Appendix E

Waste Site Table

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Table E-1. Waste Site Table

Site Code	Site Type	Operable Unit	Site Dimensions (m)	Dates of Operation	Site History	Class Status (defined at end of table)	Category	Decision or Close-Out Document	Remedial Action Start Date	Remedial Action End Date	Verification Sampling Date	Contaminated Waste Volume to ERDF (metric tons)	Maximum Depth of Remedial Action (m)
100-K-1	French Drain	100-KR-2	0.46 diam	1961-1970	This site is a concrete French drain that received heat exchanger cooling water from sample equipment in the 119-KW Building, wastewater from a swamp-type cooler, and effluent from a floor drain also located in the 119-KW-Building.	Accepted	3	EPA/AMD/R10-97/044	N/A	N/A	N/A	N/A	N/A
100-K-10	French Drain	100-KR-2	0.61 diam	1953-1971	This site is the southernmost of two French drains at the 118-KE-2. The French drain is a 0.6 m diameter steel pipe with a steel cover. It is gravel filled to grade and surrounded by a yellow wooden barricade. The steel cover is posted with a confined space sign. The adjacent area is covered with gravel and cobbles.	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-100	Unplanned Release	100-KR-1	Not Documented	Not Documented	The site is radioactive soil and material remaining after the 107-KW Basin removal.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-101	French Drain	100-KR-2	Not Documented	Not Documented	The site consists of a French Drain surrounded by mercury stained soil adjacent to the 183KE Sedimentation Basin near the abutments. There is also a black hose assembly.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-102	French Drain	100-KR-2	Not Documented	Not Documented	The site consists of a French Drain surrounded by mercury stained soil adjacent to the 183KW Sedimentation Basin near the abutments. There is also a black hose acid delivery system.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-103	Settling Tank	100-KR-2	12.8 X 6.4 11.89 X 7.92 17.98 X 10.06 42.06 X 25.91 57.91 X 18.9	Before 1960-1999	This WIDS site addresses seven components of the 1717K Septic System that were not included in the Closed Out 1607-K4 waste site. 100-K-103 includes the Original Tile Field, the Replacement Septic Tank, one Leaching Trench and four distinct Replacement Tile Field, built in 1995.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-104	French Drain	100-KR-2	1.52 diam	Not Documented	A site visit could not visually identify the french drain. The drain was fed by approximately 30 meters of underground piping. The french drain is described on drawings to be approximately 30 meters west of the 166-KE building. The source of the effluent is a sump in the 166-KE Pump Room.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-105	Depression/Pit (nonspecific)	100-KR-2	19.99 diam	1955- before 1965	The pit cannot be visually identified at the present time. An open pit was cleary visible on historical photograph 3346-NEG, taken in April 1955. Later photographs do not show any evidence of the pit. It is presumed to have been backfilled prior to 1965. There are no facilities near the open pit and it is unknown what the pit was used for.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-106	Crib	100-KR-2	6.1 x 6.1 X 4.83	Not Documented	The site is an underground, rock filled drainage crib next to the 182-K Building. The crib supported the 182-K midway pump station that contained three diesel powered pumps	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-107	Drain/Tile Field	100-KR-2	8.84 X 2.44	Not Documented	This site is the 1706-KER abandoned drain field. A fenced area 31 meters northwest of the 1706-KER building is assumed to be this abandoned drain field. Drawing H-1-25079, dated 12/9/1996, gives the only indication of an abandoned drain field. It references H-1- 24379 and H-1-70951, dated 1963 and 1965 respectively.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-108	Septic Tank	100-KR-2	1.4 X 1.8	Not Documented	The site consists of a septic tank, crib, and associated piping that received effluent from the hot maintenance shop in 1706-KER building. The septic tank has a 2271 liter (600 gallon) capacity tank.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-109	Unplanned Release	100-KR-2	48.77 X 21.34	Not Documented	The waste site is an area of yellow stained soil, from an unplanned release that is adjacent to the railroad track, south, southwest of the demolished 183.1KW headhouse.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-11	French Drain	100-KR-2	0.61 diam	Not Documented	This site is the northernmost of two French drains at the 118-KW-2. The French drain is a 0.6 m diameter steel pipe with a steel cover. It is gravel filled to grade and surrounded by a yellow wooden barricade. The steel cover is posted with a confined space sign. The adjacent area is covered with gravel and cobbles.	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-12	French Drain	100-KR-2	0.61 diam	Not Documented	This site is the southernmost of two French drains at 118-KW-2. The French drain is a 0.6 m diameter steel pipe with a steel cover. It is gravel filled to grade and surrounded by a yellow wooden barricade. The steel cover is posted with a confined space sign. The adjacent area is covered with gravel and cobbles.	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-13	French Drain	100-KR-2	1.52 diam	1953-1955 (speculative)	This site is a French drain that is a 1.5 m diameter vertical concrete pipe filled with gravel. It is believed that the drain was installed and used as a disposal site for sanitary-type waste from several temporary 100-KW construction facilities located near the site	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
100-K-14	French Drain	100-KR-2	1.52 diam	Not Documented	The pit is 4.6 m deep with aggregate placed to a depth of 2.1 m. A 0.76 m diameter, vitrified clay pipe was placed vertically in the center of the pit and limestone chips were added to the pipe interior. A 5.1 cm polyvinyl chloride pipe enters through the side 1 m below grade. The pipe is an overflow and drain line for the 183-KE day-use acid tank.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A

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Site Code	COC	Excavation					Overburden/Stockpile or Staging Pile		Radioactive Decay (to Jan. 1, 2012 pCi/g)
		Max Concentration (pCi/g, mg/kg)		95% UCL (pCi/g, mg/kg)		Focused or Discrete Max (pCi/g, mg/kg)	Max Concentration (pCi/g, mg/kg)	95% UCL (pCi/g, mg/kg)	
		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
100-K-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-101	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-102	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-103	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-104	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-105	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-106	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-108	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-109	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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100-K-15	Storage Tank	100-KR-2	6.1 X 12.19	Before 1966 to present	This site is the West 183-KW Liquid ALum Storage Tank. It's an above ground, vertical, stainless steel storage tank mounted on a concrete base. The tank was part of a system called the Liquid Alum System, which supplied liquid alum for water treatment. The tank was associated with the 183-KW Head House. In 1966 the alum system was replaced with bauxite tanks. The existing alum tank were retained on standby. In 1979 the alum tank were to be used to store diesel fuel. Prior to 1990 diesel storage was discontinued and the tank was cleaned to be used as a purgewater storage facility. However, the tank was never used for this purpose and still remains inactive.	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-16	Storage Tank	100-KR-2	6.1 X 12.19	Before 1966 to present	This site is the East 183-KW Liquid ALum Storage Tank. It's an above ground, vertical, stainless steel storage tank mounted on a concrete base. The tank was part of a system called the Liquid Alum System, which supplied liquid alum for water treatment. The tank was associated with the 183-KW Head House. In 1966 the alum system was replaced with bauxite tanks. The existing alum tank were retained on standby. In 1979 the alum tank were to be used to store diesel fuel. Prior to 1990 diesel storage was discontinued and the tank was cleaned to be used as a purgewater storage facility. However, the tank was never used for this purpose and still remains inactive.	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-18	Sump	100-KR-2	2.54 x 1.93 x 0.9	Unknown	This site is the 183-KW Caustic Neutralization Pit. The pit is a brick-lined concrete box with a wooden cover. The pit received, neutralized, and disposed of caustic (sodium hydroxide) waste from overflow and transfers associated with the 183-KW Water Treatment System.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
100-K-19	Foundation	100-KR-2	7.8 diam	1954-?	This site was the 183-KW Caustic Soda Storage Tank Site. It was originally an above ground, cylindrical, vertical steel caustic soda (sodium hydroxide) storage tank on a concrete base. It had a capacity of 287,660 L (76,000 gal). The tank was supplied and erected by Pittsburgh-Des Moines Steel Company during the months of April through June of 1954. Some time in the past (date unknown) the tank was removed. Today, the site is the 9.1 m (30 ft) diameter grade-level concrete tank base and the soil surrounding the base.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-2	Burial Ground	100-KR-2	53.34 x 18.29 x 4.57	Unknown	This site was the suspected 118-K-2 Sludge Burial Ground that was used to dispose of sludge from the 116-KE-4 (107-KE) and 116-KW-3 (107-KW) Retention Basins. Over time, historical documentation has indicated different locations on several sketch type drawings for the burial ground. Investigative field observations failed to indicate the presence of any waste or sludge. Based on the information gathered during the 100-KR-1 limited field study, including historical searches, interviews, and ground-penetrating radar, it was determined that the site may not actually exist. Additionally, according to a former Hanford Site employee, sludge from the K basins was never buried at 100-K, but was hauled to the 200 Area Burial Grounds for disposal.	Rejected	1	WSRF 2010-077	N/A	N/A	N/A	N/A	N/A
100-K-20	Foundation	100-KR-2	9.14 diam with a capacity of 395,197 L	1955-1964 or 1965	This site was the westernmost of the 183-KW Sodium Silicate Storage Tanks. It was an above ground vertical tank that was used to store liquid sodium silicate. Initially, tank trucks supplied the chemical for the tanks. Following removal, the bagged dry powder form of the chemical was used. The site was not used to receive, store or discharge dangerous wastes or CERCLA hazardous substances. Originally, this site was used to store sodium silicate which is not listed in 40 CFR 302.4 list of hazardous substances	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-21	Foundation	100-KR-2	9.14 diam with a capacity of 395,197 L	1955-1964 or 1965	This site was the easternmost of the 183-KW Sodium Silicate Storage Tanks. It was an above ground vertical tank that was used to store liquid sodium silicate. Initially, tank trucks supplied the chemical for the tanks. Following removal, the bagged dry powder form of the chemical was used. The site was not used to receive, store or discharge dangerous wastes or CERCLA hazardous substances. Originally, this site was used to store sodium silicate which is not listed in 40 CFR 302.4 list of hazardous substances	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A

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		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
100-K-15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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100-K-22	Foundation	100-KR-2	9.14 diam with a capacity of 395,197 L	1955-1964 or 1965	This site was the westernmost of the 183-KE Sodium Silicate Storage Tanks. It was an above ground vertical tank that was used to store liquid sodium silicate. Initially, tank trucks supplied the chemical for the tanks. Following removal, the bagged dry powder form of the chemical was used. The site was not used to receive, store or discharge dangerous wastes or CERCLA hazardous substances. Originally, this site was used to store sodium silicate which is not listed in 40 CFR 302.4 list of hazardous substances. Sodium silicate is not considered to be a CERCLA pollutant. The sodium silicate tank was removed. The concrete base from this site is now occupied by a bauxite tank (See site 100-K-28).	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-23	Foundation	100-KR-2	9.14 diam with a capacity of 395,197 L	1955-1964 or 1965	This site was the easternmost of the 183-KE Sodium Silicate Storage Tanks. It was an above ground vertical tank that was used to store liquid sodium silicate. Initially, tank trucks supplied the chemical for the tanks. Following removal, the bagged dry powder form of the chemical was used. The site was not used to receive, store or discharge dangerous wastes or CERCLA hazardous substances. Originally, this site was used to store sodium silicate which is not listed in 40 CFR 302.4 list of hazardous substances. Sodium silicate is not considered to be a CERCLA pollutant. The sodium silicate tank was removed. Only the concrete pad remains.	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-24	Storage Tank	100-KR-2	17.07 in length, 5.49 in diam	1966-1972	This site is the 183-KW Bauxite Tank, a single bauxite (aluminum oxide) above ground storage tank (silo). The addition of the tank was part of a proposal to reduce water treatment costs by approximately $278,000 per year in the 183-KE and 183-KW Buildings. The tank was constructed on the site of the former Sodium Silicate #1 Tank. The tank had a capacity of 109,000 kilograms (240,000 pounds).	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-25	Sump	100-KR-2	2.54 x 1.93 x 1.45	Unknown	This site was the 183-KE Caustic Neutralization Pit that was an underground concrete structure used to neutralize caustic waste (sodium hydroxide) prior to disposal. The "pit" is a concrete box that is lined with acid-proof bricks. The structure has been backfilled and covered to grade with gravel. Limited intrusive work, conducted for safety reasons, was performed at this site in 1994 to verify if the wooden cover was still in place under the fill. It was determined that the wooden cover was not in place over the top of the unit.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-27	Foundation	100-KR-2	7.8 diam	1954-?	This site was the 183-KE Caustic Soda Storage Tank Site. It was originally an above ground, cylindrical, vertical steel caustic soda (sodium hydroxide) storage tank on a concrete base. The tank had a 287,660 L (76,000 gal) capacity. The tank was supplied and erected by Pittsburgh-Des Moines Steel Company during the months of April through June of 1954. Sometime in the past (date unknown), the tank was removed. Today, the site is composed of 9.1 m diameter, grade-level concrete tank base and the soil surrounding the base.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-28	Storage Tank	100-KR-2	5.49 diam	1966-1972	This site was the 183-KE Bauxite Tank. It is a single bauxite (aluminum oxide) above ground storage tank (silo). The addition of the tank was part of a proposal to reduce water treatment costs by approximately $278,000 per year in the 183-KE and 183-KW Buildings. The tank was constructed on the site of the former Sodium Silicate #1 Tank and had a capacity of 109,000 kilograms (240,000 pounds).	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-29	Dumping Area	100-KR-2	46 x 127	early 1980s	This site was the 183-KE Sandblasting Site. In the early 1980s, steel components from the 183-KE Settling Basins were sandblasted before being sold as scrap. Before remediation the site surface was gravel/cobble and purple garnet.	Interim Closed	2	WSRF/RSVP-2004-040	Dec. 2003	Dec. 2003	Dec. 12, 2003 Confirmatory samples taken on Apr. 15, 2003	187	5.1 cm

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		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
100-K-22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-29	Arsenic	2.3	/	/	/	/	/	/	N/A
	Barium	66.4	/	/	/	/	/	/	N/A
	Cadmium	0.33	/	/	/	/	/	/	N/A
	Chromium (tota	24.7	/	/	/	/	/	/	N/A
	Hexavalent chrom	0.24	/	/	/	/	/	/	N/A
	Lead	63.2	/	/	/	/	/	/	N/A
	Mercury	0.05	/	/	/	/	/	/	N/A
	Selenium	ND	/	/	/	/	/	/	N/A
	Silver	ND	/	/	/	/	/	/	N/A
	Aroclor-1254	0.047	/	/	/	/	/	/	N/A
	Asbestos	None found	/	/	/	/	/	/	N/A

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100-K-3	Valve Pit	100-KR-2	Heat Exchanger Pit: 1.2 X 3.0. 61 cm diam pipe, 0.3 m X 7.6 cm diam pipe Pump Pit: 2.4 X 2.4 Pipelines: two 7.6 cm diam, two 2.54 cm diam, one 20 cm diam, one 5.1 cm diam Manholes: two 1.6 X 1.6 X 2.6	1956-1965	This site was the 1706-KE Fish Pond Heat Exchanger Pit amd Pump Pit. It includes two concrete pits, two concrete manholes, concrete encased pipelines, and non-encased pipelines. This site includes those pipelines that were specific to the 1706-KE water studies semi-works, and does not include the large 0.9 m or 1.8 m KE Reactor effluent pipelines. The heat exchanger piping provided heated effluent water to the fish studies laboratory. The heat exchangers were part of the reactor recirculation process tube systems controlled from within the 1706-KE Facility. Effluent water in the recirculation tubes was cooled by the heat exchanger. Provisions were made for the drainage of these tubes to the reactor effluent system or to supply the needs of the fish studies laboratory. In July 2000, the vent risers were sealed as a preventative measure for potential passive radioactive emissions.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-30	Storage Tank	100-KR-2	1.22 x 3.66 x 1.83 (height-above ground)	Unknown	This site was the 183-KE Sulfuric Acid West Tank Base. The tank was associated with the 183-KE Water Treatment Plant. West of this tank were two smaller sulfuric acid tanks (120-KE-4 and 120-KE-5) which were used for the same purpose. 10 m East of the tank was another tank the same size, that was used for the same purpose. It consisted of an above ground U-shaped concrete base and above ground piping. A cylindrical tank lay horizontally on the East and West U-shaped bases and was 3 m in diameter and 10 m long. It is unknown when the tank was removed. In 2003, the felt pads on the tank bases (saddles) were removed. The tar on the saddles has been painted to stabilize any residual asbestos	Interim Closed	2	WSRF/RSVP-2003-036	Jan. 2004	Jan. 2004	Confirmatory sampling done on Apr. 18, 2003	Not documented	1
100-K-31	Storage Tank	100-KR-2	1.22 x 3.66 x 1.83 (height-above ground)	Unknown	This site was the 183-KE Sulfuric Acid East Tank Base. The tank was associated with the 183-KE Water Treatment Plant. West of this tank were two smaller sulfuric acid tanks (120-KE-4 and 120-KE-5) which were used for the same purpose. 10 m West of the tank was another tank the same size, that was used for the same purpose. It consisted of an above ground U-shaped concrete base and above ground piping. A cylindrical tank lay horizontally on the East and West U-shaped bases and was 3 m in diameter and 10 m long. It is unknown when the tank was removed. In 2003, the felt pads on the tank bases (saddles) were removed. The tar on the saddles has been painted to stabilize any residual asbestos	Interim Closed	2	WSRF/RSVP-2004-038	Dec. 2003	Dec. 2003	Dec. 16, 2003 and Jan. 20, 2004 Confirmatory samples taken on Apr. 16, 2003	Not documented	0.61
100-K-32	Storage Tank	100-KR-2	1.22 x 3.66 x 1.83 (height-above ground)	Unknown	This site was the 183-KW Sulfuric Acid East Tank base. The surface soils were stained with what appeared to be acid residue. The tank was associated with the 183-KW Water Treatment Plant. West of this tank were two smaller sulfuric acid tanks (120-KW-3 and 120-KW-4) and the West Tank Base (100-K-33) which was the same size, all of which were used for the same purpose.	Interim Closed	2	WSRF/RSVP-2004-039	Dec. 2003	Dec. 2003	Dec. 16, 2003 and Jan. 20, 2004 Confirmatory samples taken on Apr. 18, 2003	Not documented	0.61
100-K-33	Storage Tank	100-KR-2	1.22 x 3.66 x 1.83 (height-above ground)	Unknown	The site was the 183-KW Sulfuric Acid West Tank Base. The tank was associated with the 183-KW Water Treatment Plant. West of this tank were two smaller sulfuric acid tanks (120-KW-3 and 120-KW-4) which were used for the same purpose. East of this tank was another tank (100-K-32) the same size that was used for the same purpose.	Interim Closed	2	WSRF/RSVP-2004-041	Dec. 2003	Dec. 2003	Dec. 2003 and Jan. 2004 Confirmatory samples taken on Apr. 18, 2003	concrete base, felt, and 30m^3 of soil	4
100-K-34	Sump	100-KR-2	2.53 x 1.92	Unknown	This site was the 183-KW Acid Neutralization Pit. It consists of brick-lined concrete boxes. The boxes are 1.5 meters deep and backfilled with crushed limestone. Drain pipes entered about 0.6 m below grade and emptied into a 0.9 m diameter vitrified clay pipe (VCP) placed vertically in limestone chips. The VCP is filled with limestone chips. The VCP is broken at the top. The site received transfer and overflow waste from nearby sulfuric acid tanks associated with the 183-KW Water Treatment Plant. The site drained to the process sewer.	Accepted	3	EPA/ROD/R10-00/121	N/A	N/A	N/A	N/A	N/A

Table E-1. Waste Site Table

Site Code	COC	Excavation					Overburden/Stockpile or Staging Pile		Radioactive Decay (to Jan. 1, 2012 pCi/g)
		Max Concentration (pCi/g, mg/kg)		95% UCL (pCi/g, mg/kg)		Focused or Discrete Max (pCi/g, mg/kg)	Max Concentration (pCi/g, mg/kg)	95% UCL (pCi/g, mg/kg)	
		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
100-K-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-30	Arsenic	2.6	/	/	/	/	/	/	N/A
	Barium	69.7	/	/	/	/	/	/	N/A
	Cadmium	0.64	/	/	/	/	/	/	N/A
	Chromium (tota	15.2	/	/	/	/	/	/	N/A
	kavalent chrom	0.7	/	/	/	/	/	/	N/A
	Lead	36	/	/	/	/	/	/	N/A
	Mercury	17.5	/	/	/	/	/	/	N/A
	Selenium	ND	/	/	/	/	/	/	N/A
	Silver	ND	/	/	/	/	/	/	N/A
	Sulfate	2630	/	/	/	/	/	/	N/A
100-K-31	Arsenic	3.8	/	/	/	/	/	/	N/A
	Barium	88.1	/	/	/	/	/	/	N/A
	Cadmium	0.16	/	/	/	/	/	/	N/A
	Chromium (tota	10.3	/	/	/	/	/	/	N/A
	kavalent chrom	0.22	/	/	/	/	/	/	N/A
	Lead	43.4	/	/	/	/	/	/	N/A
	Mercury	5.2	/	/	/	/	/	/	N/A
	Selenium	0.55	/	/	/	/	/	/	N/A
	Silver	ND							N/A
	Sulfate	8,430	/	/	/	/	/	/	N/A
100-K-32	Arsenic	3	/	/	/	/	/	/	N/A
	Barium	97.4	/	/	/	/	/	/	N/A
	Cadmium	0.2	/	/	/	/	/	/	N/A
	Chromium (tota	16.9	/	/	/	/	/	/	N/A
	kavalent chrom	0.23	/	/	/	/	/	/	N/A
	Lead	7.1	/	/	/	/	/	/	N/A
	Mercury	2.4	/	/	/	/	/	/	N/A
	Selenium	0.38	/	/	/	/	/	/	N/A
	Silver	ND	/	/	/	/	/	/	N/A
	Sulfate	8,290	/	/	/	/	/	/	N/A
	Silver	ND	/	/	/	/	/	/	N/A
100-K-33	Arsenic	6.7	/	/	/	/	/	/	N/A
	Barium	105	/	/	/	/	/	/	N/A
	Cadmium	0.08	/	/	/	/	/	/	N/A
	Chromium (tota	20	/	/	/	/	/	/	N/A
	kavalent chrom	1.4	/	/	/	/	/	/	N/A
	Lead	6.9	/	/	/	/	/	/	N/A
	Mercury	2.6	/	/	/	/	/	/	N/A
	Selenium	0.4	/	/	/	/	/	/	N/A
	Silver	0.09	/	/	/	/	/	/	N/A
	Sulfate	3,490	/	/	/	/	/	/	N/A
100-K-34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table E-1. Waste Site Table

Site Code	Site Type	Operable Unit	Site Dimensions (m)	Dates of Operation	Site History	Class Status (defined at end of table)	Category	Decision or Close-Out Document	Remedial Action Start Date	Remedial Action End Date	Verification Sampling Date	Contaminated Waste Volume to ERDF (metric tons)	Maximum Depth of Remedial Action (m)
100-K-35	Sump	100-KR-2	2.53 x 1.92	Unknown	This site was the 183-KE Acid Neutralization Pit. It consisted of a brick-lined concrete box approximately 1.5 m deep and backfilled with crushed limestone. Drain pipes entered the pit about 0.6 m below grade and emptied into a vertical 0.9 m diameter vitrified clay pipe (VCP). The VCP is also filled with limestone chips and appears to be broken at the top. The site is covered by a wooden lid labeled "Confined Space" and is surrounded by post and chain. The site received transfer and overflow waste from nearby sulfuric acid tanks associated with the 183-KE Water Treatment Plant. The site drained to the process sewer.	Accepted	3	EPA/ROD/R10-00/121	N/A	N/A	N/A	N/A	N/A
100-K-36	French Drain	100-KR-2	1.22 length, 0.46 diam	1963-Unknown	This site was the 1706-KE Chemical Storage Facility Dry Well. It was added to the 1706-KE Building as part of the chemical storage facility. The storage facility was installed to provide bulk quantities of 93% by weight sulfuric acid and 50% by weight sodium hydroxide. The chemicals were used to regenerate the ion columns in the 1706-KE demineralizer plant. The dry well is located either directly above or near an underground tunnel to the 105-KE Reactor Building. Within the tunnel very near the drain, a white crystalline material can be seen in the cracks of the tunnel ceiling. This may be sodium hydroxide from the 100-K-38, 1706-KE Caustic Soda Tank. A former site employee reports that small spills did occur during filling operations of the storage tanks on several occasions.	Accepted	3	EPA/ROD/R10-00/121	N/A	N/A	N/A	N/A	N/A
100-K-37	Storage Tank	100-KR-2	4.88 length, 2.13 diam	1963-1986	This site was the 1706-KE Sulfuric Acid Tanl. It consists of an above ground, vertical, stainless steel storage tank. The chemical storage facility at 1706-KE was installed in 1963 to provide bulk quantities of 93% by weight sulfuric acid and 50% by weight sodium hydroxide. The chemicals were used to regenerate the ion columns in the 1706-KE demineralizer plant.	Interim Closed	2	WSRF/RSVP-2010-038	Nov. 19, 2009	Nov. 23, 2009	None	Tank and related debris	Not documented
100-K-38	Unplanned Release	100-KR-2	4.88 length, 2.13 diam	1963-1986	This site is contaminated soil from spills related to the 1706-KE Caustic Soda Tank. The tank is above ground, vertical, stainless steel storage tank. Site employees report that during the operational history, spills occurred. The tank exterior was rinsed down after these spills and the material was released to the soil.	Interim Closed	2	WSRF/RSVP-2010-039	Nov. 19, 2009	Nov. 23, 2009	None	Tank and related debris	Not documented
100-K-39	Crib	100-KR-2	Not Documented	Not Documented	This site was first referneced as 118-K-3 Filter Crib in DOE/RL-90-20 (1992). The initial Waste Information Data System entry for this site was not done until 1994. The information contained on the data entry form (A-6000-501) was based on WHC-SD-SD-TI-239. It was also recommended that the site not be entered as a waste site due to the uncertainly of the site's existence. A field visit by WIDS personnel was performed on August 16, 1994. There was no evidence of a waste site at the prescribed location.	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-4	Pond	100-KR-2	two ponds with a 9.1 diam	1956-1965	This site was the 1706-KE Wet Fish Studies Ponds and Valve Pit. All ponds contained drains which presumably discharged to the process sewer. There is no indication of any major leaks or process upsets during operation and the waste site has been demolished and removed.	Interim Closed	2	WSRF/RSVP-2010-041	Jan. 2010	Feb. 2010	Apr. 2010	2,989.26	5.37

Table E-1. Waste Site Table

Site Code	COC	Excavation					Overburden/Stockpile or Staging Pile		Radioactive Decay (to Jan. 1, 2012 pCi/g)
		Max Concentration (pCi/g, mg/kg)		95% UCL (pCi/g, mg/kg)		Focused or Discrete Max (pCi/g, mg/kg)	Max Concentration (pCi/g, mg/kg)	95% UCL (pCi/g, mg/kg)	
		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
100-K-35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-37	Verification sampling was not required to demonstrate protectiveness for waste sites 100-K-37. The CERCLA removal action for the 1706-KE Building will address the underlying foundation.								N/A
100-K-38	Verification sampling was not required to demonstrate protectiveness for waste sites 100-K-38. The CERCLA removal action for the 1706-KE Building will address the underlying foundation.								N/A
100-K-39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-4	Cesium-137	0.117	0.0212	/	/	/	/	/	N/A
	Cobalt-60	0.00548 U	0.00622 U	/	/	/	/	/	N/A
	Europium-152	0.0711 U	0.00403 U	/	/	/	/	/	N/A
	Europium-154	0.00773 U	0.00243 U	/	/	/	/	/	N/A
	Europium-155	0.041 U	0.0337 U	/	/	/	/	/	N/A
	Plutonium-238	0.067 U	0.053 U	/	/	/	/	/	N/A
	utonium-239/2	0.027 U	0.027 U	/	/	/	/	/	N/A
	Strontium-90	0.068 U	0.238 U	/	/	/	/	/	N/A
	Uranium-234	0.757	0.416	/	/	/	/	/	N/A
	Uranium-235	0.135 U	0.09 U	/	/	/	/	/	N/A
	Antimony	0.32	0.296 U	/	/	/	/	/	N/A
	Arsenic	3.41	1.9	/	/	/	/	/	N/A
	Barium	73.5	175	/	/	/	/	/	N/A
	Beryllium	0.25	0.2	/	/	/	/	/	N/A
	Boron	16.8 E	17.7 E	/	/	/	/	/	N/A
	Cadmium	0.12	0.0985 U	/	/	/	/	/	N/A
	Chromium (tota	10.2	3.57	/	/	/	/	/	N/A
	xavalent Chrom	0.1 U	0.1 U	/	/	/	/	/	N/A
	Cobalt	8.55	8.91	/	/	/	/	/	N/A
	Copper	15	14	/	/	/	/	/	N/A
	Lead	13.9	4.47	/	/	/	/	/	N/A
	Lithium	10.7	5.13	/	/	/	/	/	N/A
	Manganese	313 N	365 N	/	/	/	/	/	N/A
	Mercury	0.0495 U	0.0493 U	/	/	/	/	/	N/A
	Molybdenum	0.49	0.39	/	/	/	/	/	N/A
	Nickel	10.7	6.44	/	/	/	/	/	N/A
	Selenium	1.51	1.69	/	/	/	/	/	N/A
	Silver	0.099 U	0.0985 U	/	/	/	/	/	N/A

Site Code	Site Type	Operable Unit	Site Dimensions (m)	Dates of Operation	Site History	Class Status (defined at end of table)	Category	Decision or Close-Out Document	Remedial Action Start Date	Remedial Action End Date	Verification Sampling Date	Contaminated Waste Volume to ERDF (metric tons)	Maximum Depth of Remedial Action (m)
100-K-42	Storage	100-KR-2	41.45 x 21.34 x 6.71, Est. volume: 5,931 m3	1955-1971	This site is the fuel storage basin for the 105-KE Reactor. It as a collection, storage, and transfer facility for the irradiated fuel elements discharged from the reactor. The basin consists of a discharge chute and fuel element pickup area, a storage area, a transfer area, and a wash pad area. During the 16 year operating history of the 105-KE Reactor, radioactive material most likely seeped from the basin to the soil beneath the facility through the same pathway that is open today. No direct measurements have been taken of the radionuclide inventories beneath the basin.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
100-K-43	Storage	100-KR-2	41.45 x 21.34 x 6.71, Est. volume: 5,931 m3	1955-1971	The site is the fuel storage basin for the 105-KW Reactor. It served as a collection, storage, and transfer facility for the irradiated fuel elements discharged from the reactor. The basin consists of a discharge chute and fuel element pickup area, a storage area, a transfer area, and a wash pad area.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
100-K-44	Unplanned Release	100-KR-2	Not Documented	Not Documented	This site is the grounds within the 100-K exclusion area that are not part of other waste sites.	Not Accepted	1	"Discovery Site Evaluation Checklist" approved by the regulators. (RL-TPA-90-0001, TPA-MP-14, Figure 3)	N/A	N/A	N/A	N/A	N/A
100-K-46	French Drain	100-KR-2	Not Documented	1959-1971	This site is the 119-KE French Drain/Drywell. It received drainage from a floor drain in the 119-KE Sample Building. The drywell is connected the 119-KE Sample Building by a 5 cm drainage pipe buried at least 0.9 m below grade. A 1.9 cm drain line from the building's evaporative cooler connected into the 5 cm drain line near the southern edge of the building.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
100-K-47	Process Sewer	100-KR-2	30.5 and 40.6 cm diam	1955-?	This site was the 1904-K Process Sewer. It includes those underground process sewer pipelines that begin at the KE Reactor, KW Reactor, 165-KE, 190-KE, 1706-KE, and terminate at either the 116-K-3 Outfall or join the 100-K-56 Pipeline south of the outfall. The system was used to dispose of treated and untreated waste water generated by the water treatment facilities, powerhouse, 1706-KE, and nonradioactive drains in the reactor facilities	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-48	Unplanned Release	100-KR-2	213.57 m2	Unknown	This site shows evidence of past fuel oil spills especially around the railroad tracks. The spills have been absorbed into the soil and have formed an asphalt-like substance. Some areas may have been covered with clean soil.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
100-K-49	Unplanned Release	100-KR-2	746.32 m2	Unknown	This site is likely to have been the result of several spills, which would have occurred during unloading of fuel oil from rail cars	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
100-K-5	French Drain	100-KR-2	Diameter: 0.9	Unknown	This site is a French drain consisting of a 0.9 m (3 ft) diameter vitrified clay pipe that received effluent from floor drains, overflows, and drainage from the 1705-KE Experimental Water Treatment Basin and facilities. It protrudes approximately 0.3 m (1 ft) above grade and has a heavy wooden cover.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-50	Storage Tank	100-KR-2	7.47 x 3.81 x 2.74, Capacity: 17,034 L	1996-present	This site is a sanitary sewage holding tank that services 1725-K and 1726-K.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-51	Storage Pad (<90 day)	100-KR-2	7.01 x 2.59	Not Documented	This site is a white, portable steel building, with no windows, and three doors that are all on one side. The Spent Fuel Division is using the site for the 90-day storage of hazardous waste	Rejected	1	WSRF-2000-017	N/A	N/A	N/A	N/A	N/A
100-K-52	Storage	100-KR-2	4.57 x 3.05	1956-1965	This site was the 1706-KE Wet Fish Studies Laboratory used by PNNL to conduct wet fish studies using effluent cooling water. It is currently in use by the Spent Nuclear Fuel (SNF) Program as a storage room. This site was split from 100-K-3 and 100-K-4, so that the programmatic responsibility for this area could be assigned to the correct program.	Not Accepted	1	N/A	N/A	N/A	N/A	N/A	N/A
100-K-53	Product Piping	100-KR-2	Not documented	1955-1971	This site includes those underground pipelines that transported glycol solutions from the 116-KE-5 (150-KE Heat Recovery Station) to their entrance to the 165-KE Power Control Building facilities	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
100-K-54	Product Piping	100-KR-2	852	1955-1971	This site includes those underground pipelines that transported glycol solutions from the 116-KE-5 (150-KE Heat Recovery Station) to their entrance to the 165-KE Power Control Building facilities	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
100-K-55:1	Radioactive Process Sewer	100-KR-2	ranging from 0.08-1.83, and 0.61 m	1955-1970	The 100-K-55 Pipelines consisted of the gravity-flow process effluent pipelines that formerly serviced the KW Reactor, terminating at the 116-K-1 Crib, the 116-K-2 Trench, and the 116-KW-3 Retention Basins.	Interim Closed	2	CVP-2005-00006 WSRF 2005-029	Dec. 9, 2002	Apr. 15, 2005	Jan. 26 to Feb. 24, 2005	86,551 (includes 100-K-55:1, 100-K-56:1, 116-KE-5, and 116-KW-4)	8.8

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Site Code	COC	Excavation					Overburden/Stockpile or Staging Pile		Radioactive Decay (to Jan. 1, 2012 pCi/g)
		Max Concentration (pCi/g, mg/kg)		95% UCL (pCi/g, mg/kg)		Focused or Discrete Max (pCi/g, mg/kg)	Max Concentration (pCi/g, mg/kg)	95% UCL (pCi/g, mg/kg)	
		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
	Strontium	46	21.1	/	/	/	/	/	N/A
	Tin	0.53	0.43	/	/	/	/	/	N/A
	Uranium	0.65	1.03	/	/	/	/	/	N/A
	Vanadium	56.2	60.9	/	/	/	/	/	N/A
	Zinc	56.3	37.8	/	/	/	/	/	N/A
100-K-42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-44	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-54	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-55:1	Cesium-137	0.884	2.88	0.27	0.82	0.61	1.8	0.3	N/A
	Europium-152	3.87	1.85	0.73	0.74	1.3	1.4	0.3	2.71
	Europium-154	0.521	0.288	0.12	0.12	0.19	0.33	0.086	N/A
	Cobalt-60	/	/	/	/	0.11	/	/	N/A
	utonium-239/2	/	/	/	/	ND	/	/	N/A

Table E-1. Waste Site Table

Site Code	Site Type	Operable Unit	Site Dimensions (m)	Dates of Operation	Site History	Class Status (defined at end of table)	Category	Decision or Close-Out Document	Remedial Action Start Date	Remedial Action End Date	Verification Sampling Date	Contaminated Waste Volume to ERDF (metric tons)	Maximum Depth of Remedial Action (m)
100-K-55:2	Radioactive Process Sewer	100-KR-2	Length: not documented Depth: 5.18	1955-1970	This sub-site consists of the remaining portion of the underground effluent pipeline inside the reactor security fence and near the active utility features of the 116-K-1 Crib, the 116-KW-3 Retention Basin, and the 116-K-2 Trench. Also included in this sub-site is a 0.61 m (24 in) process water pipeline connecting the two reactor buildings. This pipeline is located on the south side of the reactors.	Accepted	3	EPA/AMD/R10-97/044	N/A	N/A	N/A	N/A	N/A
100-K-56:1	Radioactive Process Sewer	100-KR-2	ranging from 0.08-1.83, and 0.61 m	1955-1971	The 100-K-56 Underground Pipelines consisted of the gravity-flow process effluent pipelines that formerly serviced the KE Reactor, terminating at the 116-K-1 Crib, the 116-K-2 Trench, and the 116-KE-4 Retention Basins.	Interim Closed	2	CVP-2005-00006 WSRF 2005-030	Dec. 9, 2002	Apr. 15, 2005	Jun. 15-23, 2005	86,551 (includes 100-K-55:1, 100-K-56:1, 116-KE-5, and 116-KW-4)	8.8
100-K-56:2	Radioactive Process Sewer	100-KR-2	Length: Not documented, Depth: 4.57	1955-1971	This sub-site consists of the remaining portion of the underground effluent pipeline inside the reactor security fence and near the active utility features of the 116-K-1 Crib, the 116-KE-4 Retention Basin, and the 116-K-2 Trench. A 0.61 m (24 in) process water pipeline connecting the two reactor buildings is also administratively part of this sub-site.	Accepted	3	EPA/AMD/R10-97/044	N/A	N/A	N/A	N/A	N/A
100-K-57	Ditch	100-KR-1	570.0 x 1.52 x 1.22	1967-1971	This site is a ditch that was constructed to collect leakage from the 107-K Retention Basins and divert the flow directly to the Columbia River. Soil in and around the ditch is contaminated with radionuclides as a result of conveying reactor process effluent to the river.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-58	Product Piping	100-KR-2	152 cm in diam	1957-present	The site was the 100-KE Service Water Pipelines. The pipelines carried raw river water, sanitary water, and fire water throughout the 100-KE Area.	Not Accepted	1	N/A	N/A	N/A	N/A	N/A	N/A
100-K-59	Product Piping	100-KR-2	152 cm in diam	1957-present	The site was the 100-KW Service Water Pipelines. The pipelines carried raw river water, sanitary water, and fire water throughout the 100-KE Area.	Not Accepted	1	N/A	N/A	N/A	N/A	N/A	N/A
100-K-6	Process UnitPlant	100-KR-2	Diameter: 3.05	1955-1970	The vacuum pit contains a cyclone separator in a vertically oriented 3 m (10 ft) diameter culvert that extends from grade level to 9.2 m (30 ft) below grade.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-60	Process Sewer	100-KR-2	484	1955-1971	This site includes the underground process sewer pipeline that begins at 165-KW and runs up to the point of intersection with the 30.5 cm and 40.6 cm (12 and 16 in.) pipelines coming from the KW Reactor.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-61	Process UnitPlant	100-KR-2	317 m2	1960-1970	The 117-KW Filter Building housed blowers and particulate filters used to treat the ventilation exhausted from the KW Reactor.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-62	Process UnitPlant	100-KR-2	312 m2	1960-1971	The 117-KE Filter Building housed blowers and particulate filters used to treat the ventilation exhausted from the KE Reactor	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-63	Unplanned Release	100-KR-1	80,527.61 m2	Unknown	This site is a large portion of the floodplain, along the shore of the Columbia River, north of the KW Reactor area that is posted as a radiological contamination area. Most of it is posted as an underground radioactive material area, but two sections remain posted as soil contamination areas.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-64	Unplanned Release	100-KR-1	Length: 355.40 Diameter: 2.11.30 Area: 74,325.6 m2	Unknown	The waste is contaminated soil related to the leakage of cooling water from the 107-KE Retention Basins (waste site 116-KE-4).	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-66	Control Structure	100-KR-2	73.15 x 33.53 x 4.57	Unknown	The 165-KW Power Control Building provided housing for the powerhouse, control room, valve pit, and electrical switchgear of the water supply system. This site is a bomb-resistant shelter without windows, contains asbestos, and has been cleaned twice (in 1993) for PCBs.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-67	Control Structure	100-KR-2	73.15 x 33.53	Unknown	The purpose of the 165-KE Power Control Building was to provide housing for the powerhouse, control room, valve pit, and electrical switchgear of the water supply system. It was constructed as a bomb-resistant shelter without windows, and fans supply all ventilation.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-68	Catch Tank	100-KR-2	Depth: 10.85 Diameter: 2.44	Unknown	The tank received wastewater from 105-KE Fuel Storage Basin sub-basin drainage header.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-69	Sump	100-KR-2	2.29 x 1.37 x 3.96	Unknown	The structure is a concrete sump that receives water from the 105-KE Fuel Storage Basin floor drains in the transfer area. Two electric-powered sump pumps return the drain water to the basin	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A

Table E-1. Waste Site Table

Site Code	COC	Excavation					Overburden/Stockpile or Staging Pile		Radioactive Decay (to Jan. 1, 2012 pCi/g)
		Max Concentration (pCi/g, mg/kg)		95% UCL (pCi/g, mg/kg)		Focused or Discrete Max (pCi/g, mg/kg)	Max Concentration (pCi/g, mg/kg)	95% UCL (pCi/g, mg/kg)	
		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
	Strontium-90	/	/	/	/	0.366	/	/	N/A
	Uranium-233/23	/	/	/	/	0.7	/	/	N/A
	Uranium-235	/	/	/	/	0.094	/	/	N/A
	Hexavalent Chrom	/	/	/	/	ND	/	/	N/A
100-K-55:2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-56:1	Cesium-137	2.38	28.6	0.61	13.2	0.31	1.8	0.3	24.6, 11.35
	Europium-152	10.4	31.4	1.7	13.7	3.11	1.4	0.3	7.44, 22.45, 9.8
	Europium-154	1.1 U	4.08	0.14	1.87	0.33	0.33	0.086	2.41
	Cobalt-60	/	/	/	/	0.15	/	/	
	Plutonium-239/2	/	/	/	/	ND	/	/	
	Strontium-90	/	/	/	/	0.496	/	/	
	Uranium-233/23	/	/	/	/	0.454	/	/	
	Uranium-235	/	/	/	/	0.027	/	/	
	Hexavalent Chrom	/	/	/	/	0.94	/	/	
100-K-56:2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-59	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table E-1. Waste Site Table

Site Code	Site Type	Operable Unit	Site Dimensions (m)	Dates of Operation	Site History	Class Status (defined at end of table)	Category	Decision or Close-Out Document	Remedial Action Start Date	Remedial Action End Date	Verification Sampling Date	Contaminated Waste Volume to ERDF (metric tons)	Maximum Depth of Remedial Action (m)
100-K-7	Storage Tank	100-KR-2	Length: 8.23, Diameter: 2.44 Overburden depth: 0.91 Capacity: 37,854 L	1955-1971	The site was the 165-KE Ethylene Glycol Tanks. The tanks at this site contained ethylene glycol. The tanks were removed from the site in 1994. There was no evidence of contamination and the tanks were intact. Sampling resulted in no detectable amounts of ethylene glycol.	Not Accepted	1	N/A	N/A	N/A	N/A	N/A	N/A
100-K-70	Storage Tank	100-KR-2	Length: 12.19 Diameter: 2.74	1974-present	This site is a steel storage tank for the 105-KE Fuel Storage Basin radioactive drains. The tank is buried under a 1.8 m (6 ft) deep earth berm.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-71	Diversion Box	100-KR-2	4.57 x 2.44 x 3.96 Overburden Depth: 8.84	1953-present	The collection box receives wastewater from nine underground process sewers that originate within the KE Reactor	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-72	Catch Tank	100-KR-2	Depth: 10.85 Diameter: 2.44	Unknown	Wastewater from the 105-KW Fuel Storage Basin sub-basin drainage header.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-73	Diversion Box	100-KR-2	4.57 x 2.44 x 3.96 Overburden Depth: 8.84	1954-present	The collection box receives wastewater from nine underground process sewers that originate within the KW Reactor.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-74	Storage Tank	100-KR-2	Length: 12.19 Diameter: 2.74	1974-present	This site is a steel storage tank for the 105-KW Fuel Storage Basin radioactive drains. The tank is buried under a 1.8 m (6 ft) deep earth berm.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-75	Sump	100-KR-2	2.29 x 1.37 x 3.96	1974-present	The structure is a concrete sump that receives water from the 105-KW Fuel Storage Basin floor drains in the transfer area. Two electric-powered sump pumps return the drain water to the basin and/or the underground holding tank.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-76	Unplanned Release	100-KR-2	Not Documented	1992	This site is a duplicate of 130-KW-1. The site is the location of two removed underground diesel storage tanks. The "unplanned release" is the radiation contamination detected when the tanks were excavated.	Not Accepted	1	N/A	N/A	N/A	N/A	N/A	N/A
100-K-77	Dumping Area	100-KR-2	2.90 x 3.10 x 2.10	Unknown	This site contains railroad ties that are covered with soil.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-78	Unplanned Release	100-KR-1	19.40 x 16.40	Unknown	In April 2000, the site was enclosed within a post-and-chain area and posted with contamination area signs	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-79	Product Piping	100-KR-2	Not Documented	Unknown	The pipes carried sodium dichromate and sulfuric acid at both 100-KE and 100-KW.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-8	Storage Tank	100-KR-2	Length: 8.23 Diameter: 2.44 Overburden depth: 0.91 Capacity: 37,854 L	1955-1970	This site was the 165-KW Ethylene Glycol Tanks. The tanks were two carbon steel underground (positioned horizontally) ethylene glycol storage tanks. Both tanks were removed on August 16, 1993. There was no evidence in the soil of a leak and the tanks appeared to be intact. Sampling resulted in no detectable amounts of ethylene glycol	Not Accepted	1	N/A	N/A	N/A	N/A	N/A	N/A
100-K-80	Radioactive Process Sewer	100-KR-1	3292	1955-present	This site includes two, 2.1 m (7 ft) diameter, river effluent pipelines that extend 400.2 m (1,313 ft) from the face of 116-K-3 (the 1904-K Outfall Structure) into the main channel of the Columbia River	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-81	Unplanned Release	100-KR-1	6.10 x 6.10	Unknown	This site consists of a soil contamination area surrounded by a rope and posted as a soil contamination area. Inside the roped area is a large cylindrical piece of equipment	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-82	Unplanned Release	100-KR-2	Not documented	1974-1978	From 1973 through 1979, leak rates ranging between 9.8 and 35.9 liters/min (2.6 and 9.5 gal/min) were documented at the 105-K East Basin. In 1978, leakage was discovered in the 105-KW Pickup Chute area. The basin leaks were repaired with epoxy fiberglass. It is possible the leakage rates were similar to those noted at the 105-KE Basin.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-83	Outfall	100-KR-1	68.58 x 3.05	Not Documented	This site is a spillway that leads to the Columbia River. There is no corroborated physical or historical evidence that the spillway was ever used.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
100-K-84	Unplanned Release	100-KR-2	1,167 m2	Not Documented	This site consists of red-stained soil found southeast of the 118-K-1 Burial Ground. Four small areas were identified. Some of the material appeared crushed while other pieces looked like "slag." Similar piles of material have been found south of the 200 West Area, 100-BC Area, and the Riverland (McGee Ranch) Area.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-85	Trench	100-KR-2	707.8 m2	1952-1954	This site is a large open pit that appears in a historical photograph estimated to be 30 m (98 ft) in diameter and appears to have supported construction operations. Currently all that exists at the site location is a flat grassy area. The waste may be temporary construction debris.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-86	Unplanned Release	100-KR-2	Area 1: 20 m diameter Area 2: 5 x 12 Area 3: 2 m diameter Area 4: 0.5 x 3	Not Documented	This site is four areas with stained soil, surface debris, and the underlying soil. The COPCs are unknown. There was no information describing the release of these materials.	Accepted	3	OSR-2008-0003	N/A	N/A	N/A	N/A	N/A
100-K-87	Unplanned Release	100-KR-2	0.6 x 0.3	Not Documented	This site consists of a segment of suspected friable asbestos pipe lagging and any contaminated soil related to the asbestos	Accepted	3	OSR-2008-0003	N/A	N/A	N/A	N/A	N/A
100-K-88	Unplanned Release	100-KR-2	4.0 x 5.0	Not Documented	This site consists of stained soil, scattered yellow granular material, and the underlying soil. There is no vegetation within the release area. The waste is potentially contaminated soil	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A

Table E-1. Waste Site Table

Site Code	COC	Excavation					Overburden/Stockpile or Staging Pile		Radioactive Decay (to Jan. 1, 2012 pCi/g)
		Max Concentration (pCi/g, mg/kg)		95% UCL (pCi/g, mg/kg)		Focused or Discrete Max (pCi/g, mg/kg)	Max Concentration (pCi/g, mg/kg)	95% UCL (pCi/g, mg/kg)	
		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
100-K-7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-71	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table E-1. Waste Site Table

Site Code	Site Type	Operable Unit	Site Dimensions (m)	Dates of Operation	Site History	Class Status (defined at end of table)	Category	Decision or Close-Out Document	Remedial Action Start Date	Remedial Action End Date	Verification Sampling Date	Contaminated Waste Volume to ERDF (metric tons)	Maximum Depth of Remedial Action (m)
100-K-89	Burn Pit	100-KR-2	20.0 x 5.0	Not Documented	This site consists of burned debris (wood, metal, and roofing material) and the underlying soil. COPCs may include asbestos and petroleum products.	Accepted	3	OSR-2008-0003	N/A	N/A	N/A	N/A	N/A
100-K-9	French Drain	100-KR-2	Diameter: 0.61	Not Documented	This site is the northernmost of two French drains at the 118-KE-2	Not Accepted	1	N/A	N/A	N/A	N/A	N/A	N/A
100-K-90	Unplanned Release	100-KR-2	3.0 x 1.0	Not Documented	This site consists of white granular material and the underlying soil. The vegetation at the site appears to be unaffected by the presence of the substance.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-91	Unplanned Release	100-KR-2	1.0 x 1.0	Not Documented	This site consists of one intact vehicle battery, partially buried, and the underlying soil. The surrounding vegetation appears to be unaffected by its presence. The COPCs may contain lead and possibly sulfuric acid in the soil.	Accepted	3	OSR-2008-0003	N/A	N/A	N/A	N/A	N/A
100-K-92	Unplanned Release	100-KR-2	Area 1: 3.0 x 1.0 Area 2: 3 m diameter	Not Documented	This site is two areas of reddish-crusted soil and the underlying soil. Area 1 – The site is reddish-crusted soil indicating that a liquid may have been dumped to the ground. There is little or no vegetation growing in the stained area. Area 2 – The site is reddish-stained soil, metal debris, and the remnants of a crushed drum. There is little or no vegetation growing in the affected area. The COPCs are unknown.	Accepted	3	OSR-2008-0003	N/A	N/A	N/A	N/A	N/A
100-K-93	Unplanned Release	100-KR-1	0.8 m2	Not Documented	The waste is the abandoned drum, tar-like substance, and any contaminated soil. The site consists of a 208 L (55 gal) drum remnant with solidified gray/black tar-like substance and the underlying soil.	Accepted	3	OSR-2008-0003	N/A	N/A	N/A	N/A	N/A
100-K-94	French Drain	100-KR-2	Diameter: 0.76	Not Documented	There are two identical sites, one each for the 1702 KE and 1702-KW Guard Houses. The waste was unconsumed water coming from the drinking fountains at both guardhouses. Waste drinking water flowed from the drinking fountain in each guardhouse through underground piping to a dry well.	Accepted	3	OSR-2008-0003	N/A	N/A	N/A	N/A	N/A
100-K-95	Unplanned Release	100-KR-2	Diameter: 150	Not Documented	This location is a large area with tar dumps scattered throughout and underlying soil. The waste is construction debris. The COPCs may be PAHs and PCBs.	Accepted	3	OSR-2008-0003	N/A	N/A	N/A	N/A	N/A
100-K-97	French Drain	100-KR-2	Not Documented	Not Documented	This site was the 183-KW French Drain and Rail Spur Unplanned Release. It consists of a French Drain that was used to collect drainage from the chromate system transfer hose after unloading the railcar. The unplanned release consists of sodium dichromate and sulfuric acid spills along the railroad tracks from the west side of the 183.1 Head House to the eastern end of the 100-K-79 Pipe chase.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-98	French Drain	100-KR-2	Not Documented	Not Documented	This site was the 183-KE French Drain and Rail Spur Unplanned Release. It consists of a French Drain that was used to collect the drainage from the transfer hose after unloading the railcar. The unplanned release consists of sodium dichromate and sulfuric acid spills along the railroad tracks from the west side of the 183.1 Head House to the eastern end of the 100-K-79 Pipe chase	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
100-K-99	Unplanned Release	100-KR-1	Not Documented	Not Documented	This site is radioactive material remaining after the 107-KE Basin removal in 1995 (site code 116-KE-4).	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
116-K-1	Crib	100-KR-1	121.92 x 121.92 x 6.10	1955-1956	This site received reactor coolant water from the 107-KE and 107-KW Retention Basins during reactor outages due to fuel ruptures. This site received 107-E and 107-KW Basin cleanout slurry from February 1955 to May 1956. Effluent volume received was 40 million L (22 million/gal) and inventory includes 40 µg of sodium dichromate. Radiological inventory was 46 Ci. The crib was constructed for disposal of reactor cooling water effluent; but failed less than a year after installation and was abandoned	Interim Closed	2	CVP-2003-00024 WSRF 2004-01	Sept. 2003	Not documented	Nov. 24 to Dec. 3, 2003	101,396	11
116-K-2	Trench	100-KR-1	121.92 x 121.92 x 6.10 Area: 21,521.0 m2	1955-1971	This site received all contaminated effluent from floor drains in the 105-KE and 105-KW Reactors (low volume) and approximately 1,893 L (500 gal) per minute of KE and KW Reactors metal storage basin overflow. Effluent volume received was 3x1011 L. Inventory included 299,825 µg of sodium dichromate, 499 µg of copper sulfate, 9,979 µg of sulfamic acid, and 9,979 µg (22,000 lb) of sulfuric acid. Radiological inventory was 2,100 Ci.	Interim Closed	2	CVP-2006-00001 WSRF 2006-02	Feb. 17, 2004	Oct. 27, 2005	Jul. 6 to Nov. 2, 2005	410,000	7.6

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		Max Concentration (pCi/g, mg/kg)		95% UCL (pCi/g, mg/kg)		Focused or Discrete Max (pCi/g, mg/kg)	Max Concentration (pCi/g, mg/kg)	95% UCL (pCi/g, mg/kg)	
		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
100-K-89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-90	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-91	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-97	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-98	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100-K-99	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
116-K-1	Cesium-137	1.24	7.33	0.51	6.65	/	0.589	0.27	6.08, 5.52
	Cobalt-60	0.038	4.02	0.0237	1.3	/	ND	0.0132 U	1.38
	Europium-152	0.405	13.2	0.211	5.17	/	0.482	0.244	8.71, 3.41
	Europium-154	ND	2.45	0.0574 U	0.83	/	ND	0.0299 U	N/A
	Strontium-90	2.74	11.6	1.63	8.37	/	1.76	0.614	9.54, 6.85
	xavalent chrom	0.26	0.56	0.26	0.56	/	ND	0.24 U	N/A
	Chromium (tota	16	18	13.1	14.2	/	14	13	N/A
116-K-2	Samples Collected from East Side of Trench						Overburden		
	Carbon-14	2.98	2	0.7	1.26	/	ND	ND	N/A
	Cesium-137	1.45	227	0.56	130	/	0.13	0.083	195, 112
	Cobalt-60	ND	6.16	0.018 (ND)	2.48	/	ND	ND	2.62, 1.06
	Europium-152	0.346	132	0.153	62.7	/	0.257	0.17	94.7, 44.9
	Europium-154	ND	11.5	0.056 (ND)	5.4	/	ND	ND	6.81, 3.2
	Nickel-63	7.83	2180	3.56	880	/	ND	ND	N/A
	utonium-239/2	ND	13.1	0.023 (ND)	6.9	/	ND	ND	N/A
	Strontium-90	0.194	13	0.143	7.12	/	ND	ND	11.1, 6.09
	xavalent chrom	0.85	13.3	0.39	5.3	/	0.34	0.27	N/A
	Samples Collected from West Side of Trench								
	Carbon-14	1.45	4.62	0.29	1.44	/	/	/	N/A
	Cesium-137	4.69	261	1.1	117	/	/	/	225, 101
	Cobalt-60	ND	9.62	0.023 (ND)	4.23	/	/	/	4.1, 1.8
	Europium-152	2.62	194	0.626	76	/	/	/	139, 54.5
	Europium-154	0.299	18	0.129	7.2	/	/	/	10.7, 4.27
	Nickel-63	5.03	1570	1.77	650	/	/	/	N/A
	utonium-239/2	ND	13.4	0.024 (ND)	4.7	/	/	/	N/A
	Strontium-90	0.374	20.1	0.201	6.3	/	/	/	17.2, 5.39
	xavalent chrom	0.31	4.6	0.23	2.4	/	/	/	N/A

Table E-1. Waste Site Table

Site Code	Site Type	Operable Unit	Site Dimensions (m)	Dates of Operation	Site History	Class Status (defined at end of table)	Category	Decision or Close-Out Document	Remedial Action Start Date	Remedial Action End Date	Verification Sampling Date	Contaminated Waste Volume to ERDF (metric tons)	Maximum Depth of Remedial Action (m)
116-K-3	Outfall	100-KR-1	10.67 x 10.06 x 7.01 Area: 107.3 m2	1955-?	The unit received reactor coolant water from the 107-K Retention Basins. The radionuclide content is unknown	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
116-KE-1	Crib	100-KR-2	Depth: 7.77 Overburden Depth: 5.33 Diameter: 12.19 Area: 27.8 m2	1955-1971	The crib and pipeline have been removed and the site backfilled with clean soil to the average adjacent grade elevation. Effluent volume received was 800,000 L (845,598 gal) and radiological inventory was <240 Ci (H-3, C-14).	Accepted	3	EPA/AMD/R10-97/044	N/A	N/A	N/A	N/A	N/A
116-KE-2	Crib	100-KR-2	4.88 x 4.88 Area: 24.2 m2	1955-1971	This site received wastes from cleanup columns in the 1706-KER Waste Crib. Effluent volume received was 3 million L (79 million gal) Inventory included 100,000 kg (1,100 lb) of sodium hydroxide and 100,000 kg (1,100 lb) of sulfuric acid. Radiological inventory was 38 Ci.	Accepted	3	EPA/AMD/R10-97/044	N/A	N/A	N/A	N/A	N/A
116-KE-3	InjectionReverse Well	100-KR-2	Depth: 9.83 Overburden Depth: 8.84 Diameter: 6.10 Area: 32.0 m2	1955-1971	This site is part of the sub-basin drainage disposal system for the 105-KE Fuel Storage Basin (100-K-42). The site includes the following components: a feed pipe, crib structure, dry well, and test hole.	Accepted	3	EPA/AMD/R10-97/044	N/A	N/A	N/A	N/A	N/A
116-KE-4	Retention Basin	100-KR-1	Depth: 3.93 Diameter: 76.20 Area: 27,870.9 m2	1955-1971	This site received cooling water effluent from the KE Reactor for radioactive decay and thermal cooling before release to the Columbia River. Eighty percent of the total radionuclide inventory was contained within the soil adjacent to the basin.	Interim Closed	1	CVP-2005-00002 WSRF 2005-06	Oct. 2, 2003	Mar. 15, 2005	Jan. 24, Feb. 15, and Mar. 15, 2005	167,634.10	4.3
116-KE-5	Process UnitPlant	100-KR-2	12 x 6 x 4	1955-1971	The facility was constructed on a concrete pad and consisted of heat exchangers and associated piping. It was used to transfer heat from the KE Reactor cooling water effluent. The heat recovery stations used an ethylene glycol solution as the heat exchanger medium. The system is no longer intact. The heat exchangers have been removed and are being used elsewhere.	Interim Closed	1	CVP-2005-00006 WSRF 2005-032	Dec. 9, 2002	Apr. 15, 2005	Focused sampling done on Jan. 26 to Feb. 24, 2005	86,551 (includes 100-K-55:1, 100-K-56:1, 116-KE-5, and 116-KW-4)	8.8 (site lies within 100-K-55:1 footprint)
116-KE-6A	Storage Tank	100-KR-2	Not documented	1984-1986	The unit consists of a 363 L (96 gal) condensate collection tank, which is part of a system installed in 1984 to treat radioactive mixed wastes generated in the 1706-KE Water Treatment Test Facility.	Interim Closed	2	WSRF/RSVP-2010-029	Jun. 15, 2009	Jul. 9, 2009	None	Not documented	Not documented
116-KE-6B	Storage Tank	100-KR-2	Not documented	1984-1986	The unit consists of a 10 L (30 gal) evaporation unit, which was part of a system installed to treat radioactive mixed wastes generated in the 1706-KE Water Treatment Test Facility.	Interim Closed	2	WSRF/RSVP-2010-030	Jun. 15, 2009	Jul. 9, 2009	None	Not documented	Not documented
116-KE-6C	Storage Tank	100-KR-2	Not documented	1984-1986	The unit consists of a 2,081 L (550 gal) waste accumulating tank, which was part of a system installed to treat radioactive mixed wastes generated in the 1706-KE Laboratories.	Interim Closed	2	WSRF/RSVP-2010-031	Jun. 15, 2009	Jul. 9, 2009	None	Not documented	Not documented
116-KE-6D	Process UnitPlant	100-KR-2	Not documented	1984-1986	The unit consists of a 1.5 m3 (5 ft3) mixed-bed resin ion-exchange column, which was part of a system that was installed to treat radioactive mixed wastes generated in the 1706-KE Water Treatment Test Facility	Interim Closed	2	WSRF/RSVP-2010-032	1994	October, 1996	None	None, taken to Low-Level Burial Ground	Not documented
116-KW-1	Crib	100-KR-2	Depth: 7.77 Overburden Depth: 5.33 Diameter: 12.19 Area: 27.8 m2	1955-1971	The 115-KW Condensate Crib and pipeline received condensate and other wastewater from reactor gas purification systems. Remediation of the site could not be fully implemented because of the proximity of adjacent buildings; however, the crib and pipeline have been removed and the site backfilled with clean soil to the average adjacent grade elevation. Effluent volume received was 800,000 L (21,104 gal). Radiological inventory was 240 Ci (H-3, C-14).	Accepted	3	EPA/ROD/R10-95/126	N/A	N/A	N/A	N/A	N/A
116-KW-2	InjectionReverse Well	100-KR-2	Depth: 9.83 Overburden Depth: 8.84 Diameter: 6.10 Area: 32.0 m2	1955-1970	This site is part of the sub-basin drainage disposal system for the 105-KW fuel storage basin(100-K-43). The site includes the following components: a feed pipe, crib structure, dry well, and test hole.	Accepted	3	EPA/AMD/R10-97/044	N/A	N/A	N/A	N/A	N/A
116-KW-3	Retention Basin	100-KR-1	Depth: 3.93 Diameter: 76.20 Area: 13,759.3 m2	1954-1970	This site received cooling water effluent from the KW Reactor for radioactive decay and thermal cooling before release to the Columbia River. Eighty percent of the total radionuclide inventory is contained within the soil adjacent to the basin.	Interim Closed	2	CVP-2004-00001 WSRF 2004-02	Dec. 11, 2002	Oct. 20, 2003	Oct. 20-22, 2003	169,893	6.1
116-KW-4	Process UnitPlant	100-KR-2	12 x 6 x 4	1955-1970	The unit consisted of heat exchangers, pumps, and associated piping on a concrete pad. Disconnected piping remains at the site and the pipe ends are covered with plywood.	Interim Closed	1	CVP-2005-00006 WSRF 2005-031	Dec. 9, 2002	Apr. 15, 2005	Focused sampling done on Jun. 15-23, 2005	86,551 (includes 100-K-55:1, 100-K-56:1, 116-KE-5, and 116-KW-4)	8.8 (site lies within 100-K-56:1 footprint)

Table E-1. Waste Site Table

Site Code	COC	Excavation					Overburden/Stockpile or Staging Pile		Radioactive Decay (to Jan. 1, 2012 pCi/g)
		Max Concentration (pCi/g, mg/kg)		95% UCL (pCi/g, mg/kg)		Focused or Discrete Max (pCi/g, mg/kg)	Max Concentration (pCi/g, mg/kg)	95% UCL (pCi/g, mg/kg)	
		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
116-K-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
116-KE-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
116-KE-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
116-KE-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
116-KE-4	Cesium-137	0.869	/	0.23	/	/	/	/	N/A
	Cobalt-60	0.086	/	0.034	/	/	/	/	N/A
	Europium-152	2.08	/	0.67	/	/	/	/	N/A
	Europium-154	0.135	/	0.11	/	/	/	/	N/A
	utonium-239/2	ND	/	ND	/	/	/	/	N/A
	Strontium-90	0.549	/	0.24	/	/	/	/	N/A
	Iranium-233/23	0.84	/	0.61	/	/	/	/	N/A
	xavalent chrom	1.3	/	0.7	/	/	/	/	N/A
116-KE-5	Ethylene glyco	/	/	/	/	59	/	/	N/A
	Arsenic	/	/	/	/	3.7	/	/	N/A
	Barium	/	/	/	/	100	/	/	N/A
	Cadmium	/	/	/	/	0.19 U	/	/	N/A
	Chromium (tota	/	/	/	/	30	/	/	N/A
	xavalent chrom	/	/	/	/	0.33	/	/	N/A
	Lead	/	/	/	/	11.3	/	/	N/A
	Mercury	/	/	/	/	0.1	/	/	N/A
116-KE-6A	Verification sampling was not required under the scope of closure for 116-KE-6A, since the floor and walls in the 1706-KER Building were not included as part of either the RCRA TSD closure certification or under this CERCLA waste site remedial action.								N/A
116-KE-6B	Verification sampling was not required under the scope of closure for 116-KE-6B, since the floor and walls in the 1706-KER Building were not included as part of either the RCRA TSD closure certification or under this CERCLA waste site remedial action.								N/A
116-KE-6C	Verification sampling was not required under the scope of closure for 116-KE-6C, since the floor and walls in the 1706-KER Building were not included as part of either the RCRA TSD closure certification or under this CERCLA waste site remedial action.								N/A
116-KE-6D	Verification sampling was not required under the scope of closure for 116-KE-6D, since the floor and walls in the 1706-KER Building were not included as part of either the RCRA TSD closure certification or under this CERCLA waste site remedial action.								N/A
116-KW-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
116-KW-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
116-KW-3	Cesium-137	0.445	/	0.156	/	/	/	/	N/A
	Cobalt-60	0.252	/	0.0975	/	/	/	/	N/A
	Europium-152	3.8	/	1.41	/	/	/	/	2.5
	Europium-154	0.785	/	0.258	/	/	/	/	N/A
	utonium-239/2	0.0419	/	0.113	/	/	/	/	N/A
	Strontium-90	0.279 U	/	0.109 U	/	/	/	/	N/A
	Iranium-233/23	1.59	/	0.644	/	/	/	/	1.59
	Uranium-235	0.0938	/	0.0414	/	/	/	/	N/A
	xavalent chrom	0.85	/	0.85	/	/	/	/	N/A
116-KW-4	Ethylene glyco	/	/	/	/	10.0 U	/	/	N/A
	Arsenic	/	/	/	/	2.6	/	/	N/A
	Barium	/	/	/	/	59.3	/	/	N/A
	Cadmium	/	/	/	/	0.16 U	/	/	N/A
	Chromium (tota	/	/	/	/	12.1	/	/	N/A
	xavalent chrom	/	/	/	/	0.24	/	/	N/A
	Lead	/	/	/	/	4.5	/	/	N/A

Table E-1. Waste Site Table

Site Code	Site Type	Operable Unit	Site Dimensions (m)	Dates of Operation	Site History	Class Status (defined at end of table)	Category	Decision or Close-Out Document	Remedial Action Start Date	Remedial Action End Date	Verification Sampling Date	Contaminated Waste Volume to ERDF (metric tons)	Maximum Depth of Remedial Action (m)
118-K-1	Burial Ground	100-KR-2	365.76 x 182.88 x 6.10 Area: 66,890.2 m2	1953-1975	This site runs northwest and southwest and contains approximately 50 trenches and pits and 11 silos. The trench and pit dimensions vary greatly.	Accepted	3	EPA/ROD/R10-00/121	N/A	N/A	N/A	N/A	N/A
118-KE-1	Reactor	100-KR-2	3,268 m2	1955-1971	The unit consists of: (1) a reactor block, which includes the graphite moderator stack, biological and thermal shields, pressure tubes, and the safety and control systems; (2) the irradiated fuel storage basin; and (3) contaminated portions of the KE Reactor Building and remnant contaminated pipelines connected to the buildings and not removed through other remedial actions.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
118-KE-2	Storage	100-KR-2	12.19 x 7.62 Area: 92.9 m2	1955-1971	The unit was used for temporary storage of radioactive rod tips for radioactive decay pending subsequent disposal	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
118-KW-1	Reactor	100-KR-2	3,273 m2	1955-1970	The unit consists of: (1) a reactor block, that includes the graphite moderator stack, biological and thermal shields, pressure tubes, and the safety and control systems; (2) the irradiated fuel storage basin; and (3) contaminated portions of the KW Reactor Building and remnant contaminated pipelines connected to the buildings and not removed through other remedial actions.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
118-KW-2	Storage	100-KR-2	12.19 x 7.62 Area: 92.9 m3	1955-1971	The 105-KW Horizontal Control Rod Storage cave was used for temporary storage of irradiated and radioactively contaminated horizontal control rods containing unknown quantities of radionuclides.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-1	Sump	100-KR-2	2.54 x 1.93 x 1.45	1955-1971	This site received sulfuric acid for neutralization and acid sludge waste that was removed from the sulfuric acid storage tanks in the late 1960s and early 1970s.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
120-KE-2	French Drain	100-KR-2	Diameter: 0.91	1955-1971	This site received sulfuric acid sludge that was removed from sulfuric acid storage tanks.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
120-KE-3	Trench	100-KR-2	12.19 x 0.91	1955-1971	The unit was a trench lined with sand. The trench received a sludge-water slurry.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
120-KE-4	Storage Tank	100-KR-2	15.3 m2	1955-1971	The unit is located above ground and has a storage capacity of 38,267 L (10,109 gal).	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-5	Storage Tank	100-KR-2	Length: 6.10 Diameter: 2.74	1955-1971	This site is the westernmost of the two original sulfuric acid tanks at the 183-KE Head House.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-6	Foundation	100-KR-2	30.44 m2	1955-1971	This site is a foundation where a sodium dichromate storage tank was placed.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
120-KE-8	Sump	100-KR-2	4.88 x 3.05 Area: 14.9 m2	1955-1971	The unit contains salt brine and residue. Based on sampling performed at the 120-KE-9 and 120-KW-7 Brine Pits, the brine and residue may be regulated as dangerous in accordance with WAC 173-303.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-9	Sump	100-KR-2	7.01 x 5.28	1955-1971	The salt dissolving pits and brine pump pit are part of a single below grade concrete structure that provided brine for the 183-KE Filter Water Facility.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
120-KW-1	Sump	100-KR-2	2.54 x 1.93 x 1.45	1955-1970	This site was an underground concrete structure used to neutralize acid waste before disposal.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
120-KW-2	French Drain	100-KR-2	Diameter: 0.91	1955-1970	This unit was an open-bottomed French drain. The site received sulfuric acid sludge that was removed from sulfuric acid storage tanks.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
120-KW-3	Storage Tank	100-KR-2	Length: 6.10 Diameter: 2.74	1955-1970	This site is the westernmost of the two original sulfuric acid tanks at the 183-KW Head House.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
120-KW-4	Storage Tank	100-KR-2	17.24 m2	1955-1970	The unit is an above ground sulfuric acid storage tank. The unit was used for storage of sulfuric acid product.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
120-KW-5	Foundation	100-KR-2	28.6 m2	1955-1971	This site is a foundation where a sodium dichromate storage tank was placed.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
120-KW-6	Sump	100-KR-2	4.88 x 3.05 Area: 14.9 m2	1955-1970	The unit is a below grade concrete structure that provided brine for the 165-KW Powerhouse. The unit contains salt brine and residue	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
120-KW-7	Sump	100-KR-2	7.01 x 5.28	1955-1970	The salt dissolving pits and brine pump pit were part of a single below grade concrete structure that provided brine for the 183-KW Filter Water Facility.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
126-K-1	InertDemolition Landfill	100-KR-2	11,743 m2	1975-present	This unit is a gravel borrow pit that resulted from 100-K Area construction.	Rejected	1	WSRF 2009-001	N/A	N/A	N/A	N/A	N/A
126-KE-2	Storage Tank	100-KR-2	Depth: 6.10 Diameter: 12.19 Capacity: 711,657 L	1955-1970	This site is an above ground vertical stainless steel storage tank mounted on a concrete base. The tank was part of a system called the liquid alum system, which supplied liquid alum for water treatment.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
126-KE-3	Storage Tank	100-KR-2	Depth: 6.10 Diameter: 12.19 Capacity: 711,657 L	1955-1997	This site was 183-KE Liquid Alum Storage Tank #1. It is an above ground vertical stainless steel storage tank mounted on a concrete base. The tank was part of a system called the liquid alum system, which supplied liquid alum for water treatment.	Not Accepted	1	N/A	N/A	N/A	N/A	N/A	N/A
128-K-1	Burn Pit	100-KR-2	30.48 x 30.48 x 0.91	1955-1972	This site was used for the disposal of nonradioactive combustible materials such as paint waste, office waste, and chemical solvents.	Interim Closed	2	WSRF/RSVP-2004-042	Phase 1: Apr. 22, 2003 Phase 2:	Phase 1: Apr. 25, 2003	Phase 1: Confirmatory sampling done in April 22-25	Phase 1: Not documented Phase 2:	Phase 1: 2.4 Phase 2:

Table E-1. Waste Site Table

Site Code	COC	Excavation					Overburden/Stockpile or Staging Pile		Radioactive Decay (to Jan. 1, 2012 pCi/g)
		Max Concentration (pCi/g, mg/kg)		95% UCL (pCi/g, mg/kg)		Focused or Discrete Max (pCi/g, mg/kg)	Max Concentration (pCi/g, mg/kg)	95% UCL (pCi/g, mg/kg)	
		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
	Mercury	/	/	/	/	0.02	/	/	N/A
118-K-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
118-KE-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
118-KE-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
118-KW-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
118-KW-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KE-9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KW-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KW-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KW-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KW-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KW-5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KW-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120-KW-7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
126-K-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
126-KE-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
126-KE-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
128-K-1		Phase 1, confirmatory sampling							
	hericium-241 G	ND	/	/	/	/	/	/	N/A
	Cesium-137	ND	/	/	/	/	/	/	N/A
	Cobalt-60	ND	/	/	/	/	/	/	N/A

Table E-1. Waste Site Table

Site Code	Site Type	Operable Unit	Site Dimensions (m)	Dates of Operation	Site History	Class Status (defined at end of table)	Category	Decision or Close-Out Document	Remedial Action Start Date	Remedial Action End Date	Verification Sampling Date	Contaminated Waste Volume to ERDF (metric tons)	Maximum Depth of Remedial Action (m)
									Dec. 2003	Phase 2: Dec. 2003	Phase 2: Confirmatory sampling done on May 22-23, 2003 Verification sampling done in the P16 area only on Dec. 8, 2003	161 from P16 area only	0.5 (P16 area only)
128-K-2	Burn Pit	100-KR-2	243.84 x 85.34 Area: 6,967.7 m2	Unknown	A broad range of trash is exposed on the ground surface. There is evidence of burning in many locations. Most of the material on the surface is scrap metal and glass. Office waste, paint, solvents, and laboratory waste also have been found. The area is covered with non-friable and friable asbestos.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
130-K-1	Storage Tank	100-KR-2	Capacity: 7,571 L	1955-1972	This site was the 1717-K Gasoline Storage Tank. It was an underground gasoline storage tank oriented with the long axis of the tank in an east-wes direction. The tank was emptied and rinsed with water when the facilities werw deactivited.	Not Accepted	1	N/A	N/A	N/A	N/A	N/A	N/A
130-K-2	Storage Tank	100-KR-2	Capacity: 2,082 L	1955-1972	This site was an underground waste oil storage tank oriented with the long axis of the tank in a north-south direction. The tank was used for storing used motor oil.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
130-K-3	Storage Tank	100-KR-2	Length: 10.06 Diameter: 2.90 Capacity: 66,230 L	1961-1970	The site was the 182-K Emergency Diesel Oil Storage Tank. The tanks were used to supply diesel fuel to three engines located within the 182K (Emergency Water Pump House). In about 1970, the tanks were pumped empty of product and abandoned. The tanks were excavated on April 13, 1993. Sampling confirmed releases had not occured.	Not Accepted	1	N/A	N/A	N/A	N/A	N/A	N/A
130-KE-1	Storage Tank	100-KR-2	Diameter: 1.83 Est. Volume: 9 m3 Capacity: 7,571 L	1955-1971	This site was two underground storage tanks, a valve pit, and associated piping.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
130-KE-2	Storage Tank	100-KR-2	1,140 m2	1955-1971	The unit was used for storage of oil (product) for the 165-KE Power Control Building boilers.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
130-KW-1	Storage Tank	100-KR-2	Length: 3.35 Diameter: 1.83 Capacity: 7,571 L	1960-1971	This site is the location of two underground diesel storage tanks that were removed in 1992.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
130-KW-2	Storage Tank	100-KR-2	1,140 m2	1955-1970	The tank was used for storage of oil (product) for the 165-KW Power Control Building boilers.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
132-KE-1	Stack	100-KR-2	Diameter: 6.71 Area: 35.3 m2	1955-1971	Discharged ventilated air from the KE Reactor Building flowed through concrete ducts directly out of the stack.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
132-KW-1	Stack	100-KR-2	Diameter: 6.71 Area: 35.3 m2	1955-1970	Discharged ventilation air from the KW Reactor Building flowed through concrete ducts directly out the exhaust stack.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
1607-K1	Septic Tank	100-KR-2	Capacity: 3,785 L	1955-present	The sanitary sewer system received sewage from the 1701-K Badge House, 1720-K Patrol office and change room, and 1721-K Trailer. The flow rate to this unit is estimated to have been 1,982 L (525 gal) per day.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
1607-K2	Septic Tank	100-KR-2	Capacity: 1,893 L	1955-present	The sanitary sewer system receives sewage from the 183-KE Filter Water Facility. The flow rate to this unit is estimated to have been up to 1,230 L (325 gal) per day.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
1607-K3	Septic Tank	100-KR-2	Capacity: 1,893 L	1955-1970	The sanitary sewer system received sewage from 183-KW Water Treatment Plant. The flow rate to this unit is estimated to have been up to 1,230 L (325 gal) per day.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A

Table E-1. Waste Site Table

Site Code	COC	Excavation					Overburden/Stockpile or Staging Pile		Radioactive Decay (to Jan. 1, 2012 pCi/g)
		Max Concentration (pCi/g, mg/kg)		95% UCL (pCi/g, mg/kg)		Focused or Discrete Max (pCi/g, mg/kg)	Max Concentration (pCi/g, mg/kg)	95% UCL (pCi/g, mg/kg)	
		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
	Europium-152	ND	/	/	/	/	/	/	N/A
	Europium-154	ND	/	/	/	/	/	/	N/A
	Europium-155	ND	/	/	/	/	/	/	N/A
	ranium-235 GE	ND	/	/	/	/	/	/	N/A
	ranium-238 GE	ND	/	/	/	/	/	/	N/A
	kavalent chrom	0.48	/	Phase 2: Confirmatory Sampling of **P16 only**				/	N/A
	Arsenic	3.7	/	254	/	/	/	/	N/A
	Barium	71.5	/	327	/	/	/	/	N/A
	Cadmium	0.15	/	164	/	/	/	/	N/A
	Chromium (tota	10.5	/	14.6	/	/	/	/	N/A
	Lead	10.8	/	586	/	/	/	/	N/A
	Mercury	0.02	/	144	/	/	/	/	N/A
	Selenium	0.8	/	13.4	/	/	/	/	N/A
	Silver	ND	/	7.4	/	/	/	/	N/A
	Cyanide	/	/	ND	/	/	/	/	N/A
	TPH	14.4	/	3.5	/	/	/	/	N/A
	CBs (Aroclor-12	ND	/	0.17	/	Verification Sampling of **P16 only**			N/A
	nzo(a)anthrace	0.061 J	/	/	/	0.1 J	/	/	N/A
	Benzo(a)pyrene	0.044 J	/	/	/	0.051 J	/	/	N/A
	nzo(b)fluoranth	0.037 J	/	/	/	0.075 J	/	/	N/A
	nzo(k)fluoranth	0.043 J	/	/	/	0.078 J	/	/	N/A
	nzo(ghi) peryle	0.033 J	/	/	/	0.033 J	/	/	N/A
	Chrysene	0.064 J	/	/	/	0.15 J	/	/	N/A
	Indeno(1,2,3-cd)pyrene	ND	/	/	/	0.029 J	/	/	N/A
	Fluoranthene	0.14 J	/	/	/	0.22 J	/	/	N/A
	Phenanthrene	0.066 J	/	/	/	0.046 J	/	/	N/A
	Anthracene	/	/	/	/	ND	/	/	N/A
	Pyrene	0.120 J	/	/	/	0.153 J	/	/	N/A
128-K-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
130-K-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
130-K-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
130-K-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
130-KE-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
130-KE-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
130-KW-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
130-KW-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
132-KE-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
132-KW-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1607-K1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1607-K2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1607-K3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table E-1. Waste Site Table

Site Code	Site Type	Operable Unit	Site Dimensions (m)	Dates of Operation	Site History	Class Status (defined at end of table)	Category	Decision or Close-Out Document	Remedial Action Start Date	Remedial Action End Date	Verification Sampling Date	Contaminated Waste Volume to ERDF (metric tons)	Maximum Depth of Remedial Action (m)
1607-K4	Septic Tank	100-KR-2	Capacity: 2,8391 L	1955-1999	The site was the 1607-K4 Septic Tank and Associated Drain Field taht received sewage from 1704-K Office Building and the 1717-K Maintenance Shop. It is composed of a septic tank, two leaching trenches, and associated piping. The septic tank was a localized installation and not connected to either the process or area waste sewers. The septic system was abandoned in 1999, all septage inside the tank was removed and the empty tak was filled to eliminate void spaces. The septic lids were left in place.	Closed Out (Left in Place)	2	99-EAP-392 WSRF 99-103	N/A	N/A	N/A	N/A	N/A
1607-K5	Septic Tank	100-KR-2	146.35	1955-present	This unit receives sanitary sewage from 1706-KER Flow Laboratory, 1706-K Water Treatment Laboratory, 165-KE Powerhouse, K Reactor Building, and 115-KE Gas Recirculation System.	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
1607-K6	Septic Tank	100-KR-2	723.37	1955-present	This unit receives sanitary sewage from the KW Reactor Building, 115-KW Gas Recirculation Building, and 165-KW Powerhouse	Accepted	3	N/A	N/A	N/A	N/A	N/A	N/A
600-29	Dumping Area	100-KR-2	609.60 x 304.80	1952-1954	The unit is an abandoned dumping area containing several rectangular depressions and waste burning sites. There are many areas of discolored soil that include coal, rust-colored soil, and white residue patches. Unit wastes consist of miscellaneous metals, wood, cans, bottles, construction hardware and materials; what appears to be tar dumped on the ground; buckets and mops covered with what appears to be tar; a 18.7 L (5 gal) bucket of oily rags; broken pieces of a toilet bowl; what appears to be asbestos and transite; and wire rope.	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A
600-4	Dumping Area	100-KR-2	80,825.6 m2	1950s	This site is a dumping area left from its use as a military encampment. It includes a garbage dump, the remains of an old military tent city, gun emplacements, two small water towers, and scattered debris. Available historical records for military encampments on the Hanford Site do not identify this area as a former military site. Based on historical documents and field walk downs, there is no evidence of hazardous constituents at this site.	Rejected	1	WSRF 97-012	N/A	N/A	N/A	N/A	N/A
600-55	Dumping Area	100-KR-2	45.70 x 21.60 (paved area) 7.0 x 7.0 (wooden structure) 4.3 x 2.3 (cellar) 15.0 x 15.0 (debris pile)	Not Documented	This site is a dumping area that consists of an asphalt-paved area that may have been a parking lot, miscellaneous farm debris, and a collapsed wooden building. The pre-Hanford Site farm debris is scattered approximately 135 m (443 ft) to the east of the paved area. There also is a cellar and an old stove near the collapsed wooden structure.	Rejected	1	WSRF 97-007	N/A	N/A	N/A	N/A	N/A
UPR-100-K-1	Unplanned Release	100-KR-2	Not documented	Reported in 1974-1979	This site is a large, unplanned release to the ground. The site is not marked or posted on the surface. The release was completely contained below ground and caused no surface contamination	Accepted	3	EPA/ROD/R10-99/039	N/A	N/A	N/A	N/A	N/A

Foot Notes:

a. Shallow zone = soil above 4.6 m above ground surface.

b. Deep zone = soil below 4.6 m above ground surface.

Class Status Definitions:

Table E-1. Waste Site Table

Site Code	COC	Excavation					Overburden/Stockpile or Staging Pile		Radioactive Decay (to Jan. 1, 2012 pCi/g)
		Max Concentration (pCi/g, mg/kg)		95% UCL (pCi/g, mg/kg)		Focused or Discrete Max (pCi/g, mg/kg)	Max Concentration (pCi/g, mg/kg)	95% UCL (pCi/g, mg/kg)	
		Shallow[a]	Deep[b]	Shallow[a]	Deep[b]				
1607-K4	Uranium-233/234	0.698 (J)	0.484	/	/	/	/	/	N/A
	Uranium-235	ND	ND	/	/	/	/	/	N/A
	Uranium-238	0.696 (J)	0.505	/	/	/	/	/	N/A
	Cobalt-60	ND	ND	/	/	/	/	/	N/A
	Cesium-137	0.137	0.114	/	/	/	/	/	N/A
	Strontium-90	ND	ND	/	/	/	/	/	N/A
	Chromium (total)	ND	ND	/	/	/	/	/	N/A
	Hexavalent chromium	0.44 (U)	0.44 (U)	/	/	/	/	/	N/A
	Lead	44	36	/	/	/	/	/	N/A
	Mercury	ND	ND	/	/	/	/	/	N/A
	Fluoranthene	1.3	0.96	/	/	/	/	/	N/A
	Pyrene	1.2	0.9	/	/	/	/	/	N/A
	Benzo(a)anthracene	0.059	NV	/	/	/	/	/	N/A
	Benzo(a)pyrene	0.065	NV	/	/	/	/	/	N/A
	Benzo(b)fluoranthene	0.031	NV	/	/	/	/	/	N/A
	Benzo(k)fluoranthene	0.031	NV	/	/	/	/	/	N/A
	Chrysene	0.11	NV	/	/	/	/	/	N/A
	Dibenzo(a,h)anthracene	0.022	NV	/	/	/	/	/	N/A
	Indeno(1,2,3-cd)pyrene	0.039	NV	/	/	/	/	/	N/A
	PCBs (Aroclor-1260)	ND	ND	/	/	/	/	/	N/A
1607-K5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1607-K6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
600-29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
600-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
600-55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
UPR-100-K-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Foot Notes:
a. Shallow zone = soil abo
b. Deep zone = soil below

Class Status Definitions:

Table E-1. Waste Site Table

Site Code	Site Type	Operable Unit	Site Dimensions (m)	Dates of Operation	Site History	Class Status (defined at end of table)	Category	Decision or Close-Out Document	Remedial Action Start Date	Remedial Action End Date	Verification Sampling Date	Contaminated Waste Volume to ERDF (metric tons)	Maximum Depth of Remedial Action (m)

Closed Out: A reclassification status indicating, due to actions taken, a waste management unit meets applicable cleanup standards or closure requirements
Interim Closed Out: A reclassification status indicating, due to actions taken, a waste management unit meets cleanup standards specified in an Interim Action ROD or Action Memorandum, but for which a Final ROD has not been issuec
No Action: A reclassification status indicating a waste site does not require any further remedial action under RCRA Corrective Action, CERCLA, or other cleanup standards based on an assessment of quantitative data collected for the waste site
Not Accepted: A classification status indicating an assessment has been made that a WIDS site is not a waste management unit and is not within the scope of Tri-Party Agreement Action Plan. This classification requires lead regulatory agency approva
Accepted: A classification status indicating an assessment has been made that a WIDS site is a waste management unit as defined in the Tri-Party Agreement Action Plan
Discovery: An initial classification status indicating evidence of a potential waste site; assessment not yet complete. This is the classification of a newly discovered WIDS site.
Sources are in the References section at the beginning of this appendix

Acronyms and Qualifier codes:
BG = background
COC = contaminant of concern
COPC = contaminant of potential concern
E = concentration is an estimate
EP = extraction procedure
ERDF = Environmental Restoration Disposal Facility
J = estimate
N = Spike sample recovery is outside control limits
N/A = not applicable
ND = Non Detect or Not Detected
PAH = polyaromatic hydrocarbon
PCB = polychlorinated biphenyl
PVC = polyvinyl chloride
RAWP = Remedial Action Work Plan
RSVP = remaining site verification package
SCA = soil contamination area
SNF = spent nuclear fuel
TBD = to be determined
U = Undetected, or the result is less than the MDA (minmum detection activity)
UCL = upper confidence limit
VCP = vitrified clay pipe
WIDS = Waste Information Data System
/ = no data collected

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