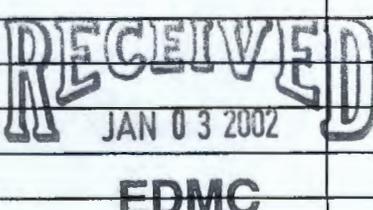


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ENGINEERING DATA TRANSMITTAL

Page 1 of 1
1. EDT 632841

2. To: (Receiving Organization) Distribution	3. From: (Originating Organization) SNF Project	4. Related EDT No.: N/A
5. Proj./Prog./Dept./Div.: SNF Project	6. Design Authority/Design Agent/Cog. Engr.: N. O. Hinojosa	7. Purchase Order No.: N/A
8. Originator Remarks: This documentation: (1) updates information in DOE/RL-99-85, Rev. 1 by revising Figure 1 and including demolition waste from FRS annex construction: (2) Supercedes DOE/RL-99-85 and places document under configuration control.		9. Equip./Component No.: N/A
11. Receiver Remarks:		10. System/Bldg./Facility: 100 K
11A. Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date: 11/20/01

15. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Designator	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	SNF-9430		0	Waste Management Plan for K Basins Interim Remedial Action	E, D	1		
								

16. KEY			
Approval Designator (F)	Reason for Transmittal (G)		Disposition (H) & (I)
E, S, Q, D OR N/A (See WHC-CM-3-5, Sec. 12.7)	1. Approval 2. Release 3. Information	4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)											
(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN
1	/	Design Authority N. O. Hinojosa	<i>N. O. Hinojosa</i>	11-20-01	X3-74						
		Design Agent									
		Cog. Eng.									
1	/	Cog. Mgr. M. A. Green	<i>M. A. Green</i>	11/12/01	X3-74						
		QA									
		Safety									
1	/	Env. D. J. Watson	<i>D. J. Watson</i>	11-12-01	X3-74						

18. <i>N. O. Hinojosa</i> N. O. Hinojosa Signature of EDT Originator 11-12-01 Date	19. <i>M. A. Green</i> M. A. Green Authorized Representative for Receiving Organization 11/12/01 Date	20. <i>M. A. Green</i> M. A. Green Design Authority/Cognizant Manager 11/12/01 Date	21. DOE APPROVAL (if required) Ctrl No. 02-SFO-021 <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments
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SNF-9430
Revision 0

Waste Management Plan for K Basins Interim Remedial Action

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

Fluor Hanford
P.O. Box 1000
Richland, Washington

Approved for public release; further dissemination unlimited.

SNF-9430
Revision 0
ECN 632841

Waste Management Plan for K Basins Interim Remedial Action

Document Type: ENV
NO Hinojosa
Fluor Hanford, Inc.

Division: SNF

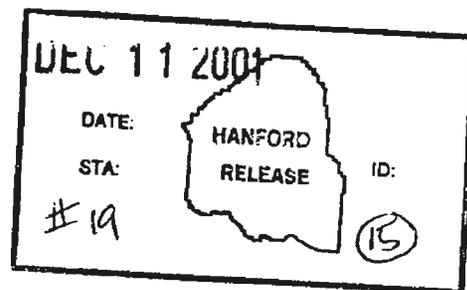
Date Published
November 2001
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Janis Braden
Release Approval
12/11/01
Date



SNF-9430
Revision 0

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Waste Management Plan for K Basins Interim Remedial Action

This plan identifies waste management activities and requirements for the removal and temporary storage of waste contained in the 105KE and 105KW Basins, prior to transport and disposal. These two basins are referred to as the K Basins. The waste includes (1) debris and other waste generated during the K Basins Interim Remedial Action and, (2) that waste generated from demolition activities external to the basins that are part of the interim remedial actions for Hanford's 100 Area Remaining Sites EPA 541-R-99-039, both cleanup actions under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The goal of the K Basins Interim Remedial Action is to mitigate the potential to release hazardous substances from the K Basins. This will be achieved by removing spent nuclear fuel, (SNF), sludge, water, and debris and by conducting contaminant removal during deactivation of the basins. The scope of this cleanup action is described in the *Focused Feasibility Study for the K Basins Interim Remedial Action* (DOE/RL-98-66, Rev.0, April 1999) and the CERCLA Record of Decision, issued on September 22, 1999. The scope is summarized as follows:

- Removing the SNF, sludge, debris, and water from the basins
- Transferring the SNF to the SNF conditioning facility
- Treating the sludge to meet waste acceptance criteria of the onsite receiving facility(ies)
- Transferring the sludge to the receiving facility(ies), which may include disposal to the Environmental Restoration Disposal Facility (ERDF)
- Pretreating the water and transferring it to the onsite Effluent Treatment Facility
- Transferring the debris to appropriate facilities (anticipate most will be disposed to ERDF)
- Deactivating the basins. Removed material will be treated as debris.

All waste generated that has the potential to be regulated will be characterized and designated in accordance with the *K Basins Debris Sampling and Analysis Plan* (HNF-6495) and *Sampling and Analysis Plan for Structures External to the 100 K Storage Basins* (HNF-8918). The transportation, packaging, handling and labeling of waste is addressed in (OP-46-006, *Processing Contaminated Waste for ERDF Disposal*) and (AP-5-010-01, *K Basins Solid Waste*).

Waste from the K Basins will be disposed at the ERDF, whenever possible. The ERDF waste acceptance criteria (BHI-00139, *Environmental Restoration Disposal Facility Waste Acceptance Criteria* and 0000X-DC-W0001, *Supplemental Waste Acceptance Criteria for Bulk Shipments to ERDF*) must be met for any waste to be disposed at the ERDF. Additional requirements for management of waste is specified in the Memorandum of Understanding between Fluor Daniel Hanford, SNF Project and Bethel Hanford Inc., dated December 1999. Waste that does not meet the ERDF requirements will be shipped to other onsite storage facilities, in accordance with (HNF-EP-0063, current revision, *Hanford Site Solid Waste Acceptance Criteria*).

The substantive requirements of the *Dangerous Waste Regulations* (WAC 173-303) pursuant of the state *Hazardous Waste Management Act* (70.105 RCW) are applicable for the identification, treatment, storage, and disposal of dangerous and mixed wastes

generated during the K Basins interim remedial actions. Dangerous waste management activities beyond the scope of the CERCLA action are subject to both the substantive and administrative requirements of WAC 173-303.

The SNF Project will inspect staging areas for CERCLA waste, specified in Figures 1 and 2 of this document, on a monthly basis. CERCLA waste staged in these areas is not subject to a 90-day storage limit, but will be removed within a reasonable time period, as determined by the lead regulatory agency. CERCLA waste subject to the land disposal restrictions (40 Code of Federal Regulations [CFR] Part 268) may be stored in a designated CERCLA Waste Management Area, prior to treatment.

The SNF Project may elect to handle any dangerous waste or mixed waste through the normal processes for managing dangerous waste or mixed waste. This would be done in lieu of management as CERCLA waste to be disposed at the ERDF. The substantive and administrative requirements of WAC 171-303, as well as requirements of other applicable and relevant or appropriate requirements would be met in such cases. The waste could be stored in the 90-day accumulation area shown on Figure 1.

The areas where CERCLA waste will be staged outdoors will be cordoned off and denoted by signs mounted on stanchions or hung on ropes. The signs will state, "CERCLA Waste Management Area – Entry By Authorized Personnel Only".

Transportation of waste shipments to the ERDF will consist mainly of bulk shipments using established transportation containers and practices. The Hanford Site Environmental Restoration Contractor and its transportation subcontractor will typically transport the waste to the ERDF.

The following waste streams have been identified.

Low Level radioactive waste: Low Level radioactive waste that meets the waste acceptance criteria for the ERDF will be disposed at the ERDF. If the ERDF waste acceptance criteria cannot be met, the waste will be disposed at 200 Area Low Level Burial Grounds or stored at the Central Waste Complex (CWC).

Solid Waste: Any non-contaminated solid waste will be managed in accordance with *Washington Administration Code* (WAC 173-304). If the waste is proven to be volumetrically free of residual contamination, it will be sent offsite for recycling, whenever possible. If recycling is not an option, it will be disposed either onsite or at an offsite municipal/industrial landfill.

Concrete and Soil: Resulting from cleanup, demolition and/or reconstruction will be assumed radioactively contaminated and will be disposed at the ERDF facility if acceptance criteria is met. If ERDF acceptance criteria cannot be met, disposal will be at the 200 Area Burial Grounds or stored at the Central Waste Complex (CWC).

Mixed Waste: Mixed waste will be managed in compliance with the substantive requirements for both hazardous/dangerous wastes (WAC 173-303) and radioactive waste (10 CFR Part 61). Mixed wastes will be treated to meet applicable land disposal

restrictions and disposed at the ERDF. If the ERDF waste acceptance criteria cannot be met, the waste will be disposed at the Mixed Waste Trenches or stored at the CWC.

Used Oil: Small quantities of radioactive contaminated oils will be stabilized and disposed at the ERDF. The preferred management strategy is to handle any non-contaminated oil as recyclable material, in accordance with the site-wide used oil program.

Hazardous, Dangerous, and Polychlorinated Biphenyl Wastes: If any of these non-radioactive wastes are found, they will be treated as necessary, and disposed at the ERDF or another site approved by the U.S. Environmental Protection Agency and will meet the waste acceptance criteria of that particular disposal site.

Transuranic Waste (TRU): TRU waste may be generated from underwater debris or treatment system components, (filters, ion exchange modules, etc.). These wastes will be packaged and transferred to the CWC, in accordance with the current revision of HNF-EP-0063.

K Basins Sludge: The sludge that will be removed from K Basins will be packaged and transferred to T Plant as a TRU PCB remediation waste.

CERCLA Waste Staging Areas: Shown in Figures 1 & 2 of this document.

Figure 1: Consists of "Exterior" CERCLA Waste Staging Areas at K Basins.

Figure 2: Consists of "Interior" CERCLA Waste Staging Areas at 105KE and 105KW.

Figure 1. CERCLA Waste Staging Areas at KE & KW Basins

100K Basins CERCLA Waste Staging Areas

GENERAL NOTES:

1. DRAWING IS NOT TO EXACT SCALE.
2. DRAWING DOES NOT INCLUDE RIVER PUMP HOUSES OR OTHER STRUCTURES NEAR THE RIVER.
3. THIS IS FOR INFORMATION ONLY, NOT TO BE USED FOR LOCKOUTS/TAGOUTS.
4. THOSE AREAS SHADED WILL BE USED TO STAGE CERCLA WASTE PRIOR TO DISPOSAL. WASTE THAT IS STAGED IN THESE AREAS WILL BE DESCRIBED AS SUCH DISCRIMINATING THIS WASTE FROM OTHER MATERIALS STORED IN THESE AREAS.
5. CERCLA WASTE STAGING AREAS DENOTED BY: 

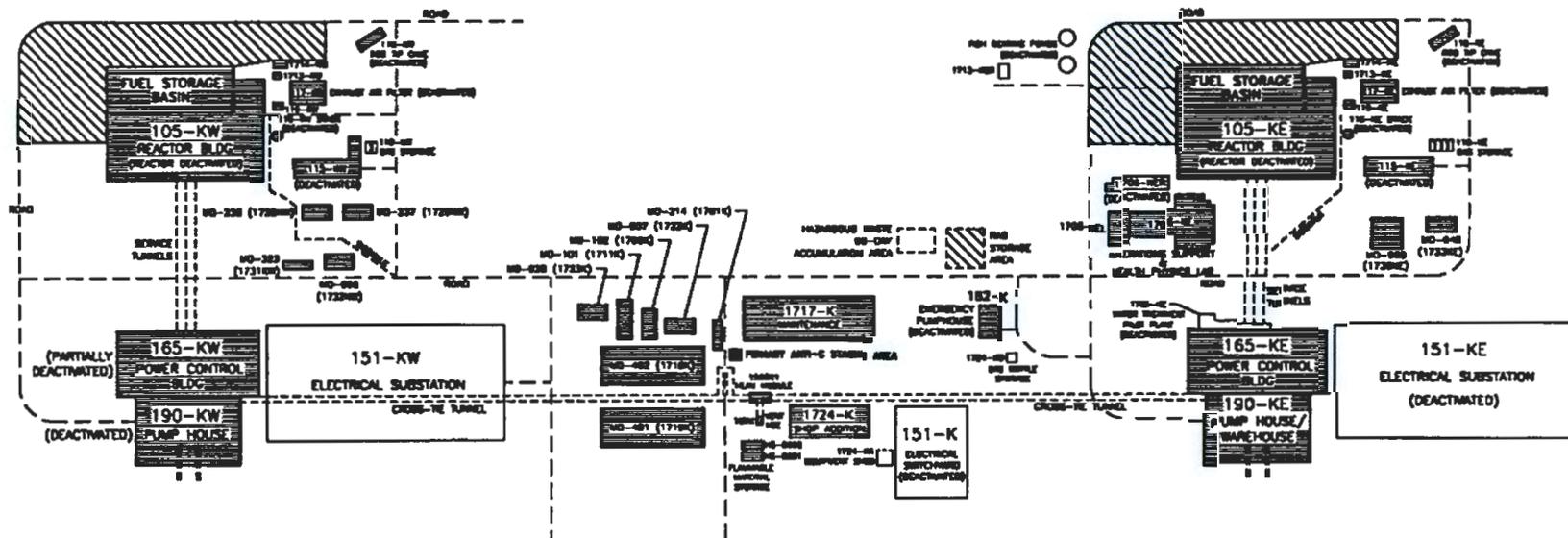
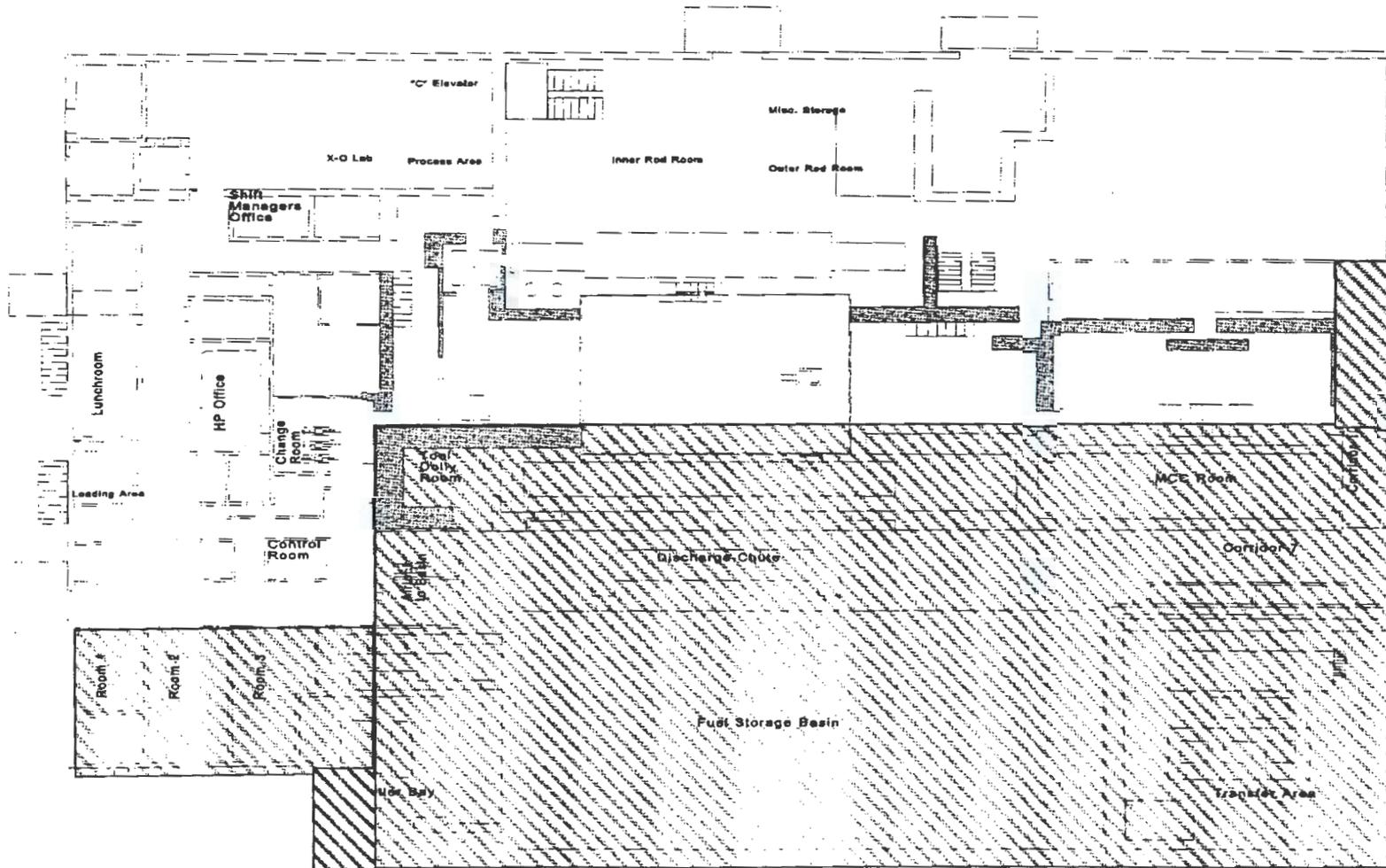


Figure 2, CERCLA Waste Staging Areas at 105 KE & KW Basins

 = Shaded areas represent CERCLA waste staging areas.



9

REFERENCES

DOE/RL 98-66, Focused Feasibility Study for K Basins Interim Remedial Action.

DOE/RL 99-89, Remedial Design Report and Remedial Action Work Plan for the K Basins Interim Remedial Action

10 CFR 61, "Licensing Requirements for Land Disposal of Radioactive Waste", *Code of Federal Regulations*, as amended.

FDH, 1998, *Hanford Solid Waste Acceptance Criteria*, HNF-EP-0063, Rev 6, Fluor Daniel Hanford, Inc., Richland, Washington.

WAC 173-303, "Dangerous Waste Regulations", *Washington Administrative Code*, as amended.

WAC 173-304 "Minimum Functional Standards for Solid Waste Handling", *Washington Administration Code*, as amended.

Spent Nuclear Fuel Project, Administrative Procedure 5-010 "K Basins Solid Waste".

Spent Nuclear Fuel Project, Operating Procedure, OP-46-006, "Processing Contaminated Waste for ERDF Disposal".

HNF 6495, Sampling and Analysis Plan for K Basins Debris

HNF-8918, Sampling and Analysis Plan for Structures External to the 100 K Storage Basins

"Memorandum of Understanding between Fluor Daniel Hanford, Inc, Spent Nuclear Fuels Project and Bechtel Hanford Inc. for the Packaging, Treatment, Transport and Disposal of K Basin Waste to the Environmental Restoration Disposal Facility".
December 1999

BHI-00139, Environmental Restoration Disposal Facility Waste Acceptance Criteria.

0000X-DC-W0001, Supplemental Waste Acceptance Criteria for Bulk Shipments to ERDF.

EPA 541-R99-059, Hanford Site – 100 Area (USDOE) 100-KR-2 OU, Record of Decision for the K Basins Interim Remedial Action, September 22, 1999.

EPA 541-R-99-039, Hanford Site-100 Area and 200 Area (USDOE), Record of Decision for Remaining Sites , July 15, 1999.