

105-K Basins 1999 Debris Report

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Project Hanford Management Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200



**United States
Department of Energy**
P.O. Box 550
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Richland, Washington 99352

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Release Approval

6/6/2000
Date

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LIST OF TERMS

2	CERCLA	<i>Comprehensive Environmental Response, Compensation and</i>
3		<i>Liability Act of 1980</i>
4	CFR	<i>Code of Federal Regulations</i>
5	DOE	U.S. Department of Energy
6	Ecology	Washington State Department of Ecology
7	EPA	U.S. Environmental Protection Agency
8	ERDF	Environmental Restoration Disposal Facility
9	g	gram
10	LLW	low-level waste
11	mg/L	milligrams per liter
12	mrem/h	millirem per hour
13	NaCi	nanocurie
14	PCB	polychlorinated biphenyl
15	ppm	parts per million
16	RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
17	RL	U.S. Department of Energy, Richland Operations Office
18	SNF	spent nuclear fuel
19	TCLP	toxicity characteristic leaching procedure
20	TRU	transuranic (waste)
21	TSD	treatment, storage, or disposal
22	WAC	<i>Washington Administrative Code</i>
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DEFINITIONS

B-25 Box—A painted carbon steel box measuring 4 by 4 by 6 ft.

Dangerous waste—Solid waste designated per WAC 173-303-070 through WAC 173-303-100 as dangerous, extremely hazardous, or mixed waste.

K Basin Debris—Any object that is larger than 0.25 in. in any one dimension within the 105-K East and K West Spent Nuclear Fuel Basins that is not a permanent structure. This does not include spent fuel or sludge that is currently maintained within the 105-K Basins.

Low-level waste—Waste that contains radioactivity and is not classified as high-level waste, transuranic waste, or spent nuclear fuel or byproducts material as defined by DOE Order 5820.2A.

Mixed waste—Waste containing both radioactive and hazardous/dangerous waste components as defined by the *Atomic Energy Act of 1954*, the *Resource Conservation and Recovery Act of 1976*, and WAC 173-303.

Radioactive waste—A solid, liquid, or gaseous material that contains radionuclides regulated under the *Atomic Energy Act of 1954*, and is of negligible economic value, considering costs of recovery.

RCRA Debris—Defined in 40 CFR 268.2. *Resource Conservation and Recovery Act of 1976* (RCRA) debris consists of solid material exceeding a 2.4-in. particle size that is intended for disposal and that is a manufactured object, plant or animal matter, or natural geologic material and designated as a hazardous waste.

Remote handled—Packaged waste whose external surface dose rates exceed 200 mrem/h as defined by DOE Order 5820.2A.

Sludge—A product that is the result of long-term storage of irradiated fuel. This sludge consists of fuel corrosion products, small fuel pieces, fission and activation products, iron and aluminum oxides, concrete grit, dirt, ion-exchange resin, and biological material.

Transuranic waste—Contaminated with alpha-emitting transuranium radionuclides with an atomic number greater than 92 with half-lives greater than 20 years and concentrations greater than 100 NaCi of alpha per gram of waste at the time of characterization. In addition, radium sources and ²³³U in concentrations greater than 100 NaCi of alpha per gram of waste matrix also are managed as transuranic waste as defined by DOE Order 5820.2A.

1 **METRIC CONVERSION CHART**

2 The following chart is provided to the reader as a tool to aid in conversion.

Into metric units			Out of metric units		
If you know	Multiply by	To get	If you know	Multiply by	To get
Length			Length		
inches	25.40	millimeters	millimeters	0.0393	inches
inches	2.54	centimeters	centimeters	0.393	inches
feet	0.3048	meters	meters	3.2808	feet
yards	0.914	meters	meters	1.09	yards
miles	1.609	kilometers	kilometers	0.62	miles
Area			Area		
square inches	6.4516	square centimeters	square centimeters	0.155	square inches
square feet	0.092	square meters	square meters	10.7639	square feet
square yards	0.836	square meters	square meters	1.20	square yards
square miles	2.59	square kilometers	square kilometers	0.39	square miles
square miles	259	hectares	hectares	0.00391	square miles
acres	0.404	hectares	hectares	2.471	acres
Mass (weight)			Mass (weight)		
ounces	28.35	grams	grams	0.0352	ounces
pounds	0.453	kilograms	kilograms	2.2046	pounds
short ton	0.907	metric ton	metric ton	1.10	short ton
Volume			Volume		
fluid ounces	29.57	milliliters	milliliters	0.03	fluid ounces
quarts	0.95	liters	liters	1.057	quarts
gallons	3.79	liters	liters	0.26	gallons
cubic feet	0.03	cubic meters	cubic meters	35.3147	cubic feet
cubic yards	0.76	cubic meters	cubic meters	1.308	cubic yards
Temperature			Temperature		
Fahrenheit	subtract 32 then multiply by 5/9	Celsius	Celsius	multiply by 9/5, then add 32	Fahrenheit

3 Source: *Engineering Unit Conversions*, M. R. Lindeburg, PE., Second Ed., 1990,
4 Professional Publications, Inc., Belmont, California.

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105-K BASINS 1999 DEBRIS REPORT

2

1.0 PURPOSE

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The purpose of this report is to describe the quantities, character, and management (e.g., segregation and management after removal) of 105-K Basins debris managed in calendar year 1999.

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1

2.0 BACKGROUND INFORMATION

2 The U.S. Department of Energy (DOE), its predecessors, and contractors at the Hanford
3 Site were involved in the production and purification of nuclear defense materials from the early
4 1940s to the late 1980s. These production activities generated large quantities of liquid and solid
5 mixed waste. This waste is subject to regulation under authority of the *Resource Conservation*
6 *and Recovery Act of 1976* (RCRA) and the *Atomic Energy Act of 1954*.

7 The Washington State Department of Ecology (Ecology), U.S. Environmental Protection
8 Agency (EPA), and the U.S. Department of Energy, Richland Operations Office (RL) entered
9 into an agreement (known as the *Hanford Federal Facility Agreement and Consent Order*
10 [Tri-Party Agreement] [Ecology et al. 1996]) to bring Hanford Site operations into compliance
11 with dangerous waste regulations and to establish a timetable for cleanup. This annual debris
12 report provides a quantitative description of debris removed from the basins in calendar
13 year 1999.

14 On September 22, 1999, the EPA, Ecology, and RL signed a *Comprehensive*
15 *Environmental Response, Compensation and Liability Act of 1980* (CERCLA) Record of
16 Decision (ROD 1999) designating the removal of fuel, sludge, debris, and water from the
17 K Basins as a CERCLA-interim removal action.

18 2.1 PROGRAM PLANNING STATUS

19 The extent of debris removal and its management after removal depends on the
20 completion of the K Basins Spent Nuclear Fuel (SNF) Project and the transition turnover criteria
21 of the Tri-Party Agreement (Ecology et. al 1996, Section 8.5). These criteria will make it
22 possible to define the "types" of debris that will be removed as part of the SNF Project and those
23 types which will be removed later.

24 2.2 FACILITY DESCRIPTION

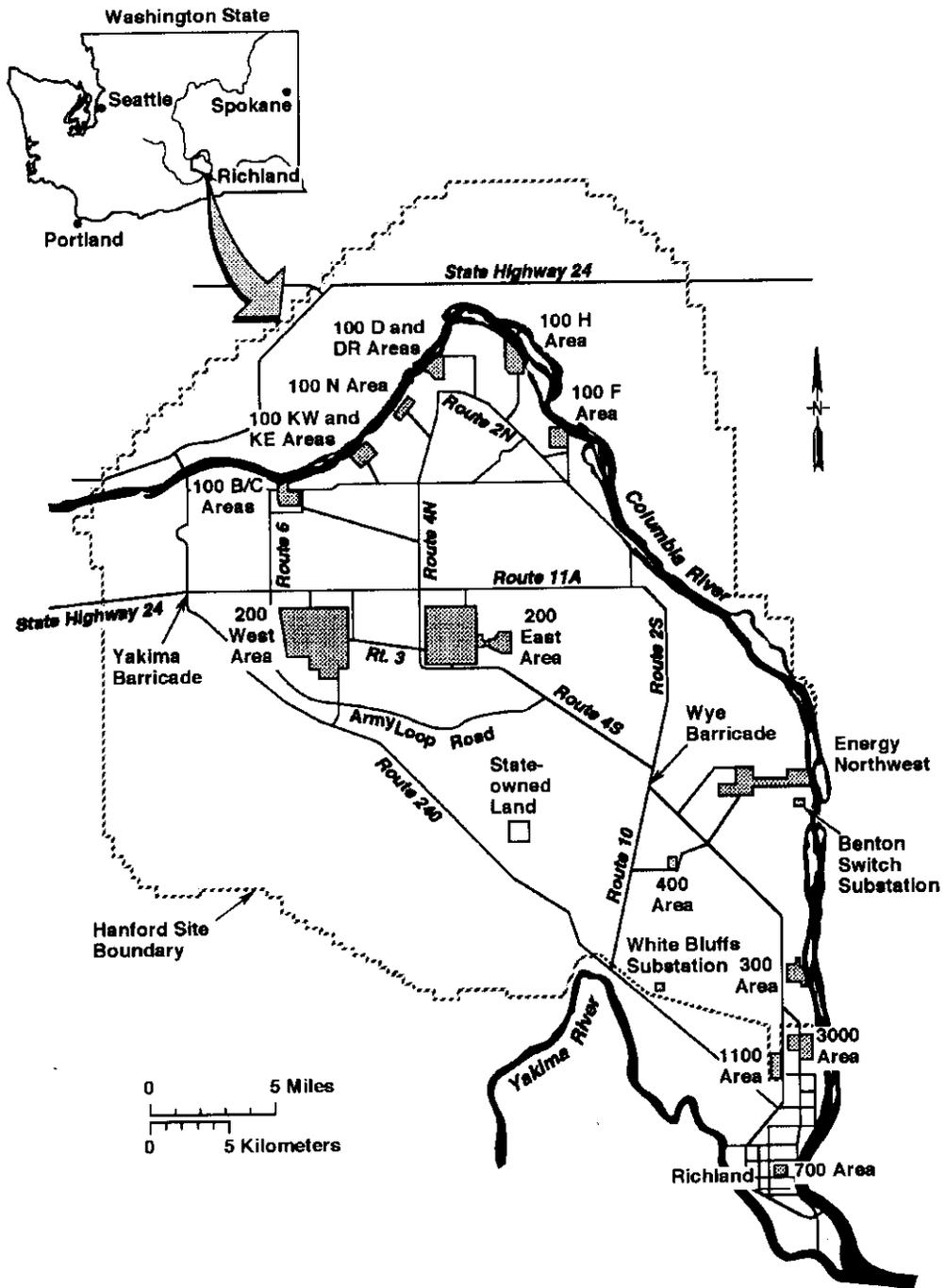
25 The 105-K East (KE) and 105-K West (KW) reactors and their associated SNF storage
26 basins were constructed in the early 1950s and are located in the 100-K Area about 1,400 ft from
27 the Columbia River (Figures 2-1 and 2-2). SNF has been stored in these basins since 1975 (KE)
28 and 1981 (KW). Approximately 1,100 metric tons of SNF are stored in the 105-KE Basin
29 underwater in 3,677 open canisters. In addition, the 105-KE Basin contains numerous empty
30 canisters. This SNF has been stored for varying periods ranging from 8 to 24 years. The fuel is
31 corroding, and an estimated 1,800 ft³ of sludge, containing radionuclides and miscellaneous
32 materials, have accumulated on the floor of the 105-KE Basin.

33 Approximately 1,000 metric tons of SNF are stored in the 105-KW Basin underwater in
34 3,817 closed canisters. Because the SNF was placed in closed containers before storage, there is
35 no appreciable sludge buildup on the floor of the 105-KW Basin.

36

1

Figure 2-1. Location of the 100-K Area within the Hanford Site.

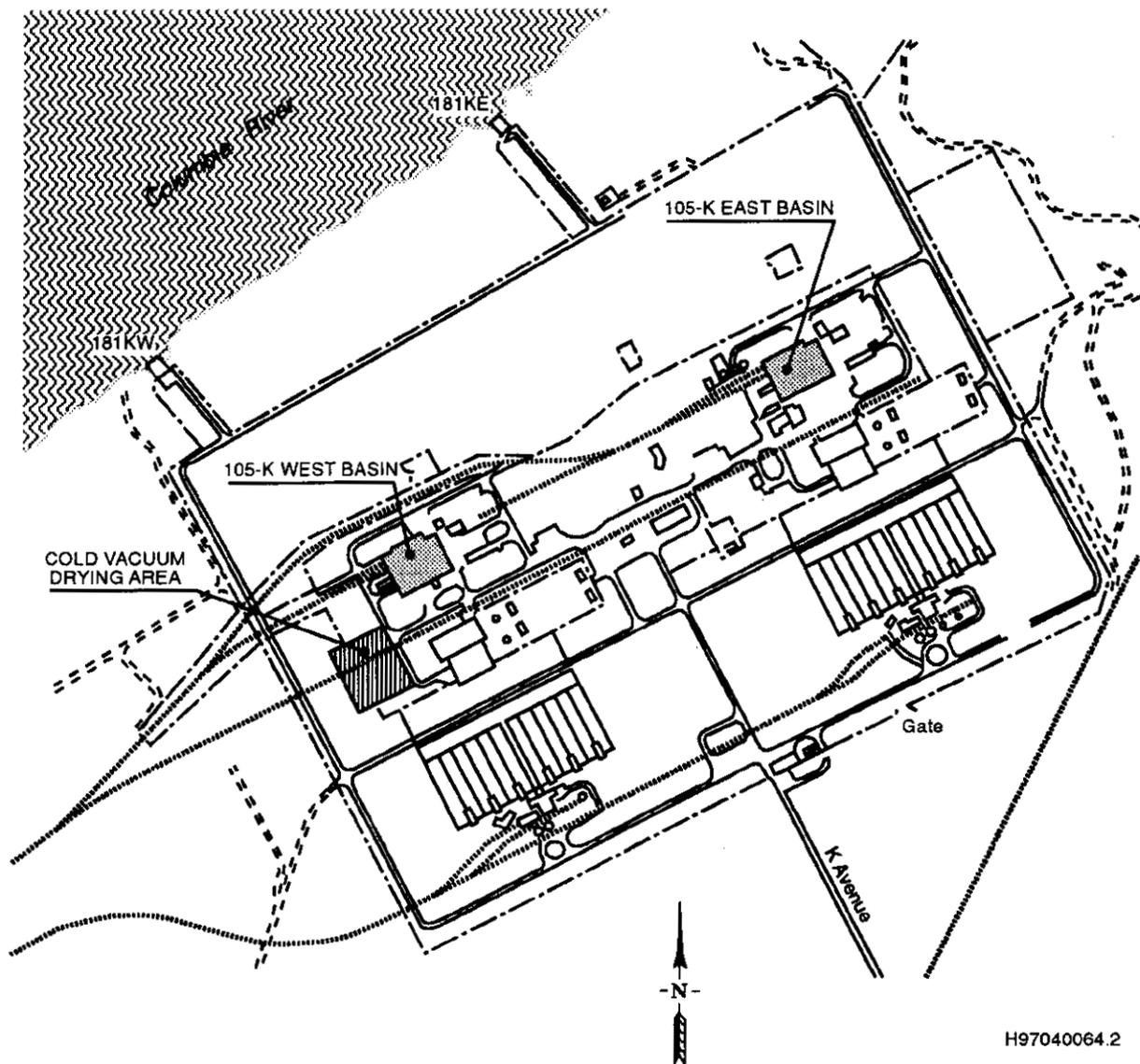


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2

3

1 Figure 2-2. Location of 105-KW and 105-KE Basins within the 100-K Area.

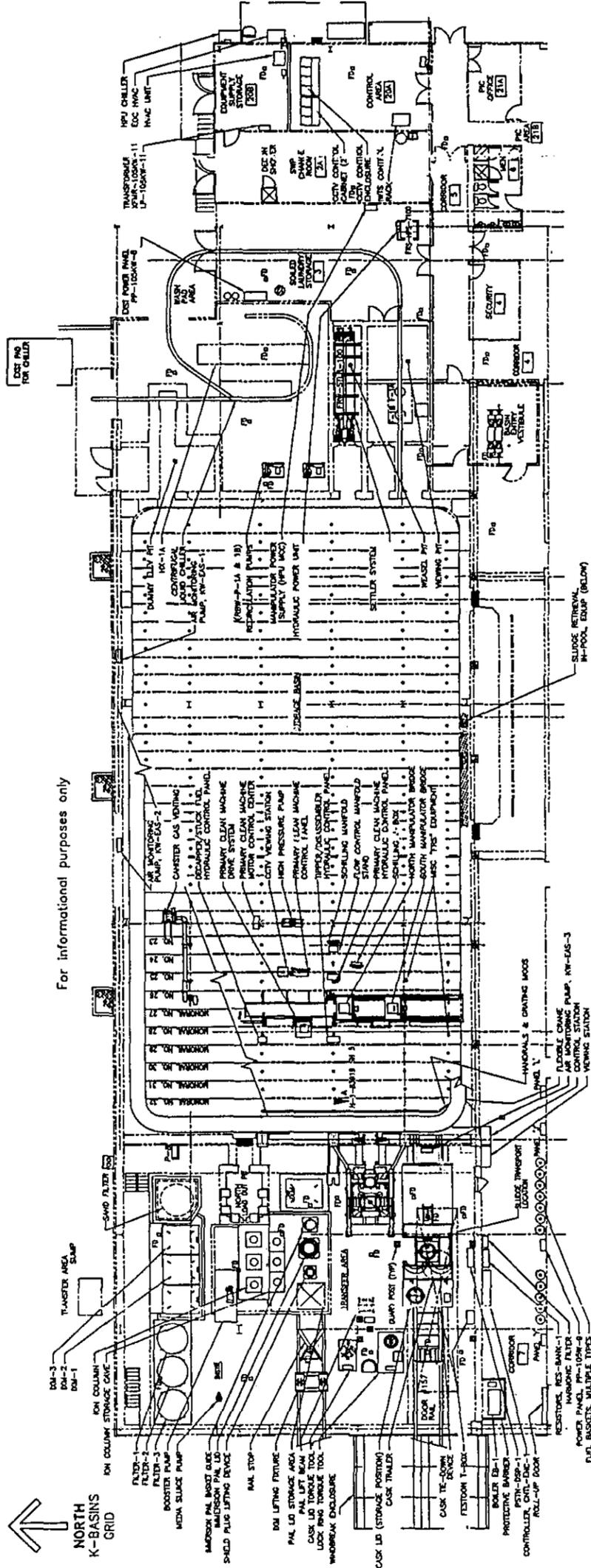


2 The 105-KE and 105-KW SNF storage basin buildings are structural steel with transite
 3 siding and are approximately 275 ft long and 85 ft wide. Figure 2-3 shows the general facility
 4 layout of the 105-KW Basin. This figure depicts the complexity of underwater equipment being
 5 installed for the removal of SNF in the 105-KW Basin. Because the 105-KE Basin will be
 6 equipped with similar equipment, this figure also is considered representative of the
 7 105-KE Basin for purposes of this report.

8

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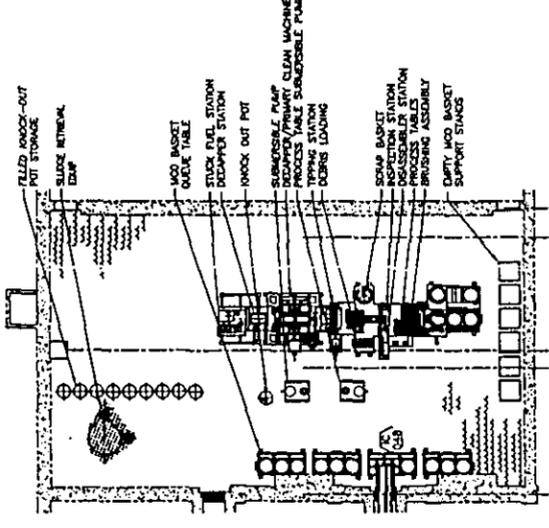
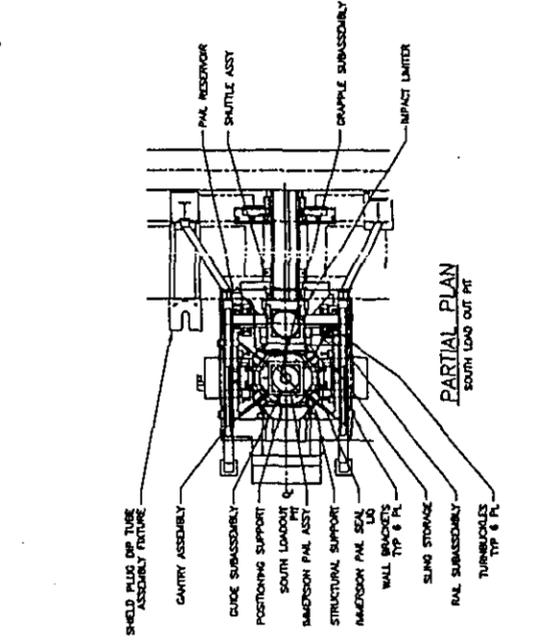
Figure 2-3. 105-K West Basin General Layout.



For informational purposes only

- LEGEND:**
- CLUSE-CIRCUIT TELEVISION
 - CONV-CONVERTER FACILITY
 - CONV-CONVERTER FACILITY CONTROL
 - FLOOR DRAIN
 - FUEL RETRIEVAL SYSTEM
 - IR-10A
 - IR-11A
 - IR-12A
 - IR-13A
 - IR-14A
 - IR-15A
 - IR-16A
 - IR-17A
 - IR-18A
 - IR-19A
 - IR-20A
 - IR-21A
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 - IR-97A
 - IR-98A
 - IR-99A
 - IR-100A

PLAN



1

3.0 SCOPE

2 This report applies only to the debris waste currently being generated at the 105-KE and
3 105-KW Basins as the result of the CERCLA removal action described in DOE/RL-99-89,
4 *Remedial Design Report and Remedial Action Work Plan for the K Basins Interim Remedial*
5 *Action* (RL 2000a). A more detailed description of 105-K Basins debris resides in Section 4.0.
6

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Table 4-1. 1997 105-KE and 105-KW Basins In-Pool Debris Estimate.

Description	Estimated volume ^a (ft ³)	Boxes (4 by 4 by 8 ft)/drums needed (estimated) ^b
Canisters		
Approximately 3,677 canisters in 105-KE Basin ^c	11,031 ^d /3,352 ^e	294 (85 gal) drums
Approximately 3,817 stainless steel canisters in 105-KW Basin	11,523 ^d /3,500 ^e	307 (85 gal) drums
Canister totals	22,554^d/6,852^e	601 (85 gal) drums
Miscellaneous debris		
Miscellaneous debris in 105-KE Basin	211	2 plywood boxes
Miscellaneous debris in 105-KE Basin dummy elevator pit	640	5 plywood boxes
Miscellaneous debris in 105-KE Basin technical viewing pit	192	2 plywood boxes
Miscellaneous debris in 105-KE Basin weasel pit	32	1 plywood box
Miscellaneous debris in 105-KE Basin Discharge Chute	96	1 plywood box (repackaging equipment left for decontamination and decommissioning)
Miscellaneous debris in 105-KW Basin	50	1 plywood box
Approximately 20 poles and tools in 105-KW Basin	68	9 (55 gal) drums
Miscellaneous debris totals	1,289	12 plywood boxes/9 (55 gal) drums
Racks		
Fuel storage racks in 105-KE Basin	7,628 ^f	61 plywood boxes
Fuel storage racks in 105-KW Basin	7,628 ^f	61 plywood boxes
Rack totals	15,256	122 plywood boxes
TOTAL (debris, canisters, and rack)	39,099^g	134 plywood boxes, 601 (85 gal) drums, and 9 (55 gal) drums

^aDebris volume subject to change with installation of new mechanical and structural systems required to support fuel removal.

^bNumber of boxes needed have been rounded up to the next whole box.

^cThe quantity of fuel canisters in the 105-KE Basin has been revised upward to reflect actual numbers of canisters per recent inventory.

^dVolume shown represents uncrushed canister volume, approximately 3 ft³/canister.

^eSuper-compacted at 3:1 ratio (rounded).

^fVolume of fuel storage racks re-estimated and reflects volume of packaged racks versus volume of metal only.

^gOf this 39,099 ft³, 22,554 ft³ were super-compacted to 6,852 ft³.

1 In calendar year 1999, construction activities in the 105-KW Basin included the
2 installation of the Fuel Retrieval System, Integrated Water Treatment System, and Multi-
3 Canister Overpack/Cask Loadout System. Startup testing of these new systems also was in
4 progress. Activities in the 105-KE Basin included demolition of certain interior structures to
5 make room for new systems. The extent to which these systems will either be removed in the
6 future following fuel removal or stabilized/left in place has not yet been determined (see
7 Section 2.1). Table 4-1 does not contain an estimate of this volume.

8 **4.2 OUT-OF-POOL DEBRIS**

9 Out-of-pool debris is typically generated from the maintenance, operation, and facility
10 modifications of the 105-KE and 105-KW Basins, but not located in the spent fuel pool itself
11 (i.e., above water). Out-of-pool debris consists of the following:

- 12 • Process equipment that has no use or planned use (e.g., sand filter, ion-exchange
13 columns, piping and piping components, and heat exchangers)
- 14 • Consumables, including ion-exchange modules, cartridge filters, gloves, plastics,
15 tape, anti-C's, and other miscellaneous trash generated during maintenance and
16 operational activities
- 17 • Demolition debris, including structural steel and other fabricated components no
18 longer needed and are required to be removed to make room for new fuel-
19 handling processes.

20

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1 5.1.2 Designation

2 Debris waste will be designated in accordance with WAC 173-303-070. This designation
3 considers the following:

- 4 • Listed discarded chemical products
- 5 • Listed dangerous waste sources
- 6 • Dangerous waste characteristics, including ignitability, corrosivity, reactivity,
7 toxicity, and persistence.

8 Section 6.0 addresses the designation methodology.

9 5.1.3 Packaging

10 Containment packages for debris will be in a condition with no visible cracks, holes,
11 significant corrosion, or other damage that could compromise integrity of the waste package.

12 5.2 STORAGE/DISPOSAL FACILITIES

13 The 105-K Basins debris waste can be categorized into one of the following types of
14 waste and will be dispositioned to one or more of the following storage/disposal facilities:

- 15 • Recyclable material—This is material (e.g., paper, scrap metal, and light bulbs
16 that can be reused or reprocessed elsewhere) that can be released from the
17 radiological areas. If this material is radiologically contaminated, it is
18 nonrecyclable. Nonrecyclable material will be managed as a low-level or mixed
19 waste after being removed from the facility.
- 20 • Low-level waste—Most of the 105-K Basins debris will be managed as low-level
21 waste. This waste cannot be radiologically decontaminated for release, and will
22 be disposed in the ERDF based on the ERDF's waste acceptance criteria.
- 23 • Mixed waste—A small portion of debris will be managed as mixed waste. This
24 debris waste is both a radioactive waste and a dangerous waste. This material will
25 be disposed in the ERDF based on the ERDF's waste acceptance criteria.
- 26 • Transuranic (TRU) waste—A portion of 105-K Basins debris waste will be
27 managed as TRU waste and TRU mixed waste. These wastes will be stored at the
28 Central Waste Complex until a permanent disposal path becomes available.

29 If debris cannot be treated to meet *ERDF Waste Acceptance Criteria* (BHI 1996), the
30 debris will be transferred to an existing 200 Area waste management facility appropriate for the
31 type of waste.

6.0 DEBRIS WASTE DESIGNATION METHODOLOGY

The following sections provide the designation methodologies for in-pool debris and out-of-pool debris waste.

All 105-K Basins debris will be designated pursuant to WAC 173-303-070. The 105-K Basins debris that is designated as a dangerous waste also will be screened to determine if it also meets the definition of RCRA debris (i.e., over 2.4 in. per 40 CFR 268.2, "Land Disposal Restrictions"). If it does, this type of debris will be managed in accordance with 40 CFR 268.

6.1 IN-POOL DEBRIS

Most of the in-pool debris waste has come in contact with sludge located at the bottom of the basin. Sludge is the result of long-term storage of irradiated fuel. This sludge consists of fuel corrosion products, small fuel pieces, fission and activation products, iron and aluminum oxides, concrete grit, dirt, ion-exchange resin, and biological material. The *Analysis of Sludge from the Hanford K East Basin Floor and Weasel Pit* (WHC-SP-1182 [Makenas 1996]) provides information describing sludge characteristics. The 105-KW Basin sludge is conservatively bounded by the characteristics of the 105-KE Basin sludge.

A preliminary designation of the 105-KE Basin sludge using the characterization information in WHC-SP-1182 results in the following waste numbers: D005 (barium), D006 (cadmium), D007 (chromium), D008 (lead), D010 (selenium), and D011 (silver). This designation is based on a total metals analysis. Therefore, the results are conservative compared with the toxicity characteristic leaching procedure (TCLP). Based on a total metals analysis, the highest concentration of a heavy metal found in the sludge is chromium (D007). Chromium, assuming 100% TCLP extraction, also has the highest ratio of concentration to the regulation limit (95.5 mg/L:5 mg/L). Using this ratio, 454 g of debris would be regulated for chromium if 24 g of sludge also were present. Because the debris will be washed and visually confirmed, most of the debris would not be regulated as dangerous waste for heavy metal contamination. TCLP analyses of the sludge are planned to support actual waste designation. However, fibrous debris and debris with inner void spaces that cannot be rinsed and/or washed of sludge could require management as a dangerous waste.

The WAC 173-303 designates solid waste with a polychlorinated biphenyl (PCB) concentration between 2 and 50 ppm with waste number W001, if the contamination is from a source identified in WAC 173-303-9904. Because the source of PCB contamination is unknown, the sludge would not be designated with W001.

The K Basin sludge is a PCB remediation waste. The debris is regulated as a PCB remediation waste where it has contacted sludge. As the underwater debris is removed from the basins, it will be drained of free-flowing liquid and rinsed with water to remove the majority of sludge adhering to the debris. Thereafter, the debris would be managed in accordance with applicable radioactive waste and dangerous waste requirements, but would no longer be designated or managed as a *Toxic Substance Control Act of 1976*-regulated waste.

1 **6.2 OUT-OF-POOL DEBRIS**

2 Out-of-pool debris waste is generated from construction, maintenance, and operation
3 activities. This waste generally does not come into contact with any sludge, and is managed as a
4 solid waste and designated and disposed accordingly.

5 On occasion, chemicals (e.g., sodium hydroxide or hydrogen peroxide) periodically are
6 used to maintain basin water quality. Excess chemicals will be returned to inventory or managed
7 as a solid waste.

1

7.0 QUANTITIES OF DEBRIS REMOVED

2 To date, all 105-KE and 105-KW Basins debris has either been stored or disposed onsite.
3 K Basin debris that is stored or disposed is tracked by the Solid Waste Information and Tracking
4 System.

5 A quantification of debris removed in calendar year 1999 is contained in Table 7-1 for
6 the 105-KE and 105-KW Basins. Debris that has been removed and sent to storage or disposal,
7 which also has been designated a mixed waste, also is contained in DOE/RL-2000-14, *Hanford*
8 *Site Annual Dangerous Waste Report, CY 1999* (RL 2000b).

Table 7-1. 105-KE and 105-KW Basins Debris Removed. (4 sheets)
(in-pool and out-of-pool debris) 01/01/99 to 12/31/99

Package ID Secondary PIN	Waste Type	TSD Accept Date	Content	Disposal Vol (cu ft)
OUT-OF-POOL (105-KW) RMW (CAT 1)				
9804347	M	09/01/1999	MIXED WASTE/GROUT/LEAD BASED PAINT	9.18
9804421	M	09/01/1999	MIXED WASTE/CITRISTRIP/LEAD BASED PAINT	9.18
9700923	M	09/27/1999	MISC DRIED PAINT DEBRIS	9.18
9804346	M	10/06/1999	MIXED WASTE, DRIED PAINTS ON INERT MATERIAL	9.18
Sub Total				36.72
ION EXCHANGE MODULES (CAT 3)				
100K-99-005900	R	09/23/1999	LLW IXM MODULE/WC3	267.68
100K-99-006000	R	09/30/1999	LLW IXM MODULE/WC3	267.68
Sub Total				535.36
NON-COMPACTABLE MISC. (CAT 1)				
100K-97-005600	R	09/30/1999	LOW LEVEL SOLID WASTE	143.02
100K-97-005800	R	09/30/1999	LOW LEVEL SOLID WASTE	143.02
Sub Total				286.04
SUPER COMPACTED (CAT 1)				
9880400	R	11/19/1999	COMPACTABLE TRASH	13.49
9880401	R	11/19/1999	COMPACTABLE TRASH	13.49
9880402	R	11/19/1999	COMPACTABLE TRASH	13.49
9880403	R	11/19/1999	COMPACTABLE TRASH	13.49

Table 7-1. 105-KE and 105-KW Basins Debris Removed. (4 sheets)
(in-pool and out-of-pool debris) 01/01/99 to 12/31/99

Package ID Secondary PIN	Waste Type	TSD Accept Date	Content	Disposal Vol (cu ft)
9880404	R	11/19/1999	COMPACTABLE TRASH	10.56
9880405	R	11/19/1999	COMPACTABLE TRASH	13.49
9880406	R	11/19/1999	COMPACTABLE TRASH	10.56
9880407	R	11/19/1999	COMPACTABLE TRASH	9.61
9880408	R	11/19/1999	COMPACTABLE TRASH	8.55
Sub Total				106.73
Total for 105-KW (Out of Pool)				964.85
Total for 105-KW Basin				964.85
OUT-OF-POOL (105-KE)				
SUPER COMPACTED (CAT 1)				
9773665	R	11/19/1999	COMPACTABLE TRASH	13.49
9773666	R	11/19/1999	COMPACTABLE TRASH	13.49
9773667	R	11/19/1999	COMPACTABLE TRASH	13.49
9773668	R	11/19/1999	COMPACTABLE TRASH	13.49
9773669	R	11/19/1999	COMPACTABLE TRASH	13.49
9773670	R	11/19/1999	COMPACTABLE TRASH	13.49
9773671	R	11/19/1999	COMPACTABLE WASTE	13.49
9773672	R	11/19/1999	COMPACTABLE TRASH	9.61
9773673	R	11/19/1999	COMPACTABLE TRASH	8.55
9773674	R	11/19/1999	COMPACTABLE TRASH	8.55

Table 7-1. 105-KE and 105-KW Basins Debris Removed. (4 sheets)
(in-pool and out-of-pool debris) 01/01/99 to 12/31/99

Package ID Secondary PIN	Waste Type	TSD Accept Date	Content	Disposal Vol (cu ft)
9773675	R	11/19/1999	COMPACTABLE WASTE	9.61
Sub Total				130.75
ION EXCHANGE MODULES (CAT 3)				
100K-99-005800	R	09/23/1999	LLW IXM MODULE/WC3	267.68
100K-99-006100	R	09/23/1999	LLW IXM MODULE/IXM	267.68
100K-99-006300	R	09/30/1999	LOW LEVEL/IXM MODULE/WC3	267.68
100K-99-009100	R	11/04/1999	LLW IXM MODULE	276.87
100K-97-006200	R	09/30/1999	LOW LEVEL WASTE/WC3	276.87
Sub Total				1356.78
NON-COMPACTABLE MISC. (CAT 1)				
9606738	R	09/30/1999	LOW LEVEL SOLID WASTE	143.02
Sub Total				143.02
Total for 105-KE (Out of Pool)				1630.55
IN-POOL WASTE (105-KE) CANISTERS (CAT 3)				
9880340	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	13.49
9880341	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	10.56
9880342	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	8.55
9880343	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	13.49
9880344	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS	13.49

Table 7-1. 105-KE and 105-KW Basins Debris Removed. (4 sheets)
(in-pool and out-of-pool debris) 01/01/99 to 12/31/99

Package ID Secondary PIN	Waste Type	TSD Accept Date	Content	Disposal Vol (cu ft)
9880345	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	9.61
9880346	R	04/27/1999	STAINLESS AND ALUMINUM CANISTERS.	13.49
9880347	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	9.61
9880348	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	9.61
9880349	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	13.49
9880350	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	13.49
9880351	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	8.55
9880352	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	13.49
9880353	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	13.49
9880354	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	9.61
9880355	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	8.55
9880356	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	9.61
9880357	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	8.55
9880358	R	04/27/1999	STAINLESS STEEL AND ALUMINUM CANISTERS.	8.55
Sub Total				209.28
Total for 105-KE (In-Pool)				209.28
Total for 105-KE Basin				1839.83
TOTAL DEBRIS WASTE FROM ALL OF 105-K BASINS				2804.68

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