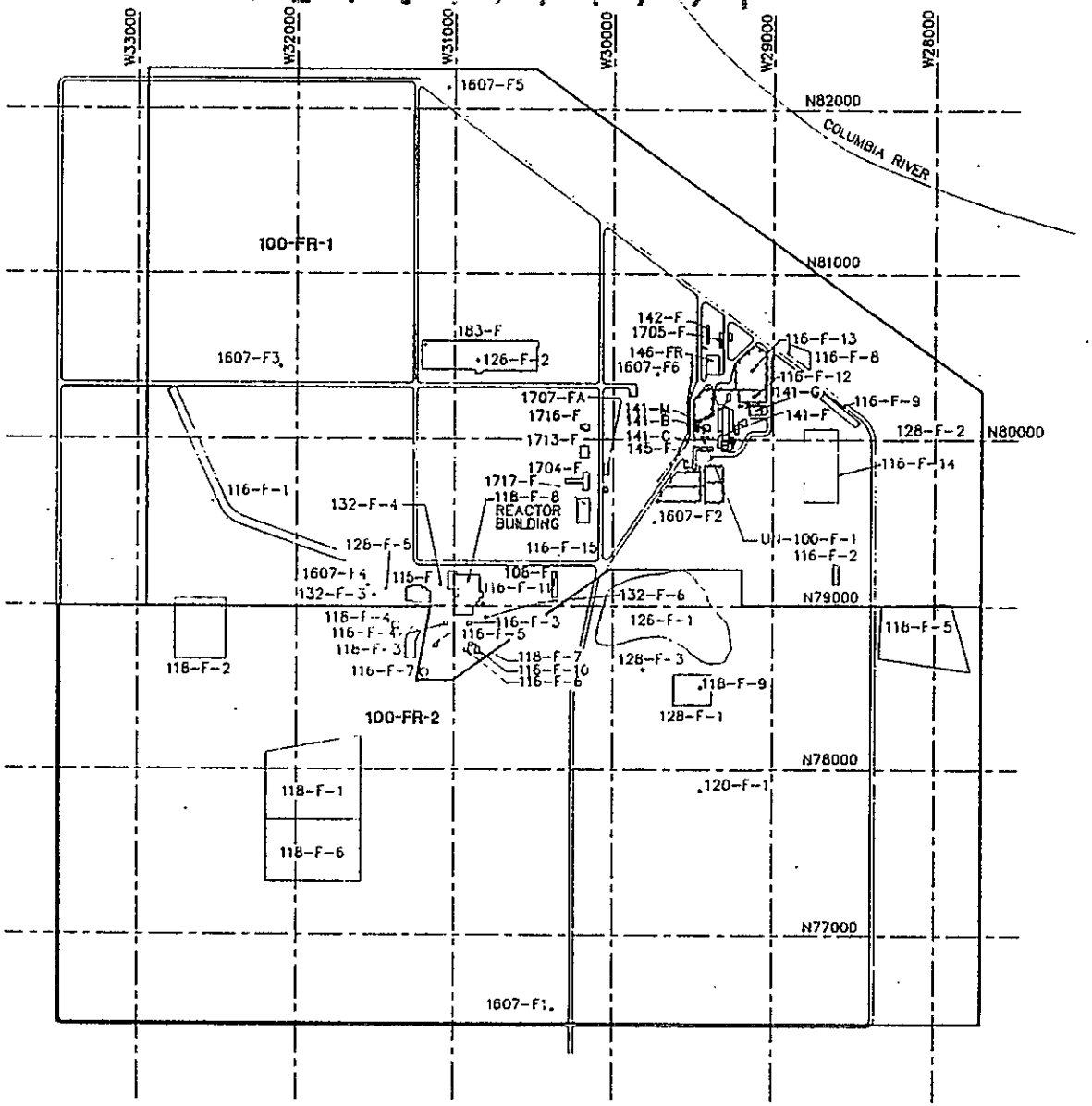
100-D/DR Area
Operable Units 100-DR-2 and 100-DR-3



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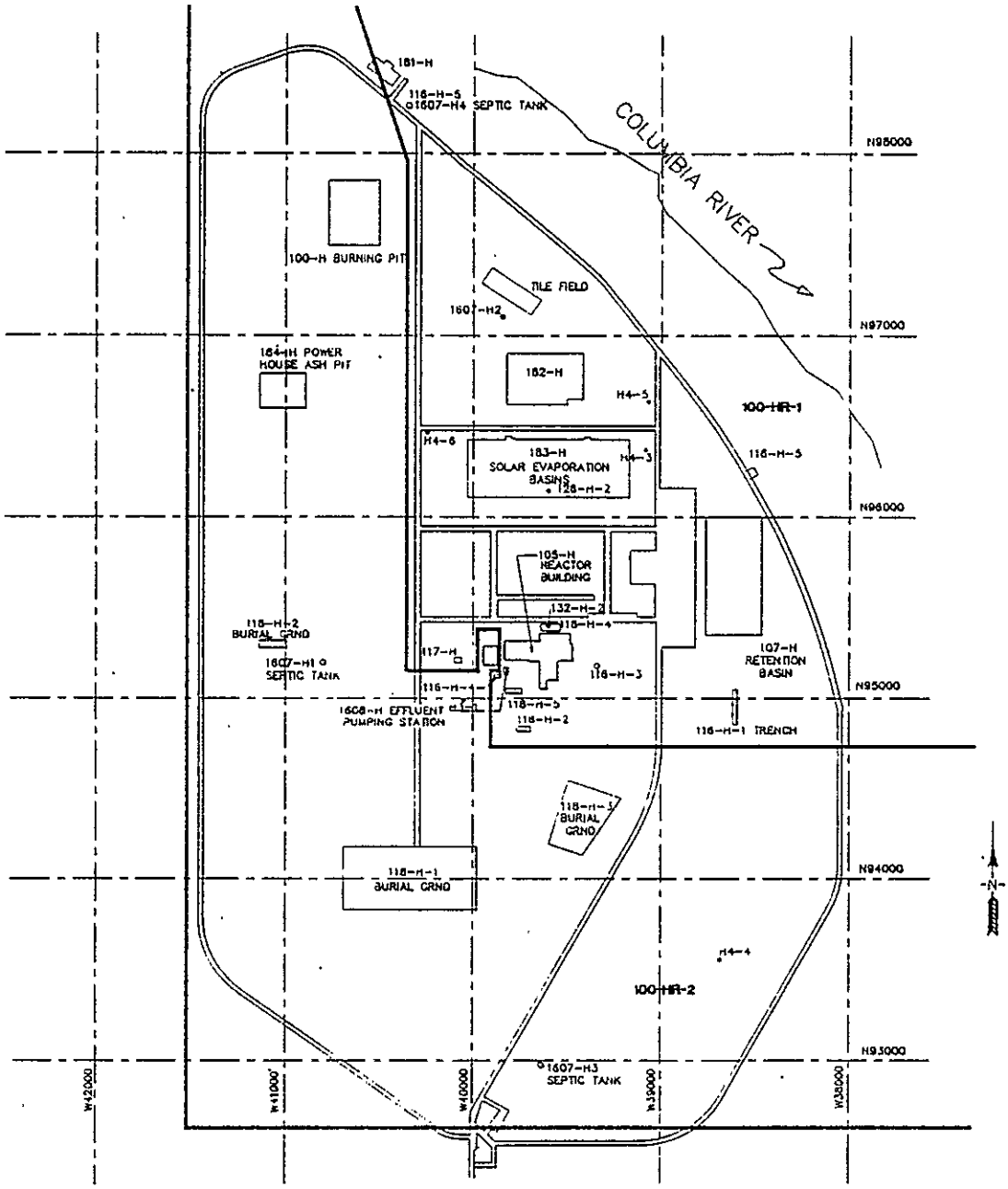
100-F AREA

OPERABLE UNITS



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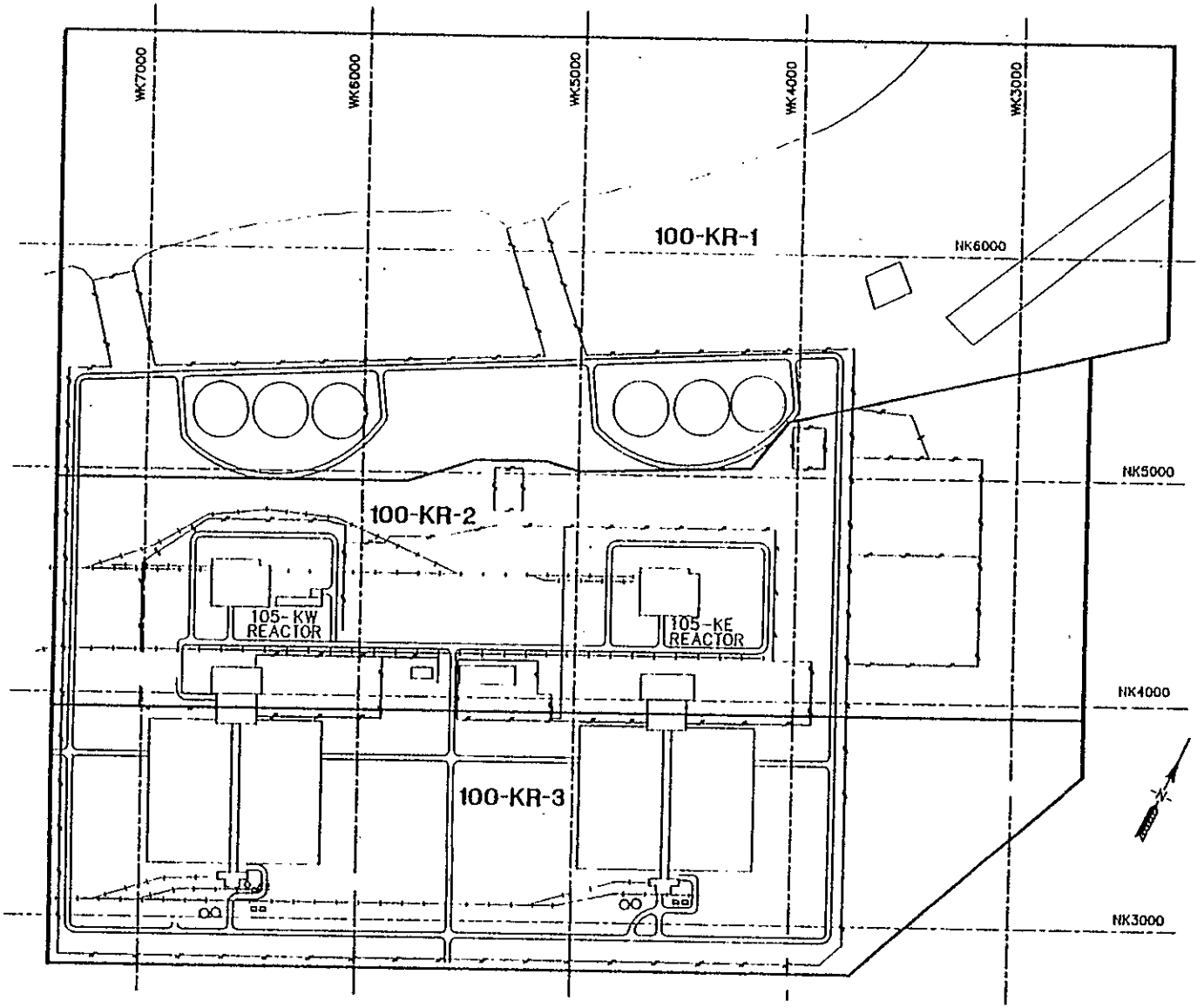
100-H AREA
OPERABLE UNITS



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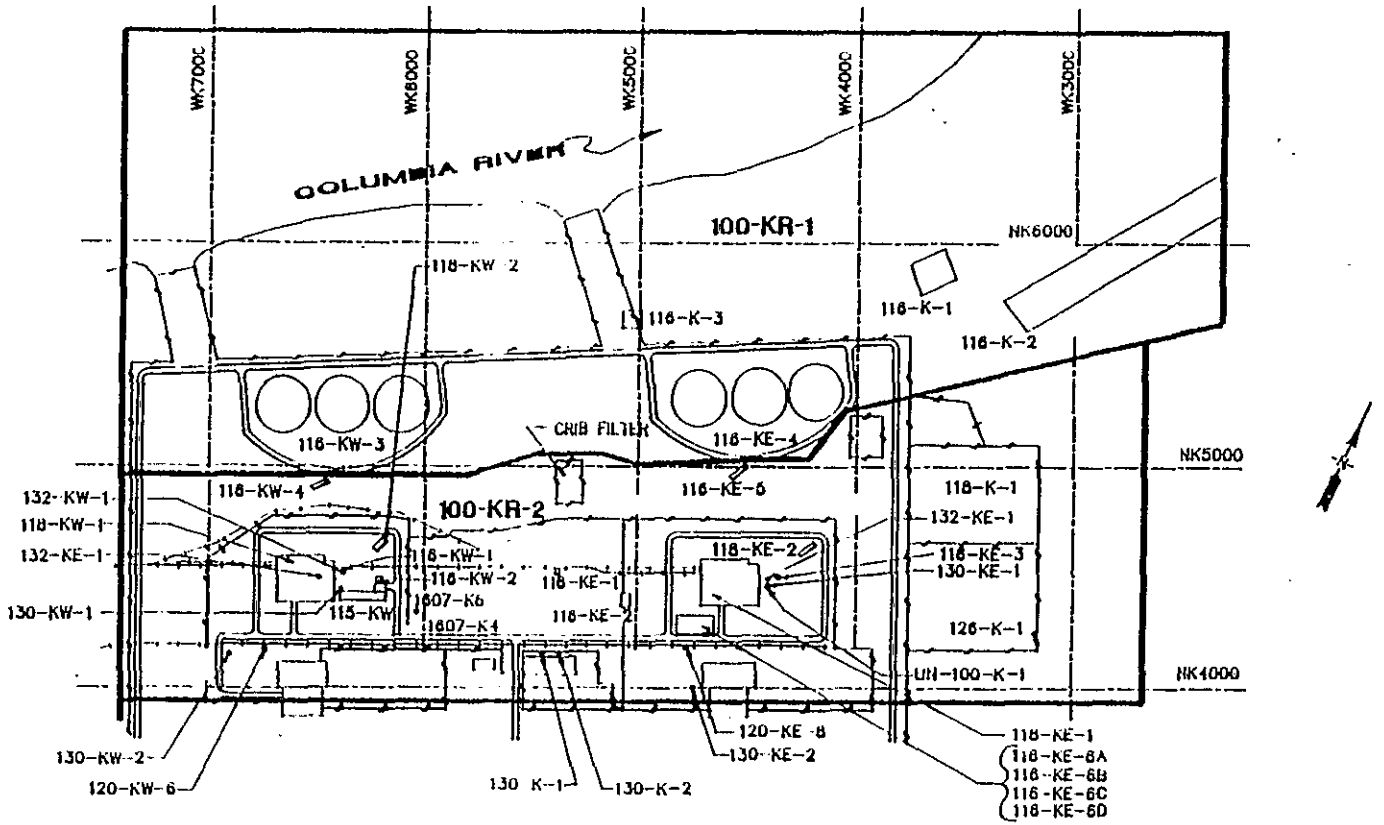
100-K Area
Key Plan



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GDH			12/91	4.0	INFORMATION UPDATE

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100-K Area
Operable Units 100-KR-1 and 100-KR-2

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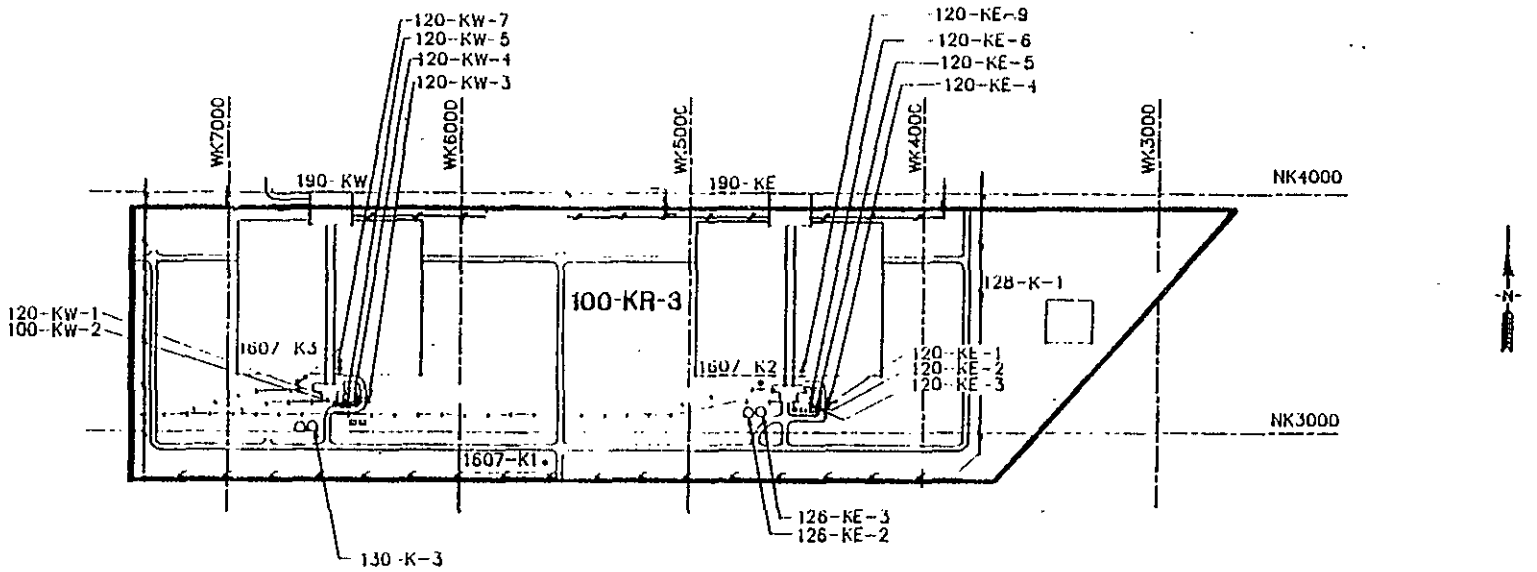

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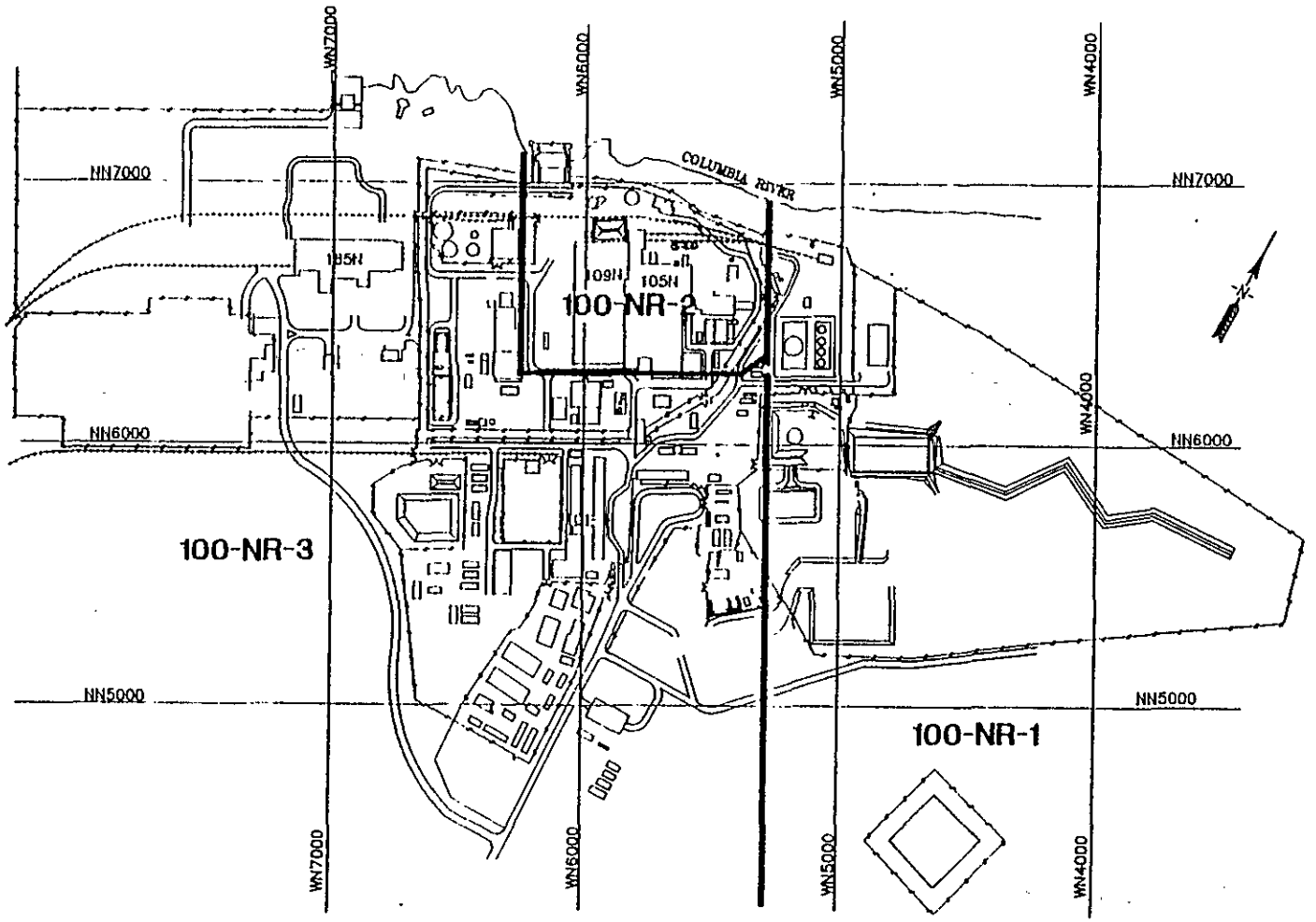
100-K Area
Operable Unit 100-KR-3



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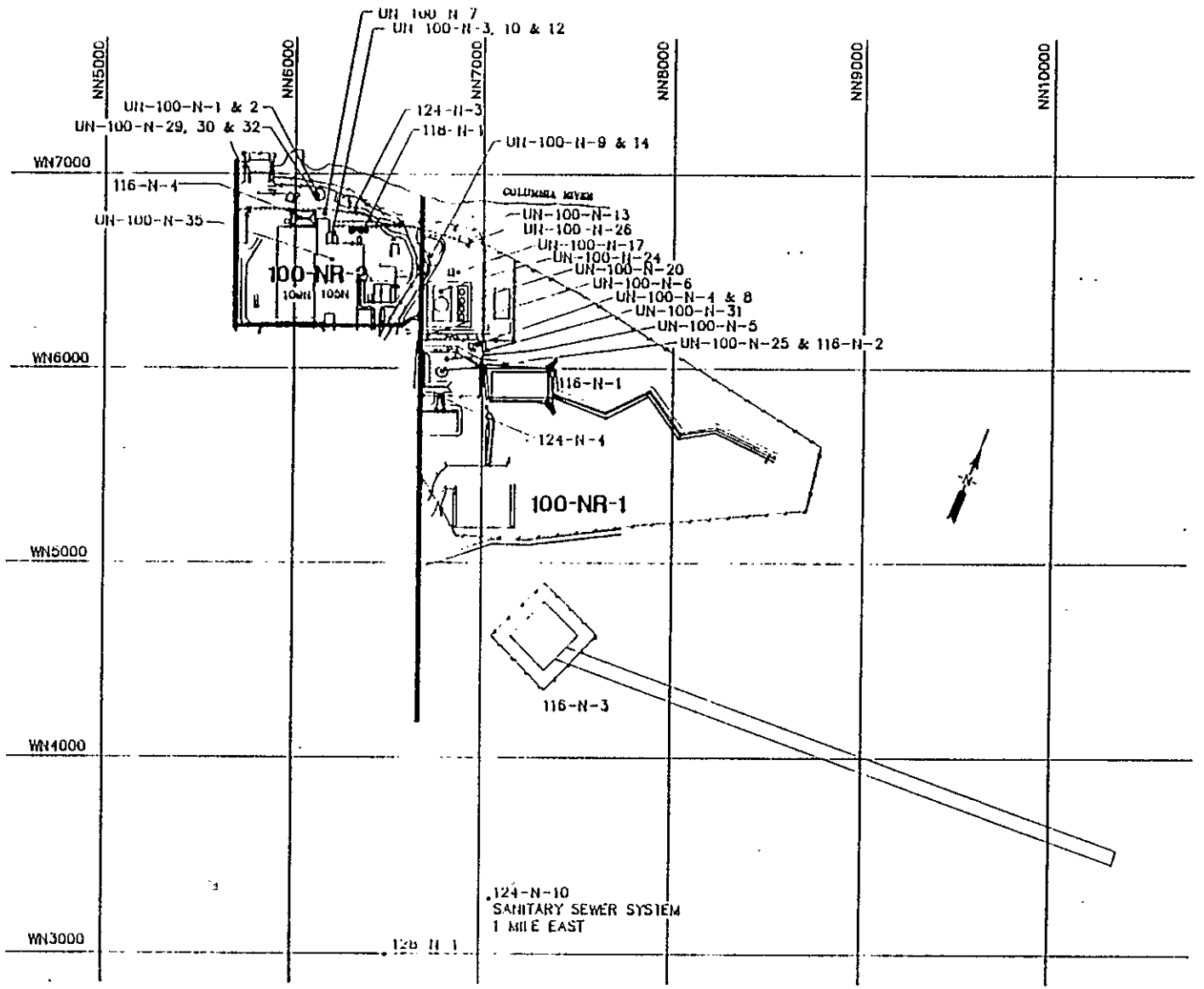
100-N Area
Key Plan



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JJA			1/91	2.0	ANNUAL OU REPORT

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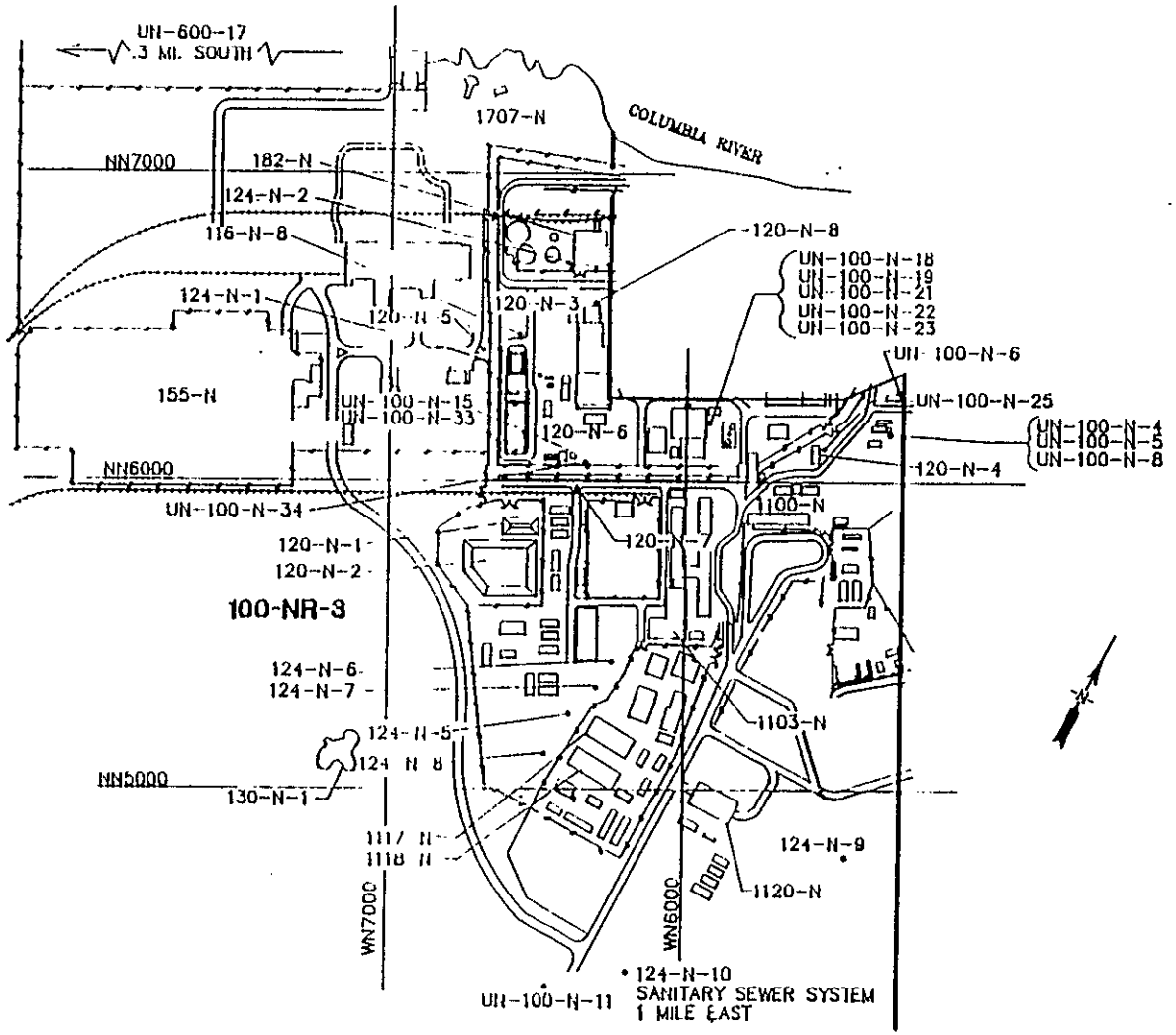
100-N Area
Operable Units 100-NR-1 and 100-NR-2



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100-N Area
Operable Unit 100-NR-3

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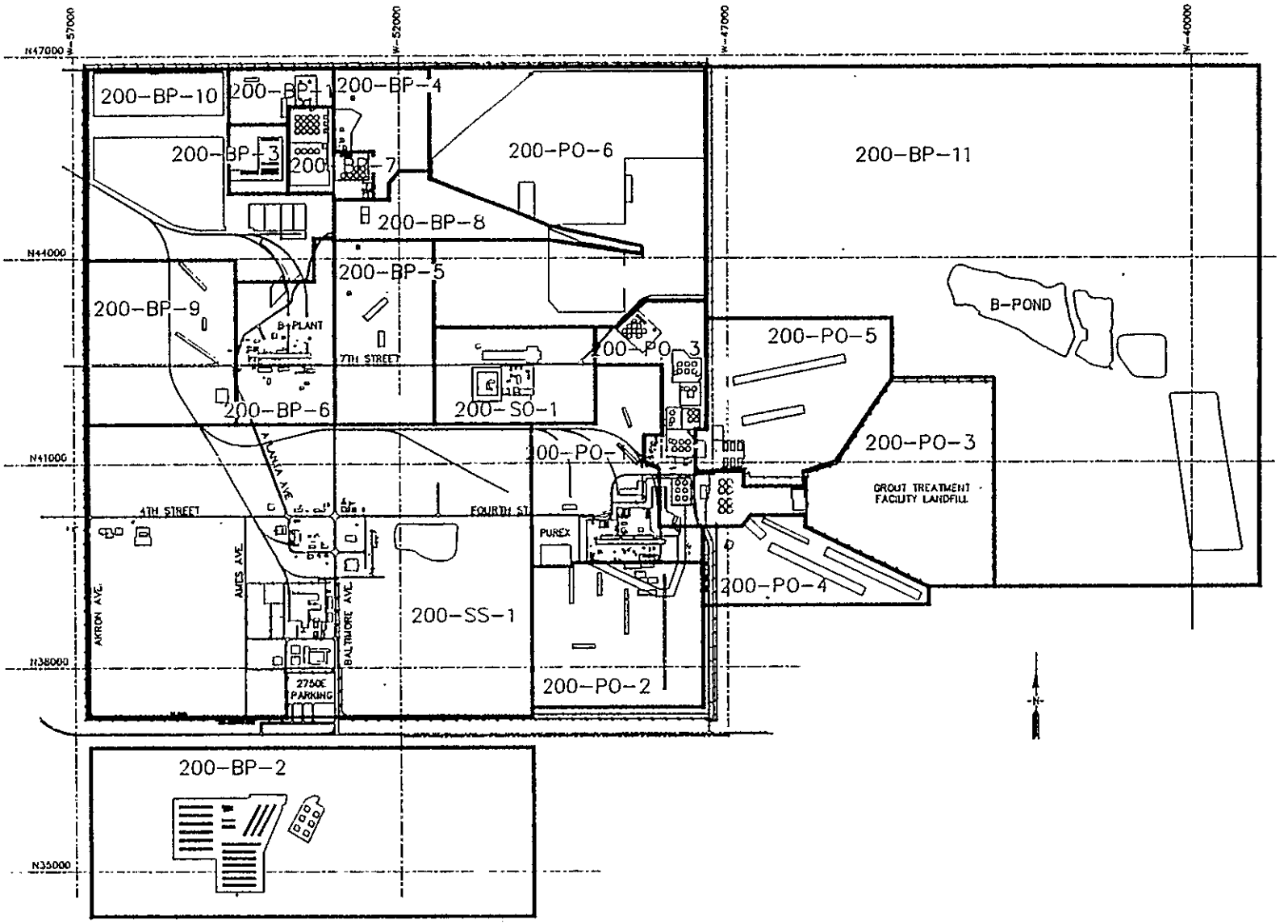

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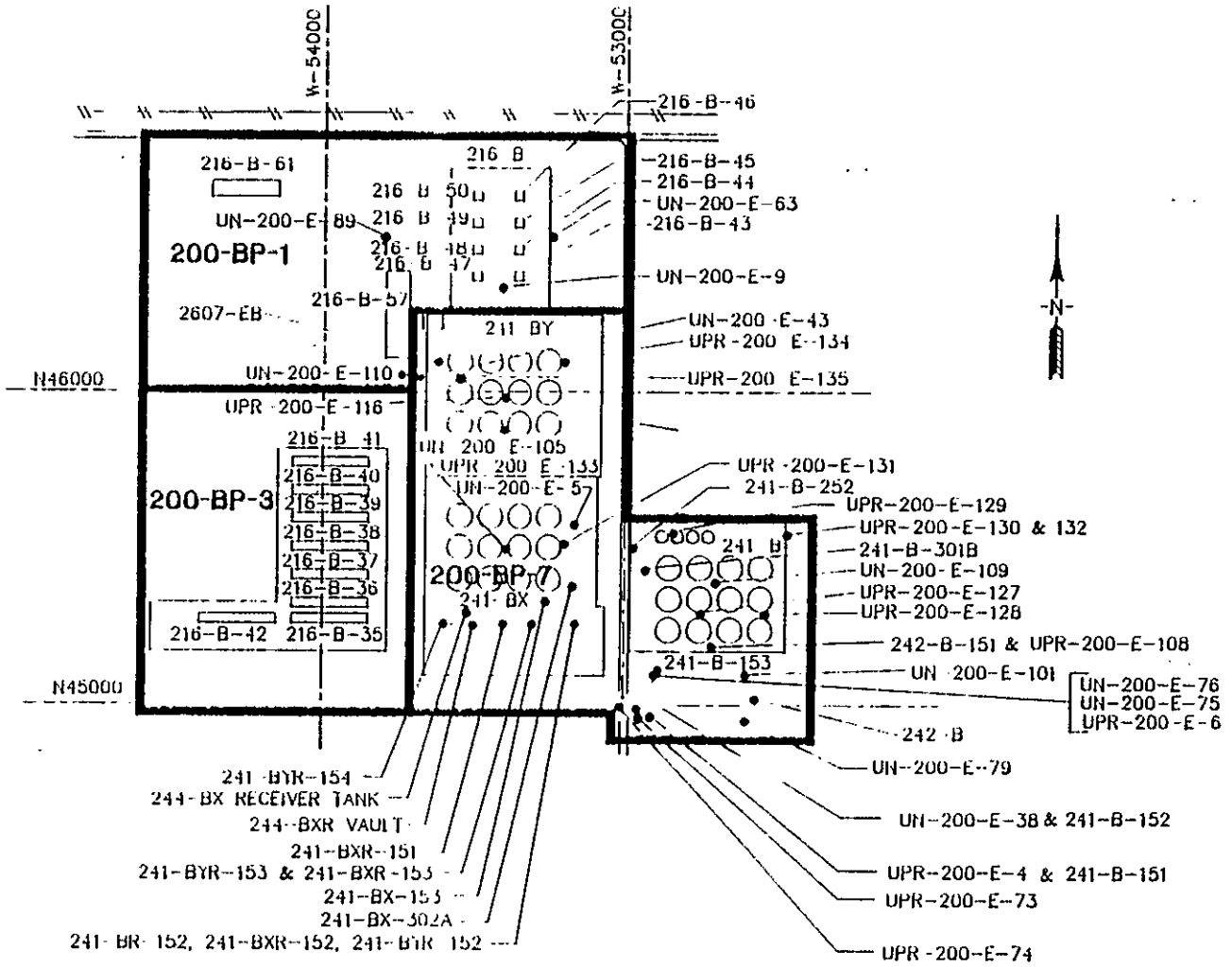
200 East Area

Key Plan

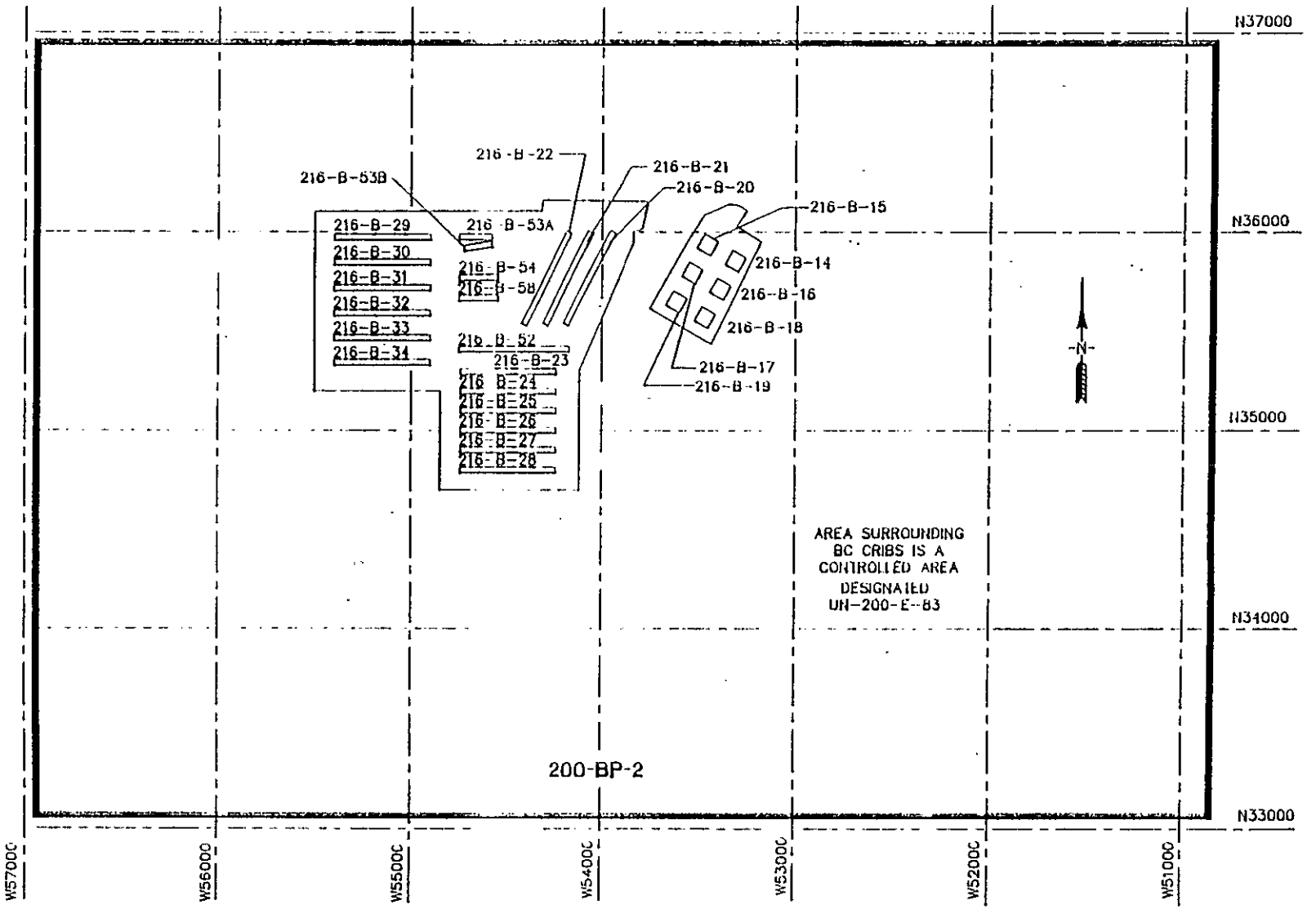
00\2E-KEY



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE
JJA			12/91	4.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

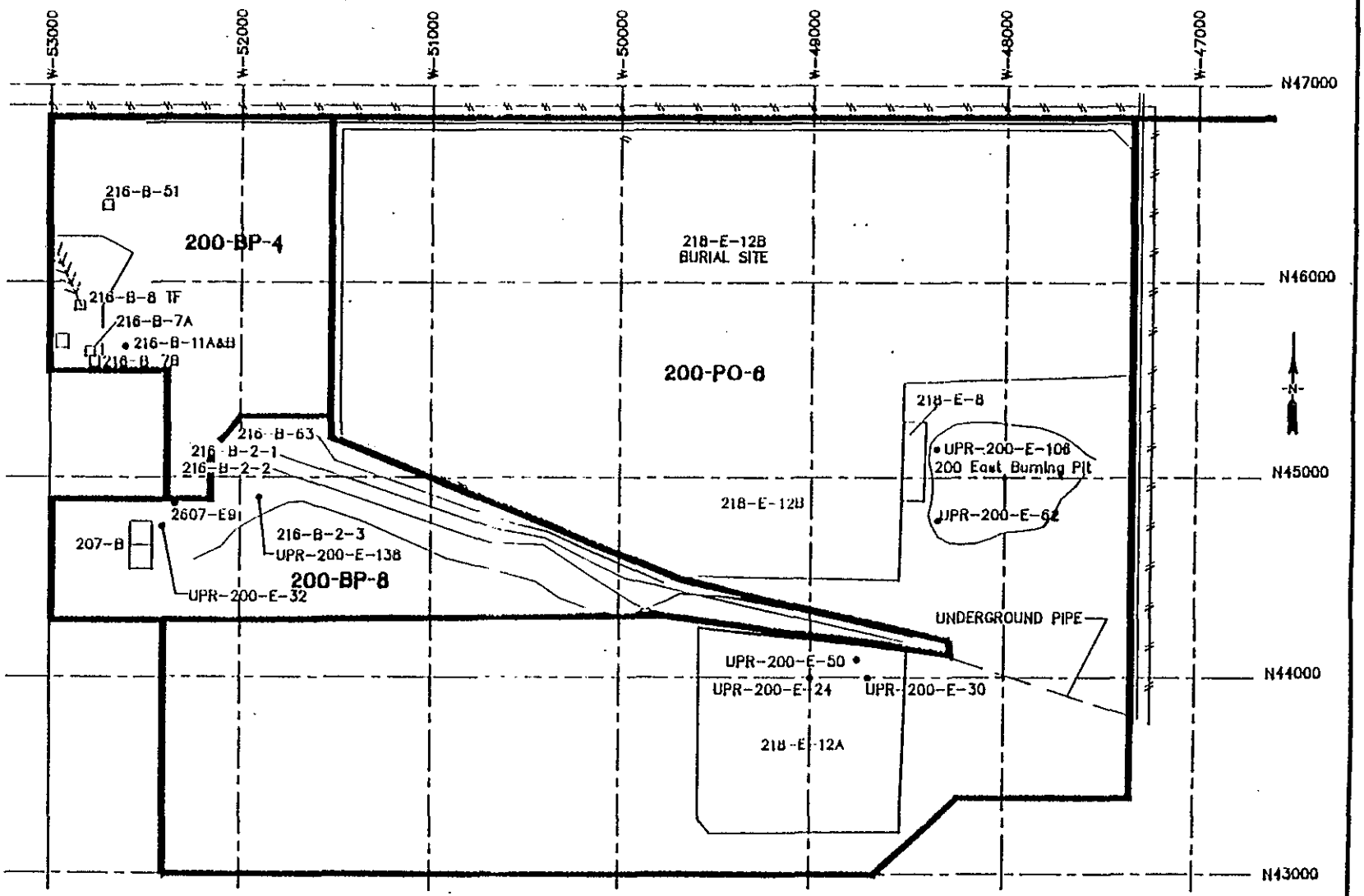
200 East Area
Operable Units
200-BP-1, 200-BP-3 and 200-BP-7
OU\2-BP-137



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 East Area
Operable Unit 200-BP-2
OU\2BP-2

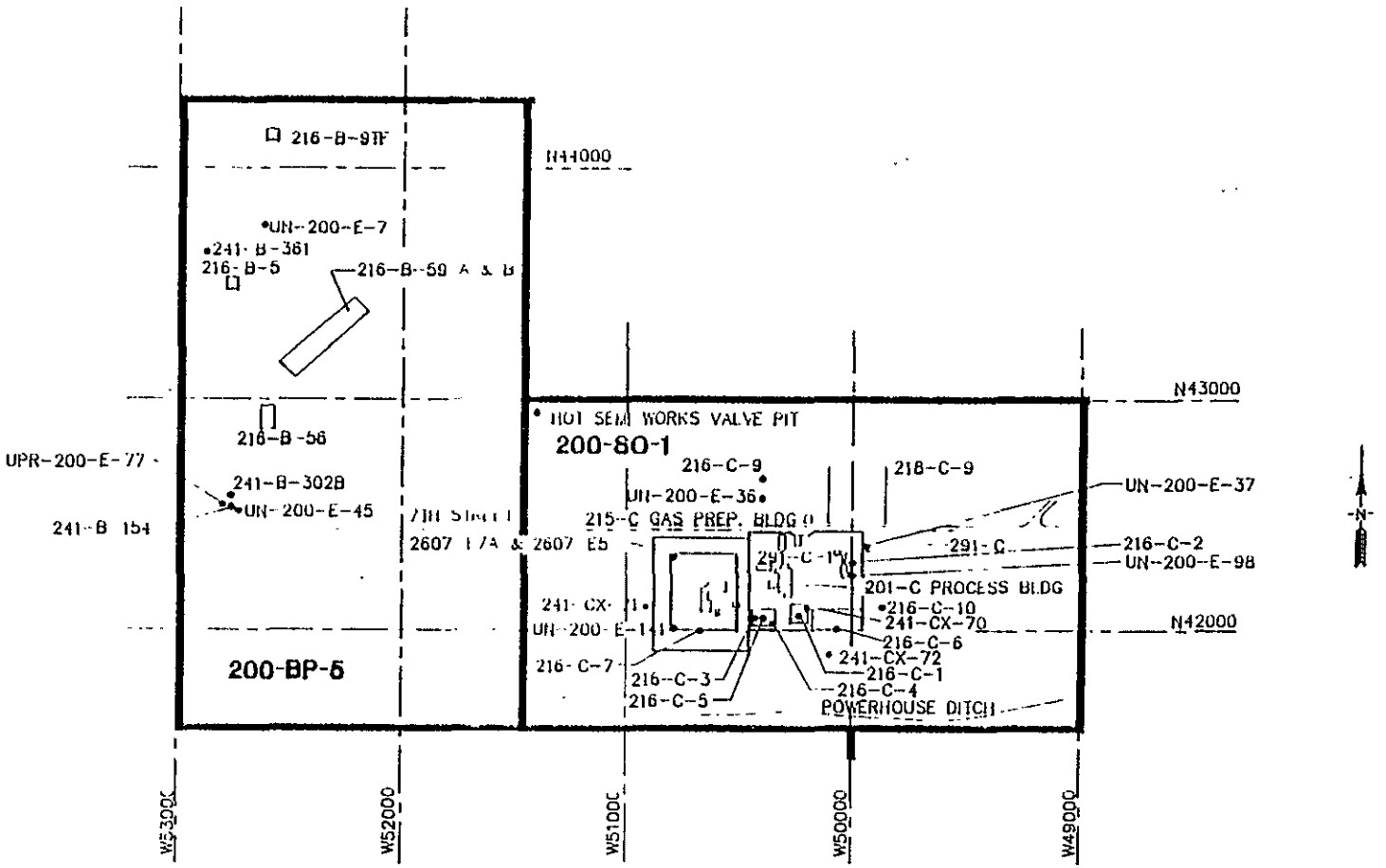


DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	CHANGE SITE I.D.
JJA			1/91	3.0	INFORMATION UPDATE
JJA			12/91	4.0	ADJUSTED B.G. BOUNDARY

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 East Area
Operable Units
200-BP-4, 200-BP-8 and 200-PO-6
OU\2-BP-48

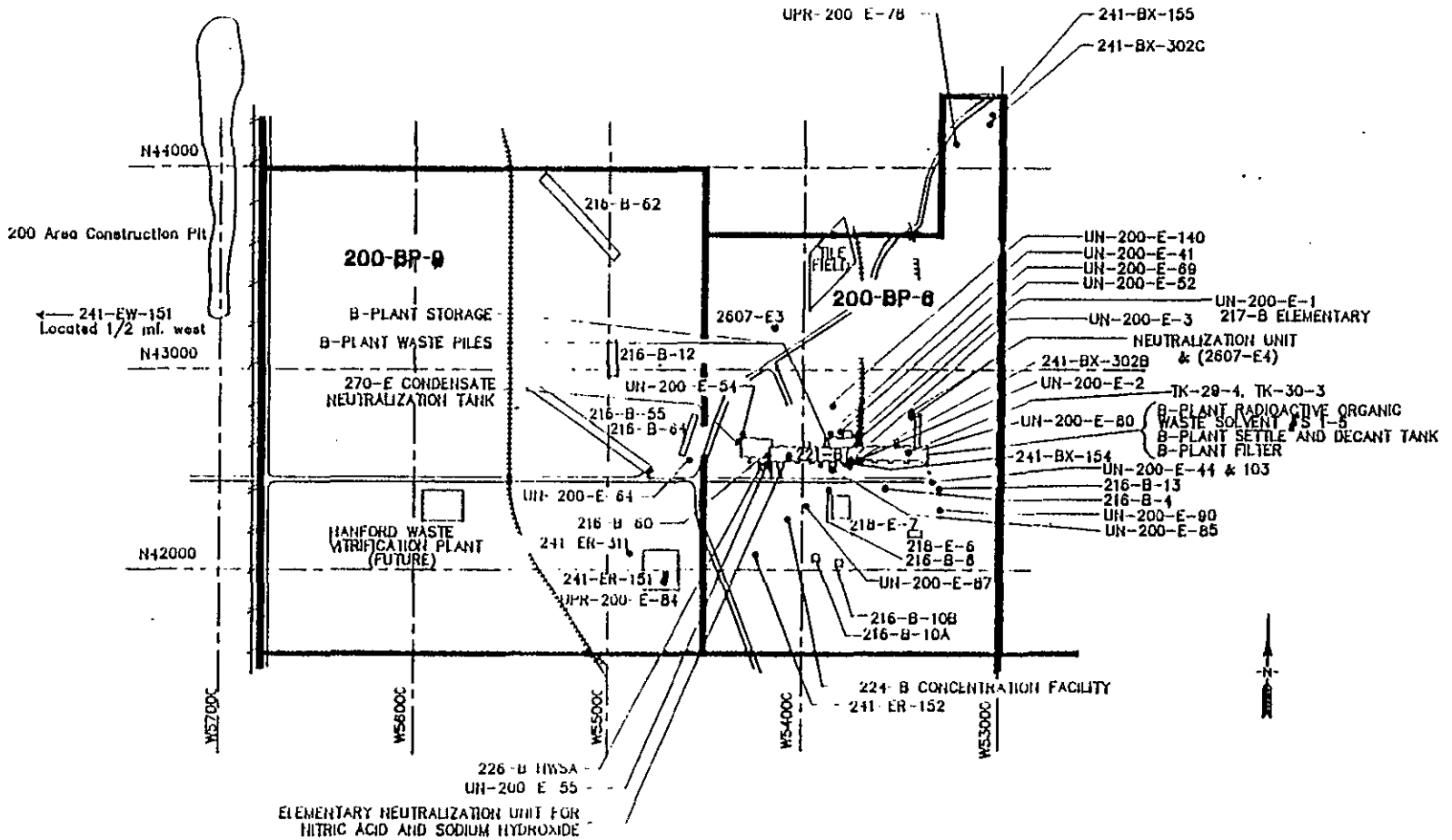
9 2 1 2 4 9 7 1 8 0 3



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE
JJA			12/91	4.0	218-C-9

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 East Area
Operable Units 200-BP-5 and 200-SO-1
OU\2BPPO-51



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE
JJA			12/91	4.0	INFORMATION UPDATE

Westinghouse Hanford Company
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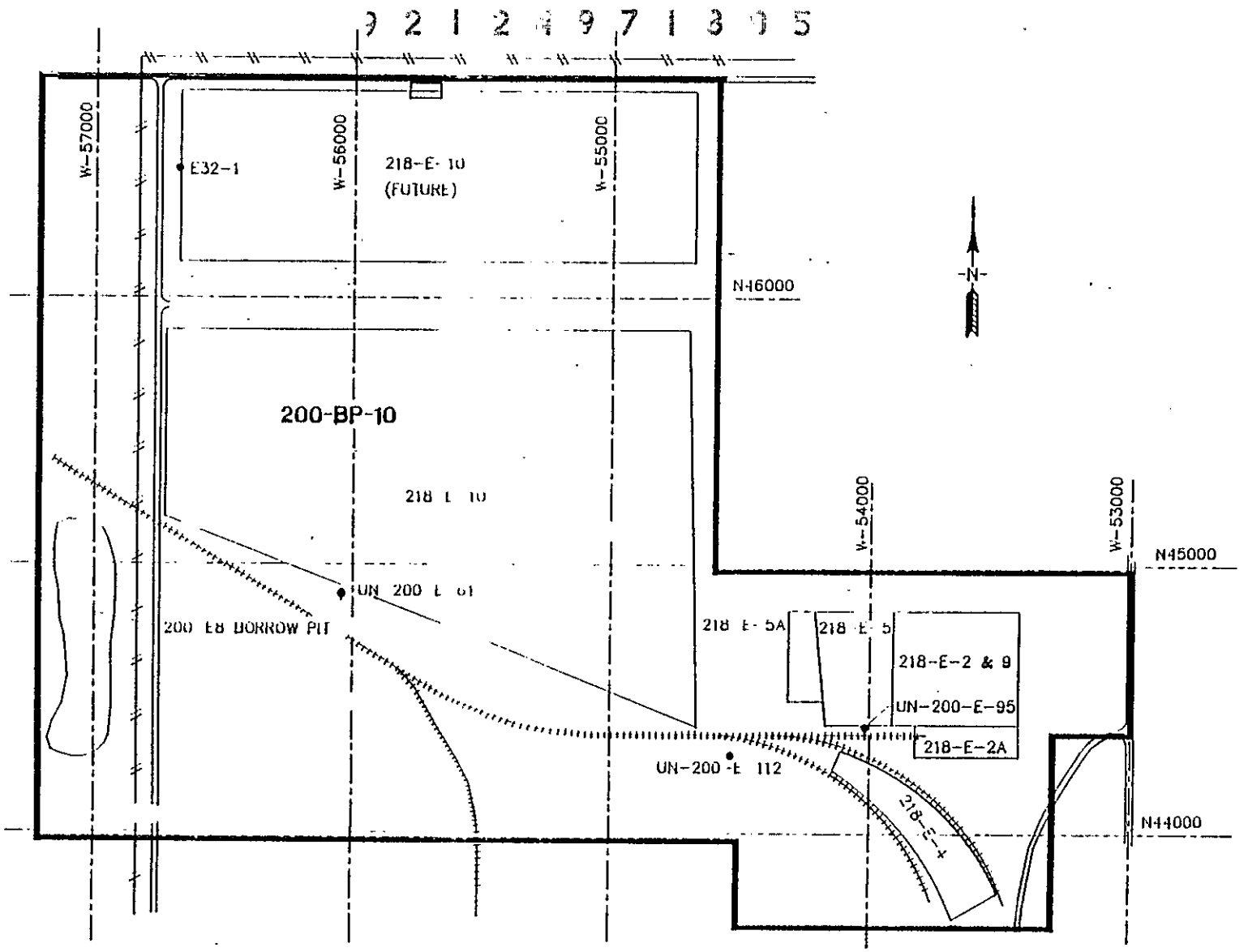
Richland, WA 99352

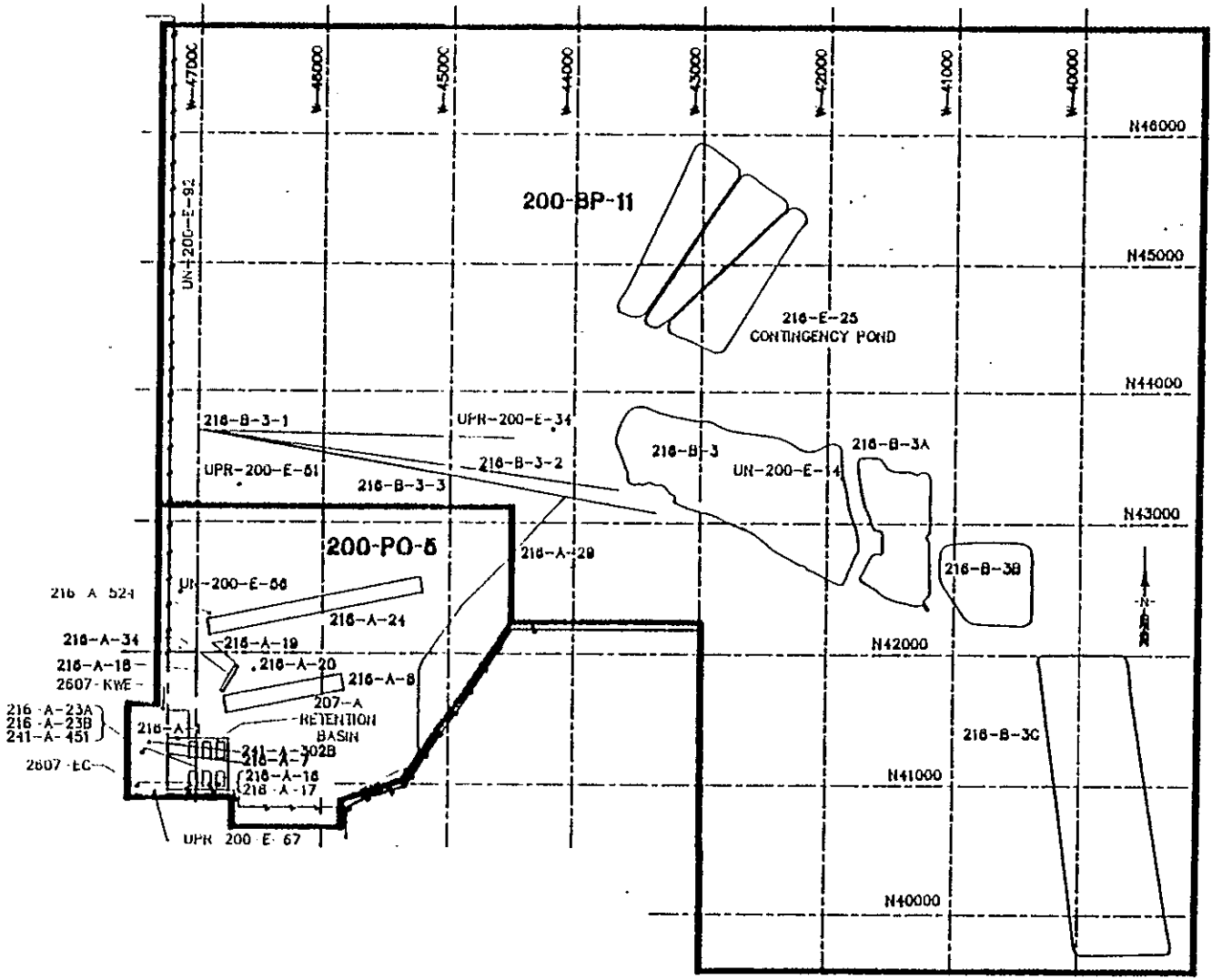
200 East Area
Operable Units 200-BP-6 and 200-BP-9
OU\2BP-69



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			1/91	2.0	INFORMATION UPDATE
JJA			12/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 East Area
Operable Unit 200-BP-10
OU\2BP-10



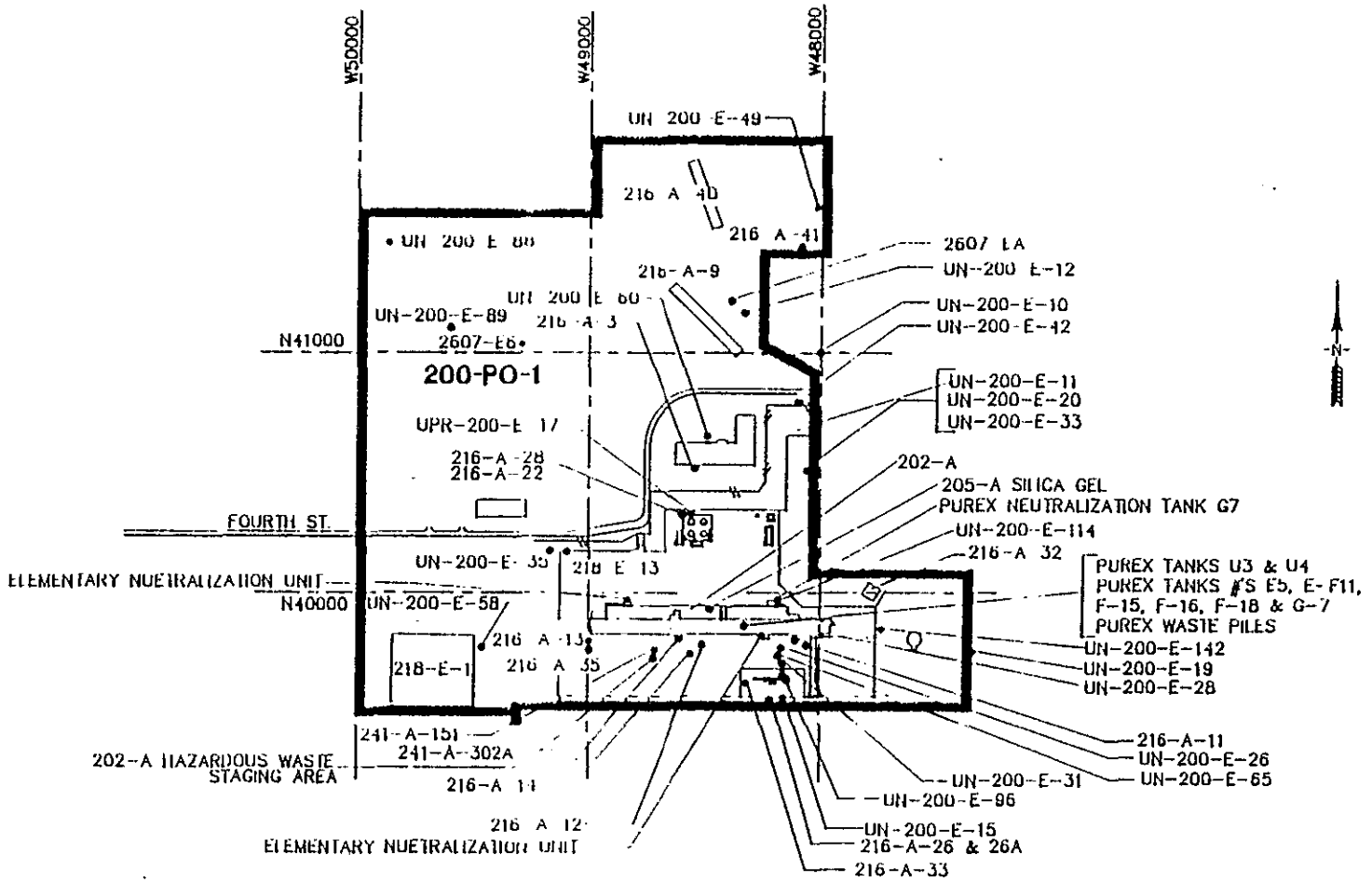
DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			1/91	2.0	INFORMATION UPDATE
JJA			12/91	3.0	RELOCATION OF 216-E-524

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 East Area
Operable Units 200-PO-5 and 200-BP-11

OU\2POBP511

9 2 1 2 1 9 7 1 8 0 7

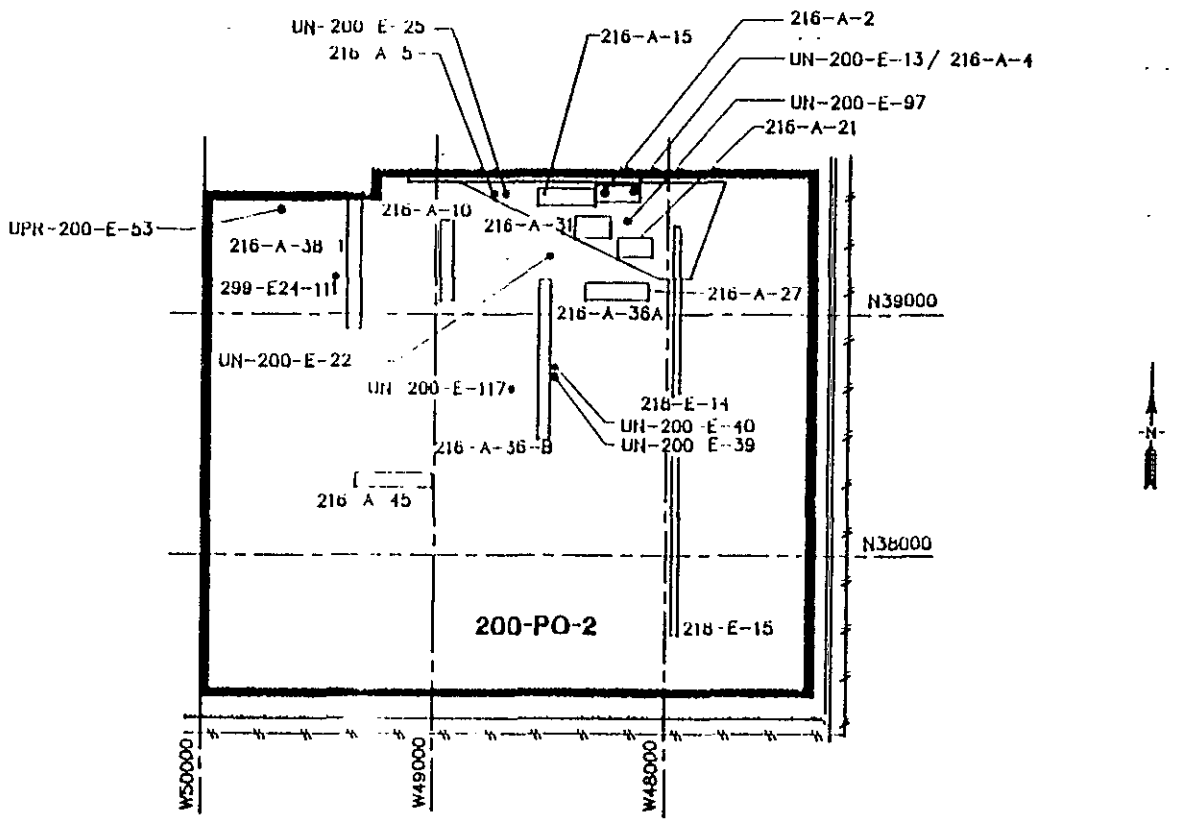


DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE
JJA			12/91	4.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 East Area
Operable Unit 200-PO-1

OU\2PO-1



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			1/91	2.0	INFORMATION UPDATE
JJA			12/91	3.0	ADD 299-E24-111

Westinghouse Hanford Company
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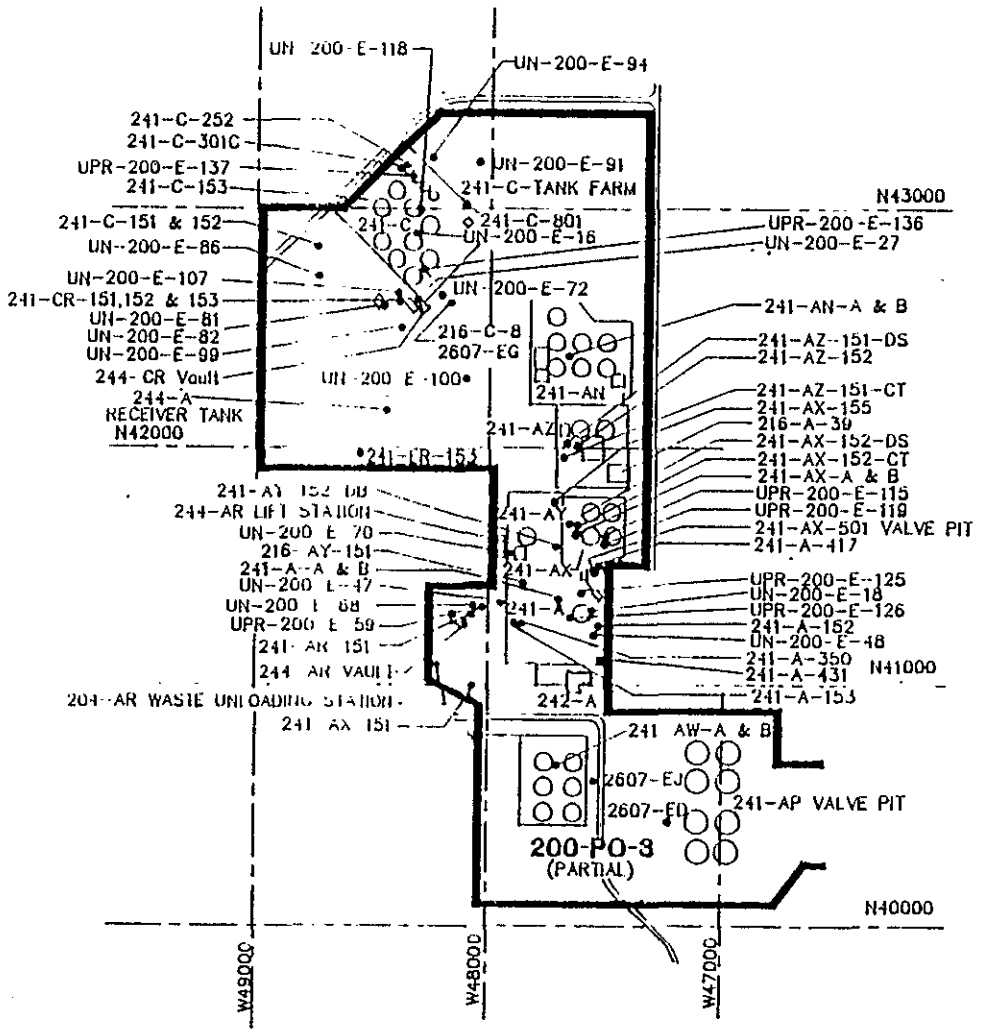
200 East Area
Operable Unit 200-PO-2
OU\2PO-2



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
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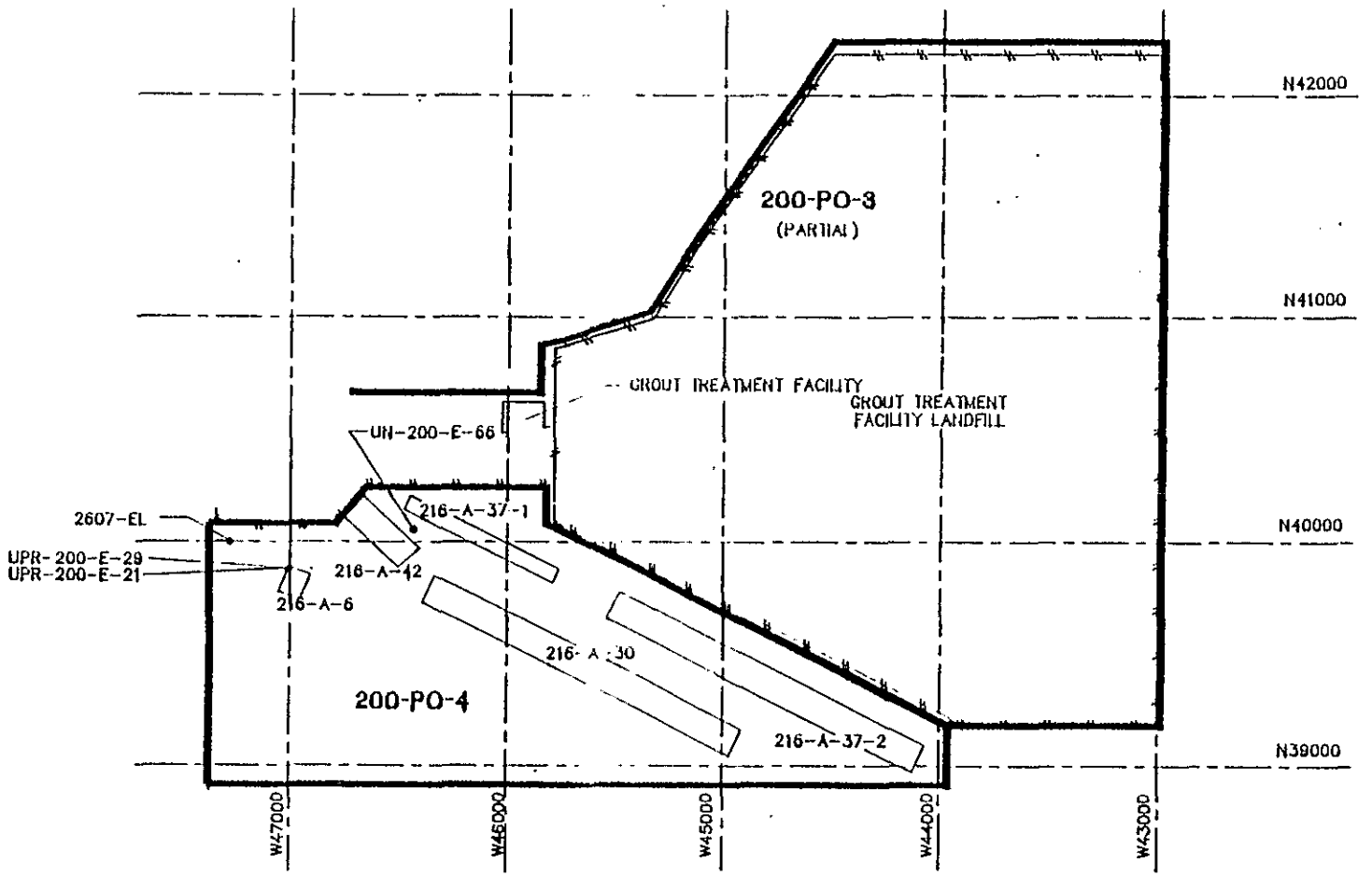
Richland, WA 99352

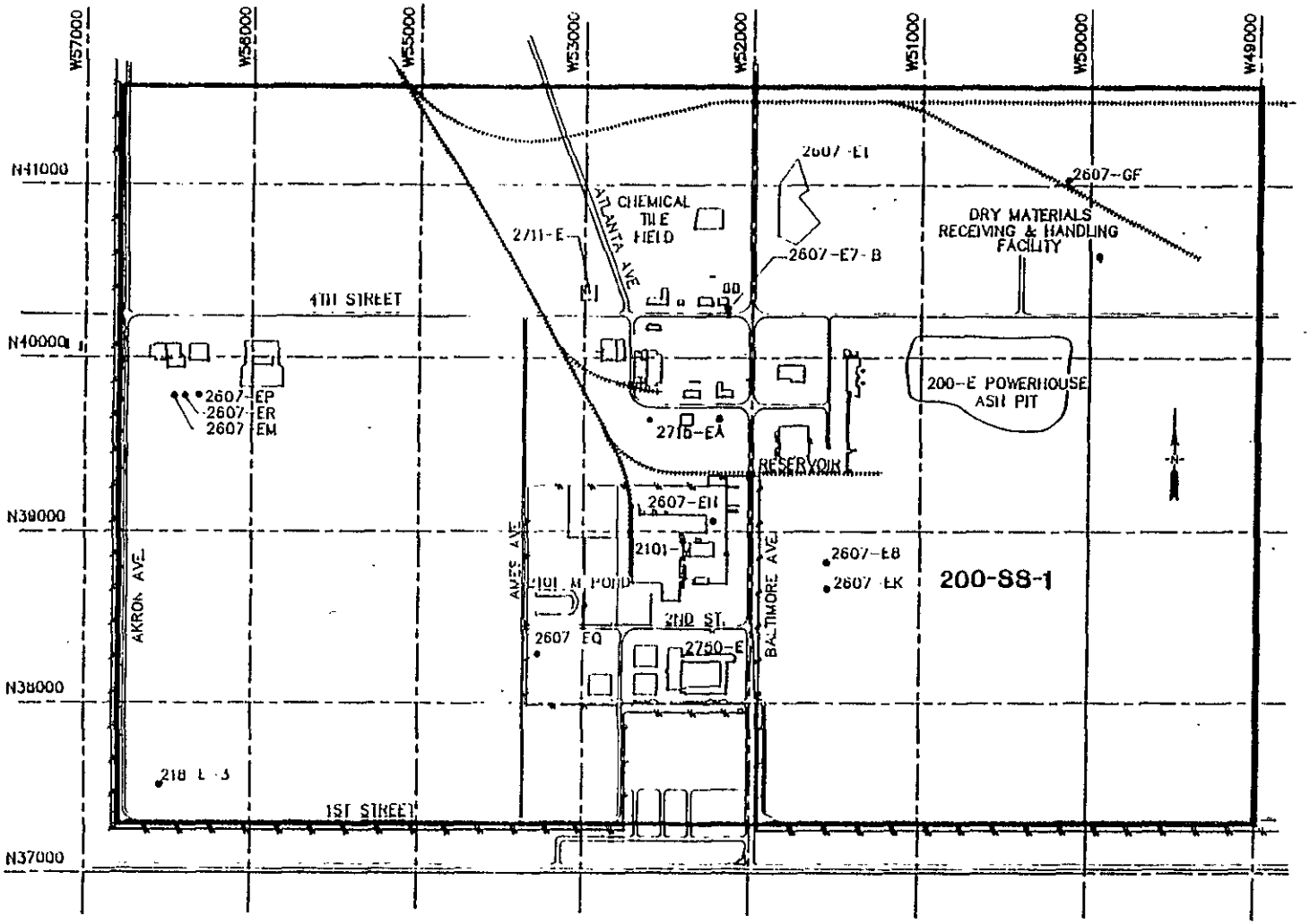
200 East Area
Operable Unit 200-PO-3 (Partial)
OU\2PO-3



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			1/91	2.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 East Area
Operable Units 200-PO-4 and 200-PO-3 (Partial)
OU\2-PO-43

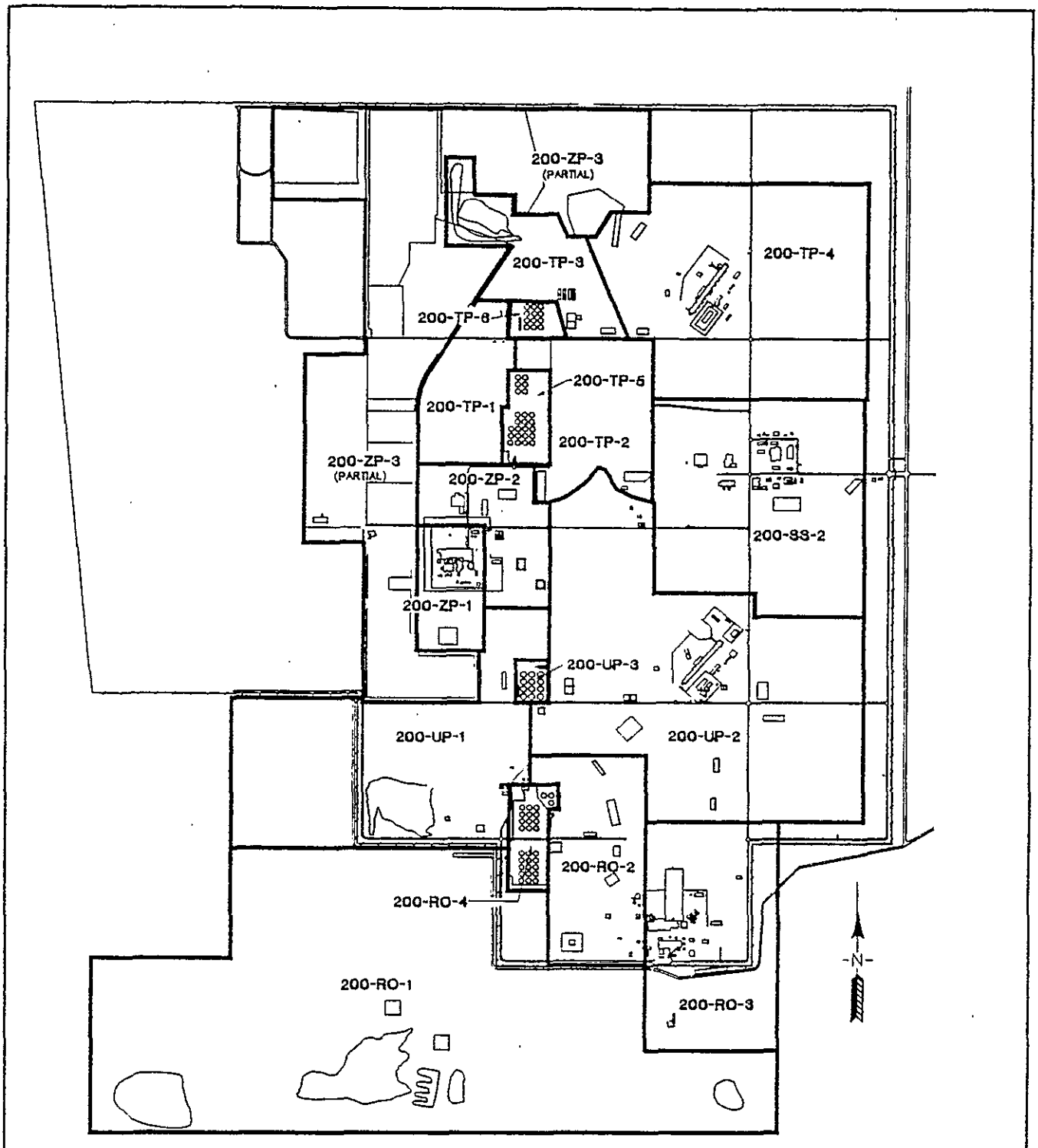


DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 East Area
Operable Units 200-SS-1

OU\2SS-1



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	

Westinghouse Hanford Company
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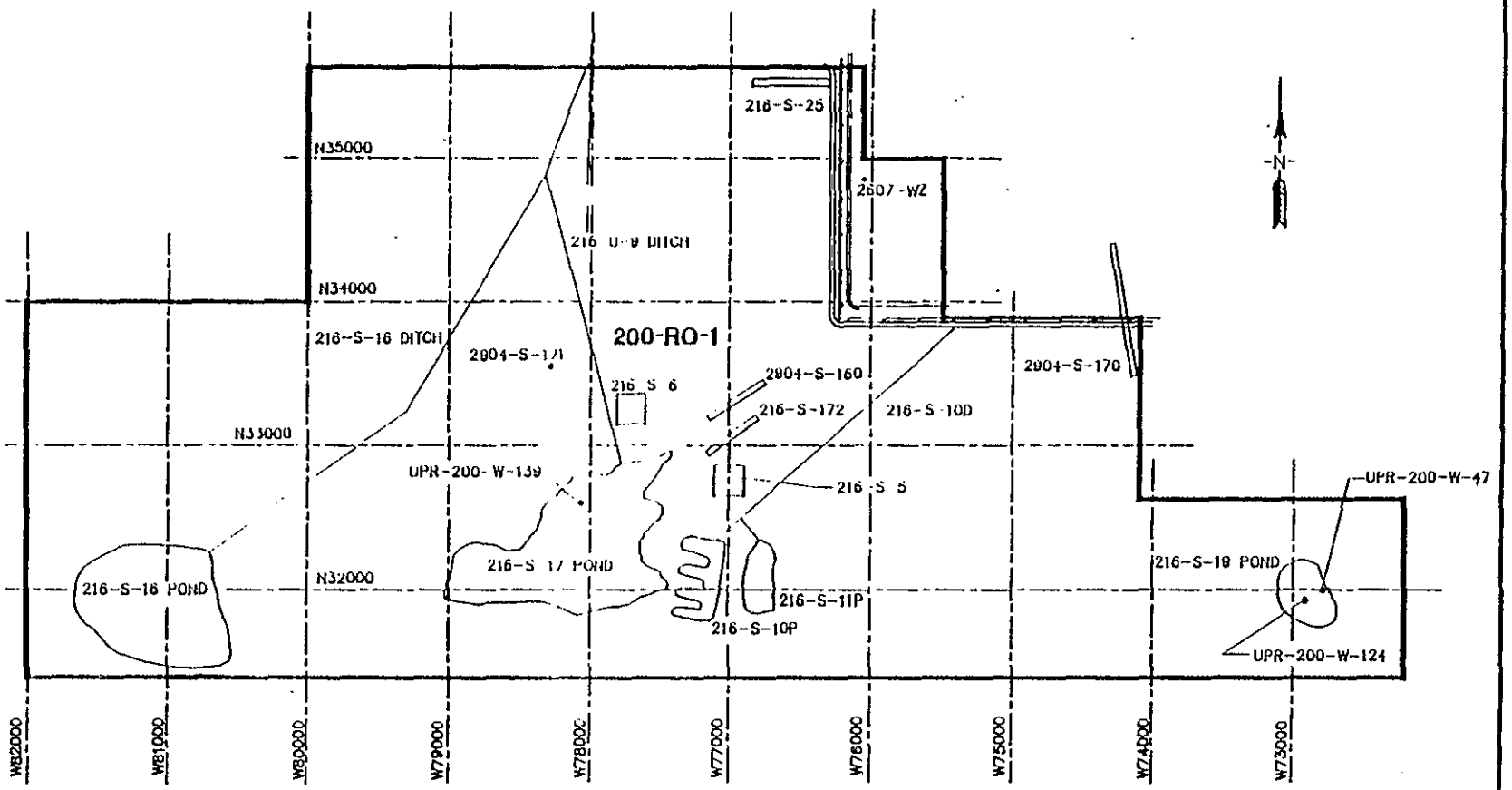
Richland, WA 99352

200 West Area
Key Plan

9 2 1 2 . 9 7 1 8 1 3



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
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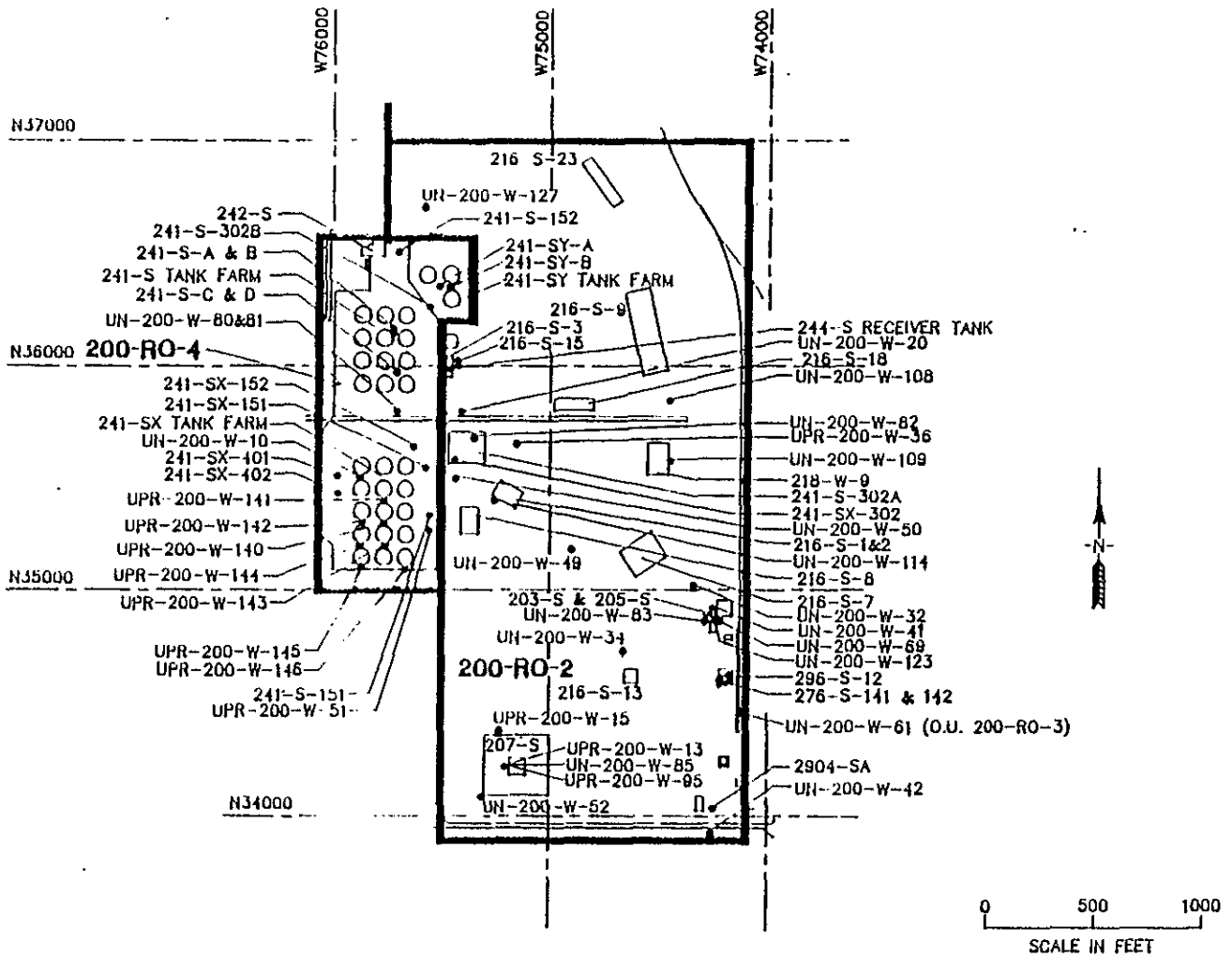
Richland, WA 99352

200 West Area
Operable Unit 200-RO-1

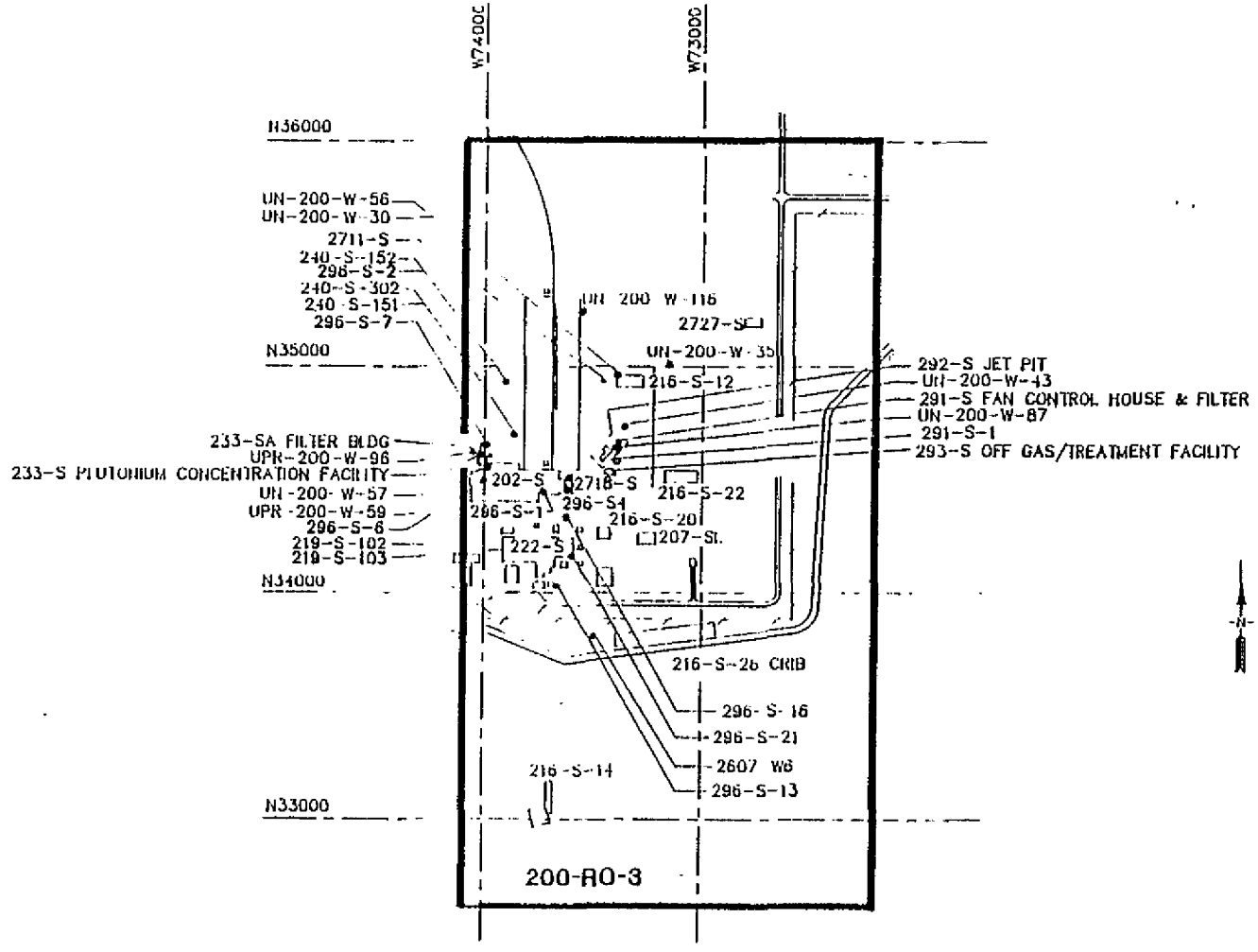
OU\2-RO-1



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 West Area
Operable Units 200-RO-2 and 200-RO-4
OU\2-RO-24



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			1/91	2.0	INFORMATION UPDATE
GDH			12/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
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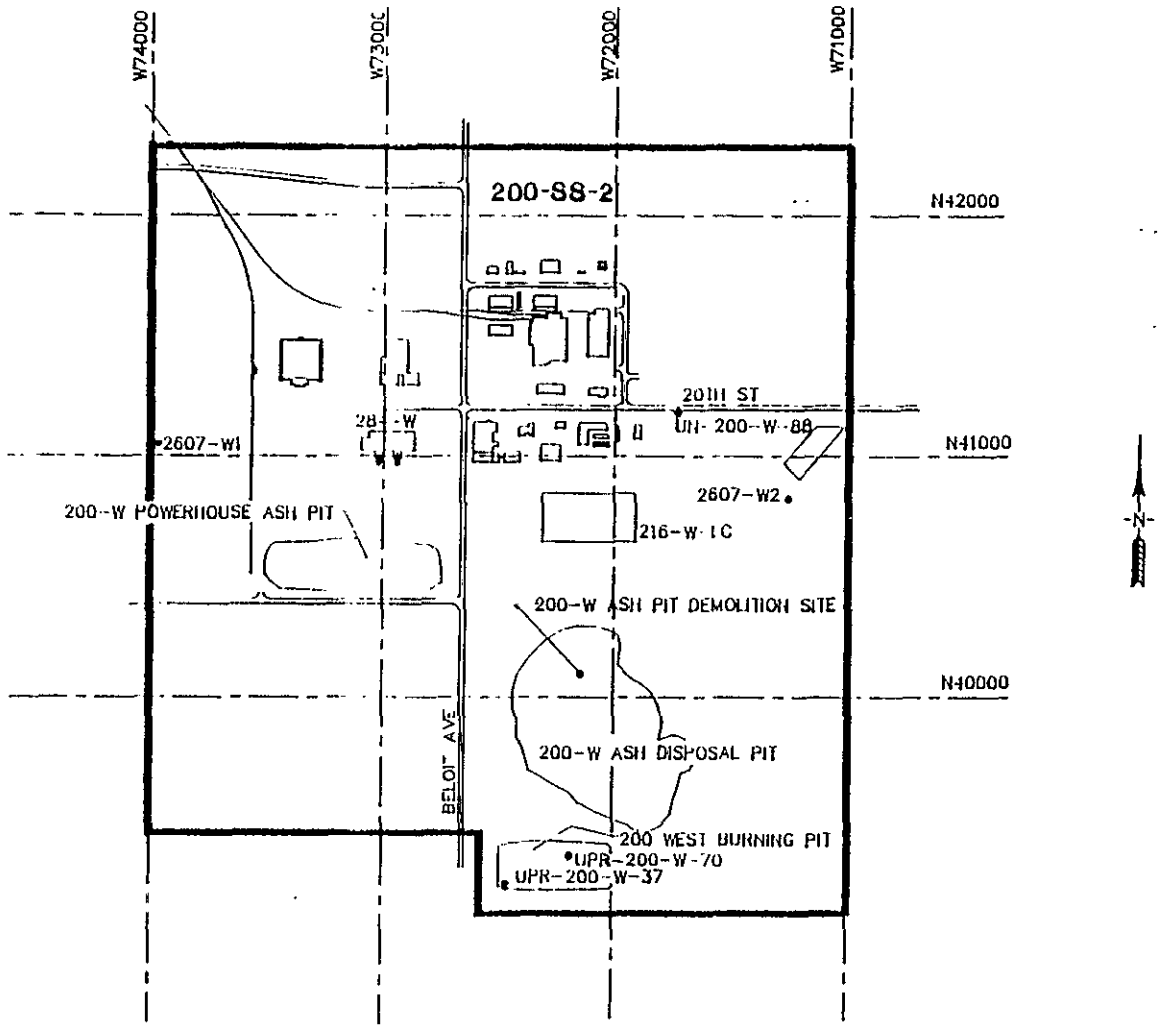
Richland, WA 99352

200 West Area
Operable Unit 200-RO-3

OU\2-RO-3



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	

Westinghouse Hanford Company
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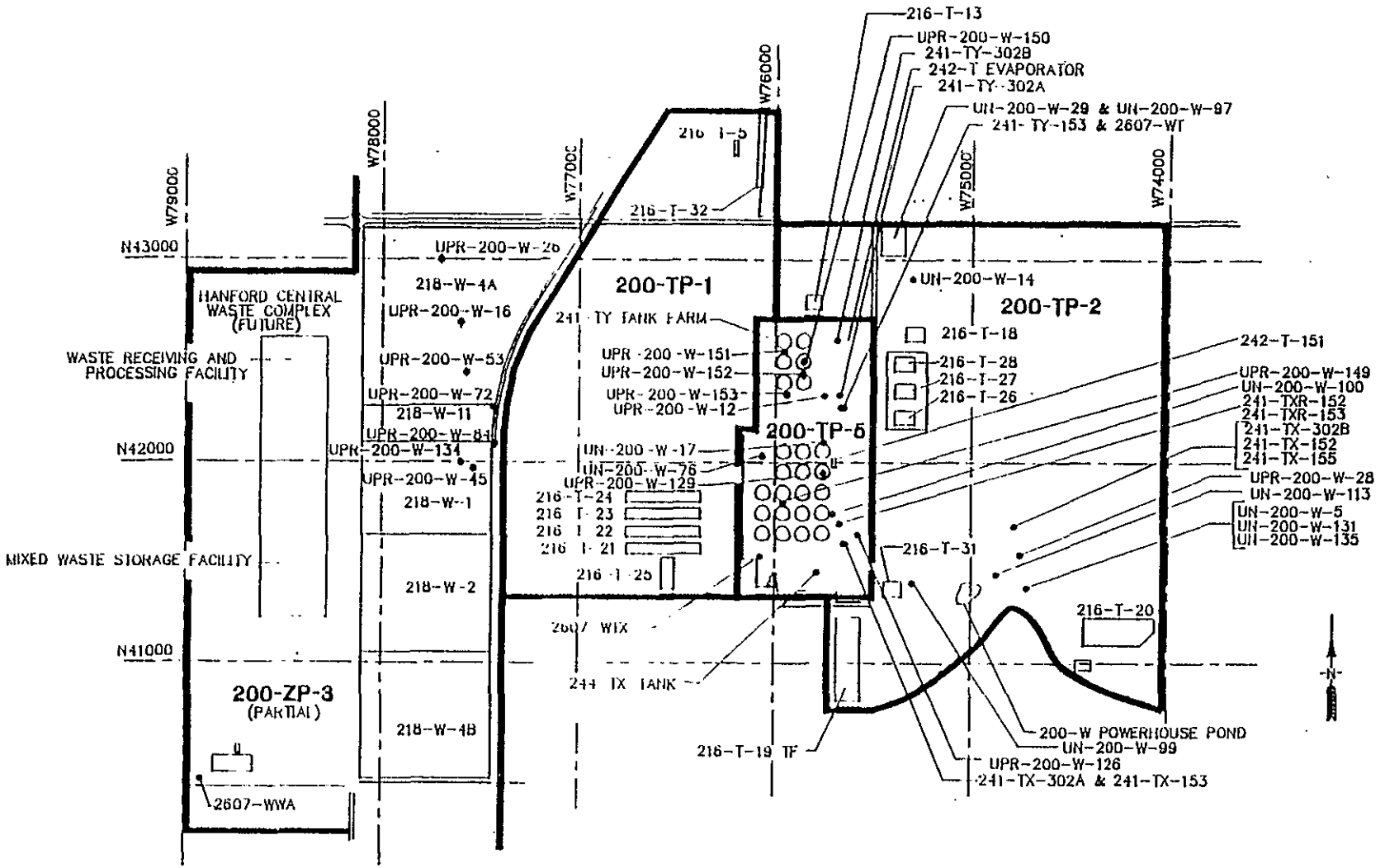
200 West Area
Operable Unit 200-SS-2

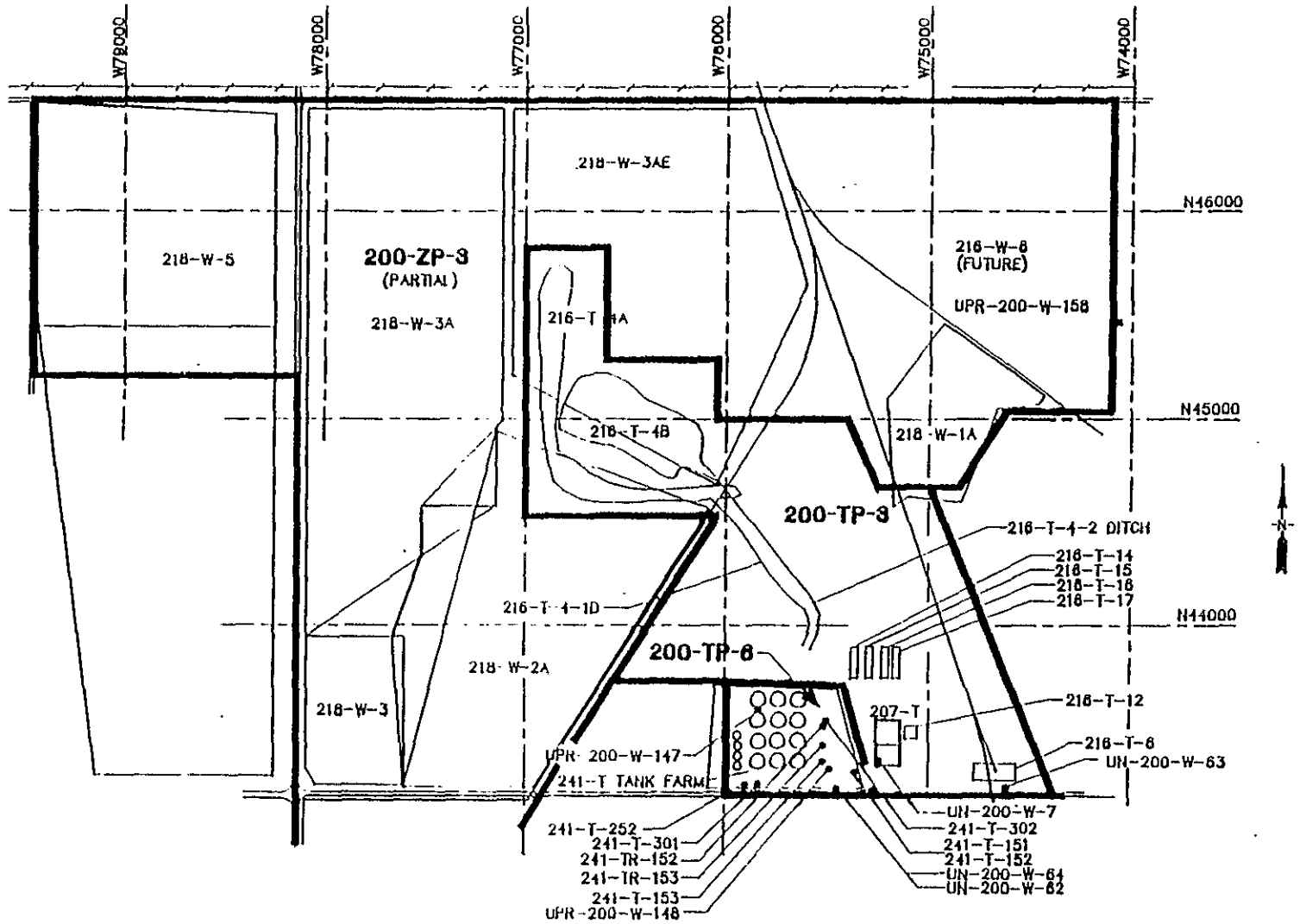
9 2 1 2 9 7 1 3 1 7



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 West Area
Operable Units
200-TP-1, 200-TP-2, 200-TP-5
and 200-ZP-3 (Partial)
OU\2-TP-125

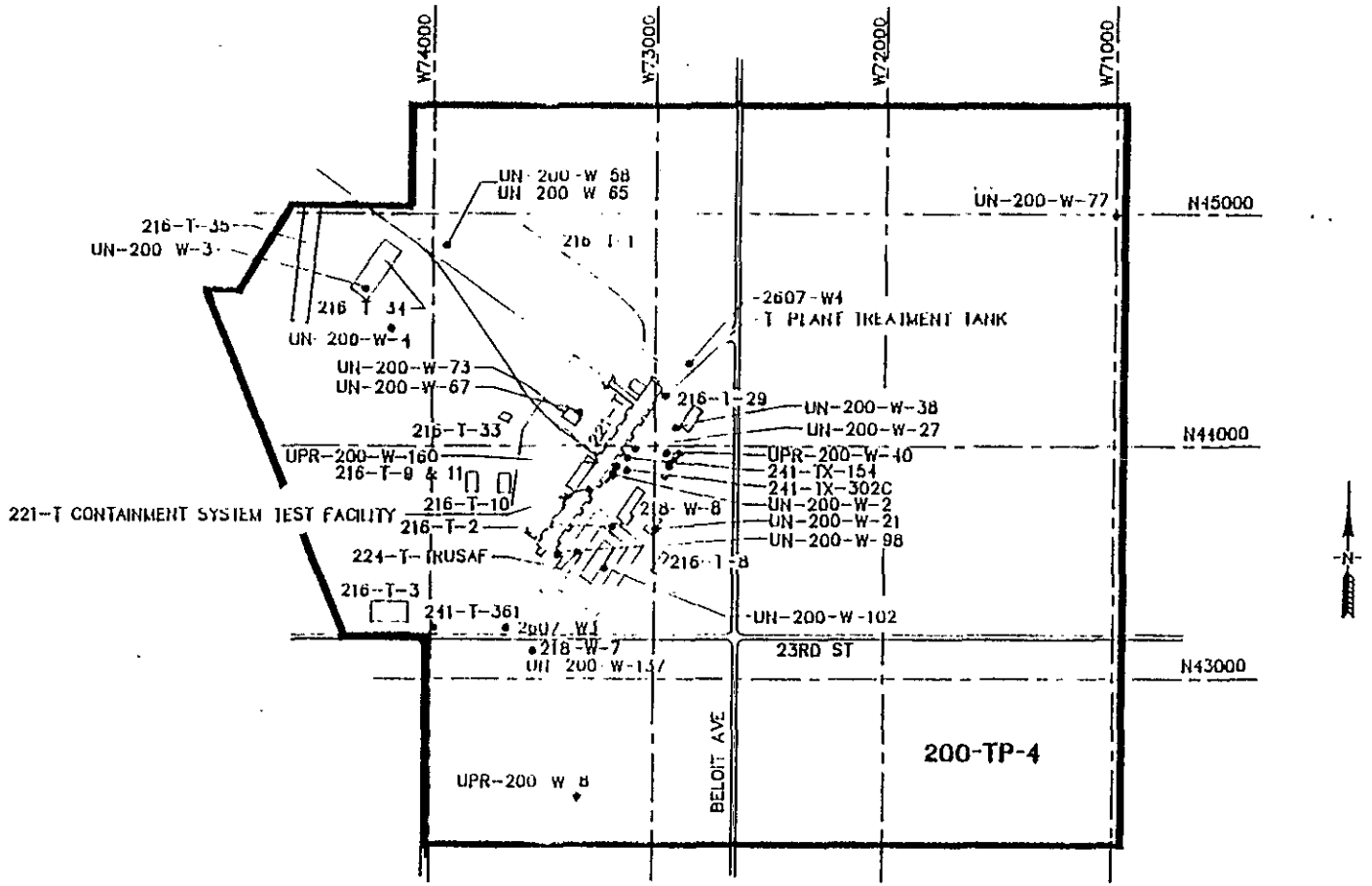


DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE
GDH			12/91	4.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200-West Area
Operable Units
200-TP-3, 200-TP-6 and 200-ZP-3 (Partial)
OU\2-TP-36

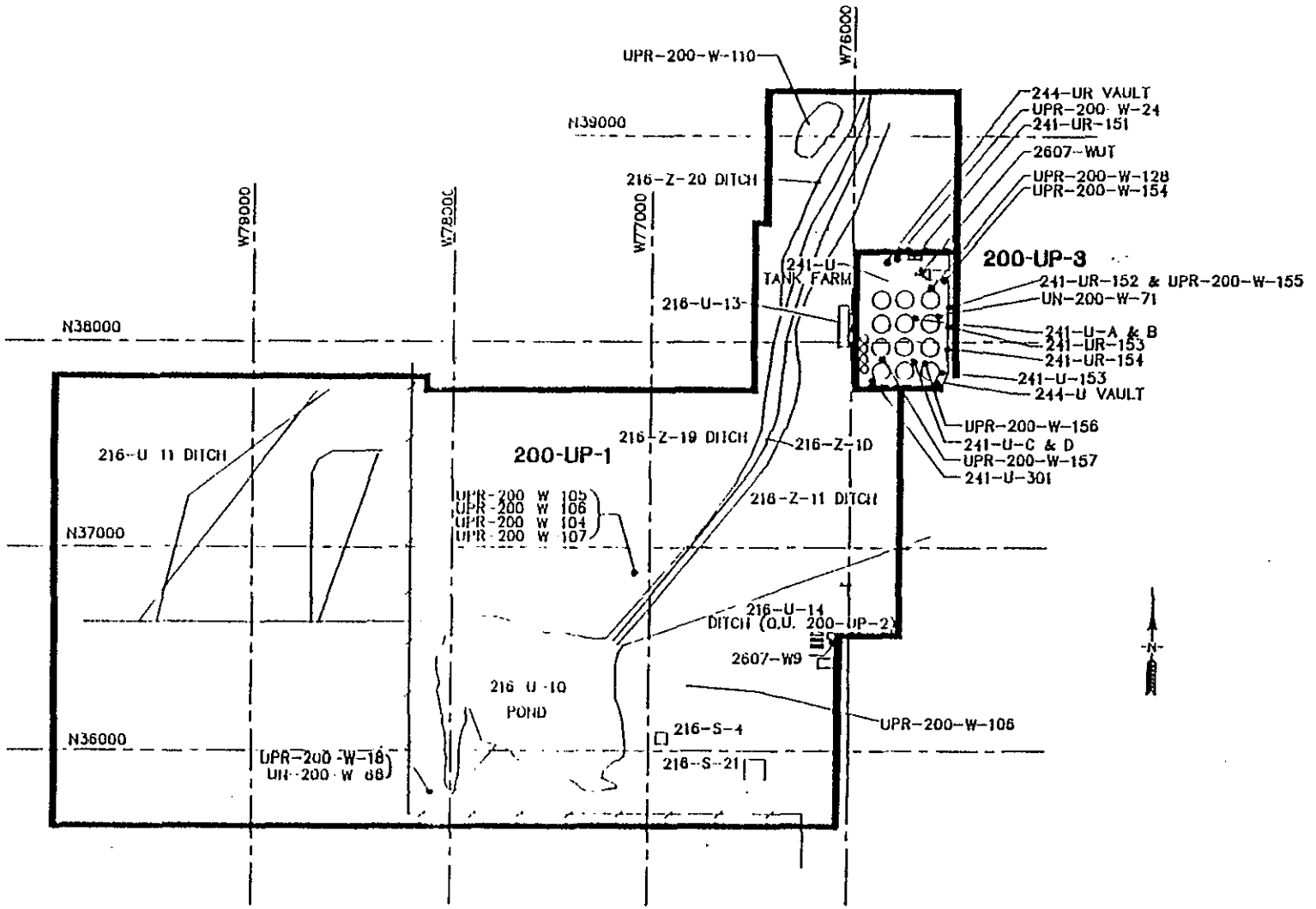
9 2 1 2 1 9 7 1 3 1 9



DRAWN	CHKD.	APPD.	DATE	REV	DESCRIPTION
JJA			1/89	1.0	
JJA			1/91	2.0	INFORMATION UPDATE
GDH			12/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 West Area
Operable Unit 200-TP-4
OU\2-TP-4



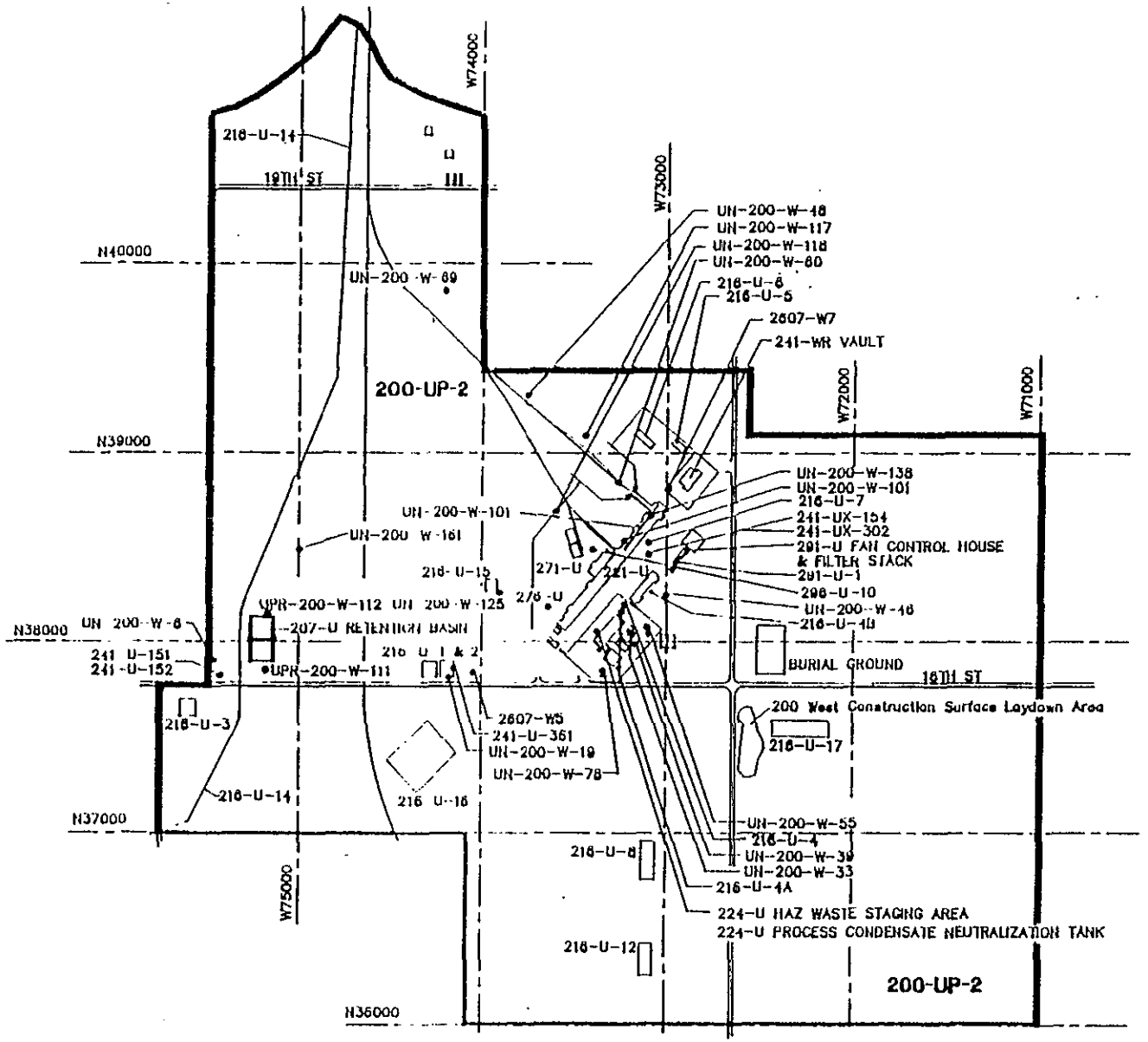
DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE
GDH			12/91	4.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 West Area
Operable Units 200-UP-1 and 200-UP-3

OU\2-UP-13

9 2 1 2 1 9 7 1 8 2 1



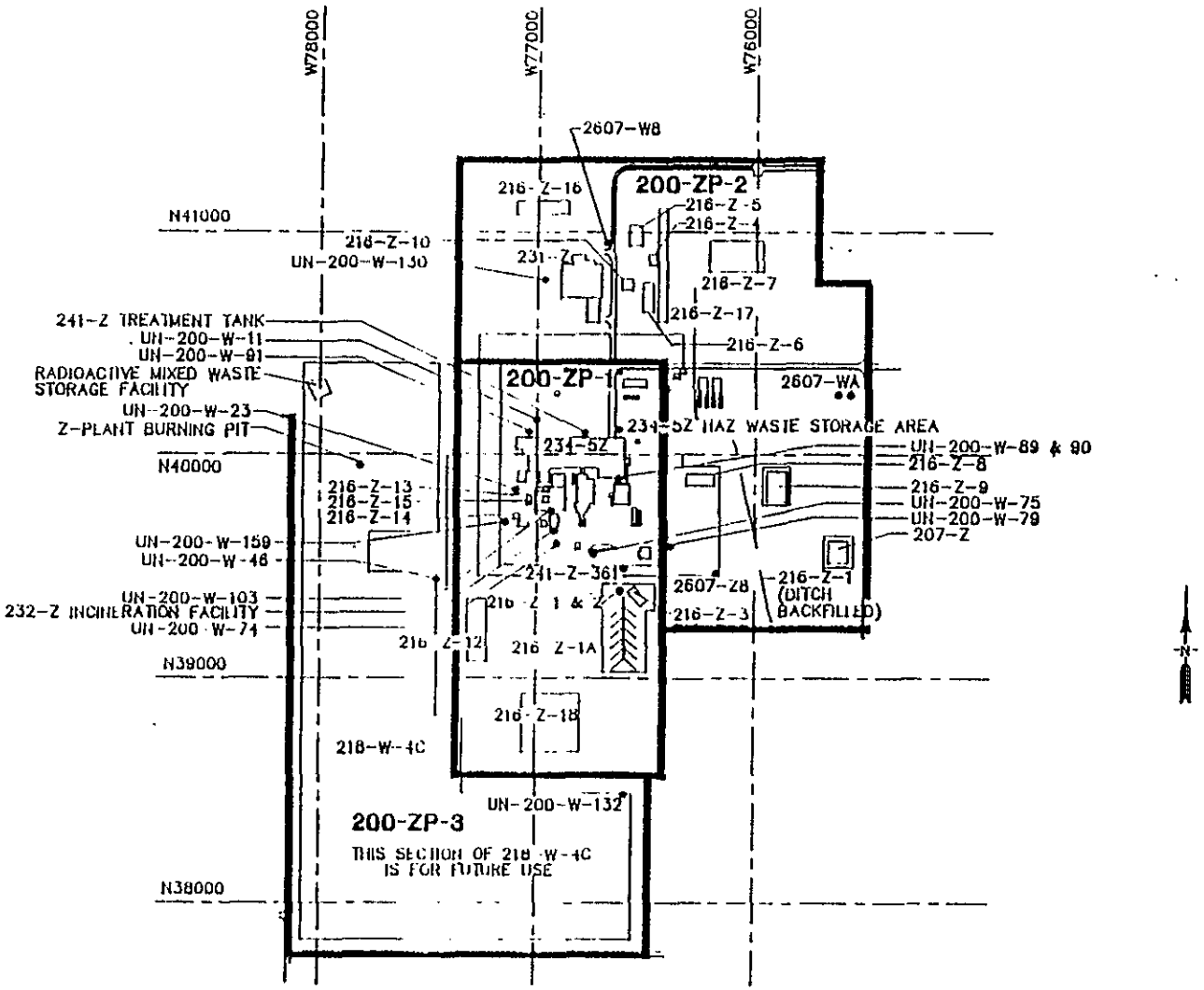
DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE
GDH			12/91	4.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

200 West Area
Operable Unit 200-UP-2

OU\2-UP-2

9 2 1 2 9 7 1 3 2 2



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			1/91	2.0	INFORMATION UPDATE
GDH			12/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
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Richland, WA 99352

200 West Area
Operable Units 200-ZP-1, 200-ZP-2 and 200-ZP-3 (Partial)
OU\2-ZP-12

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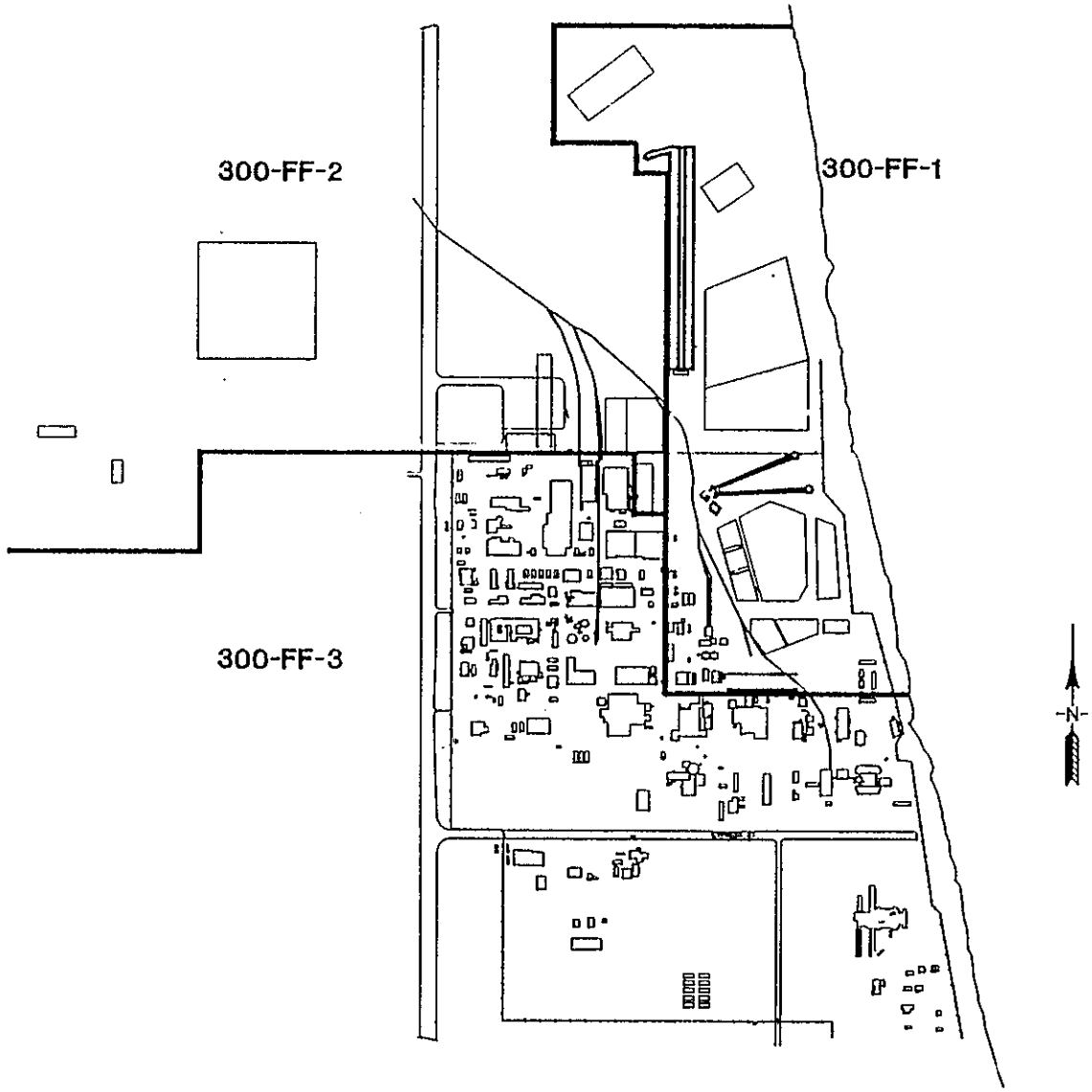

DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			1/91	2.0	INFORMATION UPDATE

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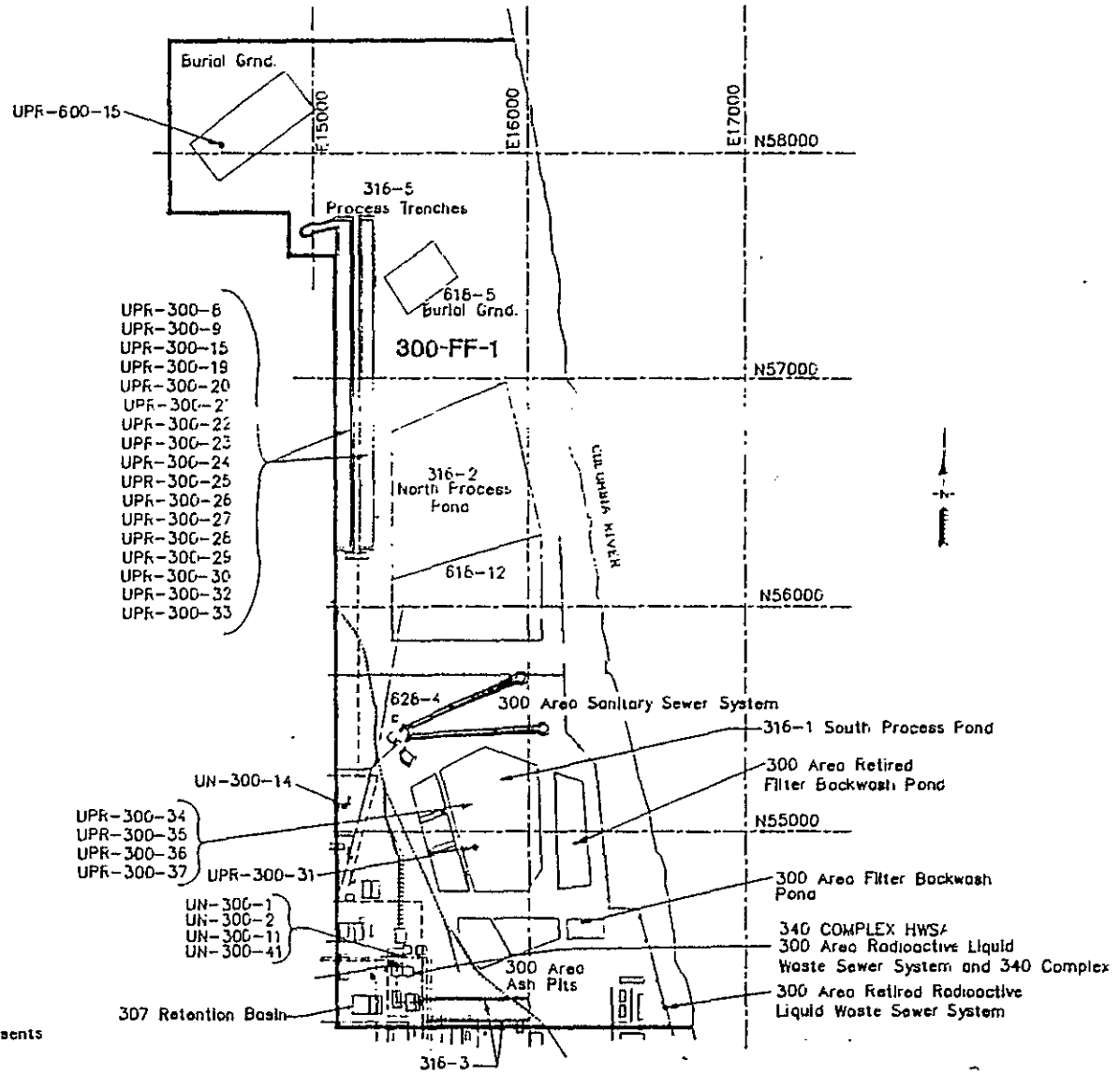
Richland, WA 99352

300 Area
Key Plan

OU\300AREA1



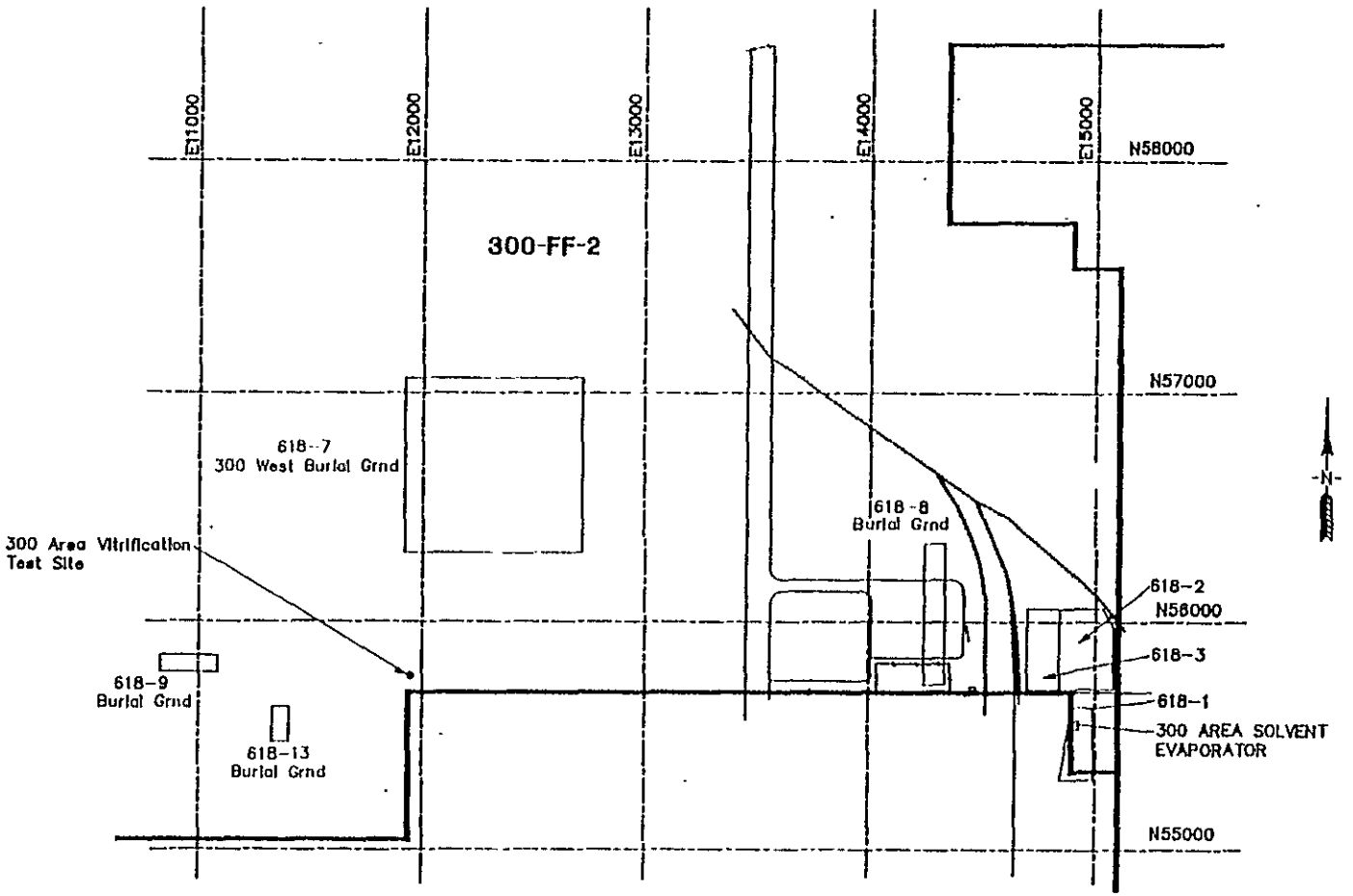
UN-300-FF-1
Not shown on map – represents radiological survey of entire Operable Unit

DRAWN	CHKD.	APPD.	DATE	REV	DESCRIPTION
JJA			1/89	1.0	
JJA			1/91	2.0	INFORMATION UPDATE
GDH			12/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

300 Area
Operable Unit 300-FF-1

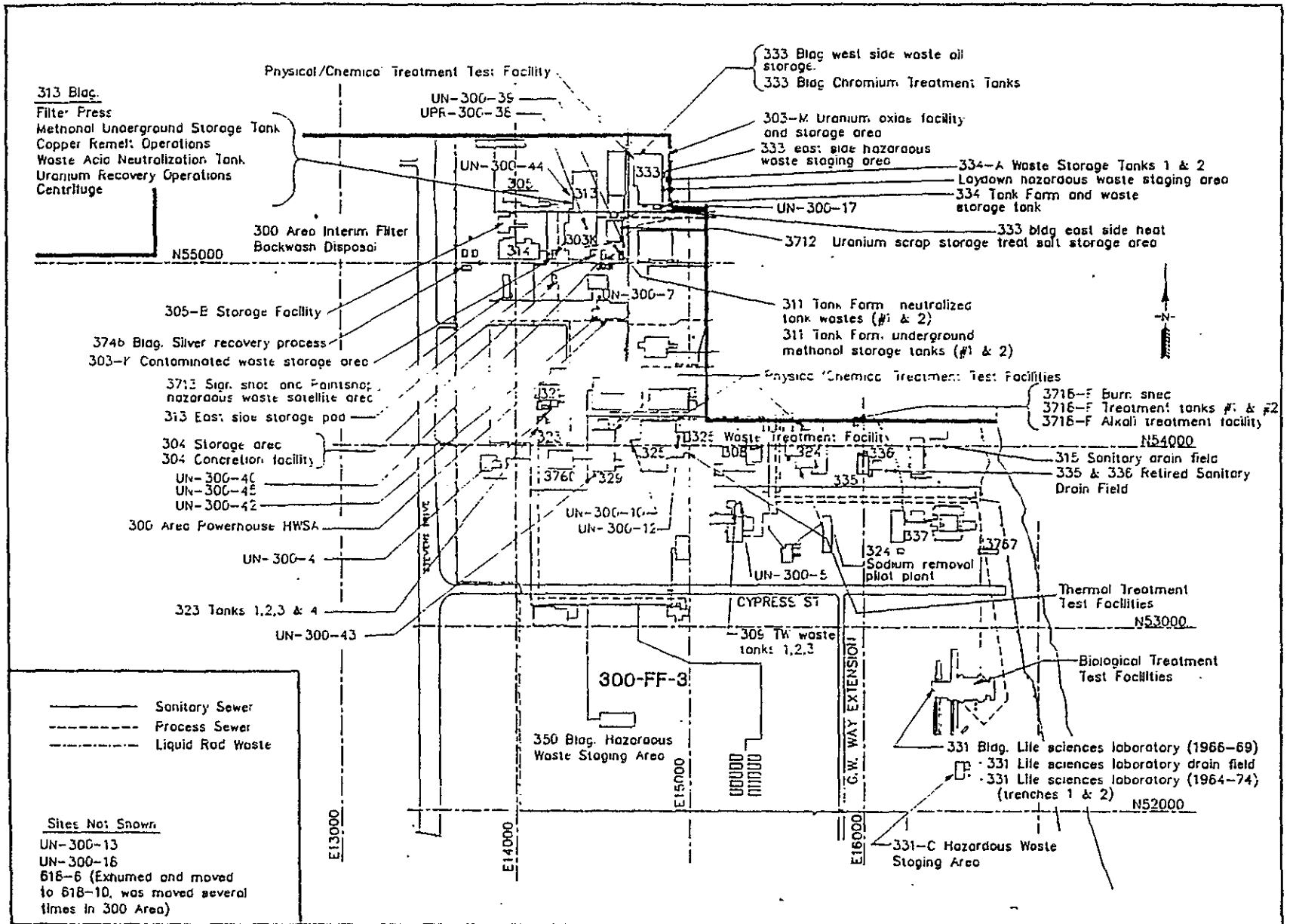
OU\3-FF-1



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			1/91	2.0	INFORMATION UPDATE
GDH			12/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

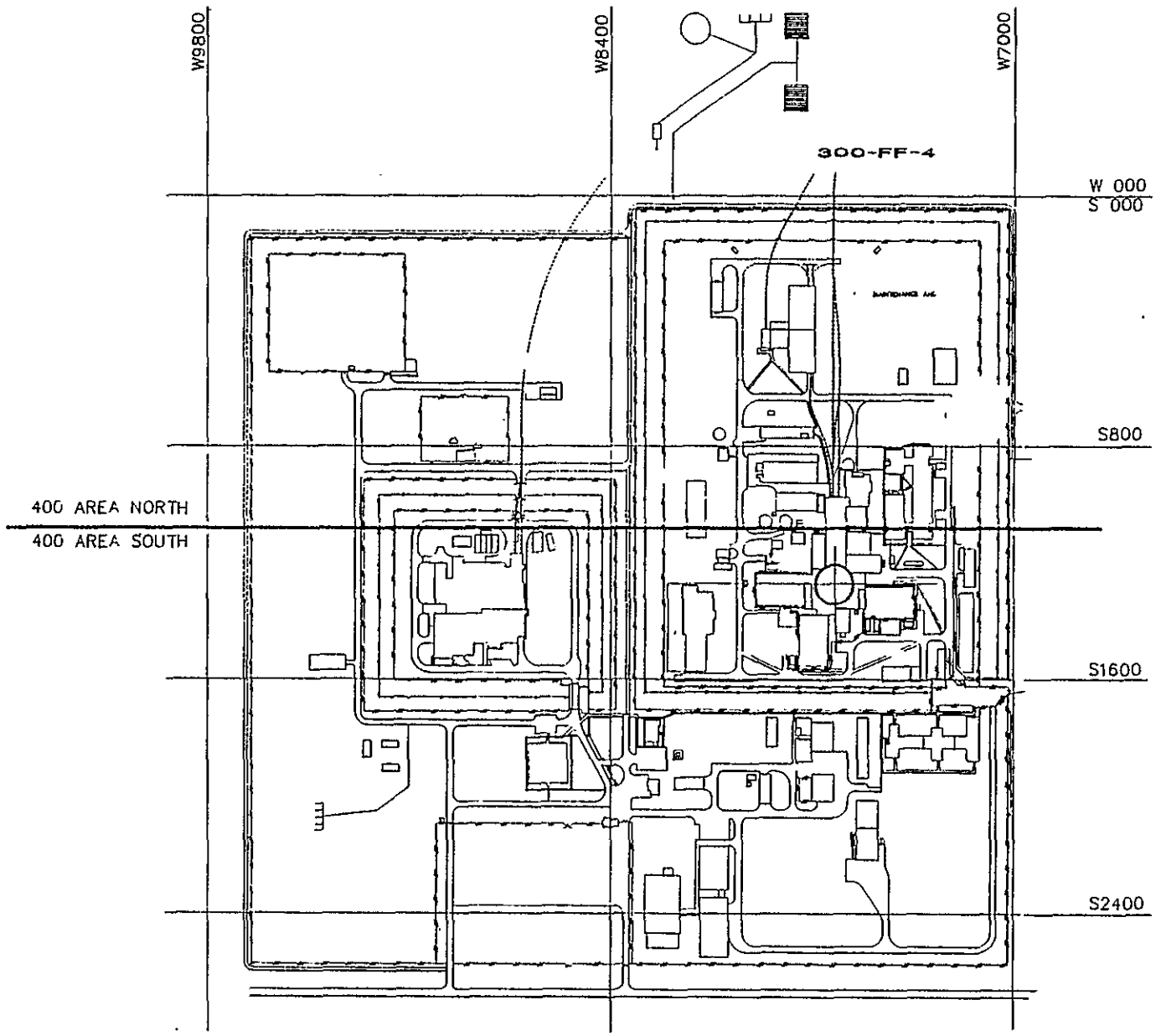
300 Area
Operable Unit 300-FF-2



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

300 Area
Operable Unit 300-FF-3
OU\3-FF-3



DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	

Westinghouse Hanford Company
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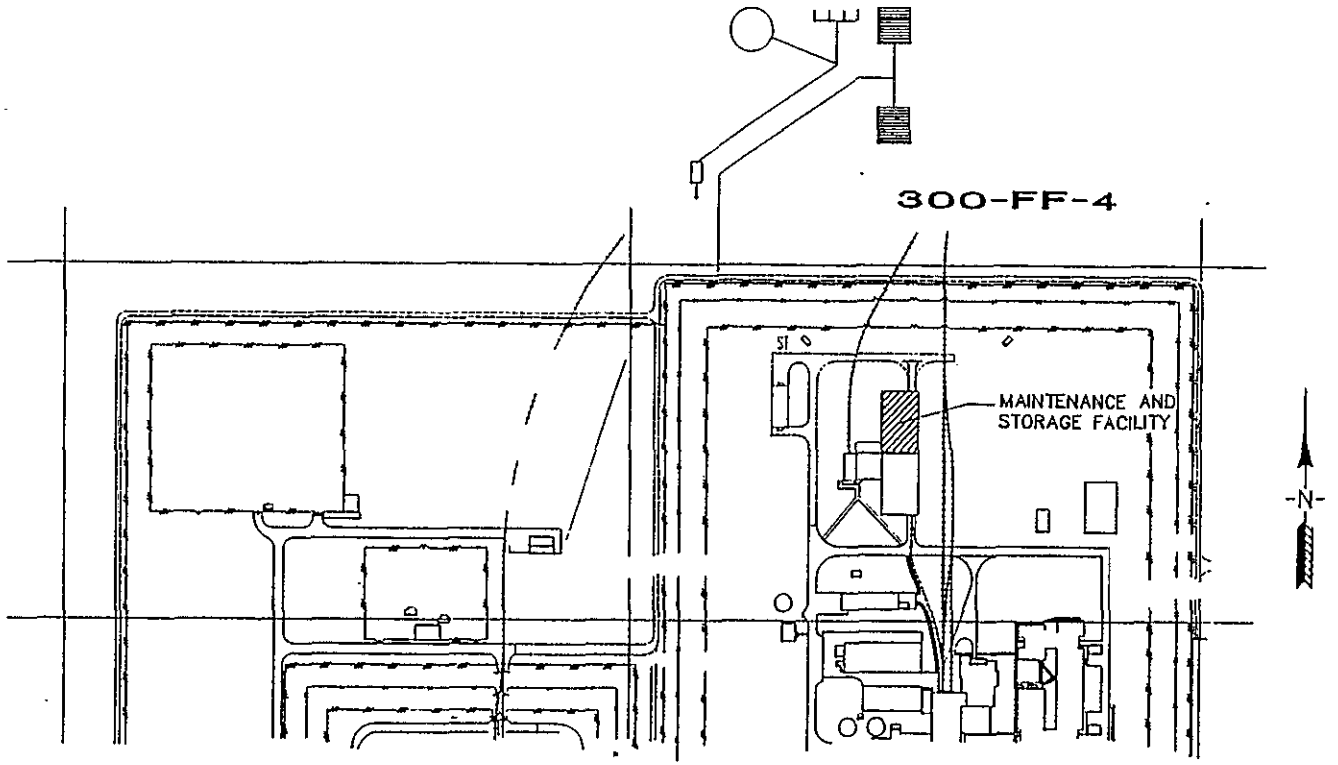
Richland, WA 99352

400 Area
Key Plan



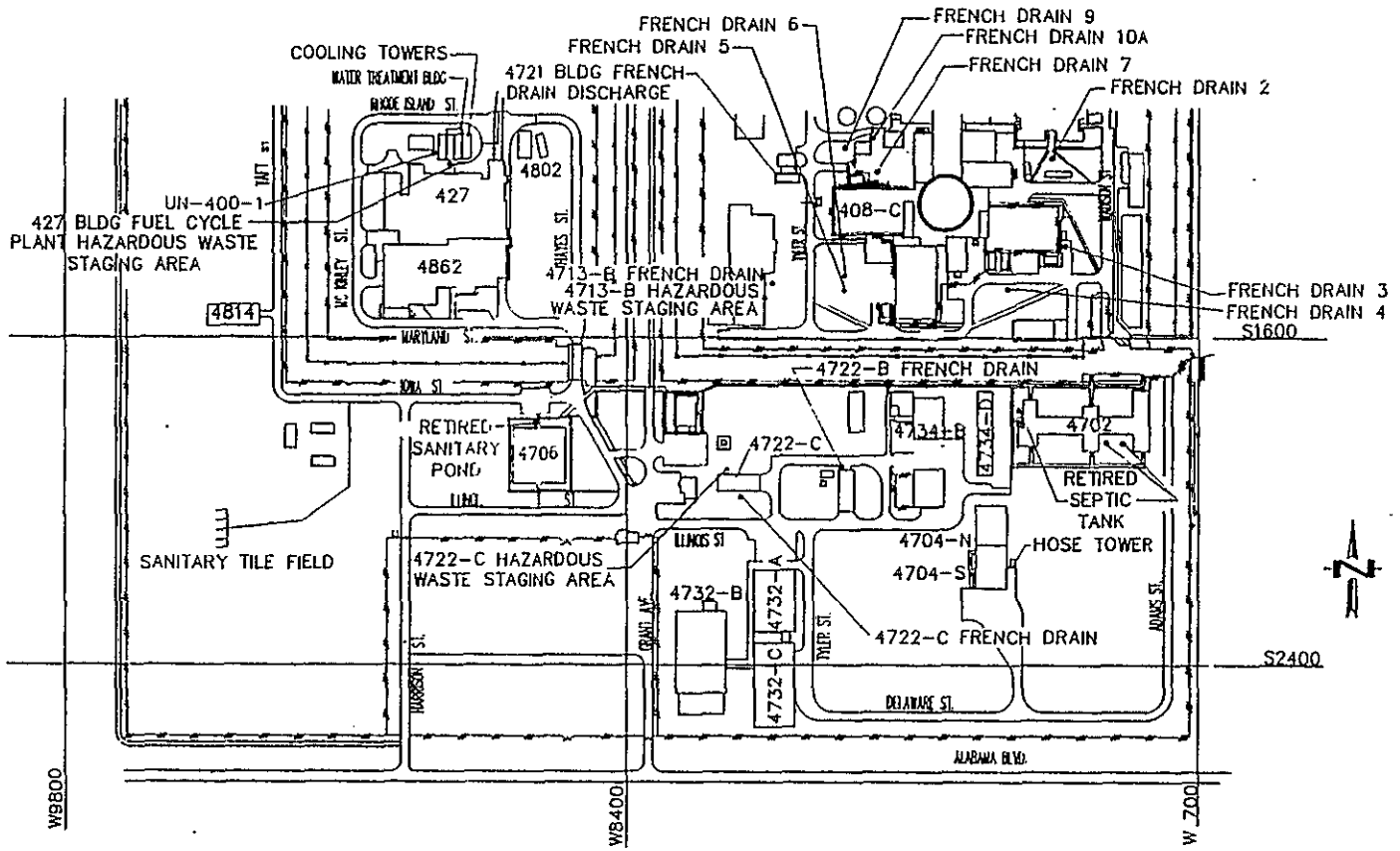
DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

400 Area North

Partial Operable Unit 300-FF-4

300-FF-4

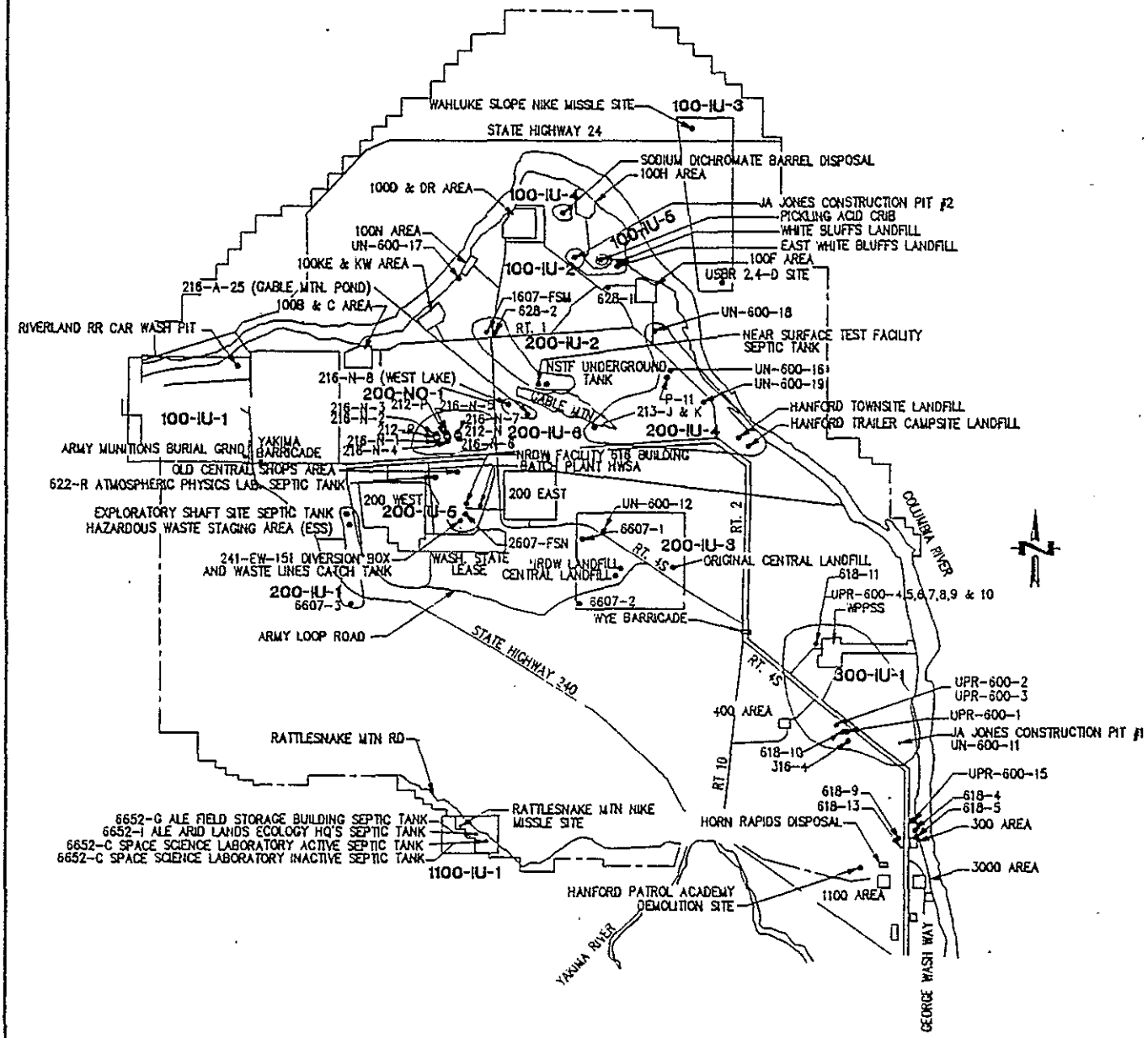


DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	

Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

400 Area South

Partial Operable Unit 300-FF-4



600 Area

Operable Units

DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			3/89	2.0	UPDATE CURRENT O.U.
JJA			1/91	3.0	INFORMATION UPDATE
JJA			12/91	4.0	INFORMATION UPDATE

Westinghouse Hanford Company
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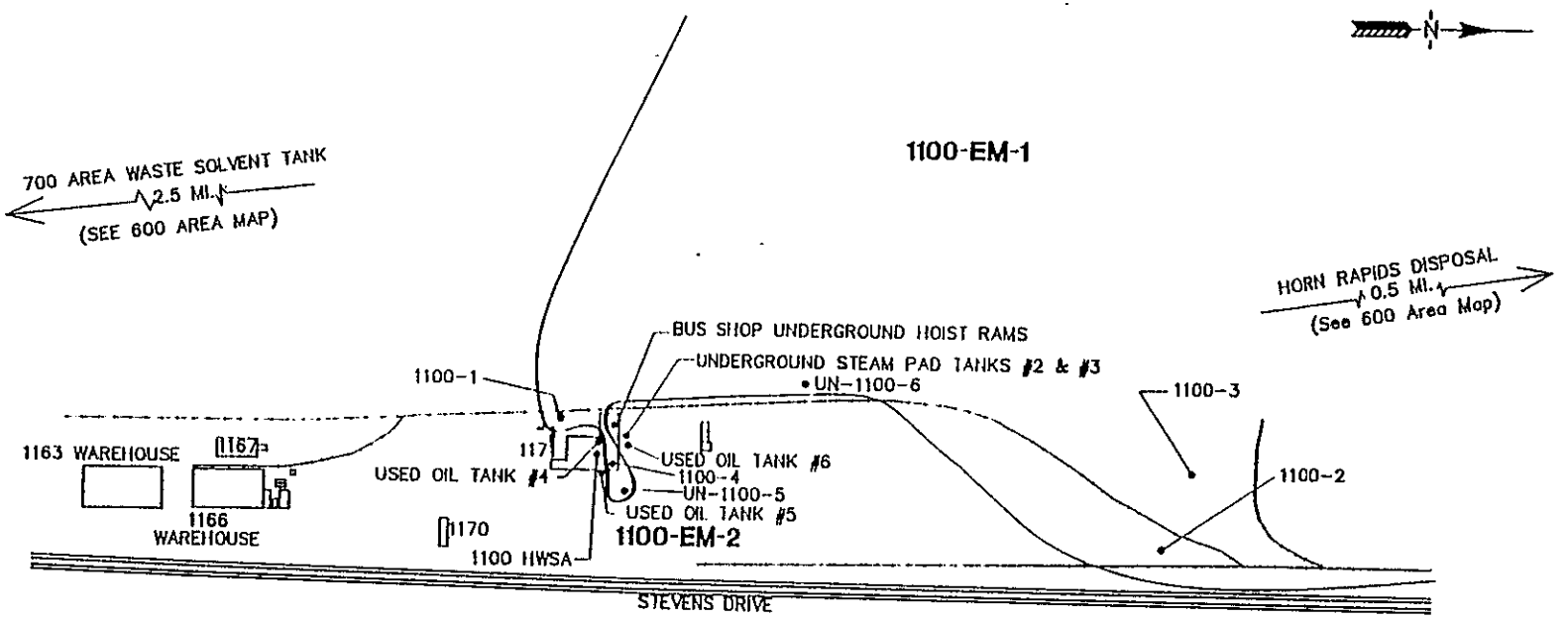
Richland, WA 99352

600 Area
Operable Units

CU\600AREA

9 2 1 2 9 7 1 3 3 1



NOT TO SCALE

DRAWN	CHKD.	APPD.	DATE	REV.	DESCRIPTION
JJA			1/89	1.0	
JJA			1/91	2.0	

Westinghouse Hanford Company
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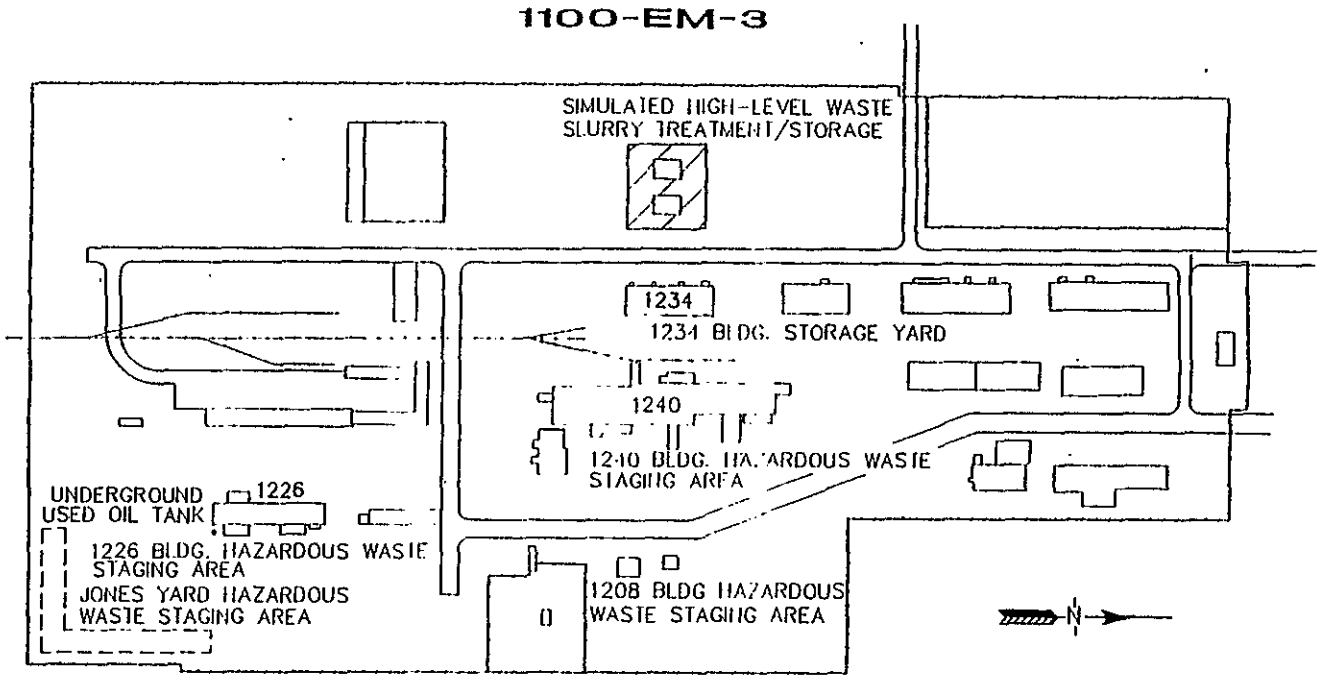
Richland, WA 99352

1100 AREA

Operable Units 1100-EM-1 and 1100-EM-2

OU\1100AREA

1100-EM-3



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