



0050613

RFS-ERDF- 002.3
Rev. 1, PCN 1

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Environmental Restoration Disposal Facility

Waste Disposal Operations



Waste Acceptance Plan

BECHTEL HANFORD, INC.						JOB NO. 22192						
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Review and Approval of Revised Project Procedures

ERDF Waste Disposal Operations

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WMFS ERDF Project Approvals

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External Review

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Title: Waste Acceptance Manager

WMFS Approval: Signature: [Signature] Date: 8-18-98

ERDF Project Manager

Signature: [Signature] Date: 8/3/98

QA Coordinator

BHI Document Transmittal Services

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List of Effective Pages

<u>Page Number</u>	<u>Revision/PCN Number</u>	<u>Revision/PCN Date</u>
Pages iii and iv	Revision 1, PCN 1	07/17/98
Page 1 Section 2.0	Revision 1, PCN 1	07/17/98
Page 3 Section 4.1.3	Revision 1, PCN 1	07/17/98

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1.0 Purpose and Scope

1.1 Purpose - The purpose of the Waste Acceptance Plan is to describe the waste acceptance process at the ERDF facility performed by the Disposal Subcontractor. The waste must meet the waste acceptance criteria established by BHI-00139 "Environmental Restoration Disposal Facility Waste Acceptance Criteria."

1.2 Scope - The plan applies to waste that will be disposed at the ERDF. The scope of this plan is to establish the methodology to ensure that waste disposed at ERDF meets the acceptance criteria. This plan describes the waste acceptance process at the ERDF.

1.3 Responsibility

1.3.1 Waste Certification - The review and approval of the Waste Certification Plan (WCP) is a BHI responsibility. Rust will participate in the review of waste certification documentation in a technical support role, as requested.

1.3.2 Audit Function - Periodic audits of the Project Teams will be done to verify that the Project Teams properly identify, characterize, segregate, package, and prepare waste for shipment to the ERDF. These reviews will be conducted by BHI. Rust will participate in the audits of the Project Teams in a technical support role, as requested.

1.3.3 Sampling and Analysis - The review and approval of waste characterization documentation is a BHI responsibility. Rust will participate in the waste certification review process in a technical support role, as requested.

1.3.4 Waste Profiles - The ERDF Project Team is responsible for the ensuring that the waste profile meets the WAC requirements. Rust will participate in the verification of the waste profiles in a technical support role, as requested.

1.3.5 Onsite Waste Tracking Form - The information on the Onsite Waste Tracking Form will be verified to be below the limits established by the applicable waste profile before shipment. Rust is responsible for this activity, which is performed by an automated system.

1.3.6 ERDF Project Team Endorsement - The ERDF Project Team will inform WMFS that a Project Team is authorized to send waste to ERDF.

2.0 Waste Profile

It is expected that each operable unit will be divided into appropriate waste groupings. A waste profile will be prepared by the Project Team for each different waste grouping. The waste groupings should be based on the following items: waste site location, extent and type of contamination (i.e., radiological or hazardous), existing analytical data, physical form of the waste (i.e., soil, hard debris, soft debris, or mixture), size of the waste particles, and DOT transport category of the waste. Each waste profile will be documented on a waste profile datasheet per Section 3.2.2 of the WAC. These profiles will be coordinated with the ERDF

Project Team before any associated waste shipments, to ensure agreement that the ERDF-WAC requirements have been met, and to allow for preplanning of waste transportation and disposal actions. Concentrations of individual constituents presented in each waste profile will be evaluated on a weight basis for compliance with the ERDF-WAC. Waste profile datasheets will be signed by an authorized representative of the Project Team.

3.0 Audits

Each approved WCP and its implementing program will be subject to periodic audits in accordance with DOE Order 5820.2A III.3.e(4). These audits will be performed by the ERC Compliance organization, with technical support from the ERDF Project Team. Audit elements will generally be established at the time the audit is to be performed. The audit scope and frequency will be experience based. Generally, these audits verify that Project Teams properly identify, characterize, segregate, package, and prepare waste for shipment to the ERDF. Typical audit elements include the following: waste characterization, bases for process knowledge, sampling strategies, documentation of LDR status of hazardous/dangerous or mixed waste, and recordkeeping. The audit will also assess actual waste sampling, segregation and packaging against the applicable plan and procedures.

4.0 Waste Acceptance at the ERDF

4.1 Preshipment Review

4.1.1 Onsite Waste Tracking Form Preparation - An Onsite Waste Tracking Form will be completed by the Project Team for each shipment of waste to the ERDF. This form is presented in Appendix A.

4.1.2 Verification of Tracking Form - The information entered on the Onsite Waste Tracking Form will be verified to ensure that the waste meets the criteria established in the WAC and the approved waste profile for radiological constituents, hazardous chemical constituents, prohibited material and special waste forms by performing a comparison with the WAC and the approved waste profile.

This verification can be completed by two methods. The primary method consists of entering waste information into a computer database. The database automates verification of the waste information. The secondary method that is not preferred and will be used when automated verification is not available, is manually to compare the waste information with the profile and the WAC and verify it is within the established limits.

If the information listed on the Onsite Waste Tracking Form is within the WAC and waste profile limits, the waste will be approved for shipment. If the values listed on the Onsite Waste Tracking Form are outside the waste profile or WAC limits, the waste cannot be shipped to the ERDF.

4.1.3 Load Identification - Once the verification has been completed and the waste approved for shipment, the person in possession of the waste will receive a waste

approval code. This code will be an 8-digit code that is a sequential number (the format will include the year and a 5-digit number (example 96-00001)). A code will be only used once and no code will be repeated. This code will be placed on the Onsite Waste Tracking Form. When a driver is sent to transport the waste material to ERDF the correct waste approval code must be on the Onsite Waste Tracking Form. If the correct code is not on the Onsite Waste Tracking Form, the driver will not pickup the waste.

4.1.4 Acceptance at the ERDF - This waste acceptance system at the ERDF will be fully automated. The driver will enter the code into the scale controller at the ERDF. A printed receipt will verify to the driver that the waste has been approved for acceptance at the ERDF. After the driver enters the code, the code will be deleted from the approved code list and a record of the waste acceptance will be recorded. The procedure will also have an option for a temporary manual system in case of automation system failure. The basic work around will consist of a person at the scale with the waste approval code. His or her duty will be to verify that the driver is in possession of an approved code.

4.2 Waste Verification at the ERDF

During the placement process, the physical characteristics of the waste will be visually verified to be consistent with physical waste description on the Onsite Waste Tracking Form. If they visually identify waste with a physical description other described on the Onsite Waste Tracking Form, they will notify the operations manager. The operations manager will take the appropriate action listed in Table 1.

Physical Discrepancy Identified	Action Required
Onsite Waste Tracking Form	Correct Onsite Waste Tracking Form with concurrence of Project Team.
Profile	Revise Profile with concurrence of Project Team and ERDF Waste Acceptance Manager.

4.3 Final Acceptance

4.3.1 Receipt Acknowledgment – The automated system will acknowledge the receipt of the waste during the weighing process. A report listing the containers received that day will be issued each day that the ERDF accepts waste.

4.3.2 Disposal Location – Once the waste is placed in the ERDF the final disposal location will be entered on the Onsite Waste Tracking Form. This disposal location will be entered into the automated database.

4.3.3 Return Copy – The completed Onsite Waste Tracking Form will be forwarded to BHI Document Information Services.

5.0 Record Keeping

Approved Waste Profiles are stored by BHI. Original Onsite Waste Tracking Forms will be forwarded to BHI for permanent storage.

APPENDIX A - ONSITE WASTE TRACKING FORM

Onsite Waste Tracking Form				Page 1 of 2	
Disposal location information:					
1. Disposal Coordinates	N	W	2. Lit		
I certify that a visual inspection of the waste material to the extent possible and disposal of the waste has occurred in accordance with operations procedures.					
3. Signature - acceptance			4. Date		
5. Transport approval number		0	6. Generator tracking number		
7. Generator's US EPA ID NO: WA7890008967		8. Generator's name & mailing address: U. S. Department of Energy Richland Operations, P. O. Box 550 Richland, WA 99352		9. Transporter company name: RCI	
10. Point of Origin:	11. Waste vol. (m ³)		0.0	12. Contact	
13. Billing Code	14. Date Shipped		1/0/00	15. Address	
16. Net wt. (lbs)	1	17. Gross wt. (lbs)		0	
18. Phone					
I certify that to the best of my knowledge, the information entered in this and any attached documentation is complete and accurate, and the waste meets the criterion specified in BHI-00139 and the indicated waste profile for acceptance at the ERDF. All radionuclide and hazardous constituent "actual" level blanks have either been filled in with a numerical concentration or "N/P" showing process knowledge or sample results indicates the constituent is not present in the waste. This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. ON BEHALF OF DOE-RL.					
19. Signature			20. Date		
			1/0/00		
21. Container #	22. Waste Profile number	0	23. Container	Bulk Metal Box	
			24. # of Containers	1	
24. US DOT description (PSN, HC, ID number, PG)					
25. Dose rate					
mR at 1 m					
26. Emergency Contact: (509) 373-3800					
27. Radionuclides					
Radionuclides	Limit	Actual (ci/m ³)	Radionuclides	Limit	Actual (ci/m ³)
Americium - 241	0.05	NP	Nickel - 63	1.80E+04	NP
Americium - 243	0.057	NP	Plutonium - 238	1.5	NP
Beryllium - 7	NL	NP	Plutonium - 239	2.90E-02	NP
Carbon - 14	5.1	NP	Plutonium - 240	2.90E-02	NP
Carbon - 14	61	NP	Plutonium - 241	6.2	NP
Cesium - 134	NL	NP	Radium - 226	1.40E-04	NP
Cesium - 137	32	NP	Radium - 228	2.20E-04	NP
Chromium - 51	NL	NP	Sodium - 22	NL	NP
Cobalt - 58	NL	NP	Strontium - 90	1.40E+04	NP
Cobalt - 60	NL	NP	Technetium - 99	1.3	NP
Europium - 152	2.10E+07	NP	Thorium - 228 + daughters	1.20E-04	NP
Europium - 154	NL	NP	Thorium - 232	6.00E-03	NP
Europium - 155	NL	NP	Uranium - 233/234	2.40E-02	NP
Hydrogen - 3	NL	NP	Uranium - 235	2.70E-03	NP
Neptunium - 237	1.50E-03	NP	Uranium - 238 + daughters	1.20E-02	NP
Nickel - 63	1.50E+03	NP	28. Total TBqs	0.00E+00	NA
29. WA State Waste Designation			30. Is waste LDR? Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		31. Is waste debris? Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
32. Applicable waste codes			NONE		
33. Physical waste description			34. Estimated volume %		
Soil			100		
normal form, solid, elemental			35. TOTALS		
			100		

Onsite Waste Tracking Form				Transport approval number		0		Page 2 of 2		
36. Hazardous Constituents										
Hazardous Constituents	WAC	Prohib	Actual (mg/kg)	Hazardous Constituents	WAC	Prohib	Actual (mg/kg)	WAC	Prohib	Actual (mg/kg)
	Limit (mg/kg)	Limit (mg/kg)			Limit (mg/kg)	Limit (mg/kg)				
Volatile Organic Compounds										
1,1,1-Trichloroethane	100	N/A	N/P	Carbon tetrachloride	150	N/A	N/P			
1,1,2,2-Tetrachloroethane	100	N/A	N/P	Chloroform	20	N/A	N/P			
1,2-Dichloroethane	NL	N/A	N/P	Ethylbenzene	160	N/A	N/P			
2-Butanone	33	N/A	N/P	Methylene chloride	21	N/A	N/P			
2-Hexanone	NL	N/A	N/P	Tetrachloroethene	113	N/A	N/P			
4-Methyl-2-Pentanone	NL	N/A	N/P	Toluene	186	N/A	N/P			
Acetone	28	N/A	N/P	Trichloroethene	58	N/A	N/P			
Benzene	94	N/A	N/P	Total Xylenes	64	N/A	N/P			
Carbon Disulfide	NL	N/A	N/P	Vinyl chloride	31	N/A	N/P			
Semivolatile Organic Compounds										
1,3-Dichlorobenzene	77	N/A	N/P	Di-n-butyl-phthalate	NL	N/A	N/P			
1,4-Dichlorobenzene	101	N/A	N/P	Di-n-octyl-phthalate	NL	N/A	N/P			
4-Chloro-3-Methylphenol	14	N/A	N/P	Dibenzo(a,h)anthracene	NL	N/A	N/P			
Acenaphthene	2700	N/A	N/P	Dibenzofuran	NL	N/A	N/P			
Anthracene	18800	N/A	N/P	Diethylphthalate	325	N/A	N/P			
Benzo(a)anthracene	NL	N/A	N/P	Fluoranthene	13125	N/A	N/P			
Benzo(a)pyrene	25000	N/A	N/P	Fluorene	1250	N/A	N/P			
Benzo(b)fluoranthene	NL	N/A	N/P	Indeno(1,2,3-cd)Pyrene	NL	N/A	N/P			
Benzo(g,h,i)perylene	NL	N/A	N/P	2-Methylnaphthalene	NL	N/A	N/P			
Benzo(k)fluoranthene	25000	N/A	N/P	4-Methylphenol	92	N/A	N/P			
Benzoic Acid	NL	N/A	N/P	Naphthalene	1407	N/A	N/P			
Bis(2-ethyl)phthalate	NL	N/A	N/P	2-Nitrophenol	30	N/A	N/P			
Butylbenzylphthalate	205	N/A	N/P	N-nitrosodiphenylamine	100	N/A	N/P			
Carbazole	NL	N/A	N/P	Pentachlorophenol	904	N/A	N/P			
4-Chloroaniline	NL	N/A	N/P	Phenanthrene	NL	N/A	N/P			
2-Chlorophenol	601	N/A	N/P	Phenol	72	N/A	N/P			
Crysene	NL	N/A	N/P	Pyrene	NL	N/A	N/P			
Pesticides/PCBs										
4,4-DDD	750000	N/A	N/P	Beta-BHC	3300	N/A	N/P			
4,4-DDE	540000	N/A	N/P	Gamma-Chlordane	NL	N/A	N/P			
PCB Aroclor-1248	500	N/A	N/P	Dieldrin	NL	N/A	N/P			
PCB Aroclor-1254	500	N/A	N/P	Methoxychlor	NL	N/A	N/P			
PCB Aroclor-1260	500	N/A	N/P	XXXXXXXXXXXXXXXX	xxxx	N/A	xxxx			
Metals										
Aluminum	NL	N/A	N/P	Lead	5000	N/A	N/P			
Antimony	19000	N/A	N/P	Manganese	440000	N/A	N/P			
Arsenic	3000	N/A	N/P	Mercury	1000	N/A	N/P			
Barium	940000	N/A	N/P	Nickel	NL	N/A	N/P			
Beryllium	200	N/A	N/P	Selenium	400000	N/A	N/P			
Caesium	39000	N/A	N/P	Silver	350000	N/A	N/P			
Cobalt	NL	N/A	N/P	Thallium	5800	N/A	N/P			
Copper	8200	N/A	N/P	Vanadium	330000	N/A	N/P			
Chromium	59000	N/A	N/P	Zinc	300000	N/A	N/P			
Chromium VI	59000	N/A	N/P	XXXXXXXXXXXXXXXX	xxxx	xxxx	xxxx			
37. Comments										