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SECTION 1 OF 2

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WASTE MANAGEMENT PROJECT
FISCAL YEAR 1998 MULTI-YEAR
WORK PLAN WBS 1.2

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D.B. VAN LEUVEN, C.G. MATSSON

CO:

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Waste Management Federal Services of Hanford, Inc.

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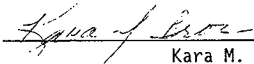
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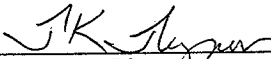
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Waste Programs Division
U.S. Department of Energy,
Richland Operations Office

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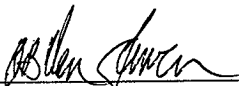
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C. G. Mattsson, Project Director
Fluor Daniel Hanford, Inc.

9/26/97

Date



D. B. Van Leuven
President & General Manager
Waste Management Federal Services
of Hanford, Inc.

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Date

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A.1.0 Technical Baseline

The MYWP technical baseline describes the work to be accomplished by the Project and the technical standards which govern that work.

A.1.1 Mission Statement

The Waste Management Project manages and integrates (non-TWRS) waste management activities at the site. Activities include management of Hanford wastes as well as waste transferred to Hanford from other DOE, Department of Defense, or other facilities. This work includes handling, treatment, storage, and disposal of radioactive, nonradioactive, hazardous ("dangerous"), and mixed solid and liquid wastes. Major Waste Management Projects are the Solid Waste Project (SW), Liquid Effluents Project (LEP), and Analytical Services. Existing facilities (e.g., grout vaults and canyons) shall be evaluated for reuse for these purposes to the maximum extent possible.

A.1.2 Boundary Diagram with Major Facilities

The following table identifies the major facilities that interface with this Project. The left column of the table identifies the major facilities that generate waste, materials, or infrastructure for this Project. The right column of the table identifies the major facilities that will receive waste and materials from this Project. The blank center column represents this Project.

Table A.1-1 Waste Management Project Boundary Diagram

External Interfaces - Ames Laboratory - Argonne National Laboratory - East - Bates Accelerator - Massachusetts - Battelle Columbus Laboratories - Bettis Atomic Power - Laboratory - Bettis Atomic Power - Shipyard - Brookhaven National Laboratory - FERMI National Accelerator Laboratory - General Atomics - Hanford Legacy - Knolls Atomic Power - Laboratory - Knolls Atomic Power - Shipyard - Lawrence Berkeley Laboratory - Paducah Energy Systems - Pearl Harbor Naval Shipyard - Portsmouth Energy Systems - Princeton Plasma Physics Laboratory - Puget Sound Naval Shipyard - Rockwell - Canoga Park - Rocky Flats - Stanford Linear Accelerator Center - University of California - Davis - University of Utah Hanford Site Environmental System Interfaces - hsems.1.1.2 Reactors on the River Soil Site Operable Units - hsems.1.2.1 100 K Area Facilities - hsems.2.1.1 Central Plateau Groundwater Operable Units - hsems.2.2.1 LAW Plant, Phase I - hsems.2.2.2 LAW/HLW Plant, Phase I - hsems.2.2.3 LAW Treatment Facility, Phase II - hsems.2.2.4 HLW Treatment Facility, Phase II - hsems.2.2.6 Plutonium-Uranium Extraction Plant - hsems.2.2.7 B Plant - hsems.2.2.8 Waste Encapsulation and Storage Facility - hsems.2.2.9 Plutonium Finishing Plant - hsems.2.2.10 Reduction-Oxidation Plant - hsems.2.2.11 Uranium Oxide Plant - hsems.2.2.12 T-Plant Facility - hsems.2.3.1 Single Shell Tank (SST) System - hsems.2.3.2 Double Shell Tank (DST) System - hsems.2.3.9 Transuranic Storage and Assay Facility - hsems.2.3.10 IHLW Storage Modules, Phase II - hsems.2.4.4 Environmental Restoration Disposal Facility - hsems.2.5.3 Central Plateau Steam System - hsems.2.5.4 Central Plateau Water System - hsems.2.5.5 Central Plateau Office Facilities - hsems.2.5.6 Central Plateau Electrical System - hsems.2.5.8 Central Plateau Telecommunication System - hsems.2.5.9 Central Plateau Shop Facilities - hsems.2.5.10 Central Plateau Storage Support Facilities - hsems.2.5.13 Central Plateau Road System - hsems.4.2.5 Thermal Treatment Facility - hsems.4.2.6 Low-Level Mixed Waste Stabilization Facility - hsems.4.3.1 Fast Flux Test Facility - hsems.4.3.2 300 Area Fuel Supply System - hsems.4.3.4 309 Building - hsems.4.4.1 South 600 Area Electrical System - hsems.4.4.2 South 600 Area Steam System - hsems.4.4.3 South 600 Area Water System - hsems.4.4.5 South 600 Area Telecommunication System - hsems.4.4.6 South 600 Area Office Facilities - hsems.4.4.7 South 600 Area Shop Facilities - hsems.4.4.8 South 600 Area Storage Facilities - hsems.4.4.10 South 600 Area Road System - hsems.4.4.11 South 600 Area Rail System - hsems.4.5.1 336 - hsems.4.6.1 324 Building - hsems.4.6.2 325 Building		External Interfaces 200E SALDS 200W SALDS - Columbia River - Hazardous Waste Disposal Contracts - Offsite Landfill - Waste Isolation Pilot Project Hanford Site Environmental System Interfaces - hsems.2.2.12 T-Plant Facility - hsems.2.3.2 Double Shell Tank (DST) System - hsems.2.5.2 Waste Sampling and Characterization Facility - hsems.2.5.7 Central Plateau Liquid Sanitary Waste System - hsems.4.4.4 South 600 Area Liquid Sanitary Waste System - hsems.4.7.1 331 Complex

Table A.1-1 Waste Management Project Boundary Diagram (Continued)

hsems.4.6.3 326 Building hsems.4.6.4 327 Building hsems.4.6.5 329 Building hsems.4.6.6 306W hsems.4.6.8 320 / 3720 / 3745 hsems.4.6.9 Misc. Rad Labs hsems.4.7.1 331 Complex		

A.1.3 Facility Responsibility Assignment Matrix

This section provides a table that identifies the sub-projects, major facilities, and the life cycle assignments.

Table A.1-2 Facility Responsibility Assignment Matrix

Asset	Program Planning	Life Cycle						Close Out		
		Pre Conceptual	Conceptual	Execute			O&M	Post Ops	D&D	
				Design	Construction	Turnover				
242-A Evaporator	RL-WM05						RL-WM05	RL-TP10	RL-ER06	RL-ER05
T-Plant Facility	RL-WM04						RL-WM04	RL-TP10	RL-ER06	RL-ER05
2706-T	RL-WM04						RL-WM04	RL-TP10	RL-ER06	RL-ER05
M-91 Facility	RL-WM04	RL-WM04	RL-WM04	RL-WM04	RL-WM04	RL-WM04	RL-WM04	RL-TP10	RL-ER06	RL-ER05
WRAP Module 1	RL-WM04						RL-WM04	RL-TP10	RL-WM04	RL-ER05
Liquid Effluent Retention Facility	RL-WM05						RL-WM05	RL-TP10	RL-ER06	RL-ER05
200 Area Effluent Treatment Facility	RL-WM05						RL-WM05	RL-TP10	RL-ER06	RL-ER05
Central Waste Complex	RL-WM03						RL-WM03	RL-WM03	RL-ER06	RL-ER05
Nonradioactive Dangerous Waste Storage Facility	RL-WM03						RL-WM03	RL-WM03	RL-ER06	RL-ER05
Transuranic Storage and Assay Facility	RL-WM03						RL-WM03	RL-TP10	RL-ER06	RL-ER05
Low-Level Waste Burial Grounds	RL-WM03						RL-WM03	RL-WM03	RL-ER02	
Mixed Waste Disposal Trenches	RL-WM03						RL-WM03	RL-WM03	RL-ER02	
200 Area Treated Effluent Disposal Facility	RL-WM05						RL-WM05	RL-TP13	(tbd)	
222-S Laboratory	RL-WM06						RL-WM06	RL-TP10	RL-ER06	RL-ER05
Waste Sampling and Characterization Facility	RL-WM06						RL-WM06	RL-WM06	RL-ER06	RL-ER05
300 Area Treated Effluent Disposal Facility	RL-WM05						RL-WM05	RL-WM05	(tbd)	
307 Retention Basins	RL-WM05						RL-WM05	RL-ER06	RL-ER06	RL-ER05
340 Waste Handling Facility	RL-WM05						RL-WM05	RL-WM05	RL-ER06	RL-ER05
Miscellaneous Streams System	RL-WM05									
Thermal Treatment Facility	RL-WM04									
Low-Level Mixed Waste Stabilization Facility	RL-WM04									

RL-ER02 - 200 Area Source Remedial Action Project
RL-ER05 - Surveillance and Maintenance
RL-ER06 - Decontamination & Decommissioning
RL-TP10 - Accelerated Deactivation Project
RL-TP13 - Landfill
RL-WM03 - Solid Waste Storage & Disposal
RL-WM04 - Solid Waste Treatment
RL-WM05 - Liquid Effluents Project
RL-WM06 - Analytical Services

A.1.4 Project Planning Assumptions

This section contains the issues that affect the project. These include project specific issues, as well as the site-level issues that have been assigned to the project for resolution. It also contains the assumptions that are used as a basis for the development of project plans until the issues are formally resolved with records of decision. The "Champion" column determines if the Project has lead responsibility or is an affected participant. If the champion belongs to the Project, the Project has the lead. If not, the Project is an affected participant. Project plans include appropriate activities and resources for resolving these issues.

Table A.1-3 Project Issues And Assumptions

	ISSUE	PLANNING ASSUMPTION	CHAMPION
1	Land Use Plan 100 The interim end state for the 100 Areas has not been defined.	Soil sites remediated consistent with CERCLA-ROD cleanup standards. DOE will retain control of this land throughout the cleanup mission and will protect archaeological, cultural and environmental resources.	Bauer
2	Land Use Plan 200 The interim end state for the 200 Areas has not been defined	The 200 Area and central plateau will be used for the management of nuclear materials and the collection and disposal of waste materials that remain on site and for other related and compatible uses. Cleanup levels and disposal standards will be established in the CERCLA and RCRA permit modifications. Soil sites will be remediated consistent with CERCLA-ROD cleanup standards. DOE will retain control of this land.	Bauer
3	Land Use Plan 300 The interim end state for the 300 Areas has not been defined.	The 300 Area waste sites, materials, and facilities will be remediated to allow industrial and economic transition opportunities. The Federal government will retain ownership of land in and adjacent to the 300 and 400 Areas, but will lease land for private and public uses to support regional industrial and economic development. Excess land within the 1100 and 3000 areas will be targeted for transition to non-Federal ownership.	Bauer
4	End State for Canyon Facilities The end state for the canyon facilities has not been clearly defined.	Canyon facilities will be entombed in-place with a barrier cap.	Bauer Liedle
5	325 & 204-AR Upgrades Liquid waste collection and loading facility (340 facility) is scheduled for shutdown after FY 1998. Initially nothing will be done to preclude accepting waste at the 340 facility after this date. Transfer systems from Bldg. 325 to the tank farms via 204-AR facility will not be available per the current schedule.	No Decision made.	Beard Briggs
6	Sodium Disposition Potential use as a neutralization agent for tank waste is projected to be beyond 2015.	Interim store in the 400 Area and Central Waste Complex (CWC) until TWRS finalizes its Tank Waste treatment processes and identifies its Na needs.	Knollmeyer Reynolds
7	Pu National Disposition Policy It has not been decided where, when and how surplus weapons useable Pu will be dispositioned (reuse, storage, or disposal).	The ROD on PEIS recommended continued interim storage for Hanford Material at PFP pending national policy on disposition, and that the Hanford Site will be evaluated for PU disposition activities in the next level of NEPA studies. Pu stabilization will occur by 2002.	Mecca Reynolds
8	Fuels Grade Pu Disposition Final disposition of Fuels Grade Pu has not been determined.	Continue interim storage at PFP vaults pending national policy on disposition. New and/or modified vaults may be required.	Mecca Reynolds
9	TRU Waste Disposition The projected volume of TRU waste at Hanford exceed the volume allotted for Hanford waste at WIPP.	No Decision made.	Guercia Wilde
10	TRU Waste Disposition Ad-hoc Team Ad-hoc team has resolved this issue and issued a letter.	No Decision made.	Hladek
11	SNF Disposal Location Disposal location and acceptance criteria for Hanford SNF disposal have not been firmly defined.	Final disposition at National Repository. No further processing of SNF necessary after interim storage and prior to disposal.	Hansen Williams

Table A.1-3 Project Issues And Assumptions (Continued)

	ISSUE	PLANNING ASSUMPTION	CHAMPION
12	Project Life Cycle Planning The forecasting information for SNF terminates with the end of the Project (FY 2002). However it is clear that there will be waste streams from the K-Basins and from the CSB as well as infrastructure needs. These need to be included in the forecasting section of some project.	No Decision made.	Piper Brennan
13	HSIS / SE Interface Differences The interface information is needed to support the Hanford Site Integrated Schedule preparation. The current HSIS activities can not be easily linked to the SE interface titles.	Use interfaces as currently defined in the HSTB.	Wisness Brennan
14	MDD End Points Vs MYWPs All the MDD End Point Targets do not get assigned to the Projects.	S27 belongs to the Advanced Reactors Transition End Point 39 belongs to SNF Other requirements need to be assigned.	Wisness Brennan
15	Site Cleanup Strategy The Site cleanup strategy has not been clearly defined.	No Decision made.	Murphy Brennan
16	Low Level Tank Waste Disposal Criteria The disposal criteria for LLW from tanks is not consistent with that of LLW from other sources (i.e. SW and ER).	No Decision made.	Kinzer Umek
17	Low Level Tank Waste Disposal Criteria Ad-hoc Team TBD	No Decision made.	Freeman
18	TRU Tank Waste Disposal Location Ad-hoc Team Planning assumption received onsite approval during FY 1997 MYWP process. A letter to close the issue is being drafted for Champion's approval.	No Decision made.	Freeman
19	TRU Waste Long-Term Storage Criteria for long-term storage of TRU waste have not been defined.	No Decision made.	Kinzer Umek

FY1998

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A.2.0 Project Hanford Breakdown Structure (PHBS)**A.2.1 PHBS Hierarchy**

RL PBS	RL WBS Level	Title
RL-WM03	1.2.1.1.1A	LLBG Min. Safe
	1.2.1.1.1B	LLBG Operations
	1.2.1.1.1C	MW Trench Min. Safe (Storage)
	1.2.1.1.1D	MW Trench Operations
	1.2.1.1.1E	CWC Min. Safe
	1.2.1.1.1F	CWC Operations
	1.2.1.1.1G	616 Facility Min. Safe
	1.2.1.1.1H	616 Facility Operations
	1.2.1.1.1J	TRUSAF Min. Safe
	1.2.1.1.1K	TRUSAF Operations
	1.2.1.1.6M	Program Management
RL-WM04	1.2.2.1.2A	2706-T Min. Safe
	1.2.2.1.2B	2706-T Operations
	1.2.2.1.2C	T-Plant Min. Safe
	1.2.2.1.2E	WRAP Min. Safe
	1.2.2.1.2F	WRAP Operations
	1.2.2.1.2G	RMW Treatment
	1.2.2.1.2H	W-259 Secondary Containment - Expense
	1.2.2.1.3H	W-259 Secondary Containment - Line Item
RL-WM05	1.2.3.1.1B	200 Area TEDF/ETF/LERF Min. Safe
	1.2.3.1.1C	200 Area ETF Operations
	1.2.3.1.1D	200 Area 242-A Evaporator Min. Safe
	1.2.3.1.1E	200 Area 242-A Evaporator Operations
	1.2.3.1.2B	200 Area Capital Equipment
	1.2.3.1.1F	300 Area TEDF Min Safe
	1.2.3.1.2F	300 Area Capital Equipment
	1.2.3.1.1G	340 Facility Min Safe
	1.2.3.1.1H	340 Facility Shutdown
	1.2.3.1.1J	Miscellaneous Streams
RL-WM06	1.2.4.1.1A	HAS Management and Integration
	1.2.4.1.2A	HAS Management and Integration CENRTC
	1.2.4.1.1B	222-S Facility Operations and Maintenance
	1.2.4.1.2B	222-S CENRTC
	1.2.4.1.1C	WSCF Facility Operations and Maintenance
	1.2.4.1.2C	WSCF CENRTC
	1.2.4.1.1D	Laboratory Upgrades
	1.2.4.1.3D	222-S Projects
	1.2.4.1.1E	Commercial Laboratory Support

FY1998

September 26, 1997

A.3.0 Schedule Baseline

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary (PBS) guidance.

Activity ID	Activity Description	Early Start	Early Finish	Activity ID	Activity Description	Early Start	Early Finish
RL-WM03 Solid Waste Storage and Disposal							
HSEMS 23.5.5 Central Waste Complex Ops & Maint							
RMW/CWC STORAGE							
SW3D1	Operate RMW/CWC Storage	01OCT97*	30SEP48	SW3D1	Operate RMW/CWC Storage	01OCT97*	30SEP48
SW3D2	From LW - 200 Area ETF		30SEP48	SW3D2	From LW - 200 Area ETF		30SEP48
SW3D4	To AS - Provide WSCF Support to RMW Trenches		30SEP48	SW3D4	To AS - Provide WSCF Support to RMW Trenches		30SEP48
SW3D5	To AS - Provide Commercial Support to RMW Trenches		30SEP48	SW3D5	To AS - Provide Commercial Support to RMW Trenches		30SEP48
SW3D6	To AS - WSCF Ship Mixed Waste to CWC		30SEP48	SW3D6	To AS - WSCF Ship Mixed Waste to CWC		30SEP48
SW3D7	Receive B-Cell Wastes		16SEP98*	SW3D7	Receive B-Cell Wastes		16SEP98*
SW3D8	From FS - B-Cell Wastes to SW		16SEP99	SW3D8	From FS - B-Cell Wastes to SW		16SEP99
HSEMS 23.8.6 Non-Rad Daug Wst Stor Fac Closeout							
HAZARDOUS WASTE STORAGE							
SW3C1	616 Bldg Standby	01OCT97*	30SEP99	SW3C1	616 Bldg Standby	01OCT97*	30SEP99
SW3C2	To FS - 616 Bldg		30SEP99	SW3C2	To FS - 616 Bldg		30SEP99
HSEMS 23.10.6 TRUSAF Closeout							
TRUSAF FACILITY							
SW3B1	Trusaf Shutdown	01OCT97*	31MAR98	SW3B1	Trusaf Shutdown	01OCT97*	31MAR98
SW3B2	To TW - TRUSAF to Facility Transition		31MAR98	SW3B2	To TW - TRUSAF to Facility Transition		31MAR98
HSEMS 24.1.15 Low Level Burial Grounds Ops & Mt							
LOW LEVEL BURIAL GROUNDS							
SW3E1	Operate LLW Burial Grounds	01OCT97*	30SEP48	SW3E1	Operate LLW Burial Grounds	01OCT97*	30SEP48
SW3E2	To AS - Provide WSCF Support to Burial Grounds		30SEP48	SW3E2	To AS - Provide WSCF Support to Burial Grounds		30SEP48
SW3E3	To AS - Provide Comm Support to Burial Grounds		30SEP48	SW3E3	To AS - Provide Comm Support to Burial Grounds		30SEP48

Project Start: 01OCT97
 Project End: 30SEP48
 Date: 06-02-99
 Rev: 001

Draw No: 000000
 Project No: 000000
 Client No: 000000

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WASTE MANAGEMENT HANFORD
 PBS WM03, 04, 05 & 06
 SITE MASTER BASELINE SCHEDULE

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Activity ID	Activity Description	Early Start	Early Finish
HSEMS 2.4.1.6 Low Level Burial Grounds Closure			
SW3E4	Burial Grounds Closure	03OCT16*	30SEP48
HSEMS 2.4.2.5 Mixed Waste Disposal Trenches O & M			
RMW TRENCHES			
SW3F1	Operate RMW Trenches - Storage	01OCT97*	30SEP99
SW3F2	To AS - Provide WSCF Support to RMW Trenches		30SEP99
SW3F3	To AS - Provide Comm Support to RMW Trenches		30SEP99
SW3F4	Operate RMW Trenches - Disposal	01OCT99*	28SEP35
SW3F5	M-91-13 Initial Disposal of CH-LLMW	29JUN01*	
SW3F6	To LW - 200 Area ETF Evap Processing - Out Yrs		28SEP35
SW3F7	To AS - Provide WSCF Support to RMW Trenches		28SEP35
SW3F8	To AS - Provide Comm Support to RMW Trenches		28SEP35
SW3F9	Provide RMW Trenches Surveillance & Maintenance	01OCT35	30SEP48
WASTE RECEIPTS			
SW3A1	Last Shipment from ER		28SEP01*
SW3A2	Last Shipment from SNF		28SEP01*
SW3A3	Last Shipment from PNNL		30SEP10*
SW3A4	From TW - Last Shipment		30SEP48
SW3A5	From FS - Process DSWC		30SEP48
SW3A6	From AS - Ship WSCF Mixed Waste to CWC		30SEP48

Activity ID	Activity Description	Early Start	Early Finish
HSEMS 2.4.1.6 Low Level Burial Grounds Closure			
SW3E4	Burial Grounds Closure	03OCT16*	30SEP48
HSEMS 2.4.2.5 Mixed Waste Disposal Trenches O & M			
RMW TRENCHES			
SW3F1	Operate RMW Trenches - Storage	01OCT97*	30SEP99
SW3F2	To AS - Provide WSCF Support to RMW Trenches		30SEP99
SW3F3	To AS - Provide Comm Support to RMW Trenches		30SEP99
SW3F4	Operate RMW Trenches - Disposal	01OCT99*	28SEP35
SW3F5	M-91-13 Initial Disposal of CH-LLMW	29JUN01*	
SW3F6	To LW - 200 Area ETF Evap Processing - Out Yrs		28SEP35
SW3F7	To AS - Provide WSCF Support to RMW Trenches		28SEP35
SW3F8	To AS - Provide Comm Support to RMW Trenches		28SEP35
SW3F9	Provide RMW Trenches Surveillance & Maintenance	01OCT35	30SEP48
WASTE RECEIPTS			
SW3A1	Last Shipment from ER		28SEP01*
SW3A2	Last Shipment from SNF		28SEP01*
SW3A3	Last Shipment from PNNL		30SEP10*
SW3A4	From TW - Last Shipment		30SEP48
SW3A5	From FS - Process DSWC		30SEP48
SW3A6	From AS - Ship WSCF Mixed Waste to CWC		30SEP48

Activity ID	Activity Description	Early Start	Early Finish
HSEMS 2.4.1.6 Low Level Burial Grounds Closure			
SW3E4	Burial Grounds Closure	03OCT16*	30SEP48
HSEMS 2.4.2.5 Mixed Waste Disposal Trenches O & M			
RMW TRENCHES			
SW3F1	Operate RMW Trenches - Storage	01OCT97*	30SEP99
SW3F2	To AS - Provide WSCF Support to RMW Trenches		30SEP99
SW3F3	To AS - Provide Comm Support to RMW Trenches		30SEP99
SW3F4	Operate RMW Trenches - Disposal	01OCT99*	28SEP35
SW3F5	M-91-13 Initial Disposal of CH-LLMW	29JUN01*	
SW3F6	To LW - 200 Area ETF Evap Processing - Out Yrs		28SEP35
SW3F7	To AS - Provide WSCF Support to RMW Trenches		28SEP35
SW3F8	To AS - Provide Comm Support to RMW Trenches		28SEP35
SW3F9	Provide RMW Trenches Surveillance & Maintenance	01OCT35	30SEP48
WASTE RECEIPTS			
SW3A1	Last Shipment from ER		28SEP01*
SW3A2	Last Shipment from SNF		28SEP01*
SW3A3	Last Shipment from PNNL		30SEP10*
SW3A4	From TW - Last Shipment		30SEP48
SW3A5	From FS - Process DSWC		30SEP48
SW3A6	From AS - Ship WSCF Mixed Waste to CWC		30SEP48

Activity ID	Activity Description	Early Start	Early Finish
HSEMS 2.4.1.6 Low Level Burial Grounds Closure			
SW3E4	Burial Grounds Closure	03OCT16*	30SEP48
HSEMS 2.4.2.5 Mixed Waste Disposal Trenches O & M			
RMW TRENCHES			
SW3F1	Operate RMW Trenches - Storage	01OCT97*	30SEP99
SW3F2	To AS - Provide WSCF Support to RMW Trenches		30SEP99
SW3F3	To AS - Provide Comm Support to RMW Trenches		30SEP99
SW3F4	Operate RMW Trenches - Disposal	01OCT99*	28SEP35
SW3F5	M-91-13 Initial Disposal of CH-LLMW	29JUN01*	
SW3F6	To LW - 200 Area ETF Evap Processing - Out Yrs		28SEP35
SW3F7	To AS - Provide WSCF Support to RMW Trenches		28SEP35
SW3F8	To AS - Provide Comm Support to RMW Trenches		28SEP35
SW3F9	Provide RMW Trenches Surveillance & Maintenance	01OCT35	30SEP48
WASTE RECEIPTS			
SW3A1	Last Shipment from ER		28SEP01*
SW3A2	Last Shipment from SNF		28SEP01*
SW3A3	Last Shipment from PNNL		30SEP10*
SW3A4	From TW - Last Shipment		30SEP48
SW3A5	From FS - Process DSWC		30SEP48
SW3A6	From AS - Ship WSCF Mixed Waste to CWC		30SEP48

Activity ID	Activity Description	Early Start	Early Finish	Activity ID	Activity Description	Early Start	Early Finish
WASTE RECEIPTS							
SW9A7	From AS - Ship WSCF LLR Waste to Burial Ground		30SEP48				
SW9A8	From AS - Ship 222-S LLR Waste to CWC		30SEP48				
SW9A9	From AS - Ship 222-S Mixed Waste to CWC		30SEP48				
SW9AC	Receive Waste from all On-Site Generators	01OCT97*	30SEP48				
SW9AD	Last Shipment from Other DOE Sites		28SEP35*				
SW9AE	Last Shipment from Off-Site Labs		28SEP35*				
SW9AF	Last Shipment from Off-Site Universities		28SEP35*				
SW9AG	Last Shipment from Other Off-Site Generators		28SEP35*				
SW9AH	Receive Waste from Off-Site Generators	01OCT97*	30SEP48				

From AS - Ship WSCF LLR Waste to Burial Ground

From AS - Ship 222-S LLR Waste to CWC

From AS - Ship 222-S Mixed Waste to CWC

Receive Waste from all On-Site Generators

Last Shipment from Other DOE Sites

Last Shipment from Off-Site Labs

Last Shipment from Off-Site Universities

Last Shipment from Other Off-Site Generators

Receive Waste from Off-Site Generators

Print Date
Print From
Dest Date
Dest Time

6/00/99
3/25/98
6/00/97
2/00/97

W/SHA

Each bar
Program bar
Cal of Ashes

WASTE MANAGEMENT HANFORD
PBS WM03.04.05 & 06
SITE MASTER BASELINE SCHEDULE

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Activity ID	Activity Description	Early Start	Early Finish
RL-WM04 Solid Waste Treatment			
HSEMS 22-18-5 WRAP Module Ops & Maint			
WRAP OPERATIONS			
SW4E1	Wrap 1 Operation	01OCT97*	30SEP91
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	31DEC98*	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops		30SEP92*
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops		30SEP91
SW4E5	To TW - WRAP 1 Transition		30SEP91
SW4E6	Last Shipment from WRAP to WIPP		30SEP92*
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION			
SW4A1	W-259 Leak Detection Upgrades - Construction	01OCT97*	30SEP99
SW4A2	M-32-03 Complete W-259 Construction		30SEP99
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions		30SEP99
SNF FUEL REMOVAL			
SW4B1	Start Shipping SNF	01MAR01*	
SW4B2	To SN - Start Shipping SNF	01MAR01	
SW4B3	To SN - Fuel to SNF Prep & Transfer		28SEP01
SW4B4	Trans Spent Fuel from T Plant to SNF	01MAR01	28SEP01
WASTE DECONTAMINATION SERVICES			
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	01OCT97*	30SEP04
SW4C2	To AS - Provide 222-S Support to T Plant		30SEP04

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
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SW4E5	To TW - WRAP 1 Transition	
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SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
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SW4A2	M-32-03 Complete W-259 Construction	
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SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

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SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops	
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops	
SW4E5	To TW - WRAP 1 Transition	
SW4E6	Last Shipment from WRAP to WIPP	
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
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SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
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SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
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SW4E5	To TW - WRAP 1 Transition	
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W-259 LEAK DETECTION UPGRADES - CONSTRUCTION		
SW4A1	W-259 Leak Detection Upgrades - Construction	
SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
SW4B2	To SN - Start Shipping SNF	
SW4B3	To SN - Fuel to SNF Prep & Transfer	
SW4B4	Trans Spent Fuel from T Plant to SNF	
WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
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SW4A2	M-32-03 Complete W-259 Construction	
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions	
SNF FUEL REMOVAL		
SW4B1	Start Shipping SNF	
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SW4B3	To SN - Fuel to SNF Prep & Transfer	
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WASTE DECONTAMINATION SERVICES		
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	
SW4C2	To AS - Provide 222-S Support to T Plant	

SW4E1	Wrap 1 Operation	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 To AS - Provide 222-S Support to WRAP 1 Ops To AS - Provide WSCF Support to WRAP 1 Ops To TW - WRAP 1 Transition SSS - W259 Last Shipment from WRAP to WIPP
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	
SW4E3	To AS	



WASTE MANAGEMENT HANFORD
PBS WM03, 04, 05 & 06
SITE MASTER BASELINE SCHEDULE

Sheet 03 of 03

W-259

SW4E1

SW4E2

SW4E3

SW4E4

SW4E5

SW4E6

SW4A1

SW4A2

SW4A3

SW4B1

SW4B2

SW4B3

SW4B4

SW4C1

SW4C2

SW4E1

SW4E2

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SW4B3

SW4B4

SW4C1

SW4C2

Activity ID	Activity Description	Early Start	Early Finish
WASTE DECONTAMINATION SERVICES			
SW4C3	To AS - Provide WSCF Support to T Plant		30SEP04
SW4C4	To FS - T Plant to Transition		30SEP04
SW4C5	Low Dose Equipment Decon/Sampling (2706-T)	01OCT97*	28SEP95
SW4C6	To AS - Provide 222-S Support to T Plant		28SEP95
SW4C7	To AS - Provide WSCF Support to T Plant		28SEP95
SW4C8	To LW - Effluent from 2706-T		28SEP95
SW4C9	To FS - Transfer 2706-T		28SEP95
TRU WASTE RETRIEVAL			
SW4D1	W-113 - Phase I Retrieval	01OCT98*	30SEP04
SW4D2	W-221 - Phase II Retrieval	01OCT98*	28SEP12
SW4D3	W-156 - Alpha Caisson Retrieval	02OCT00*	30SEP10
SW4D4	M-91-04 Comp Const of CH TRU/TRUM Retrieval Facil.		28SEP00*
SW4D5	M-91-07 Comp.W-113 for Post-1970 CH TRU/TRUM Ret		30SEP04
SW4D6	Transfer Retrieved Fuel to Canister Storage Bldg	01OCT12*	30SEP13
SW4D7	To FS - Retrieval Facilities		28SEP12
SW4D8	To SN - CSB Fuel		30SEP13
LOW LEVEL WASTE TREATMENT			
SW4F1	Thermal Treatment Contract - Procure & Admin.	01OCT97*	29SEP28
SW4F2	M-91-12Initiate Thermal Treatment of CH MLLW	01JAN01*	

EY01 EY04 EY07 EY10 EY13 EY16 EY19 EY22 EY25 EY28 EY31 EY34 EY37 EY40 EY43 EY46 EY49 EY52

To AS - Provide WSCF Support to T Plant
 To FS - T Plant to Transition
 SSS - W5¹⁰⁰
 Low Dose Equipment Decon/Sampling (2706-T)
 To AS - Provide 222-S Support to T Plant
 To AS - Provide WSCF Support to T Plant
 To LW - Effluent from 2706-T
 To FS - Transfer 2706-T
 SSS - W6¹⁰⁰

W-113 - Phase I Retrieval
 W-221 - Phase II Retrieval
 W-156 - Alpha Caisson Retrieval
 M-91-04 Comp Const of CH TRU/TRUM Retrieval Facil.
 M-91-07 Comp.W-113 for Post-1970 CH TRU/TRUM Ret
 Transfer Retrieved Fuel to Canister Storage Bldg
 To FS - Retrieval Facilities
 To SN - CSB Fuel
 SSS - W11¹⁰⁰
 SSS - W3¹⁰⁰

Thermal Treatment Contract - Procure & Admin.
 M-91-12Initiate Thermal Treatment of CH MLLW
 M-91-12Initiate Thermal Treatment of CH MLLW
 M-91-12Initiate Thermal Treatment of CH MLLW

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Activity ID	Activity Description	Early Start	Early Finish	Activity ID	Activity Description	Early Start	Early Finish
HSEMS 2.2.21.5 200 Area ETF Ops & Maint							
LWA12	200 A Effluent Treatment Facilities (ETF)	01OCT97*	30SEP92	LWA12B	From TW - PHI HOT STARTUP	30SEP92	30SEP92
LWA12E	To AS - Provide 222-S Suppl to 200 Area ETF	30SEP92	30SEP92	LWA12F	To AS - Provide WSCF Suppl to 200 Area ETF	30SEP92	30SEP92
LWA12G	To FS - 200 Area ETF	30SEP92	30SEP92	LWA12H	To SW - Operate RMW/CWC Storage	30SEP92	30SEP92
LWA24	200 A ETF PROCESSING	01OCT97*	30SEP92	LWA25	200 A ETF PROCESSING OUT YEARS	01OCT92	30SEP92
LWA25A	From TW - HLW VITRIFICATION	30SEP92	30SEP92	LWA25B	From ER - ERDF LEACHATE	30SEP92	30SEP92
LWA25C	From ER - N Basin Water	30SEP92	30SEP92	LWA25D	From SW - Operate RMW Trenches - Disposal	30SEP92	30SEP92
LWA25E	From TW - D&D LLW FACILITY	30SEP92	30SEP92	LWA26	From TW - D&D LLW FACILITY	30SEP92	30SEP92
HSEMS 2.3.8.5 200 Area LERF Ops & Maint							
LWA21	200 A LERF SMECO	01OCT97*	30SEP92	LWA23	200 A LERF SMECO Outyear activities	01OCT92	30SEP92
LWA23A	To FS - 200 Area LERF SEMCO	30SEP92	30SEP92	LWA23B	From TW - PHI HOT STARTUP	30SEP92	30SEP92
LWA23C	To AS - Provide 222-S Suppl to 200 Area ETF	30SEP92	30SEP92	LWA23D	To AS - Provide WSCF Suppl to 200 Area ETF	30SEP92	30SEP92
LWA23E	To FS - 200 Area ETF	30SEP92	30SEP92	LWA23F	To SW - Operate RMW/CWC Storage	30SEP92	30SEP92
LWA23G	200 A ETF PROCESSING	01OCT97*	30SEP92	LWA23H	200 A ETF PROCESSING OUT YEARS	01OCT92	30SEP92
LWA23I	From TW - HLW VITRIFICATION	30SEP92	30SEP92	LWA23J	From ER - ERDF LEACHATE	30SEP92	30SEP92
LWA23K	From ER - N Basin Water	30SEP92	30SEP92	LWA23L	From SW - Operate RMW Trenches - Disposal	30SEP92	30SEP92
LWA23M	From TW - D&D LLW FACILITY	30SEP92	30SEP92	LWA23N	From TW - D&D LLW FACILITY	30SEP92	30SEP92

Project: HNF-SP-1229
 Revision: 1
 Date: 04/05/06
 By: [Signature]
 Checked: [Signature]
 Approved: [Signature]

WASTE MANAGEMENT HANFORD
 PBS WM03, 04, 05 & 06
 SITE MASTER BASELINE SCHEDULE

Sheet 2 of 2



Activity ID	Activity Description	Early Start	Early Finish	Activity ID	Activity Description	Early Start	Early Finish
HSEMS 2.4.3.5 200 Area TEDF Ops & Maint							
LWA04	200 A Treated Effluent Disposal Facility (TEDF)	01OCT97*	30SEP92				
LWA04B	From FS - B PLANT EFFLUENT		30SEP92				
LWA04C	From FS - PFP EFFLUENT		30SEP92				
LWA04D	From AS - Send 222S LAB LIQUID COND to 200A TEDF		30SEP92				
LWA04E	From FS - WESF MISSION COMPLETE		30SEP92				
LWA04F	From SW - LOWDOSE EQUIP DECONISAMP		30SEP92				
LWA04I	To AS - Provide WSCF Suppl to 200 Area TEDF		30SEP92				
LWA04J	From TW - 241 Tank Farm Cooling Effluent		30SEP92				
LWA04K	From FS - 291-Z		30SEP92				
LWA04L	To FS - 200 Area TEDF		30SEP92				
HSEMS 4.3.1.5 340 WSL Handling Fac Ops & Maint							
LWA38	340 Operations / Cease waste receipts	01OCT97*	30SEP98				
LWA42	340 Facility Surveillance & Maintenance	01OCT01	30SEP03				
LWA42A	To FS - 340 Facility		30SEP03				
HSEMS 4.3.1.6 340 WSL Handling Fac Post Ops							
LWA39	340 Facility Shutdown	01OCT98	28SEP01				
LWA39A	From TW - 204-AR Mods	01OCT98					
LWA39B	From PN - 325 Upgrade	01OCT98					



WASTE MANAGEMENT HANFORD
PBS WM03, 04, 05 & 06
SITE MASTER BASELINE SCHEDULE

From Start
Project End
Rev Date

01OCT97
28SEP01
28SEP01

End For
Project End
Rev Date

01OCT97
28SEP01
28SEP01

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1997-1998

WASTE MANAGEMENT HANFORD
PBS WM03, 04, 05 & 06
SITE MASTER BASELINE SCHEDULE



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Activity ID	Activity Description	Early Start	Early Finish	Activity ID	Activity Description	Early Start	Early Finish
RL-WM06 Analytical Services							
HSMS 2.5.1.5 222-S Labs Ops & Maint							
222-S Laboratory							
AS601	PROVIDE 222-S SUPP. SPENT NUCLEAR FUELS PROJECT	01OCT97*	28SEP01	AS601	PROVIDE 222-S SUPP. SPENT NUCLEAR FUELS PROJECT	01OCT97*	28SEP01
AS610	PROVIDE 222-S SUPP. TO 200 AREA ETIF	01OCT97*	30SEP32	AS610	PROVIDE 222-S SUPP. TO 200 AREA ETIF	01OCT97*	30SEP32
AS610A	From LW - 200 Area ETIF		30SEP32	AS610A	From LW - 200 Area ETIF		30SEP32
AS620	PROVIDE 222-S SUPP. FLAMMABILITY SAFETY ISSUE	01OCT97*	28SEP01	AS620	PROVIDE 222-S SUPP. FLAMMABILITY SAFETY ISSUE	01OCT97*	28SEP01
AS620A	From TW - Resolve Flamm Safety Issue		28SEP01	AS620A	From TW - Resolve Flamm Safety Issue		28SEP01
AS625	PROVIDE 222-S SUPP. TWRS TANK WASTE CHAR.	01OCT97*	30SEP02	AS625	PROVIDE 222-S SUPP. TWRS TANK WASTE CHAR.	01OCT97*	30SEP02
AS625A	From TW - End Charact Proj, T/O to Retrieval		30SEP02	AS625A	From TW - End Charact Proj, T/O to Retrieval		30SEP02
AS630	PROVIDE 222-S SUPP. TWRS PROCESS WASTE SUP PROJ	01OCT97*	28SEP34	AS630	PROVIDE 222-S SUPP. TWRS PROCESS WASTE SUP PROJ	01OCT97*	28SEP34
AS630A	From TW - Pretreat & Stage HLW		28SEP34	AS630A	From TW - Pretreat & Stage HLW		28SEP34
AS630B	From TW - Feed Staging for LUHL Waste		28SEP34	AS630B	From TW - Feed Staging for LUHL Waste		28SEP34
AS644	PROVIDE 222-S SUPP. TWRS SST RETRIEVAL	01OCT02*	28SEP18	AS644	PROVIDE 222-S SUPP. TWRS SST RETRIEVAL	01OCT02*	28SEP18
AS644A	From TW - Retrieve SST's		28SEP18	AS644A	From TW - Retrieve SST's		28SEP18
AS645	PROVIDE 222-S SUPP. TWRS SST CLOSURE	01OCT12*	28SEP34	AS645	PROVIDE 222-S SUPP. TWRS SST CLOSURE	01OCT12*	28SEP34
AS645A	From TW - Close SST's & MUST's		28SEP34	AS645A	From TW - Close SST's & MUST's		28SEP34
AS650	PROVIDE 222-S SUPP. TANK FARMS SAFE OPERATIONS	01OCT97*	28SEP34	AS650	PROVIDE 222-S SUPP. TANK FARMS SAFE OPERATIONS	01OCT97*	28SEP34
AS650A	From TW - Conduct Reduced Mortgage TF Safe Ops		28SEP34	AS650A	From TW - Conduct Reduced Mortgage TF Safe Ops		28SEP34
AS664	PROVIDE 222-S SUPP. TO 200 AREA D & D PROJECT	01OCT97*	30SEP32	AS664	PROVIDE 222-S SUPP. TO 200 AREA D & D PROJECT	01OCT97*	30SEP32

Sheet 12 of 17



WASTE MANAGEMENT HANFORD
PBS WM03, 04, 05 & 06
SITE MASTER BASELINE SCHEDULE

PWSM

Link to

Project

Data

Access

Control

System

Access

Control

System

Access

Control

System

Access

Control

System

Activity ID	Activity Description	Early Start	Early Finish	Activity
222-S	From ER - 200 Area D&D	30SEP32		
AS670	PROVIDE 222-S SUPPORT TO WRAP I OPERATIONS	01OCT19*	30SEP31	From ER - 200 Area D&D
AS670A	From SW - WRAP 1 Operation	30SEP31		From SW - WRAP 1 Operation
AS671	PROVIDE 222-S SUPPORT TO T PLANT	01OCT19*	28SEP35	From SW - High Dose Equip / Waste Decon
AS671A	From SW - High Dose Equip / Waste Decon	28SEP35		From SW - Low Dose Equip Decon / Sampling
AS671B	From SW - Low Dose Equip Decon / Sampling	28SEP35		
AS675	PROVIDE 222-S SUPPORT TO B PLANT SUBPROJECT	01OCT19*	30SEP99	From FS - Completion of Required AS Support
AS675A	From FS - Completion of Required AS Support	30SEP99		From FS - Completion of Required AS Support
AS676	PROVIDE 222-S SUPPORT TO WESF	01OCT19*	30SEP19	From FS - Completion of Required AS Support
AS676A	From FS - Completion of Required AS Support	30SEP19		
AS677	PROVIDE 222-S SUPPORT TO 300 AREA SNM	01OCT19*	28SEP00	From FS - Completion of Required AS Support
AS677A	From FS - Completion of Required AS Support	28SEP00		From FS - Completion of Required AS Support
AS678	PROVIDE 222-S SUPPORT TO PFP DEACTIVATION	01OCT19*	13NOV06	From FS - Completion of Required AS Support
AS678A	From FS - Completion of Required AS Support	13NOV06		
AS679	PROVIDE 222-S SUPPORT TO PFP STABILIZATION	01OCT19*	31MAY02	From FS - Completion of Required AS Support
AS679A	From FS - Completion of Required AS Support	31MAY02		
AS680	PROVIDE 222-S SUPPORT TO PFP VAULT MANAGEMENT	01OCT19*	01OCT03	From FS - Completion of Required AS Support
AS680A	From FS - Completion of Required AS Support	01OCT03		
AS681	PROVIDE 222-S SUPPORT TO K BASIN PROJECT	01OCT19*	30DEC05	

Sheet 12.2.12

WASTE MANAGEMENT HANFORD
PBS WM03, 04, 05 & 06
SITE MASTER BASELINE SCHEDULE

Project Start: 01OCT19

Project Finish: 30DEC05

Activity Start: 01OCT19

Activity Finish: 30DEC05

Legend:

- Activity
- Project Start
- Project Finish
- Activity Start
- Activity Finish

A.3-15

Activity ID	Activity Description	Early Start	Early Finish	
WSCF LABS/OPS				
AS521B	From SW - Operate RMW Trenches - Disposal		30SEP48	
AS525	PROVIDE WSCF SUPP TO 300 AREA REVITALIZATION	01OCT97*	28SEP07	
AS525A	From FS - Completion of Required AS Support		28SEP07	
AS530	SHIP WSCF MIXED WASTE TO CWC	01OCT98	30SEP48	
AS530A	To SW - Receive Waste from all On-Site Generators		30SEP48	
AS530B	From SW - Operate RMW/CWC Storage		30SEP48	
AS535	SHIP WSCF LLR WASTE TO BURIAL GROUND	01OCT98	30SEP48	
AS535A	To SW - Receive Waste from all On-Site Generators		30SEP48	
AS570	WSCF MAJOR UPGRADE	01OCT24*	30SEP25	
AS580	WSCF Deactivation	01OCT47*	30SEP48	
AS580A	To ER - WSCF		30SEP48	
Commercial Labs Ops & Maint				
Commercial Laboratory				
ASA11	PROVIDE COMMERCIAL LAB SUPP. TO 300 AREA TDF	01OCT97*	23MAR26	
ASA11A	From LW - 310 Facility Operations (TDF)		23MAR26	
ASA12	PROVIDE COMMERCIAL LAB SUPP. SPENT NUCLEAR FUELS	01OCT97*	28SEP01	
ASA13	PROVIDE COMMERCIAL LAB SUPP. LL BURIAL GROUNDS	01OCT99*	30SEP48	
ASA13A	From SW - Operate LLW Burial Grounds		30SEP48	
ASA14	PROVIDE COMM. LAB SUPP. RAD MIXED WASTE TRENCHES	01OCT99*	30SEP48	

Project Name Project No. Date Page No.	AS521B 30SEP48 01OCT97 28SEP01	Early Start Project Start Completion Date	Y/N/A Y/N/A Y/N/A	Date: 10-1-97
WASTE MANAGEMENT HANFORD PBS WM03, 04, 05 & 06 SITE MASTER BASELINE SCHEDULE				

Activity ID	Activity Description	Early Start	Early Finish	Activity ID	Activity Description	Early Start	Early Finish
Commercial Laboratory							
ASA14A	From SW - Operate RMW/CWC Storage		30SEP48	FX01	FX04	FX07	FX10
ASA14B	From SW - Operate RMW Trenches - Disposal		30SEP48	FX11	FX13	FX15	FX18
ASA30	PROVIDE COMM. SUPP 100 AREA REMEDIAL ACTIONS	01OCT97*	30SEP13	FX19	FX22	FX25	FX28
ASA30A	From ER - 100 Area Remedial Actions		30SEP13	FX29	FX31	FX34	FX37
ASA31	PROVIDE COMM. SUPP. 200 AREA REMEDIAL ACTIONS	01OCT97*	30SEP30	FX38	FX41	FX44	FX47
ASA31A	From ER - 200 Area Remedial Actions		30SEP30	FX48	FX51	FX54	FX57
ASA32	PROVIDE COMM. SUPP. 300 AREA REMEDIAL ACTIONS	01OCT97*	30SEP13	FX58	FX61	FX64	FX67
ASA32A	From ER - 300 Area Remedial Actions		30SEP13	FX68	FX71	FX74	FX77
ASA35	PROVIDE COMM. LAB SUPP - 300 AREA REVITALIZATION	01OCT97*	28SEP07	FX78	FX81	FX84	FX87
ASA35A	From FS - Complete of Required FS Support		28SEP07	FX88	FX91	FX94	FX97
ASA36	PROVIDE COMM. LAB SUPP TO K BASIN PROJECT	01OCT97*	30DEC05	FX98	FX101	FX104	FX107
ASA36A	From FS - Complete of Required FS Support		30DEC05	FX108	FX111	FX114	FX117

From SW - Operate RMW/CWC Storage

From SW - Operate RMW Trenches - Disposal

PROVIDE COMM. SUPP 100 AREA REMEDIAL ACTIONS

From ER - 100 Area Remedial Actions

PROVIDE COMM. SUPP. 200 AREA REMEDIAL ACTIONS

From ER - 200 Area Remedial Actions

PROVIDE COMM. SUPP. 300 AREA REMEDIAL ACTIONS

From ER - 300 Area Remedial Actions

PROVIDE COMM. LAB SUPP - 300 AREA REVITALIZATION

From FS - Complete of Required FS Support

PROVIDE COMM. LAB SUPP TO K BASIN PROJECT

From FS - Complete of Required FS Support

SV1324

01OCT97
30SEP13
28SEP07
30DEC05

Early Start
Project Bar
Critical Activity

Print/Plot
Paper/Sheet
Scale
Rev/Date

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WASTE MANAGEMENT HANFORD
PBS WM03, 04, 05 & 06
SITE MASTER BASELINE SCHEDULE

Sheet 12 of 13



HNF-SP-1229

Rev. 1

Waste Management Project
WBS 1.2

FY1998

September 26, 1997

A.4.0 Cost Baseline

FY1998

September 26, 1997

4.1 Estimate Basis

The Waste Management project cost estimates were prepared and documented in accordance with HNF-PR-000585, Cost Estimating. The activity-based cost (ABC) estimating method was used for 100 percent of the project dollars. ABC techniques used include analogy, definitive, parametric, and trend analysis. Planning rates and escalation used are consistent with those developed by the FDH Chief Financial Officer and approved by the DOE-RL. Resource loaded schedules are traceable to the cost estimate packages.

Cost estimates for FY 1998 and FY 1999 were prepared at the task level or lower. At a minimum, cost estimates for years FY 2000 through FY 2006 were prepared at the financial data system (FDS) activity level. After FY 2006, the cost estimates were prepared at the FDS end function level.

Final cost estimate packages contain the following: (Note: All are required per HNF-PR-000585, Cost Estimating.)

- Technical scope
- Purpose of the project
- Assumptions and exclusions
- Estimate work breakdown structure
- Technique and historical basis
- Cost estimating relationship (CER) development
- Labor rates, unit rates, and unit cost sources
- Escalation amounts and sources
- Contingency calculation development (if applicable)
- Legal drivers
- Labor costs
- Technical logic diagram
- Integrated, logic driven, resource loaded schedules
- Responsibility assignment matrix
- Other costs that will be reflected in the budget for the particular project or program

Final cost estimate packages are located in MO278, Room A133, 200 West Area.

EXHIBIT 1a

PROJECT WBS: 1.2

(\$000\$)

HNF-SP-1229, Rev. 1

PBS TITLE	PBS NO	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	SUBTOT FY1997- FY2006
	RL-WM03	30,970	31,716	31,545	22,344	27,340	27,331	28,087	28,823	34,823	49,848	312,627
	RL-WM04	42,886	29,732	25,471	78,102	87,728	105,606	91,206	80,628	91,920	93,552	728,841
	RL-WM05	37,359	31,860	31,689	38,267	35,453	39,594	38,930	36,833	39,159	42,453	371,597
	RL-WM06	31,227	28,391	27,132	36,031	38,673	38,974	38,992	39,013	39,034	39,053	356,520
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TOTAL BCWS/PMB¹		142,442	121,699	115,937	174,744	189,194	211,505	197,215	185,297	204,736	224,916	1,787,595

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

(Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is **NOT** Included.

WASTE MANAGEMENT PROJECT
SUMMARY OF LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

EXHIBIT 1a

Page 2 of 2

9/23/97

PROJECT WBS : 1.2		(0000's)																		
PBS TITLE	PBS NO	FY2007- FY2010		FY2011- FY2015		FY2016- FY2020		FY2021- FY2025		FY2026- FY2030		FY2031- FY2035		FY2036 FY2040		FY2041- FY2045		FY1997- FY2050		TOTAL
SOLID WASTE STORAGE/DISPOSAL	RL-WM03	151,211	263,158	174,805	174,805	174,805	174,805	174,805	174,805	174,805	174,805	174,805	15,790	15,790	15,790	15,790				1,473,586
SOLID WASTE TREATMENT	RL-WM04	196,344	216,900	213,570	209,980	207,210	207,210	209,980	207,210	207,210	207,210	137,292	-	-	-	-	-	-	-	1,908,137
LIQUID EFFLUENT	RL-WM05	175,976	215,946	210,507	238,035	230,129	230,129	238,035	230,129	230,129	230,129	265,889	140,273	-	-	-	-	-	-	1,848,252
ANALYTICAL SERVICES	RL-WM06	139,484	175,105	223,605	231,684	148,000	148,000	231,684	148,000	148,000	148,000	146,500	145,000	133,000	130,000	130,000				1,828,898
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Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is **NOT** Included.

WASTE MANAGEMENT PROJECT
LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

(\$000s)

PROJECT WBS:		1,2											SUBTOT
PBS NO:		WM											FY1997-
PBS TITLE:		Waste Management											FY2008
FUND	FUND TYPE	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008
	OPERATING EXPENSE	126,862	114,113	114,223	148,664	160,263	189,284	186,046	178,732	188,529	187,053	1,583,792	
	GENRTC	2,353	1,000	1,100	5,101	3,943	4,982	4,222	4,383	4,332	4,241	38,657	
	GENERAL PLANT PROJECT	3,751	-	-	2,444	1,969	2,733	3,235	2,182	2,220	1,980	20,514	
	LINE ITEM (Not Even Only)												
	W-112	1,793	-	-	-	-	-	-	-	-	-	1,793	
	W-229 RC Closure	-	-	-	-	-	-	-	-	-	-	-	1,793
	Project W-229 Secondary Containment	4,455	4,500	-	-	-	-	-	-	4,269	17,167	-	9,065
	Project W-226 WRAP	933	-	-	-	-	-	-	-	-	-	-	933
	Project W-113 TRU Retrieval	147	-	-	4,999	-	-	-	-	-	-	-	5,096
	W-91 RH Waste	-	-	-	7,960	10,924	-	-	-	-	-	-	18,884
	W-221 Phase II TRU Retrieval	-	-	-	4,636	9,095	13,506	3,709	-	-	-	-	30,946
	W-156 Calsion Retrieval	-	-	-	-	-	-	-	-	-	-	-	19,851
	W-252	2,118	-	-	-	-	-	-	-	5,386	14,475	2,118	-
	W-087, Radioactive Waste Transfer Line	-	-	-	-	-	-	-	-	-	-	-	-
	W-178, 219-S Secondary Containment	-	1,986	514	-	-	-	-	-	-	-	-	-
	W-087-222-S Ancillary Equipment	-	-	-	1,000	3,000	1,000	-	-	-	-	-	-
	W-xxx, 222-S Major Upgrade	-	-	-	-	-	-	-	-	-	-	-	-
	W-xxx, WSCF Major Upgrade	-	-	-	-	-	-	-	-	-	-	-	-
	Subtotal Line Items	9,456	6,586	514	18,535	23,019	14,506	3,709	-	9,655	31,642	117,622	-
	TOTAL BCWS/PMB ¹	142,442	121,659	115,937	174,744	189,194	211,505	197,215	185,297	204,736	224,916	1,767,585	
	MGMT RESERVE ²												
	LINE ITEM CONTINGENCY ³												
	OFFSITE TRANSFERS ³												
	Subtotal ⁴												
	TOTAL	142,442	121,659	115,937	174,744	189,194	211,505	197,215	185,297	204,736	224,916	1,767,585	

Note: The information for FY1998 and FY1999 contains the planning and construction costs for the project and beyond contains the Project Baseline Summary guidance.

¹ Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB);

² Expenses Contingency NOT Included.

³ Management Reserve and Line Item Contingency Held by RL.

⁴ Work performed at Sites Other Than Hanford.

WASTE MANAGEMENT PROJECT
LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

(\$000s)

PROJECT WBS:		1.2		WM												TOTAL
PBS NO.:		Waste Man. agement		PBS TITLE:												
FUND	FY2007:	FY2011:	FY2016:	FY2021:	FY2026:	FY2031:	FY2036:	FY2041:	FY2046:	FY2051:	FY2056:	FY2061:	FY2066:	FY2071:	TOTAL	
TYPE	FY2010	FY2015	FY2020	FY2025	FY2030	FY2035	FY2040	FY2045	FY2050	FY2055	FY2060	FY2065	FY2070	FY2075		
OPERATING EXPENSE	593,631	615,704	716,612	737,219	705,179	672,089	287,563	143,250	142,250	6,409,369						
CENRTC	23,364	22,805	22,875	14,765	22,465	21,397	12,000	4,000	2,000	181,398						
GENERAL PLANT PROJECT	31,000	32,500	31,000	32,500	32,500	31,000	1,500	1,500	1,500	215,514						
LINE ITEM (for Each One)																
W-112														1,793		
W-329 BG Closure														21,436		
Project W-259 Secondary Containment														9,065		
Project W-026 WRAP														933		
Project W-113 TRU Retrieval														5,086		
M-91 RH Waste														18,884		
W-221 Phase II TRU Retrieval														30,946		
W-156 Calson Retrieval														34,861		
W-252	15,000													2,118		
W-097, Radioactive Waste Transfer Line																
W-178, 219-S Secondary Containment														2,500		
W-087-222-S Ancillary Equipment																
W-xxx, 222-S Major Upgrade														20,000		
W-xxx, WSCF Major Upgrade														252,622		
Subtotal Line Items	15,000															
TOTAL BCWS/PMB ¹	663,015	671,009	822,487	854,504	760,144	724,486	301,063	148,790	145,790	7,058,873						
MGMT RESERVE ²																
LINE ITEM CONTINGENCY ³																
OFFSITE TRANSFERS ³																
Subtotal ⁴																
TOTAL	663,015	671,009	822,487	854,504	760,144	724,486	301,063	148,790	145,790	7,058,873						

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB);

²Expense Carryover NOT Included.

³Management Reserve and Line Item Contingency Held by RL.

⁴Work Performed at Sites Other Than Hanford.

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH
BY PROJECT BASELINE SUMMARY (PBS)
BY ACTIVITY DATA SHEET (ADS)
EXECUTION YEAR

(\$000s)

PROJECT WBS: 1.2		(\$000US)													
PBS NO: WM		Waste Management													
PBS TITLE: Waste Management															
ADS TITLE	ADS NO	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
Solid Waste	2200-0	OP EXP	3702	2819	3369	3422	3000	3542	3503	3151	3489	3346	3283	7628	44,249
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT	3,702	2,819	3,369	3,422	3,000	3,542	3,503	3,151	3,489	3,346	3,283	7,623	44,249
Waste and Decon Services	2200-0	OP EXP	1,069	826	973	973	863	1,029	1,051	951	1,051	971	971	971	11,689
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT	1,069	826	973	973	863	1,029	1,051	951	1,051	971	971	971	11,689
T Plant Secondary Containment	2200-2	OP EXP	110	76	90	59	52	63	66	58	66	89	89	82	900
		CENRTC	-	-	-	-	-	-	-	-	-	-	-	-	-
		GPP	-	-	-	-	-	-	-	-	-	-	-	-	-
		LI	423	330	385	385	348	403	403	367	401	385	385	385	4,600
		SUBTOT	533	406	475	444	400	466	469	425	467	474	474	467	5,500
Liquid Effluent Project	2300-0	OP EXP	2,281	2,914	2,316	2,433	2,407	3,158	2,526	3,033	2,552	2,296	3,164	2,780	31,860
		CENRTC	-	-	-	-	-	-	-	-	-	-	-	-	-
		GPP	-	-	-	-	-	-	-	-	-	-	-	-	-
		LI	-	-	-	-	-	-	-	-	-	-	-	-	-
		SUBTOT	2,281	2,914	2,316	2,433	2,407	3,158	2,526	3,033	2,552	2,296	3,164	2,780	31,860

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

1 Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is NOT Included.

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH
BY PROJECT BASELINE SUMMARY (PBS)
BY ACTIVITY DATA SHEET (ADS)
EXECUTION YEAR

(\$000s)

(\$000s)

PROJECT WBS: 1.2															
PBS NO: WM															
PBS TITLE: Waste Management															
ADS TITLE	ADS NO	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
LABORATORY OPERATIONS & UPGRADES	7100-3	OP EXP	1,728	2,191	1,788	1,842	1,833	2,457	1,939	2,474	2,107	1,726	2,383	2,162	24,630
		CENRTC	72	92	72	76	76	100	80	96	80	72	100	88	1,000
		GPP	-	-	-	-	-	-	-	-	-	-	-	-	-
		LI	-	-	-	-	-	-	-	-	-	-	-	-	-
		SUBTOT	1,800	2,283	1,860	1,918	1,909	2,557	2,019	2,570	2,187	1,798	2,483	2,250	25,630
RADIOACTIVE WASTE TRANSFER	7100-2	OP EXP	12	15	9	7	-	-	-	-	-	-	-	-	43
		CENRTC	-	-	-	-	-	-	-	-	-	-	-	-	-
		GPP	-	-	-	-	-	-	-	-	-	-	-	-	-
		LI	-	-	-	-	-	-	-	-	-	-	-	-	-
		SUBTOT	12	15	9	7	-	-	-	-	-	-	-	-	43
219-S SECONDARY CONTAINMENT UPGRADE	7100-3	OP EXP	44	56	46	34	61	80	64	77	64	58	80	70	732
		CENRTC	-	-	-	-	-	-	-	-	-	-	-	-	-
		GPP	-	-	-	-	-	-	-	-	-	-	-	-	-
		LI	-	-	-	47	179	257	200	311	150	200	225	417	1,986
		SUBTOT	44	56	46	81	240	337	264	388	214	258	305	487	2,718
TOTAL BCWS/PMB ¹		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT	9,440	9,318	9,048	9,278	8,819	11,089	9,832	10,517	9,960	9,142	10,690	14,578	121,699

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

*Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is NOT Included.

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH BY FUND TYPE BY PROJECT
EXECUTION YEAR
(\$000s)

PROJECT WBS	PROJECT TITLE	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.2	Waste Management	Operating Expense	8,936	8,897	8,592	8,771	8,227	10,320	9,150	9,745	9,330	8,487	9,971	13,688	114,113
		CENRTC	71.7	92	72	76	76	100	80	96	80	72	100	88	1,000
		GPP	0	0	0	0	0	0	0	0	0	0	0	0	0
		Line Item	423	330	385	432	527	660	603	678	551	585	610	802	6,586
		Total BCWS/PMB¹	9,431	9,318	9,049	9,279	8,830	11,080	9,833	10,518	9,961	9,143	10,681	14,578	121,699
		Mgmt Reserve ²													0
		Line Item Contingency ²													0
Total		Offsite Transfers ³													0
			9,431	9,318	9,049	9,279	8,830	11,080	9,833	10,518	9,961	9,143	10,681	14,578	121,699

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

A.4-9

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is Not Included.

²Management Reserve and Line Item Contingency Held By RL

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH BY COST ELEMENT BY PROJECT
EXECUTION YEAR
(\$000s)

PROJECT WBS	PROJECT TITLE	COST ELEMENT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.2	Waste Management	0 Salaries	4,153	4,176	3,974	4,066	3,871	4,787	4,284	4,857	4,377	4,000	4,698	4,393	51,068
		1 Material	355	379	365	372	348	430	370	404	386	353	424	391	4,577
		2 Purchased Serv	500	457	491	496	458	565	532	514	518	472	516	880	6,399
		3 Other Contr Chgs	88	85	84	88	84	103	84	94	94	86	99	92	1,092
		4 Internal Serv	597	638	578	598	575	724	628	682	626	578	714	681	7,623
		5 Internal Chgs	595	650	578	597	584	747	639	705	640	588	737	845	7,904
		6 LMSI	14	13	12	13	13	14	17	14	13	12	14	14	163
		7 Overheads	2,059	2,081	1,984	2,044	1,959	2,445	2,165	2,337	2,198	2,019	2,381	8,330	32,002
		8 Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0
		9 Enterprise Cos	805	732	777	763	809	1,040	916	988	889	869	946	937	10,471
Total BCWS/PMB¹			9,167	9,212	8,844	9,069	8,701	10,855	9,645	10,365	9,743	8,977	10,629	16,563	121,689

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover Is Not Included.

EXHIBIT 4a

PROJECT WBS: 1.2

(\$000)

HNF-SP-1229, Rev. 1

PBS TITLE	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY1997- FY2006	SUBTOT
SOLID WASTE STORAGE/DISPOSAL	RL-WM03	26,631	31,716	31,545	22,344	27,340	27,331	28,087	28,823	34,623	49,848	308,288
SOLID WASTE TREATMENT	RL-WM04	34,862	29,732	25,471	78,102	87,728	105,606	91,206	80,628	91,920	93,562	718,817
LIQUID EFFLUENT PROJECT	RL-WM05	35,289	31,860	31,689	38,267	35,463	39,594	39,930	36,833	39,159	42,453	369,527
ANALYTICAL SERVICES	RL-WM06	29,739	28,905	26,618	36,031	38,673	38,974	38,992	39,013	39,034	39,063	355,032
												-
												-
												-
												-
												-
												-
												-
												-
TOTAL NEW B/A		126,521	122,213	115,323	174,744	189,194	211,505	197,215	185,297	204,736	224,916	1,751,664

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

EXHIBIT 4a

9/23/97

Page 2 of 2

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Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

WASTE MANAGEMENT PROJECT
LIFE CYCLE BUDGET AUTHORITY (B/A) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

(\$000s)

PROJECT WBS: 1.2		SUBTOT											
PBS NO.: WM		FY1997- FY2006											
PBS TITLE: Waste Management													
FUND	FUND TYPE	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006		
	OPERATING EXPENSE	118,668	114,112	114,223	148,664	160,263	189,284	185,049	178,732	188,549	187,053	1,585,597	
	CENRTC	1,380	1,000	1,100	5,101	3,943	4,982	4,222	4,383	4,332	4,241	34,684	
	GENERAL PLANT PROJECT	2,473	-	-	2,444	1,969	2,733	3,235	2,182	2,200	1,980	19,216	
LINE ITEM (List Each One)													
	W-329 BG Closure	-	-	-	-	-	-	-	-	4,269	17,167	21,436	
	Project W-259 Secondary Containment	4,000	4,600	-	-	-	-	-	-	-	-	8,600	
	W-91 RH Waste	-	-	-	7,980	10,924	-	-	-	-	-	18,884	
	W-221 Phase II Retrieval	-	-	-	4,636	9,095	13,506	3,709	-	-	-	30,946	
	W-113 TRU Retrieval	-	-	-	4,939	-	-	-	-	5,386	14,475	24,800	
	W-158 Caisson Retrieval	-	-	-	-	-	-	-	-	-	-	-	
	W-178, 219-S Secondary Containment	-	2,500	-	-	-	-	-	-	-	-	2,500	
	W-367, 222-S Ancillary Equipment	-	-	-	1,000	3,000	1,000	-	-	-	-	5,000	
	W-xxx, 222-S Major Upgrades	-	-	-	-	-	-	-	-	-	-	-	
	W-xxx, WSCF Major Upgrades	-	-	-	-	-	-	-	-	-	-	-	
	Subtotal Line Items	4,000	7,100	-	18,535	23,019	14,506	3,709	-	9,655	31,642	112,166	
	TOTAL NEW B/A	126,521	122,212	115,323	174,744	189,194	211,505	197,215	185,297	204,736	224,916	1,751,663	

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

PROJECT WBS: 1.2		Waste Management										TOTAL	
PBS NO: WM		PBS TITLE:											
FUND	FY2007- FY2010	FY2011- FY2015	FY2016- FY2020	FY2021- FY2025	FY2026- FY2030	FY2031- FY2035	FY2036- FY2040	FY2041- FY2045	FY2046- FY2050				
TYPE													
OPERATING EXPENSE	595,595	734,693	718,612	737,219	705,179	672,089	287,563	143,290	142,290				
CENRTC	22,575	27,910	22,875	14,785	22,465	21,397	12,000	4,000	2,000	184,591			
GENERAL PLANT PROJECT	25,400	32,500	31,000	32,500	32,500	31,000	1,500	1,500	1,500	208,616			
LINE ITEM (List Each One)													
W-329 BG Closure	4,345	75,906	-	-	-	-	-	-	-	101,687			
Project W-259 Secondary Containment										8,600			
M-91 RH Waste										18,884			
W-221 Phase II Retrieval										30,946			
W-113 TRU Retrieval	15,000	-	-	-	-	-	-	-	-				
W-156 Caisson Retrieval													
W-178, 219-S Secondary Containment													
W-387, 222-S Ancillary Equipment			50,000	50,000	-	-	-	-	-				
W-xxx, 222-S Major Upgrades	-	-	50,000	-	-	-	-	-	-				
W-xxx, WSCF Major Upgrades	-	-	-	20,000	-	-	-	-	-				
Subtotal Line Items	19,345	75,906	50,000	70,000	-	-	-	-	-	327,417			
TOTAL NEW B/A	663,015	871,009	822,487	854,504	760,144	724,486	301,063	146,790	145,790	7,042,951			

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

Waste Management Project
3 DIGIT CONTRACTOR IDENTIFIER-PR-WM12

Revision 0

AVERAGE ANNUAL FULL TIME EQUIVALENTS

(includes Major Subcontractors but not Enterprise Companies)

PHBS 1.2

Submittal Date: 8/29/97

PBS Number	PBS Title	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Solid Waste											
Storage and											
RL-WM03	Disposal	170	156	156	156	156	156	156	156	156	156
	Solid Waste										
RL-WM04	Treatment	187	182	182	182	182	182	182	182	182	182
	Liquid Effluents	208	208	208	208	208	208	208	208	208	208
RL-WM05	Analytical										
RL-WM06	Services	165	161	192	192	193	188	187	185	185	185

Total PBS FTEs

729

734

731

731

731

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

FY1998

September 26, 1997

A.4.2 Unfunded Workscope

FY 1998 Priorities

(Pricing as of 8/11/97)

FY 1998 FY 1998

<u>Unit of Analysis Description</u>		<u>\$ Cum.</u>	<u>Comments</u>
Unfunded Essential Services (In Priority Order)			
2706-T Operations	41.0	294.0	A joint meeting was held between HUCR, TWRS and Waste Management. It was jointly agreed that the three unfunded items listed in essential services would be funded by 1997 carryover or with FY1998 TWRS funding transfer.
Laboratory Sample Management	564.0	858.0	
Fee	775.0	1633.0	
Other Unfunded Activities (In Priority Order)*			
Miscellaneous Streams	300.0	1933.0	Minimum required to meet consent order
WRAP Operations - 1st Increment	2200.0	4133.0	Minimum required to meet 12/98 TPA
TRU Retrieval Redesign Study	100.0	4233.0	Minimum required to meet intent of TPA
Backlog Sample Waste Returns (1st Incr)	400.0	4633.0	Demonstrates good faith; avoids lawsuit
222-S Safety Maintenance	730.0	5363.0	222-S roof repairs, other safety maintenance
Integrated Safety Management Plan Impl.	350.0	5713.0	Initiate implementation of ISMP
WSCF Privatization	100.0	5813.0	Minimum required to pursue privatization
Chemical Safety Analysis		5813.0	Scope/cost undefined; PFP outfall
QAPP Implementation	200.0	6013.0	Scope/cost undefined; awaiting FDH guidance
616 Transition	49.0	6062.0	Significantly reduces future 616 costs
Communication Upgrade	262.0	6324.0	Resolves rad con safety issue
SWITS Upgrade	320.0	6644.0	
HATS Replacement		6644.0	Scope/cost undefined; awaiting FDH guidance
WRAP Operations - Second Increment	1082.0	7726.0	Enables full operations in FY 1998
Lab Consolidation (1st Increment)	1181.0	8907.0	Implements lab integration plan
Computer Replacements	400.0	9307.0	Systematic replacement of obsolete PCs
HGET Update for Field Training	170.0	9477.0	Efficiency improvement
Lab Consolidation (2nd Increment)	1000.0	10477.0	Implements lab integration plan
NUMATEC mgt support	300.0	10777.0	
LLBG/CWC Records Management	150.0	10927.0	Document scanning support
TSCA Disposal in LLBG	31.0	10958.0	Efficiency improvement
NUMATEC technology Development	300.0	11258.0	Improved sample analysis technology
Integrated Safety Mgmt Plan (2nd Incr)	500.0	11758.0	
Leachate Tankers for RMW Trench	209.0	11967.0	Enables RMW Trench operation
340 Shutdown Support	200.0	12167.0	
Lg-Size TRU Treatment	300.0	12467.0	Supports TPA M-91
Lg-Size TRUM Treatment	500.0	12967.0	Supports TPA M-91
SLIC/WIC Enhancements	565.0	13532.0	Chemical management system
Numatec Management Support	238.0	13770.0	
Numatec Technology Development	468.0	14238.0	
LABCORE Software Enhancements	101.0	14339.0	
222-S Life Extensions	1677.0	16016.0	
222-S General Upgrades	2428.0	18444.0	
Lab Consolidation (3rd Increment)	1000.0	19444.0	
WSCF General Upgrades	560.0	20004.0	
ERP Upgrades (Financial Module)	200.0	20204.0	WMH Support Costs
TRUSAF Transition	1183.0	21387.0	

* NOTE: The "Other Unfunded Activities" are authorized for execution as cost underruns are achieved.

FY1998

September 26, 1997

A.5.0 Performance Measures/Matrix

This section will be provided at a later date.

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B.1 Solid Waste Storage & Disposal (RL-WM03)

B.1.1.0 Solid Waste Storage & Disposal Technical Baseline (RL-WM03)

B.1.1.1 Solid Waste Storage & Disposal Organization Mission (RL-WM03)

Solid Waste Storage and Disposal provides centralized facilities for the storage of solid radioactive low-level mixed waste (LLMW) and transuranic (TRU) wastes and the disposal of solid radioactive low-level waste (LLW) (excluding high-level and sanitary wastes) for onsite and offsite generators. This includes the management, operations, surveillance, monitoring, and maintenance of facility buildings, burial grounds, and current waste inventories. Additionally, Solid Waste Storage and Disposal manages the receipt and storage or disposal of newly generated wastes from onsite and offsite generators. The Solid Waste Storage and Disposal goal is to achieve the mission in a compliant and safe manner. The primary near term goals of this project are: (a.) Provide safe, compliant facility conditions in preparation of receipt of LLW, LLMW, and TRU wastes from onsite and offsite generators. (b.) Provide receipt, waste verification, and Toxic Substances Control Act (TSCA) and Resource Conservation and Recovery Act (RCRA) compliant storage of solid radioactive LLMW and TRU waste until treatment and disposal occurs. (c.) Provide receipt, waste verification, and disposal of solid radioactive LLW in the RCRA compliant burial grounds. (d.) Provide direct offsite shipment services for treatment and disposal of non-radioactive dangerous wastes. (e.) Provide storage, receipt, and disposal of treated solid radioactive LLMW in the Mixed Waste Disposal Trenches. (f.) Interface with project RL-WM04 (Solid Waste Treatment) for the treatment of solid radioactive LLMW and the treatment, repackaging, and certification of TRU wastes for shipment to the Waste Isolation Pilot Plant (WIPP).

B.1.1.2 Solid Waste Storage & Disposal End Point Targets from Hanford Strategic Plan

B.1.1.2.1 Solid Waste Storage & Disposal Principal End Point Targets

- Spent fuels (TRIGA and light water reactor) and applicable FFTF fuels removed from 400 Area interim storage area to 200 Area.
- Contaminated media from soil sites in the south 600 area will be consolidated and moved to the 200 Area for disposal.
- Transition high cost surplus facilities in the central plateau and south 600 areas to a low cost, stable, deactivated condition.
- Complete final disposition of remaining unirradiated uranium inventories in the south 600 area facilities by disposition offsite or disposal as LLW in 200 Area.
- Retrievably stored TRU waste retrieved, processed, shipped offsite to WIPP.
- Low level and low level mixed waste from onsite and offsite sources (including PNNL special case wastes) will continue to be disposed of in the 200 Area.

B.1.1.2.2 Solid Waste Storage & Disposal Supported End Point Targets

- Spent fuel removed and K-Basins cleaned sufficient to transition to D&D.

WBS 1.2

- Spent fuels consolidated in the 200 Area in safe, stable, cost-effective interim storage pending national decisions on their ultimate disposition.
- Spent fuels (light water reactor) removed to interim storage in 400 Area pending availability of 200 Area interim storage.
- Drain, decontaminate, and stabilize K-Basins Facility.
- Provide safe, stable, interim storage for nuclear materials in the 200 Area pending decisions on their ultimate disposition.
- Continue to provide safe storage for Cs/Sr capsules in the WESF indefinitely.
 - (1) WESF decoupled and a standalone facility.
- Transition the PUREX facility and B-Plant to low cost, stable, deactivated condition.
- Complete stabilization of plutonium in PFP (DNFSB 94-1 implementation).
- Transition the 324/327 Buildings to a low cost, stable, deactivated condition and disposition their nuclear materials (including 324 Building radioactive tank wastes).
- Dismantle, or close through entombment, D&D facilities in the central plateau areas currently assigned to the ER program.
- Reuse facilities in the south 600 area for economic diversification where feasible.
- Retrieve tank wastes to the extent needed for tank closure, divide into high level and low activity fractions and immobilize.
- The high level immobilized fraction will be interim stored until it can be shipped offsite for disposal (planned for the Yucca Mountain geologic repository).
- For Cs/Sr capsules declared waste, send to Yucca Mountain for HLW repository disposal.

B.1.1.3 Solid Waste Storage & Disposal Major Facilities

B.1.1.3.1 Central Waste Complex Facility

B.1.1.3.1.1 Central Waste Complex Facility Description

The Central Waste Complex includes the Radioactive Mixed Waste Storage Facility and the Waste Receiving and Processing Facility.

The Radioactive Mixed Waste Storage Facility currently consists of the following:

- Plutonium/Polychlorinated Biphenyl Mixed Waste Storage Building
- Low-Flash-Point Mixed Waste Storage Modules
- Radioactive and/or Mixed Waste Storage Buildings
- Large Mixed-Waste Storage Facility, Phases I-IV
- Waste Receiving and Staging Area

WBS 1.2

- Mixed-Waste Storage Pad
- 2727-W Product Sodium Storage Building
- Isotopic Heat Storage

B.1.1.3.1.2 Central Waste Complex Facility Technical Logic:

The technical logic for the Central Waste Complex (CWC) is captured in the functional flow block diagram which shows the functions performed for each applicable life cycle phase of the CWC and the sequence in which the functions are executed.

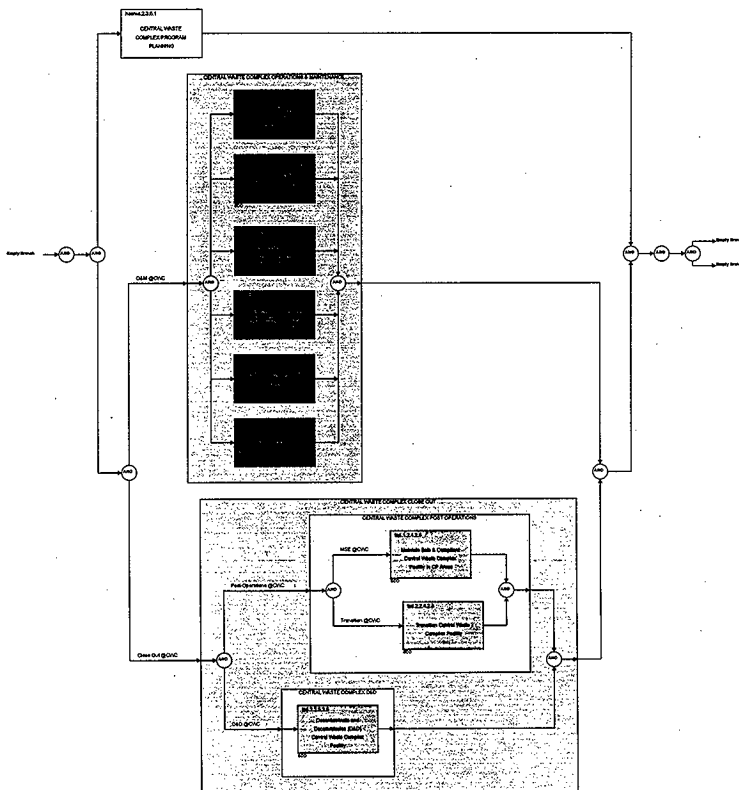


Figure B-1 CENTRAL WASTE COMPLEX

B.1.1.3.1.3 Central Waste Complex Requirements and Life Cycle Function Descriptions**Requirements:**

- Comply with requirements identified in WHC-IP-1120, Standards/Requirements Identification Document (S/RID).
- Container contents of newly generated waste shall be inspected to verify waste contents.
- Contents of "unknown" or "backlog" wastes shall be inspected to provide segregation and ensure compliant packaging of waste.
- Solid waste shall be stored in a safe and compliant manner prior to shipment to an approved treatment and/or disposal site.
- (b)(3) Mixed transuranic waste shall be treated, where feasible and practical, to destroy the hazardous waste component.
- Central Plateau high cost surplus facilities shall be transitioned to a low cost, stable, deactivated condition
- Central Plateau inactive facilities shall be maintained within the approved safety envelope
- Low level mixed waste from offsite sources shall be received in the 200 area
- Low level waste from offsite sources shall be received in the 200 area
- Onsite interim safe, stable storage of nuclear materials shall be provided.
- Immobilized low activity waste interim storage facility shall be provided
- TRIGA reactor materials shall be moved to the Central Plateau interim storage
- TRU waste packaged for final disposition shall be interim stored in the Central Plateau
- TRU shipments from offsite for onsite interim storage shall be reinstated
- Offsite TRU wastes shall be interim stored in the Central Plateau.
- Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing prior to disposal of all Hanford Site Post 1970 TRU/TRUM

Due Date: TBD But No Later Than 12/31/2000

Life Cycle Function Descriptions:**B.1.1.3.1.3.1 CENTRAL WASTE COMPLEX PROGRAM PLANNING WORK SCOPE SUMMARY**

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.1.1.3.1.3.2 CENTRAL WASTE COMPLEX OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

CENTRAL WASTE COMPLEX OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.1.1.3.1.3.3 Receive and Dispose Low Level Waste

Receive and verify low level waste package. Transfer accepted low level waste package to disposal.

B.1.1.3.1.3.4 Receive and Store Low Level Mixed Waste

Receive and store low level mixed solid waste. Stored waste will be staged to mixed waste treatment facilities on site and off site.

B.1.1.3.1.3.5 Receive and Store TRU/TRUM Waste

Provide consolidated storage for existing TRU/TRUM waste on Site. Receive new TRU/TRUM waste and place in storage to stage for treatment.

B.1.1.3.1.3.6 Store Greater than Category 3 Low Level Solid Waste

Upon receipt of Greater than Category 3 Low Level Solid (GTC3 LLS) waste, provide safe and compliant storage for this waste. The transfer of the stored GTC3 LLS waste to the Disposition Function will be invoked by formal agreement of the Receiving Entity.

B.1.1.3.1.3.7 Store Low Level Mixed Waste

Upon receipt of Low Level Mixed Waste (LLMW), provide safe and compliant storage for this waste. The transfer of the stored LLMW to the Disposition Function will be invoked by formal agreement of the Receiving Entity.

B.1.1.3.1.3.8 Store TRIGA Fuel

Store the TRIGA fuel pending DOE ROD on ultimate disposition.

B.1.1.3.1.3.9 CENTRAL WASTE COMPLEX POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

CENTRAL WASTE COMPLEX POST OPERATIONS SPECIFIC FUNCTIONS

B.1.1.3.1.3.10 Maintain Safe & Compliant Central Waste Complex Facility in CP Areas

Maintain the CWC facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.1.1.3.1.3.11 Transition Central Waste Complex Facility

Initiate the transition phase of decontamination and decommissioning for the Central Waste Complex Facility

B.1.1.3.1.4 Central Waste Complex Boundary Diagram

Table B.1-1 Central Waste Complex Boundary Diagram

External Interfaces - Ames Laboratory - Argonne National Laboratory - East - Bates Accelerator - Massachusetts - Battelle Columbus Laboratories - Bettis Atomic Power - Laboratory - Bettis Atomic Power - Shipyards - Brookhaven National Laboratory - FERMI National Accelerator Laboratory - General Atomics - Hanford Legacy - Knolls Atomic Power - Laboratory - Knolls Atomic Power - Shipyards - Lawrence Berkeley Laboratory - Paducah Energy Systems - Pearl Harbor Naval Shipyards - Potomac Energy Systems - Princeton Plasma Physics Laboratory - Puget Sound Naval Shipyards - Rockwell - Canoga Park - Rockwell - Rocky Flats - Stanford Linear Accelerator Center - University of California - Davis - University of Utah Hanford Site Environmental System Interfaces - hsems.1.1.2 Reactors on the River Soil Site Operable Units - hsems.1.2.1 100 K Area Facilities - hsems.2.2.3 LAW Treatment Facility, Phase II - hsems.2.2.4 HLW Treatment Facility, Phase II - hsems.2.2.6 Plutonium-Uranium Extraction Plant - hsems.2.2.7 B Plant - hsems.2.2.8 Waste Encapsulation and Storage Facility - hsems.2.2.9 Plutonium Finishing Plant - hsems.2.2.10 Reduction-Oxidation Plant - hsems.2.2.11 Uranium Oxide Plant - hsems.2.2.12 T-Plant Facility - hsems.2.2.14 M-91 Facility - hsems.2.2.17 200 Area Effluent Treatment Facility - hsems.2.3.1 Single Shell Tank (SST) System - hsems.2.3.2 Double Shell Tank (DST) System - hsems.2.3.9 Transuranic Storage and Assay Facility - hsems.2.3.10 IHLW Storage Modules, Phase II - hsems.2.5.1 222-S Laboratory - hsems.2.5.2 Waste Sampling and Characterization Facility - hsems.2.5.4 Central Plateau Water System - hsems.2.5.5 Central Plateau Office Facilities - hsems.2.5.6 Central Plateau Electrical System - hsems.2.5.8 Central Plateau Telecommunication System - hsems.2.5.9 Central Plateau Shop Facilities - hsems.2.5.10 Central Plateau Storage Support Facilities - hsems.2.5.13 Central Plateau Road System - hsems.4.2.1 300 Area Treated Effluent Disposal Facility - hsems.4.2.5 Thermal Treatment Facility - hsems.4.2.6 Low-Level Mixed Waste Stabilization Facility - hsems.4.3.1 Fast Flux Test Facility - hsems.4.3.2 300 Area Fuel Supply System - hsems.4.3.4 309 Building - hsems.4.6.1 324 Building - hsems.4.6.4 327 Building - hsems.4.6.8 320 / 3720 / 3745 - hsems.4.7.1 331 Complex	External Interfaces - Hazardous Waste Disposal Contracts Hanford Site Environmental System Interfaces - hsems.2.2.14 M-91 Facility - hsems.2.2.15 WRAP Module 1 - hsems.2.4.1 Low-Level Waste Burial Grounds - hsems.2.4.2 Mixed Waste Disposal Trenches - hsems.2.5.1 222-S Laboratory - hsems.2.5.2 Waste Sampling and Characterization Facility - hsems.4.2.5 Thermal Treatment Facility - hsems.4.2.6 Low-Level Mixed Waste Stabilization Facility

B.1.1.3.1.5 Central Waste Complex Interface Description and Forecast

EXTERNAL INPUTS

Table B.1-2 External Inputs for Central Waste Complex

Stream	Category	Period	Baseline	Units
X Ames Laboratory AMES, CH-TRUM <i>CH TRUM Transferred by Ames Laboratory.</i> AMES, CH-LLW-I <i>CH LLW I Transferred by Ames Laboratory.</i> AMES, CH-TRU <i>CH TRU Transferred by Ames Laboratory.</i>	CH TRUM CH LLW I CH TRU	2004 - 2064 1997 - 2070 2004 - 2064	0.294 129.0 0.294	cubic meters cubic meters cubic meters
X Argonne National Laboratory - East ANL E, RH-LLW-III <i>RH LLW III Transferred by Argonne National Laboratory - East.</i> ANL E, CH-LLW-I <i>CH LLW I Transferred by Argonne National Laboratory - East.</i> ANL E, CH-LLW-III <i>CH LLW III Transferred by Argonne National Laboratory - East.</i>	RH LLW III CH LLW I CH LLW III	1997 - 2070 1997 - 2070 1997 - 2070	19.0 18600 1370	cubic meters cubic meters cubic meters
X Bates Accelerator - Massachusetts MIT BATES, CH-LLW-I <i>CH LLW I Transferred by Bates Accelerator - Massachusetts.</i>	CH LLW I	2000 - 2030	34.1	cubic meters
X Battelle Columbus Laboratories BAT CLBS LAB, CH-LLW-I <i>CH LLW I Transferred by Battelle Columbus Laboratories.</i> BAT CLBS LAB, CH-LLMW-I <i>CH LLMW I Transferred by Battelle Columbus Laboratories.</i> BAT CLBS LAB, CH-LLW-III <i>CH LLW III Transferred by Battelle Columbus Laboratories.</i>	CH LLW I CH LLMW I CH LLW III	1997 - 2003 1997 - 2001 1997 - 2003	442.0 8.0 590.0	cubic meters cubic meters cubic meters
X Bettis Atomic Power - Laboratory BAPL, CH-LLW-I <i>CH LLW I Transferred by Bettis Atomic Power - Laboratory.</i> BAPL, CH-LLW-III <i>CH LLW III Transferred by Bettis Atomic Power - Laboratory.</i>	CH LLW I CH LLW III	1997 - 2009 1997 - 2009	76.3 131.0	cubic meters cubic meters
X Bettis Atomic Power - Shipyards BAPL, SHIPYDS, CH-LLW-I <i>CH LLW I Transferred by Bettis Atomic Power - Shipyards.</i>	CH LLW I	2012 - 2012	1.2	cubic meters
X Brookhaven National Laboratory BRKHVN, CH-LLW-I <i>CH LLW I Transferred by Brookhaven National Laboratory.</i> BRKHVN, RH-LLW-I <i>RH LLW I Transferred by Brookhaven National Laboratory.</i>	CH LLW I RH LLW I	1997 - 2016 1998 - 2016	2980 110.0	cubic meters cubic meters
X FERMIL National Accelerator Laboratory FERMI, CH-LLW-I <i>CH LLW I Transferred by FERMIL National Accelerator Laboratory.</i>	CH LLW I	1997 - 2027	1510	cubic meters
X General Atomics GEN ATOM, CH-LLW-III <i>CH LLW III Transferred by General Atomics.</i> GEN ATOM, CH-LLW-I <i>CH LLW I Transferred by General Atomics.</i> GEN ATOM, CH-LLMW-I <i>CH LLMW I Transferred by General Atomics.</i> GEN ATOM, RH-LLW-III <i>RH LLW III Transferred by General Atomics.</i>	CH LLW III CH LLW I CH LLMW I RH LLW III	1997 - 1999 1997 - 1999 1997 - 1998 1997 - 1997	40.8 617.0 7.19 0.75	cubic meters cubic meters cubic meters cubic meters
X Knolls Atomic Power - Laboratory KAPL, CH-LLMW-III <i>CH LLMW III Transferred by Knolls Atomic Power - Laboratory.</i> KAPL, CH-LLMW-I <i>CH LLMW I Transferred by Knolls Atomic Power - Laboratory.</i> KAPL, RH-LLMW-I <i>RH LLMW I Transferred by Knolls Atomic Power - Laboratory.</i>	CH LLMW III CH LLMW I RH LLMW I	2001 - 2001 1998 - 2001 1997 - 1997	0.726 12.1 4.6	cubic meters cubic meters cubic meters
X Knolls Atomic Power - Shipyards KAPL SHIPYDS, CH-LLW-III <i>CH LLW III Transferred by Knolls Atomic Power - Shipyards.</i> KAPL SHIPYDS, CH-LLW-I <i>CH LLW I Transferred by Knolls Atomic Power - Shipyards.</i>	CH LLW III CH LLW I	2001 - 2004 1998 - 2000	237.0 81.0	cubic meters cubic meters

Table B.1-2 External Inputs for Central Waste Complex (Continued)

Stream	Category	Period	Baseline	Units
X Lawrence Berkeley Laboratory LBL, CH-TRU <i>CH TRU Transferred by Lawrence Berkeley Laboratory.</i> LBL, CH-LLW-I <i>CH LLW I Transferred by Lawrence Berkeley Laboratory.</i>	CH TRU CH LLW I	2000 - 2000 1997 - 2030	1.0 11500	cubic meters cubic meters
X Paducah Energy Systems PADUCAH ES, CH-LLW-III <i>CH LLW III Transferred by Paducah Energy Systems.</i> PADUCAH ES, CH-LLW-I <i>CH LLW I Transferred by Paducah Energy Systems.</i> PADUCAH ES, CH-LLMW-I <i>CH LLMW I Transferred by Paducah Energy Systems.</i>	CH LLW III CH LLW I CH LLMW I	1997 - 1997 1997 - 1997 1998 - 1998	68.0 68.0 23.0	cubic meters cubic meters cubic meters
X Pearl Harbor Naval Shipyard PEARL HARBOR, CH-LLMW-I <i>CH LLMW I Transferred by Pearl Harbor.</i>	CH LLMW I	2000 - 2001	4.84	cubic meters
X Portsmouth Energy Systems PORTSMOUTH NS, CH-LLMW-I <i>CH LLMW I Transferred by PORTSMOUTH NS</i> PORTSMOUTH ES, CH-LLW-I <i>CH LLW I Transferred by Portsmouth Energy Systems.</i> PORTSMOUTH ES, CH-LLW-III <i>CH LLW III Transferred by Portsmouth Energy Systems.</i>	CH LLMW I CH LLW I CH LLW III	2000 - 2001 1997 - 1999 1997 - 1997	1.21 574.0 300.0	cubic meters cubic meters cubic meters
X Princeton Plasma Physics Laboratory PRINCETON, CH-LLMW-I <i>CH LLMW I Transferred by Princeton Plasma Physics Laboratory.</i> PRINCETON, CH-LLW-I <i>CH LLW I Transferred by Princeton Plasma Physics Laboratory.</i>	CH LLMW I CH LLW I	1997 - 2025 1997 - 2025	58.0 4030	cubic meters cubic meters
X Puget Sound Naval Shipyard PUGET SOUND, CH-LLMW-I <i>CH LLMW I Transferred by Puget Sound.</i>	CH LLMW I	2000 - 2001	27.5	cubic meters
X Rockwell - Canoga Park RKW CANOGA, CH-LLW-I <i>CH LLW I Transferred by Rockwell - Canoga Park.</i> RKW CANOGA, CH-LLMW-I <i>CH LLMW I Transferred by Rockwell - Canoga Park.</i>	CH LLW I CH LLMW I	1997 - 2000 1997 - 1997	1150 49.7	cubic meters cubic meters
X Rocky Flats ROCKY FLATS, CH-LLW-I <i>CH LLW I Transferred by Rocky Flats.</i>	CH LLW I	1997 - 2000	176.0	cubic meters
X Stanford Linear Accelerator Center STANFORD, CH-LLW-III <i>CH LLW III Transferred by Stanford Linear Accelerator Center.</i>	CH LLW III	1997 - 2070	1160	cubic meters
X University of California - Davis B LEHR DAV, CH-LLW-III <i>CH LLW III Transferred by University of California - Davis.</i> B LEHR DAV, CH-LLW-I <i>CH LLW I Transferred by University of California - Davis.</i>	CH LLW III CH LLW I	1997 - 1997 1997 - 2003	181.0 979.0	cubic meters cubic meters
X University of Utah U U, CH-LLW-I <i>CH LLW I Transferred by University of Utah.</i> U U, CH-LLMW-I <i>CH LLMW I Transferred by University of Utah.</i>	CH LLW I CH LLMW I	1997 - 1997 1997 - 1997	7.26 7.26	cubic meters cubic meters
X.0 Hanford Legacy Initial CH LLMW I Inventory at CWC <i>CH LLMW I Transferred by Hanford Legacy.</i>	CH LLMW I	1997 - 1997	8240	cubic meters

INTERNAL INPUTS

Table B.1-3 Internal Inputs for Central Waste Complex

Stream	Category	Period	Baseline	Units
hsems.1.1.2 Reactors on the River Soil Site Operable Units Received CH-TRU <i>CH TRU Disposed by ER 2.0 DISPOSED</i>	(none forecasted)			
hsems.1.2.1 100 K Area Facilities K Basins, CH-LLW-I <i>CH LLW I transferred during K Basin operations.</i> K Project, CH LLW I	CH LLW I CH LLW I	1997 - 2000 1997 - 2000	726.0 313.0	cubic meters cubic meters

Table B.1-3 Internal Inputs for Central Waste Complex (Continued)

Stream	Category	Period	Baseline	Units
CH LLW I transferred during K Basin fuel sampling.				
K Basin Deactivation, RH TRU	RH TRU	2004 - 2005	3.4	cubic meters
RH TRU transferred during deactivation of the K Basins as forecasted in the SWIFT report.				
K PROJECT, CH-LLW-III	CH LLW III	1997 - 2000	718.0	cubic meters
CH LLW III transferred during K-Basin fuel sampling.				
K OPER, CH-LLW-III	CH LLW III	1997 - 2000	232.0	cubic meters
CH LLW III transferred during K-Basins operations.				
K OPER, CH-LLMW-I	CH LLMW I	1997 - 2000	5.14	cubic meters
CH LLMW I Transferred by 100 K Area Facilities.				
K Basin Deactivation, CH LLMW I	CH LLMW I	2004 - 2005	28.0	cubic meters
CH LLMW I transferred during deactivation of the K-Basins as forecasted in the SWIFT report.				
K Basin Deactivation, CH-LLW-I	CH LLW I	2002 - 2005	833.0	cubic meters
CH LLW I transferred during deactivation of the K-Basins as forecasted in the SWIFT report.				
K OPER, RH-TRU	RH TRU	1998 - 1998	60.9	cubic meters
RH TRU Transferred by 100 K Area Facilities.				
K Basin Deactivation, CH TRU	CH TRU	2004 - 2005	14.2	cubic meters
CH TRU transferred during deactivation of the K Basins as forecasted in the SWIFT report.				
K PROJECT, CH-TRU	CH TRU	1997 - 1999	16.2	cubic meters
CH TRU Transferred by 100 K Area Facilities.				
Items 2.2.3 LAW Treatment Facility, Phase II				
LLVP, CH-LLMW-I	CH LLMW I	2002 - 2021	2560	cubic meters
CH LLMW I Transferred by LAW Treatment Facility, Phase II.				
LLVP, RH-LLW-III	RH LLW III	2002 - 2021	3840	cubic meters
RH LLW III Transferred by LAW Treatment Facility, Phase II.				
LLVP, CH-LLW-I	CH LLW I	2002 - 2021	15300	cubic meters
CH LLW I Transferred by LAW Treatment Facility, Phase II.				
LLVP, CH-LLW-III	CH LLW III	2002 - 2021	15300	cubic meters
CH LLW III Transferred by LAW Treatment Facility, Phase II.				
LLVP, CH-LLMW-III	CH LLMW III	2002 - 2021	2560	cubic meters
CH LLMW III Generated during low activity tank waste immobilization treatment.				
Items 2.2.4 HLW Treatment Facility, Phase II				
HLVP, CH-TRUM	CH TRUM	2002 - 2028	870.0	cubic meters
CH TRUM Transferred by HLW Treatment Facility, Phase II.				
HLVP, CH-LLW-I	CH LLW I	2002 - 2028	4350	cubic meters
CH LLW I Transferred by HLW Treatment Facility, Phase II.				
HLVP, RH-TRUM	RH TRUM	2002 - 2028	870.0	cubic meters
RH TRUM Transferred by HLW Treatment Facility, Phase II.				
HLVP, CH-LLMW-I	CH LLMW I	2002 - 2028	1740	cubic meters
CH LLMW I Transferred by HLW Treatment Facility, Phase II.				
HLVP, CH-LLW-III	CH LLW III	2002 - 2028	13000	cubic meters
CH LLW III Transferred by HLW Treatment Facility, Phase II.				
HLVP, CH-LLMW-III	CH LLMW III	2002 - 2028	3480	cubic meters
CH-LLMW-III generated during high level tank waste immobilization treatment.				
HLVP, RH-LLW-III	RH LLW III	2002 - 2028	3480	cubic meters
RH LLW III Transferred by HLW Treatment Facility, Phase II.				
Items 2.2.6 Plutonium-Uranium Extraction Plant				
PUREX, CH-LLMW-I	CH LLMW I	1997 - 1997	12.0	cubic meters
CH LLMW I Transferred by Plutonium-Uranium Extraction Plant.				
NP PUREX TR, CH-TRU	CH TRU	2023 - 2027	90.0	cubic meters
CH TRU Transferred by Plutonium-Uranium Extraction Plant.				
NP PUREX TR, CH-LLMW-III	CH LLMW III	2023 - 2027	4.5	cubic meters
CH LLMW III Transferred by Plutonium-Uranium Extraction Plant.				
PUREX, CH-LLW-I	CH LLW I	1997 - 1997	393.0	cubic meters
CH LLW I Transferred by Plutonium-Uranium Extraction Plant.				
NP PUREX TR, CH-TRUM	CH TRUM	2023 - 2027	19.5	cubic meters
CH TRUM Transferred by Plutonium-Uranium Extraction Plant.				
NP PUREX TR, CH-LLW-I	CH LLW I	2023 - 2027	171.0	cubic meters
CH LLW I Transferred by Plutonium-Uranium Extraction Plant.				
NP PUREX TR, CH-LLMW-I	CH LLMW I	2023 - 2027	40.5	cubic meters
CH LLMW I Transferred by Plutonium-Uranium Extraction Plant.				
NP PUREX TR, CH-LLW-III	CH LLW III	2023 - 2027	1.0	cubic meters
CH LLW III Transferred by Plutonium-Uranium Extraction Plant.				
Items 2.2.7 B Plant				
NP B PLANT TR, CH-LLW-I	CH LLW I	2021 - 2025	41.0	cubic meters
CH LLW I Transferred by B Plant.				
NP B PLANT TR, RH-LLW-III	RH-LLW III	2021 - 2025	9.0	cubic meters
RH LLW III Transferred by B Plant.				
NP B PLANT TR, CH-TRUM	CH TRUM	2021 - 2025	1.0	cubic meters
CH TRUM Transferred by B Plant.				

Table B.1-3 Internal Inputs for Central Waste Complex (Continued)

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
NP B PLANT TR, CH-LLW-III CH LLW III Transferred by B Plant.	CH LLW III	2021 - 2025	41.0	cubic meters
NP B PLANT TR, CH-TRU CH TRU Transferred by B Plant.	CH TRU	2021 - 2025	57.5	cubic meters
B PLANT, CH-LLMW-I CH LLMW I Transferred by B Plant.	CH LLMW I	1997 - 1998	2.0	cubic meters
B PLANT, CH-LLW-I CH LLW I Transferred by B Plant.	CH LLW I	1997 - 1998	240.0	cubic meters
B PLANT, CH-LLW-III CH LLW III Transferred by B Plant.	CH LLW III	1997 - 1998	30.0	cubic meters
hsems.2.2.8 Waste Encapsulation and Storage Facility				
WESF, CH-LLMW-I CH LLMW I transferred from the WESF as forecasted in the SWIFT report. The forecasts need to be updated to be consistent with the 2019 closeout date for WESF.	CH LLMW I	1997 - 2025	29.0	cubic meters
WESF, CH-LLW-III CH LLW III transferred from the WESF as forecasted in the SWIFT report. The forecasts need to be updated to be consistent with the 2019 closeout date for WESF.	CH LLW III	1997 - 2025	58.0	cubic meters
WESF, CH-LLW-I CH LLW I transferred from the WESF as forecasted in the SWIFT report. The forecasts need to be updated to be consistent with the 2019 closeout date for WESF.	CH LLW I	1997 - 2025	406.0	cubic meters
hsems.2.2.9 Plutonium Finishing Plant				
PFP, CH-LLW-I CH LLW I transferred from PFP as forecasted in the SWIFT report. The forecasts need to be updated to be consistent with the 2028 closeout date for PFP.	CH LLW I	1997 - 2034	3290	cubic meters
NP PFP TR, CH-LLMW-I CH LLMW I Transferred by Plutonium Finishing Plant.	CH LLMW I	2033 - 2037	76.0	cubic meters
NP PFP TR, CH-LLW-I CH LLW I Transferred by Plutonium Finishing Plant.	CH LLW I	2033 - 2037	55.0	cubic meters
PFP, CH-LLW-III CH LLW III transferred from PFP as forecasted in the SWIFT report. The forecasts need to be updated to be consistent with the 2028 closeout date for PFP.	CH LLW III	1997 - 2029	579.0	cubic meters
NP PFP TR, CH-LLMW-III CH LLMW III Transferred by Plutonium Finishing Plant.	CH LLMW III	2033 - 2037	3.0	cubic meters
PFP, CH-LLMW-I CH LLMW I transferred from PFP as forecasted in the SWIFT report. The forecasts need to be updated to be consistent with the 2028 closeout date for PFP.	CH LLMW I	1997 - 2034	669.0	cubic meters
NP PFP TR, CH-TRU CH TRU Transferred by Plutonium Finishing Plant.	CH TRU	2033 - 2037	48.0	cubic meters
PFP, CH-TRU CH TRU transferred from PFP as forecasted in the SWIFT report. The forecasts need to be updated to be consistent with the 2028 closeout date for PFP.	CH TRU	1997 - 2034	2740	cubic meters
PFP, CH-LLMW-III CH LLMW III transferred from PFP as forecasted in the SWIFT report. The forecasts need to be updated to be consistent with the 2028 closeout date for PFP.	CH LLMW III	1997 - 2034	36.2	cubic meters
NP PFP TR, CH-TRUM CH TRUM Transferred by Plutonium Finishing Plant.	CH TRUM	2033 - 2037	7.5	cubic meters
PFP, CH-TRUM CH TRUM transferred from PFP as forecasted in the SWIFT report. The forecasts need to be updated to be consistent with the 2028 closeout date for PFP. Dates to be replanned based upon new funding profile.	CH TRUM	1997 - 2005	306.0	cubic meters
NP PFP TR, CH-LLW-III CH LLW III Transferred by Plutonium Finishing Plant.	CH LLW III	2033 - 2037	15.5	cubic meters
hsems.2.2.10 Reduction-Oxidation Plant				
NP REDOX TR, CH-TRUM CH TRUM Transferred by Reduction-Oxidation Plant.	CH TRUM	2025 - 2029	38.0	cubic meters
NP REDOX TR, CH-LLW-III CH LLW III Transferred by Reduction-Oxidation Plant.	CH LLW III	2025 - 2029	1.5	cubic meters
NP REDOX TR, CH-TRU CH TRU Transferred by Reduction-Oxidation Plant.	CH TRU	2025 - 2029	173.0	cubic meters
NP REDOX TR, CH-LLMW-I CH LLMW I Transferred by Reduction-Oxidation Plant.	CH LLMW I	2025 - 2029	2.0	cubic meters
NP REDOX TR, CH-LLW-I CH LLW I Transferred by Reduction-Oxidation Plant.	CH LLW I	2025 - 2029	298.0	cubic meters
hsems.2.2.11 Uranium Oxide Plant				
NP U PLANT TR, CH-LLMW-I CH LLMW I Transferred.	CH LLMW I	2031 - 2035	2.5	cubic meters
NP U PLANT TR, RH-LLW-III RH LLW III Transferred.	RH LLW III	2031 - 2035	0.5	cubic meters
NP U PLANT TR, CH-TRUM CH TRUM Transferred.	CH TRUM	2031 - 2035	1.5	cubic meters
NP U PLANT TR, CH-LLW-I CH LLW I Transferred.	CH LLW I	2031 - 2035	27.5	cubic meters

Table B.1-3 Internal Inputs for Central Waste Complex (Continued)

Stream	Category	Period	Baseline	Units
NP U PLANT TR, CH-TRU CH TRU Transferred.	CH TRU	2031 - 2035	9.5	cubic meters
NP U PLANT TR, CH-LLW-III CH LLW III Transferred.	CH LLW III	2031 - 2035	5.5	cubic meters
hsems.2.2.12 T-Plant Facility				
T PLANT, CH-LLMW-I CH LLMW I Transferred by 221-T.	CH LLMW I	1997 - 2027	217.0	cubic meters
NP T PLANT TR, CH-TRUM CH TRUM Transferred by 221-T.	CH TRUM	2029 - 2033	7.5	cubic meters
NP T PLANT TR, CH-TRU CH TRU Transferred by 221-T.	CH TRU	2029 - 2033	33.5	cubic meters
hsems.2.2.14 M-91 Facility				
M-91 to Storage, CH LLMW I CH LLMW I Transferred by M-91 to Storage	CH LLMW I	1997 - 2070	3830	cubic meters
hsems.2.2.17 200 Area Effluent Treatment Facility				
ETF, CH-LLMW-I CH LLMW I Transferred by 200 Area Effluent Treatment Facility.	CH LLMW I	1997 - 2034	2500	cubic meters
ETF, CH-LLW-I CH LLW I Transferred by 200 Area Effluent Treatment Facility.	CH LLW I	1997 - 2034	82.4	cubic meters
ETF, CH-LLMW-III CH LLMW III solid waste generated during treatment of mixed low level liquid waste.	CH LLMW III	1997 - 2025	30.0	cubic meters
hsems.2.3.1 Single Shell Tank (SST) System				
SST LLE, RH-TRUM RH TRUM Transferred by Single Shell Tank (SST) System.	RH TRUM	2001 - 2003	491.0	cubic meters
SST RET, RH-LLMW-I RH LLMW I Transferred by Single Shell Tank (SST) System.	RH LLMW I	2004 - 2017	155.0	cubic meters
SST RET, CH-LLMW-I CH LLMW I Transferred by Single Shell Tank (SST) System.	CH LLMW I	2004 - 2017	385.0	cubic meters
SST RET, RH-LLMW-III RH LLMW III Transferred by Single Shell Tank (SST) System.	RH LLMW III	2004 - 2017	233.0	cubic meters
SST RET, CH-LLMW-III CH LLMW III Transferred by Single Shell Tank (SST) System.	CH LLMW III	2004 - 2017	507.0	cubic meters
SST RET, CH-LLW-I CH LLW I Transferred by Single Shell Tank (SST) System.	CH LLW I	2004 - 2017	603.0	cubic meters
SST LLE, CH-TRUM CH TRUM Transferred by Single Shell Tank (SST) System.	CH TRUM	2001 - 2003	491.0	cubic meters
SST LLE, RH-LLMW-III RH LLMW III Transferred by Single Shell Tank (SST) System.	RH LLMW III	2001 - 2017	22500	cubic meters
hsems.2.3.2 Double Shell Tank (DST) System				
TF OPER, RH-LLMW-I RH LLMW I Transferred by Double Shell Tank (DST) System.	RH LLMW I	1997 - 2032	661.0	cubic meters
TWP W058, CH-LLMW-I CH LLMW I Transferred by Double Shell Tank (DST) System.	CH LLMW I	1997 - 1997	5.14	cubic meters
TWP W211, CH-LLMW-III CH LLMW III Transferred by Double Shell Tank (DST) System.	CH LLMW III	1997 - 2006	197.0	cubic meters
TF OPER, CH-LLMW-I CH LLMW I Transferred by Double Shell Tank (DST) System.	CH LLMW I	1997 - 2032	2620	cubic meters
TWP W314, CH-LLW-I CH LLW I Transferred by Double Shell Tank (DST) System.	CH LLW I	1999 - 2005	62.0	cubic meters
DST RET, CH LLMW III CH LLMW III Generated by WHC DST RET.	CH LLMW III	2009 - 2018	335.0	cubic meters
TF OPER, CH-LLW-I CH LLW I Transferred by Double Shell Tank (DST) System.	CH LLW I	1997 - 2032	7490	cubic meters
TWP W314, CH-LLMW-III CH LLMW III Transferred by Double Shell Tank (DST) System.	CH LLMW III	1999 - 2005	750.0	cubic meters
TWP W211, RH-TRUM RH TRUM Transferred by Double Shell Tank (DST) System.	RH TRUM	1998 - 1998	85.1	cubic meters
TWP W030, CH-LLMW-I CH LLMW I Transferred by Double Shell Tank (DST) System.	CH LLMW I	1997 - 1997	41.9	cubic meters
WELL DRL, CH-LLMW-I CH LLMW I Transferred.	CH LLMW I	1997 - 2001	60.9	cubic meters
TWP W211, CH-LLMW-I CH LLMW I Transferred by Double Shell Tank (DST) System.	CH LLMW I	1997 - 2006	672.0	cubic meters
TWP W314, RH-LLMW-III RH LLMW III Transferred by Double Shell Tank (DST) System.	RH LLMW III	1999 - 2005	322.0	cubic meters
DST RET, RH-LLMW-III RH LLMW III Transferred by Double Shell Tank (DST) System.	RH LLMW III	2009 - 2021	1760	cubic meters
TWP W314, CH-LLMW-I CH LLMW I Transferred by Double Shell Tank (DST) System.	CH LLMW I	1999 - 2004	129.0	cubic meters

Table B.1-3 Internal Inputs for Central Waste Complex (Continued)

Stream	Category	Period	Baseline	Units
DST RET, CH-LLMW-I <i>CH LLMW I Transferred by Double Shell Tank (DST) System.</i>	CH LLMW I	2009 - 2018	1140	cubic meters
TF OPER, RH-LLMW-III <i>RH LLMW III Transferred by Double Shell Tank (DST) System.</i>	RH LLMW III	1997 - 2031	278.0	cubic meters
TF OPER, CH-LLMW-III <i>CH LLMW III Transferred by Double Shell Tank (DST) System.</i>	CH LLMW III	1997 - 2032	1120	cubic meters
TWP W211, RH-LLMW-III <i>RH LLMW III Transferred by Double Shell Tank (DST) System.</i>	RH LLMW III	1997 - 2028	3050	cubic meters
TWP W314, RH-LLMW-I <i>RH LLMW I Transferred by Double Shell Tank (DST) System.</i>	RH LLMW I	1999 - 2004	56.0	cubic meters
hsems.2.3.9 Transuranic Storage and Assay Facility				
TRUSAF, CH LLMW I <i>CH LLMW I Transferred by WHC TRUSAF</i>	CH LLMW I	1997 - 1998	1.54	cubic meters
hsems.2.3.10 IHLW Storage Modules, Phase II				
HLW Storage, CH-LLW-I <i>CH LLW I Transferred by IHLW Storage Modules, Phase II.</i>	CH LLW I	2041 - 2044	3200	cubic meters
hsems.2.5.1 222-S Laboratory				
ANALYT LAB, CH-TRUM <i>CH TRUM Transferred by 222-S Laboratory.</i>	CH TRUM	1997 - 2070	19.0	cubic meters
ANALYT LAB, CH-LLMW-I <i>CH LLMW I Transferred by 222-S Laboratory.</i>	CH LLMW I	1997 - 2070	2310	cubic meters
ANALYT LAB, CH-LLW-I <i>CH LLW I Transferred by 222-S Laboratory.</i>	CH LLW I	1997 - 2070	14000	cubic meters
ANALYT LAB, CH-LLMW-III <i>CH LLMW III solid waste generated during day to day operations necessary for analyzing high level radioactive samples.</i>	CH LLMW III	1997 - 2070	1250	cubic meters
ANALYT LAB, CH-LLW-III <i>CH LLW III Transferred by 222-S Laboratory.</i>	CH LLW III	1997 - 2070	503.0	cubic meters
hsems.2.5.2 Waste Sampling and Characterization Facility				
WSCF, CH-LLW-I <i>CH LLW I Transferred by Waste Sampling and Characterization Facility.</i>	CH LLW I	1997 - 2025	58.0	cubic meters
WSCF, CH-LLMW-I <i>CH LLMW I Transferred by Waste Sampling and Characterization Facility.</i>	CH LLMW I	1997 - 2025	29.0	cubic meters
hsems.2.5.4 Central Plateau Water System				
Potable Water for 200-SWM <i>Potable Water for 200-SWM</i>	Potable Water	1998 - 2034	962.0	Mgal
hsems.2.5.5 Central Plateau Office Facilities				
Office Space (Program Owned) for 200-SWM <i>Office Space (Program Owned) for 200-SWM</i>	Office Space (Program Owned)	1998 - 2034	1800000	sq. ft.
Pager Service for 200-SWM <i>Pager Service for 200-SWM</i>	Site Pagers	1998 - 2034	2070	no. of pagers
hsems.2.5.6 Central Plateau Electrical System				
Electricity for 200-SWM <i>Electricity for 200-SWM</i>	Electricity	1998 - 2034	12600	MW-hr
hsems.2.5.8 Central Plateau Telecommunication System				
Video Communication for 200-SWM <i>Video Communication for 200-SWM</i>	Video Communication Service	1998 - 2034	48600	hours
Pagers, National/Regional for 200-SWM <i>Pagers, National/Regional for 200-SWM</i>	National or Regional Pagers	1998 - 2034	74.0	no. of pagers
Data (HLAN) Transmission for 200-SWM <i>Data (HLAN) Transmission for 200-SWM</i>	HLAN Computers	1998 - 2034	8060	no. of PCs
Voice (Telephone) Communication for 200-SWM <i>Voice (Telephone) Communication for 200-SWM</i>	Voice Communications Service	1998 - 2034	8060	no. of phones
hsems.2.5.9 Central Plateau Shop Facilities				
Custodial Services for 200-SWM <i>Custodial Services for 200-SWM</i>	Custodial Services	1998 - 2034	1800000	sq. ft.
Fab Shop Services for 200-SWM <i>Fab Shop Services for 200-SWM</i>	(none forecasted)			
Maintenance Services Sheetmetal for 200-SWM <i>Maintenance Services Sheetmetal for 200-SWM</i>	Maintenance Services (Sheetmetal)	1998 - 2034	1.1	FTE
Maintenance Services Carpenter for 200-SWM <i>Maintenance Services Carpenter for 200-SWM</i>	Maintenance Services (Carpenter)	1998 - 2034	14.7	FTE
Lifting (Cranes) for 200-SWM <i>Lifting (Cranes) for 200-SWM</i>	Lifting Services	1998 - 2034	10300	crane days

Table B.1-3 Internal Inputs for Central Waste Complex (Continued)

Stream	Category	Period	Baseline	Units
hsems.2.5.10 Central Plateau Storage Support Facilities <i>Allocated Storage for CWS</i>	Allocated Storage	1998 - 2034	7400	sq. ft.
hsems.2.5.13 Central Plateau Road System				
Hanford Road Sys. Heavy Traffic for 200-SWM	Hanford Road System (Heavy Traffic)	1998 - 2034	15700	truck loads
<i>Hanford Road Sys. Heavy Traffic for 200-SWM</i>				
Sedans/Light Trucks for 200-SWM	Sedans/Light Trucks	1998 - 2034	286.0	no. of vehicles
<i>Sedans/Light Trucks for 200-SWM</i>				
Heavy Equipment for 200-SWM	(none forecasted)			
<i>Heavy Equipment for 200-SWM</i>				
Heavy Trucks for 200-SWM	Heavy Trucks	1998 - 2034	14600	vehicle days
<i>Heavy Trucks for 200-SWM</i>				
hsems.4.2.1 300 Area Treated Effluent Disposal Facility				
300 TEDF CH LLW I	CH LLW I	1997 - 2025	5410	cubic meters
<i>Secondary solid waste from treating industrial waste water in the 300 Area TEDF.</i>				
hsems.4.2.5 Thermal Treatment Facility				
CTT to Storage, CH LLMW I	CH LLMW I	1997 - 2070	3320	cubic meters
<i>CH LLMW I Transferred by CTT to Storage</i>				
hsems.4.2.6 Low-Level Mixed Waste Stabilization Facility				
STP to Storage, CH LLMW I	CH LLMW I	1997 - 2070	67700	cubic meters
<i>CH LLMW I Transferred by STP to Storage</i>				
hsems.4.3.1 Fast Flux Test Facility				
SODIUM TST, CH-LLW-III	CH LLW III	1997 - 1997	0.0251	cubic meters
<i>CH LLW III Transferred by Fast Flux Test Facility.</i>				
FFTF, CH-LLW-I	CH LLW I	1997 - 2001	50.5	cubic meters
<i>CH LLW I Transferred by Fast Flux Test Facility as forecasted in the SWIFT report. However, current planning for the FFTF is that the total CH LLW I volume that will be transferred to Solid Waste from 1997 - 2001 is 97.5 cubic meters.</i>				
FFTF, CH-LLW-III	CH LLW III	1997 - 1999	2.61	cubic meters
<i>CH LLW III transferred from the Fast Flux Test Facility as forecasted in the SWIFT report. However, current planning for the FFTF is that the wastes will be transferred to Solid Waste through 2002.</i>				
FFTF, CH-LLMW-I	CH LLMW I	2001 - 2001	0.257	cubic meters
<i>CH LLMW I Transferred by Fast Flux Test Facility.</i>				
FFTF, RH-LLW-III	RH LLW III	1997 - 1998	31.5	cubic meters
<i>RH LLW III transferred from the Fast Flux Test Facility as forecasted in the SWIFT report. However, current planning for the FFTF is that the wastes will continue to be transferred to Solid Waste through 2002 with a total waste volume of 94.14 cubic meters.</i>				
SODIUM TST, CH-LLMW-III	CH LLMW III	1999 - 1999	0.145	cubic meters
<i>CH LLMW III Generated by 335 Sodium Test Facility.</i>				
hsems.4.3.2 300 Area Fuel Supply System				
FUEL TRANS, CH-LLMW-I	CH LLMW I	1997 - 1997	3.12	cubic meters
<i>CH LLMW I transferred from the 300 Area Fuel Supply System as forecasted in the SWIFT report. However, current planning for the 300 FSS is that the wastes will be transferred to Solid Waste in 1998 - 1999.</i>				
hsems.4.3.4 309 Building				
PRTR, CH-LLW-I	CH LLW I	1997 - 1998	68.6	cubic meters
<i>CH LLW I transferred from the 309 Building as forecasted in the SWIFT report.</i>				
PRTR, CH-TRU	CH TRU	1997 - 1998	0.514	cubic meters
<i>CH TRU transferred from the 309 Building as forecasted in the SWIFT report.</i>				
PRTR, CH-LLW-III	CH LLW III	1997 - 1998	0.514	cubic meters
<i>CH LLW III transferred from the 309 Building as forecasted in the SWIFT report.</i>				
PRTR, CH-LLMW-I	CH LLMW I	1997 - 1997	0.257	cubic meters
<i>CH LLMW I transferred from the 309 Building as forecasted in the SWIFT report.</i>				
hsems.4.6 South 600 Area Radiological Labs				
Radioactive Standards (Calibrations) for 200-SWM	Radioactive Standards Lab Services	1998 - 2034	4210	calibrations
<i>Radioactive Standards (Calibrations) for 200-SWM</i>				
Bioassay and Dosimetry Services for 200-SWM	Bioassay and Dosimetry Services	1998 - 2034	370.0	samples
<i>Bioassay and Dosimetry Services for 200-SWM</i>				
hsems.4.6.1 324 Building				
PNNL 324, CH-LLMW-III	CH LLMW III	1997 - 2001	20.0	cubic meters
<i>CH LLMW III Transferred by 324 Building.</i>				
PNNL 324, RH-TRUM	RH TRUM	1997 - 2001	5.0	cubic meters
<i>RH TRUM Transferred by 324 Building.</i>				
PNNL 324, CH-LLW-III	CH LLW III	1997 - 2001	403.0	cubic meters
<i>CH LLW III Transferred by 324 Building.</i>				
PNNL 324, RH-TRU	RH TRU	1997 - 2001	7.0	cubic meters
<i>RH TRU Transferred by 324 Building.</i>				
PNNL 324, RH-LLW-III	RH LLW III	1997 - 2001	160.0	cubic meters
<i>RH LLW III Transferred by 324 Building.</i>				

Table B.1-3 Internal Inputs for Central Waste Complex (Continued)

Stream	Category	Period	Baseline	Units
PNNL 324, CH-TRUM <i>CH TRUM Transferred by 324 Building.</i>	CH TRUM	1997 - 1997	4.0	cubic meters
PNNL 324, CH-LLW-I <i>CH LLW I Transferred by 324 Building.</i>	CH LLW I	1997 - 2001	127.0	cubic meters
Items 4.6.4 327 Building				
PNNL 327, RH-LLW-III <i>RH LLW III Transferred by 327 Building.</i>	RH LLW III	1997 - 2005	2.57	cubic meters
PNNL 327, CH-LLMW-I <i>CH LLMW I Transferred by 327 Building.</i>	CH LLMW I	1997 - 2005	2.31	cubic meters
PNNL 327, CH-TRU <i>CH TRU Transferred by 327 Building.</i>	CH TRU	1997 - 2005	55.5	cubic meters
PNNL 327, CH-LLW-I <i>CH LLW I Transferred by 327 Building.</i>	CH LLW I	1997 - 2005	198.0	cubic meters
PNNL 327, CH-TRUM <i>CH TRUM Transferred by 327 Building.</i>	CH TRUM	1998 - 2004	0.771	cubic meters
PNNL 327, CH-LLW-III <i>CH LLW III Transferred by 327 Building.</i>	CH LLW III	1997 - 2005	21.8	cubic meters
Items 4.6.8 320 / 3720 / 3745				
PNNL, CH-TRUM <i>CH TRUM Transferred by Pacific Northwest National Laboratory.</i>	CH TRUM	1997 - 2010	76.5	cubic meters
PNNL, RH-LLW-III <i>RH LLW III Transferred by Pacific Northwest National Laboratory.</i>	RH LLW III	1997 - 2010	175.0	cubic meters
NP 400 TR, CH-TRU <i>CH TRU Transferred.</i>	CH TRU	2019 - 2023	73.0	cubic meters
PNNL, CH-TRU <i>CH TRU Transferred by Pacific Northwest National Laboratory.</i>	CH TRU	1997 - 2010	166.0	cubic meters
PNNL, CH-LLW-III <i>CH LLW I Transferred by Pacific Northwest National Laboratory.</i>	(none forecasted)			
PNNL, RH-LLMW-I <i>RH LLMW I Transferred by Pacific Northwest National Laboratory.</i>	RH LLMW I	1997 - 2010	17.9	cubic meters
NP SITE SUP TR, CH-TRU <i>CH TRU Transferred.</i>	CH TRU	2027 - 2031	30.5	cubic meters
PNNL, RH-TRUM <i>RH TRUM Transferred by Pacific Northwest National Laboratory.</i>	RH TRUM	1997 - 2010	65.2	cubic meters
PNNL, RH-LLMW-III <i>RH LLMW III Transferred by Pacific Northwest National Laboratory.</i>	RH LLMW III	1997 - 2010	35.9	cubic meters
PNNL, RH-TRU <i>RH TRU Transferred by Pacific Northwest National Laboratory.</i>	RH TRU	1997 - 2010	47.2	cubic meters
PNNL, CH-LLMW-III <i>CH LLMW I Transferred by Pacific Northwest National Laboratory.</i>	CH LLMW III	1997 - 2010	207.0	cubic meters
PNNL, CH-LLMW-I <i>CH LLMW I Transferred by Pacific Northwest National Laboratory.</i>	CH LLMW I	1997 - 2010	280.0	cubic meters
BHI SURPLS FAC, CH-TRU <i>CH TRU Transferred.</i>	CH TRU	1997 - 2026	1560	cubic meters
PNNL, CH-LLW-I <i>CH LLW I Transferred by Pacific Northwest National Laboratory.</i>	CH LLW I	1997 - 2010	6700	cubic meters
NP 300 TR, CH-TRU <i>CH TRU Transferred.</i>	CH TRU	2011 - 2015	631.0	cubic meters
PNNL, RH-LLW-I <i>RH LLW I Transferred by Pacific Northwest National Laboratory.</i>	RH LLW I	1997 - 2010	219.0	cubic meters
Items 4.7.1 331 Complex				
Industrial Hygiene Services for 200-SWM <i>Industrial Hygiene Services for 200-SWM</i>	Industrial Hygiene Services	1998 - 2034	370.0	samples
Non-rad Standards (Calibrations) for 200-SWM <i>Non-rad Standards (Calibrations) for 200-SWM</i>	Non-rad Standards Lab Services	1998 - 2034	740.0	calibrations

EXTERNAL OUTPUTS**Table B.1-4 External Outputs for Central Waste Complex**

Stream	Category	Period	Baseline	Units
X Hazardous Waste Disposal Contracts CWC Haz Waste Shipment <i>Hazardous waste packaged for disposal offsite.</i>	HAZ	1997 - 2034	2770	cubic meters

INTERNAL OUTPUTS

Table B.1-5 Internal Outputs for Central Waste Complex

Stream	Category	Period	Baseline	Units
hsems.2.2.14 M-91 Facility				
Storage to M-91, RH LLMW I	RH LLMW I	1997 - 2070	3480	cubic meters
RH LLMW I Transferred by Storage to M-91				
Storage to M-91, CH TRUM	CH TRUM	1997 - 2070	8620	cubic meters
CH TRUM Transferred by Storage to M-91				
Storage to M-91, RH TRUM	RH TRUM	1997 - 2070	1880	cubic meters
RH TRUM Transferred by Storage to M-91				
Storage to M-91, CH LLMW I	CH LLMW I	1997 - 2070	5460	cubic meters
CH LLMW I Transferred by Storage to M-91				
hsems.2.2.15 WRAP Module 1				
Storage to WRAP1, CH TRUM	CH TRUM	1997 - 2070	9840	cubic meters
CH TRUM Transferred by Storage to WRAP1				
hsems.2.4.1 Low-Level Waste Burial Grounds				
CWC CH LLW I Disposal	CH LLW I	1997 - 2070	170000	cubic meters
CH LLW I packaged and verified for disposal at the low level burial grounds.				
hsems.2.4.2 Mixed Waste Disposal Trenches				
CWC, CH LLMW I	CH LLMW I	1997 - 2070	19.0	cubic meters
CH LLMW I Transferred by WHC CWC				
Direct Disposal, RH LLMW I	RH LLMW I	1997 - 2070	25600	cubic meters
RH LLMW I Disposed by Direct Disposal				
CTT Treated to Disposal, CH LLMW I	CH LLMW I	1997 - 2070	3320	cubic meters
CH LLMW I Disposed by CTT Treated to Disposal				
STOREQUIP, CH-LLMW-I	(none forecasted)			
CH LLMW I Transferred.				
STP Treated to Disposal, CH LLMW I	CH LLMW I	1997 - 2070	67700	cubic meters
CH LLMW I Disposed by STP Treated to Disposal				
hsems.2.5.1 222-S Laboratory				
Analytical Laboratory Services for 200-SWM	Analytical Laboratory Services	1998 - 2034	296.0	samples
Analytical Laboratory Services for 200-SWM				
hsems.2.5.2 Waste Sampling and Characterization Facility				
In-Field Laboratory Services for 200-SWM	In-Field Laboratory Services	1998 - 2034	259.0	samples
In-Field Laboratory Services for 200-SWM				
hsems.4.2.5 Thermal Treatment Facility				
Storage to CTT, CH LLMW I	CH LLMW I	1997 - 2070	3320	cubic meters
CH LLMW I Transferred by Storage to CTT				
hsems.4.2.6 Low-Level Mixed Waste Stabilization Facility				
Storage to STP, CH LLMW I	CH LLMW I	1997 - 2070	33800	cubic meters
CH LLMW I Transferred by Storage to STP				

B.1.1.3.2 Nonradioactive Dangerous Waste Storage Facility

B.1.1.3.2.1 Nonradioactive Dangerous Waste Storage Facility Description

Nonradioactive Dangerous Waste Storage Facility (616 Building) was used for storing hazardous waste/materials pending disposition. This facility is currently in standby mode. No operations of this facility are planned.

B.1.1.3.2.2 Nonradioactive Dangerous Waste Storage Facility Facility Technical Logic:

The technical logic for the Nonradioactive Dangerous Waste Storage Facility is captured in the facility's functional flow block diagram which shows the functions performed for each applicable life cycle phase of the facility and the sequence in which the functions are executed.

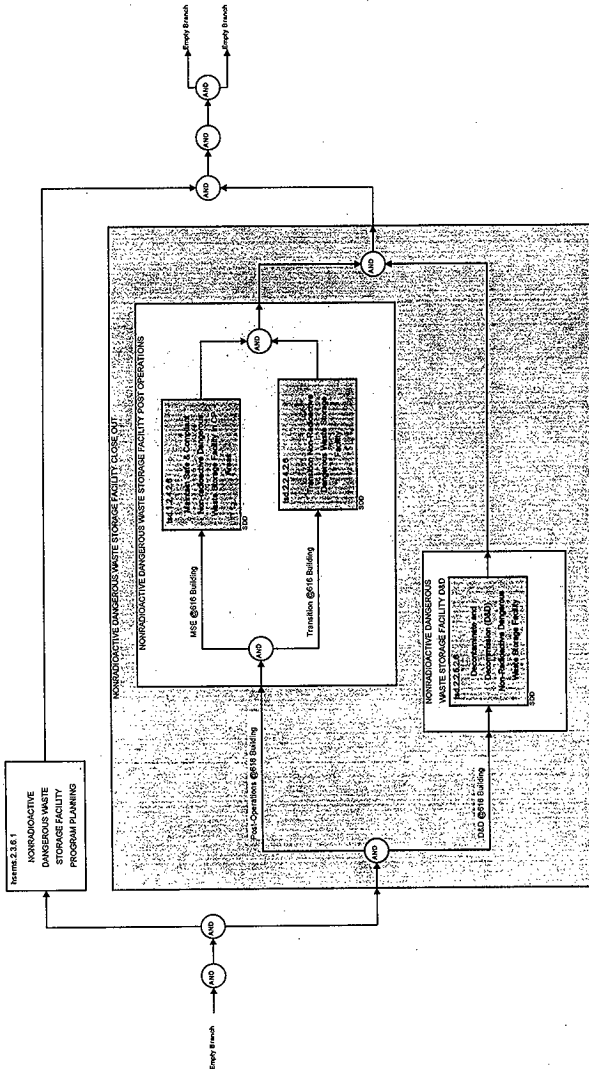


Figure B-2 NONRADIOACTIVE DANGEROUS WASTE STORAGE FACILITY

B.1.1.3.2.3 Nonradioactive Dangerous Waste Storage Facility Requirements and Life Cycle Function Descriptions

Requirements:

- Central Plateau high cost surplus facilities shall be transitioned to a low cost, stable, deactivated condition
- 616 building shall be operated in the cold standby mode within the approved safety envelope
- 616 building shall be maintained in the cold standby mode within the approved safety envelope
- Central Plateau inactive facilities shall be maintained within the approved safety envelope

Life Cycle Function Descriptions:

B.1.1.3.2.3.1 NONRADIOACTIVE DANGEROUS WASTE STORAGE FACILITY PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.1.1.3.2.3.2 NONRADIOACTIVE DANGEROUS WASTE STORAGE FACILITY POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

NONRADIOACTIVE DANGEROUS WASTE STORAGE FACILITY POST OPERATIONS SPECIFIC FUNCTIONS

B.1.1.3.2.3.3 Maintain Safe & Compliant Non-radioactive Dangerous Waste Storage Facility in CP Areas

Maintain the Non-Radioactive Dangerous Waste Storage facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.1.1.3.2.3.4 Transition Non-Radioactive Dangerous Waste Storage Facility

Initiate the transition phase of decontamination and decommissioning for the Non-Radioactive Dangerous Waste Storage Facility

B.1.1.3.2.4 Nonradioactive Dangerous Waste Storage Facility Boundary Diagram

Table B.1-6 Nonradioactive Dangerous Waste Storage Facility Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces -None-		External Interfaces -None- Hanford Site Environmental System Interfaces -None-

B.1.1.3.2.5 Nonradioactive Dangerous Waste Storage Facility Interface Description and Forecast

EXTERNAL INPUTS

-None-

INTERNAL INPUTS

-None-

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS

-None-

B.1.1.3.3 Transuranic Storage and Assay Facility

B.1.1.3.3.1 Transuranic Storage and Assay Facility Description

The Transuranic Storage and Assay Facility (TRUSAF) provides storage for TRU and TRUM waste in drums. Limited assay capability is provided. TRUSAF is assumed to have a capacity of 2000 55-gal drums, or 520 cubic meters.

B.1.1.3.3.2 Transuranic Storage and Assay Facility Facility Technical Logic:

The technical logic for the Transuranic Storage and Assay Facility is captured in the facility's functional flow block diagram which shows the functions performed for each applicable life cycle phase of the facility and the sequence in which the functions are executed.

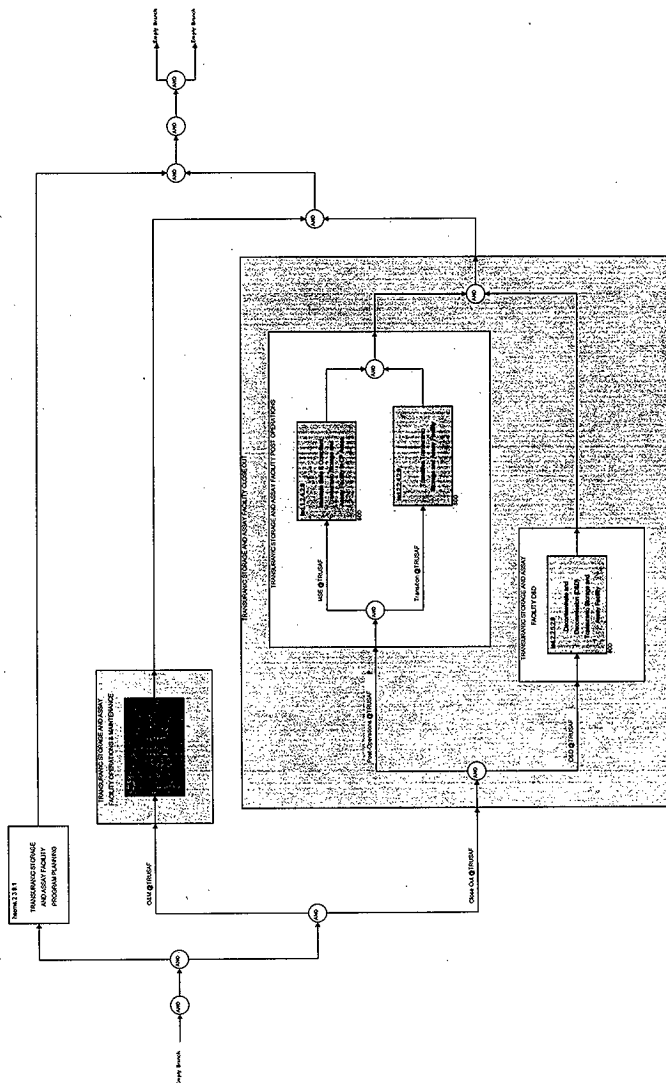


Figure B-3 TRANSURANIC STORAGE AND ASSAY FACILITY

B.1.1.3.3.3 Transuranic Storage and Assay Facility Requirements and Life Cycle Function Descriptions

Requirements:

- Central Plateau high cost surplus facilities shall be transitioned to a low cost, stable, deactivated condition
- Central Plateau inactive facilities shall be maintained within the approved safety envelope
- 224-T TRUSAF shall be operated within the approved safety envelope
- 224-T TRUSAF shall be maintained within the approved safety envelope
- TRU/TRUM waste shall be prepared for shipment to the Waste Isolation Pilot Plant

Life Cycle Function Descriptions:

B.1.1.3.3.3.1 TRANSURANIC STORAGE AND ASSAY FACILITY PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.1.1.3.3.3.2 TRANSURANIC STORAGE AND ASSAY FACILITY POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

TRANSURANIC STORAGE AND ASSAY FACILITY POST OPERATIONS SPECIFIC FUNCTIONS

B.1.1.3.3.3.3 Maintain Safe & Compliant Transuranic Storage and Assay Facility in CP Areas

Maintain the TRU Storage facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.1.1.3.3.3.4 Transition Transuranic Storage and Assay Facility

Initiate the transition phase of decontamination and decommissioning for the Transuranic Storage and Assay Facility

B.1.1.3.3.3.5 TRANSURANIC STORAGE AND ASSAY FACILITY OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

TRANSURANIC STORAGE AND ASSAY FACILITY OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.1.1.3.3.6 Remove CH TRU/TRUM Waste in TRUSAF

Prepare TRUSAF for transition to shutdown.

B.1.1.3.3.4 Transuranic Storage and Assay Facility Boundary Diagram***Table B.1-7 Transuranic Storage and Assay Facility Boundary Diagram***

External Interfaces	External Interfaces
-None-	-None-
Hanford Site Environmental System Interfaces	Hanford Site Environmental System Interfaces
-None-	hsems 2.4.1 Low-Level Waste Burial Grounds

B.1.1.3.3.5 Transuranic Storage and Assay Facility Interface Description and Forecast

EXTERNAL INPUTS

-None-

INTERNAL INPUTS

-None-

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS

Table B.1-8 Internal Outputs for Transuranic Storage and Assay Facility

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.2.4.1 Low-Level Waste Burial Grounds				
TRUSAF, CH LLW I	CH LLW I	1997 - 1998	1.54	cubic meters
CH LLW I Transferred by TRUSAF				

B.1.1.3.4 Low-Level Waste Burial Grounds Facility

B.1.1.3.4.1 Low-Level Waste Burial Grounds Facility Description

The Low Level Waste (LLW) burial grounds provide disposal capability for Category I and Category III LLW. The capacity of the LLW burial grounds is designed to accommodate burial of all forecasted Category I and Category III LLW in the 200 Areas.

B.1.1.3.4.2 Low-Level Waste Burial Grounds Facility Technical Logic:

The technical logic for the Low Level Burial Grounds (LLBG) is captured in the functional flow block diagram which shows the functions performed for each applicable life cycle phase of the LLBG and the sequence in which the functions are executed.



B.1.1.3.4.3 Low-Level Waste Burial Grounds Requirements and Life Cycle Function Descriptions

Requirements:

- Central Plateau high cost surplus facilities shall be transitioned to a low cost, stable, deactivated condition
- Central Plateau shall be used for the disposal of radioactive waste materials that remain onsite
- Low Level Waste Burial Grounds shall be operated within the approved safety envelope
- Low Level Waste Burial Ground shall be surveilled and maintained within the approved safety envelope
- Unirradiated uranium shall be dispositioned offsite or disposed onsite as low level waste
- Onsite low level waste shall be dispositioned in the Central Plateau
- Offsite low level waste shall be dispositioned in the Central Plateau
- U.S. Navy low level waste shall be dispositioned in the Central Plateau
- Solid wastes shall be dispositioned consistent with national policies for management of transuranic, low level, low level mixed and hazardous wastes
- Contaminated media from soil sites in the South 600 area shall be disposed in the Central Plateau
- Onsite wastes shall be disposed in the Central Plateau.
- Offsite wastes shall be disposed in the Central Plateau.
- Central Plateau inactive facilities shall be maintained within the approved safety envelope
- Central Plateau unsegregated wastes (including pre 1970 TRU) shall not be retrieved
- Low level waste from onsite sources shall be received in the 200 area
- Low level waste from offsite sources shall be received in the 200 area
- Remediation levels and disposal standards that are consistent with long term uses for the central plateau will be established.

Life Cycle Function Descriptions:

B.1.1.3.4.3.1 LOW-LEVEL WASTE BURIAL GROUNDS PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.1.1.3.4.3.2 LOW-LEVEL WASTE BURIAL GROUNDS OPERATIONS & MAINTENANCE WORK SCOPE

WBS 1.2

SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

LOW-LEVEL WASTE BURIAL GROUNDS OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS**B.1.1.3.4.3.3 Disposition Cat I and III LLW**

Disposition category I and III low level waste to support the ongoing environmental management mission.

B.1.1.3.4.3.4 Disposition Greater than Category 3 Low Level Solid Waste

Disposition of GTWC3 waste is defined as receiving packaged GTWC3 waste from treatment/storage facilities, assuring that a permitted (performance assessment and NEPA process) waste disposal facility is available onsite, transporting the waste to the disposal facility and placing it in disposal there.

B.1.1.3.4.3.5 Operate LLW Burial Ground

Operate and maintain the LLW Burial Grounds within the approved safety envelop to support the ongoing Site Environmental Management mission.

B.1.1.3.4.3.6 LOW-LEVEL WASTE BURIAL GROUNDS POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

LOW-LEVEL WASTE BURIAL GROUNDS POST OPERATIONS SPECIFIC FUNCTIONS**B.1.1.3.4.3.7 Maintain Safe & Compliant Low Level Burial Grounds Facility in CP Areas**

Maintain the LLW Burial Grounds facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.1.1.3.4.3.8 Transition Low Level Burial Grounds Facility

Initiate the transition phase of decontamination and decommissioning for the Low Level Burial Grounds Facility

B.1.1.3.4.4 Low-Level Waste Burial Grounds Boundary Diagram**Table B.1-9 Low-Level Waste Burial Grounds Boundary Diagram**

External Interfaces Hanford Legacy Hanford Site Environmental System Interfaces hsems.2.2.12 T-Plant Facility hsems.2.2.15 WRAP Module 1 hsems.2.3.5 Central Waste Complex hsems.2.3.9 Transuranic Storage and Assay Facility		External Interfaces -None- Hanford Site Environmental System Interfaces -None-

B.1.1.3.4.5 Low-Level Waste Burial Grounds Interface Description and Forecast

EXTERNAL INPUTS

Table B.1-10 External Inputs for Low-Level Waste Burial Grounds

Stream	Category	Period	Baseline	Units
X.0 Hanford Legacy Legacy CH LLW I inventory in LLBG <i>Low level solid waste currently in low level burial grounds from previous years.</i>	CH LLW I	1997 - 1997	179.0	cubic meters

INTERNAL INPUTS

Table B.1-11 Internal Inputs for Low-Level Waste Burial Grounds

Stream	Category	Period	Baseline	Units
hsems.2.2.12 T-Plant Facility T PLANT, CH-LLW-I <i>CH LLW I Transferred by 221-T.</i>	CH LLW I	1997 - 2027	2630	cubic meters
NP T PLANT TR, CH-LLW-I <i>CH LLW I Transferred by 221-T.</i>	CH LLW I	2029 - 2033	81.5	cubic meters
NP T PLANT TR, CH-LLW-III <i>CH LLW III Transferred by 221-T.</i>	CH LLW III	2029 - 2033	0.5	cubic meters
T PLANT, RH-LLW-I <i>RH LLW I Transferred by 221-T.</i>	RH LLW I	1997 - 2027	434.0	cubic meters
hsems.2.2.15 WRAP Module 1 WRAP1, CH-LLW-I <i>CH LLW I Transferred by WRAP Module 1.</i>	CH LLW I	1997 - 2070	393.0	cubic meters
hsems.2.3.5 Central Waste Complex CWC CH LLW I Disposal <i>CH LLW I packaged and verified for disposal at the low level burial grounds.</i>	CH LLW I	1997 - 2070	170000	cubic meters
hsems.2.3.9 Transuranic Storage and Assay Facility TRUSAF, CH LLW I <i>CH LLW I Transferred by TRUSAF</i>	CH LLW I	1997 - 1998	1.54	cubic meters

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS

-None-

B.1.1.3.5 Mixed Waste Disposal Trenches Facility

B.1.1.3.5.1 Mixed Waste Disposal Trenches Facility Description

Two mixed waste disposal trenches will provide RCRA-compliant, permanent on-site disposal for existing and newly generated radioactive mixed waste. CH-LLMW treated in the Stabilization Treatment Program (STP), the M-91 facility, or the Thermal Treatment Facility and RH-LLMW treated in the M-91 facility will be shipped to the mixed waste disposal trenches. The current capacity of each of the mixed waste disposal trenches is 7,600 cubic meters. Storage in-trench is included prior to authorizing disposal in the RMW trenches.

B.1.1.3.5.2 Mixed Waste Disposal Trenches Facility Technical Logic:

The technical logic for the Mixed Waste Disposal Trench (MWDT) is captured in the functional flow block diagram which shows the functions performed for each applicable life cycle phase of the MWDT and the sequence in which the functions are executed.

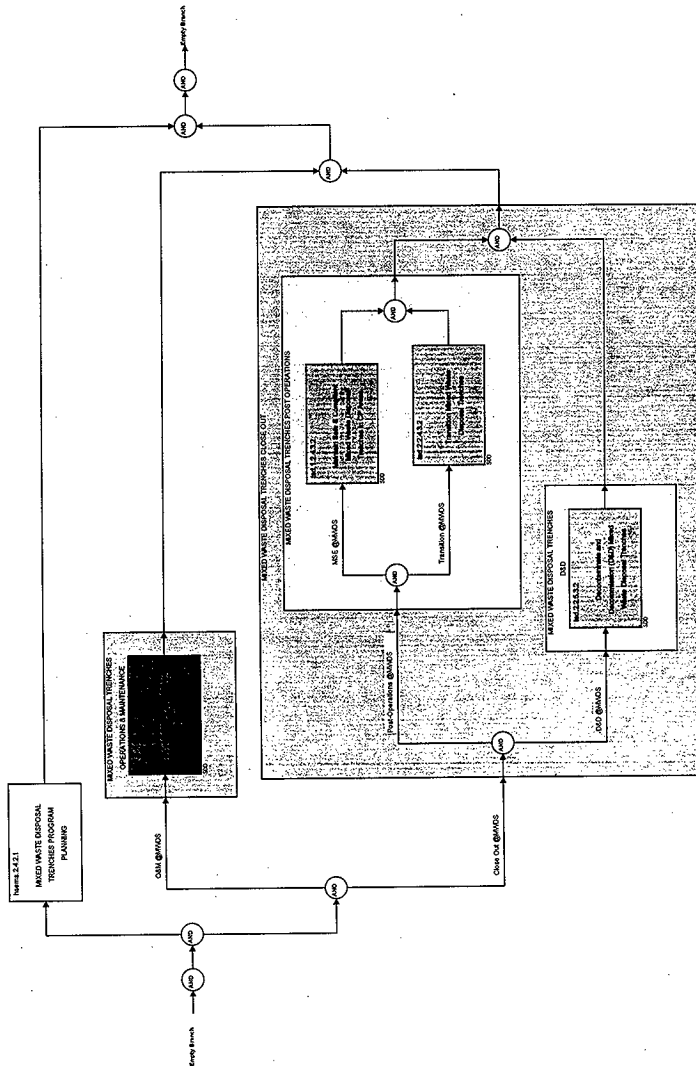


Figure B-5 MIXED WASTE DISPOSAL TRENCHES

B.1.1.3.5.3 Mixed Waste Disposal Trenches Requirements and Life Cycle Function Descriptions

Requirements:

- Central Plateau high cost surplus facilities shall be transitioned to a low cost, stable, deactivated condition
- Central Plateau shall be used for the disposal of radioactive waste materials that remain onsite
- Onsite low level mixed waste shall be dispositioned in the Central Plateau
- Offsite low level mixed waste shall be dispositioned in the Central Plateau
- Onsite wastes shall be disposed in the Central Plateau.
- Offsite wastes shall be disposed in the Central Plateau.
- Central Plateau inactive facilities shall be maintained within the approved safety envelope
- Low level mixed waste from offsite sources shall be received in the 200 area
- Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal of all Hanford Site TRU/TRUM, LLMW, and GTC3.

Due Date: TBD

- Initiate Disposal of CH-LLMW

Due Date: 6/30/2001

- Remediation levels and disposal standards that are consistent with long term uses for the central plateau will be established.

Life Cycle Function Descriptions:

B.1.1.3.5.3.1 MIXED WASTE DISPOSAL TRENCHES PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.1.1.3.5.3.2 MIXED WASTE DISPOSAL TRENCHES OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

MIXED WASTE DISPOSAL TRENCHES OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.1.1.3.5.3.3 Disposition Low Level Mixed Waste

Disposition of LLMW is defined as picking up packaged LLMW from the treatment/storage facility, certifying it meets waste disposal criteria for onsite disposal, transporting it to an onsite disposal facility, and placing it in the onsite disposal facility (Mixed Waste Disposal Trench).

B.1.1.3.5.3.4 MIXED WASTE DISPOSAL TRENCHES POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

MIXED WASTE DISPOSAL TRENCHES POST OPERATIONS SPECIFIC FUNCTIONS

B.1.1.3.5.3.5 Maintain Safe & Compliant Mixed Waste Disposal Trenches in CP Areas

Maintain the Mixed Waste Disposal Trenches structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.1.1.3.5.3.6 Transition Mixed Waste Disposal Trenches

Initiate the transition phase of decontamination and decommissioning for the Mixed Waste Disposal Trenches

B.1.1.3.5.4 Mixed Waste Disposal Trenches Boundary Diagram

Table B.1-12 Mixed Waste Disposal Trenches Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces hsems.2.2.14 M-91 Facility hsems.2.2.15 WRAP Module 1 hsems.2.3.5 Central Waste Complex		External Interfaces -None- Hanford Site Environmental System Interfaces hsems.2.2.16 Liquid Effluent Retention Facility

B.1.1.3.5.5 Mixed Waste Disposal Trenches Interface Description and Forecast**EXTERNAL INPUTS**

-None-

INTERNAL INPUTS**Table B.1-13 Internal Inputs for Mixed Waste Disposal Trenches**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.2.2.14 M-91 Facility M-91 to Disposal, RH LLMW I RH LLMW I Disposed by M-91 to Disposal	RH LLMW I	1997 - 2070	4760	cubic meters
hsems.2.2.15 WRAP Module 1 WRAP1, CH-LLMW-I CH LLMW I Transferred by WRAP Module 1.	CH LLMW I	1997 - 2070	75.5	cubic meters
hsems.2.3.5 Central Waste Complex CWC, CH LLMW I CH LLMW I Transferred by WHC CWC	CH LLMW I	1997 - 2070	19.0	cubic meters
Direct Disposal, RH LLMW I RH LLMW I Disposed by Direct Disposal	RH LLMW I	1997 - 2070	25600	cubic meters
CTT Treated to Disposal, CH LLMW I CH LLMW I Disposed by CTT Treated to Disposal	CH LLMW I	1997 - 2070	3320	cubic meters
STOREQUIP, CH-LLMW-I CH LLMW I Transferred.	(none forecasted)			
STP Treated to Disposal, CH LLMW I CH LLMW I Disposed by STP Treated to Disposal	CH LLMW I	1997 - 2070	67700	cubic meters

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS**Table B.1-14 Internal Outputs for Mixed Waste Disposal Trenches**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.2.2.16 Liquid Effluent Retention Facility Mixed Waste Disposal Trench Leachate Waste water from Mixed Waste Disposal Trench leachate.	Waste Water	1999 - 2030	48400	cubic meters

B.1.1.4 Drivers for Solid Waste Storage & Disposal

Table B.1-15 Source Documents for Solid Waste Storage & Disposal

Name	Title
DOE Order 5820.2A	Radioactive Waste Management
DOE/EIS-0222D	Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land Use Plan
DOE/RL-89-10	Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement), Rev.4
DOE/RL-96-14	Updated Draft Mission Direction Document, June 1996
DOE/RL-96-92	Hanford Strategic Plan
WHC-IP-1120, Rev. 1	Standards/Requirements Identification Document (S/RID)
WHC-SD-WM-MAR-008, TWRS	
Mission Analysis Report	
WHC-SP-1114 Rev 2	Solid Waste Program Fiscal Year 1997 Multi-Year Work Plan

B.1.1.5 Solid Waste Storage & Disposal Risk Management

Units of Analysis (and any RDS #):

CWC/LLBG MINIMUM SAFE (R96N0004, R96N0005, R96N0018, R96N0209, R96N0217, R96N0218, R96N0221)

CWC/LLBG OPERATIONS (R96N0005, R96N0018)

LLBG CLOSURE PROJECT (W-329) (R96N0031)

SOLID WASTE PROGRAM MANAGEMENT (R96N0004)

Risk roll-up by year:

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Public	3B-L	3B-L	3B-L	3B-L	3B-L	3B-L	3B-L	3B-L	3B-L
Worker	3B-M	3B-M	3B-M	3B-M	3B-M	3B-M	3B-M	3B-M	3B-M
Env	3B-M	3B-M	3B-M	3B-M	3B-M	3B-M	3B-M	3B-M	3B-M
	2006	2007-10	2011-15	2016-20	2021-25				
Public	3B-L	3B-L	3B-L	3B-L	3B-L		3B-L		
Worker	3B-M	3B-M	3B-M	3B-M	3B-M		3B-M		
Env	3B-M	3B-M	3B-M	3B-M	3B-M		3B-M		
	2026-30	2031-35	2036-40	2041-45	2046-50				
Public	3B-L	3B-L	3B-L	3B-L	3B-L		3B-L		
Worker	3B-M	3B-M	3B-M	3B-M	3B-M		3B-M		
Env	3B-M	3B-M	3B-M	3B-M	3B-M		3B-M		
	2051-55	2056-60	2061-65	2066-70					
Public	3B-L	3B-L	3B-L	L-3D					
Worker	3B-M	3B-M	3B-M	L-3D					
Env	3B-M	3B-M	3B-M	L-3D					

Has the risk evaluation been externally peer reviewed? (N)

Have regulators and stakeholders been involved in validating the project risk evaluations? (N)

C.1. Narrative

Identification of relevant PBS interfaces -- e.g., if the project ends and is transferred to another PBS.

This activity supports surveillance and maintenance of current waste inventories within TSCA and RCRA permitted storage and disposal facilities and maintaining safe, compliant facility conditions in preparation to receive solid low level, mixed, and transuranic wastes for storage and disposal from all onsite generators and from offsite generators. The actual waste receipt activities are supported with Solid Waste resources while the funding is supported within the generator profiles. The Solid Waste Program additionally supports all onsite generators for direct offsite shipment of dangerous nonradioactive wastes for treatment and disposal. This activity also supports storage and disposal of solid waste resulting from onsite cleanup activities and disposal of the Reactor Compartments (RCs) from the U.S. Navy, as well as, offsite DOE wastes. This project also interfaces with RL-WM04 for the disposal of treated mixed wastes and the retrieval operations of retrievable stored TRU waste.

Brief description of Project, hazards and activities

Solid Waste storage and disposal is a long-term mission to support the storage and disposal of solid wastes. Assuming that storage and disposal at Solid Waste facilities is not supported, the primary risks are found at the generator facilities as generated waste inventories stockpile. It is assumed that increasing inventories at the generator facilities over time result in increased worker exposures, increased potential for inadvertent releases to the environment. Failure to continue surveillance and monitoring of current waste inventories at Solid Waste facilities are assumed over time to result in containment breaches and subsequent release to the environment. The operations, surveillance, and maintenance of the Solid Waste facilities have inherent industrial risks, with the highest risks occurring during generator funded waste receipt activities.

Risk reduction metric(s) and demarcation of risk levels

How will this project reduce Hanford risks? What key project events are planned that will change risk?

The Solid Waste long-term mission of storage and disposal of solid wastes reaches its end state when all generator facilities have ceased operations, all cleanup activities are complete, Solid Waste facilities are deactivated, and closure of all burial grounds is achieved. At that time, all onsite and offsite generated low level are disposed in the LLBG and onsite and offsite treated mixed wastes are disposed in RCRA compliant landfills in the LLBG resulting in low long term risks to the public, site workers, and the environment.

What risk performance measures have been selected to track changes in risk? Are these direct metrics such as dose or indirect metrics such as volume of stabilized material?

Only indirect metrics are possible which relate to limits of operation as determined by analyzing the hazards with each facility including the waste inventories.

Public Health metric(s):

The basic public health measure is radiological dose, with an offsite location for 300 years, and then onsite locations thereafter.

Worker Health & Safety metric(s):

Worker doses as well as industrial accidents are both considered, with a range of potential frequency-severity combinations. The number of workers physically working in Solid Waste facilities during a given year, the volume of waste in storage, and the number of active burial grounds could be risk surrogates.

Environmental Health metric(s):

Potential spread of environmental contamination in the 200 areas is a relevant measure. Again, once the mixed solid wastes have been disposed in RCRA compliant landfills and low level waste has been disposed in the LLBG, there is a low probability for release of contamination, unless the facilities are abandoned and allowed to deteriorate extensively.

Risk Drivers:

Risk sources include existing inventories of stored and buried contact handled and remote handled low level, mixed, mixed TRU, TRU, mixed PCBs, radioactively contaminated PCBs, and reactor irradiated nuclear material. Additional

industrial hazards are similar to other large facilities (electrical and facility infrastructure). Industrial accidents and the varying severity is proportional to the level of worker activity during a given year. Site experience, the scale of the operations, and the effectiveness of existing controls indicate the frequency of injury is expected to be once in 10 years.

Where are we now? BASELINE risks existing at the beginning of 1997 - "stopped project" risks against which progress will be measured.

Existing conditions, inventories: Millions of cubic feet of low level, mixed, TRU, mixed TRU, mixed waste, PCBs, and radioactively contaminated PCBs are stored, disposed, or retrievable buried within Solid Waste facilities. All stored wastes are within RCRA compliant facilities with ongoing surveillance and monitoring. Disposed and buried wastes within the burial grounds include legacy wastes, low level, mixed, TRU, and mixed TRU.

Baseline public health risks: Without compliant storage and disposal facilities and the resulting lack of proper storage and management at generator facilities, it is assumed the presently emplaced radioactive mixed and transuranic wastes have a high probability of inadvertent release to uncontrolled areas and subsequently travel offsite within 1 - 10 years. Future generated radioactive mixed and transuranic wastes would accumulate at the site of generation resulting in the potential for multiple sites of release to uncontrolled areas. Unacceptable safety risks to the public result. Quantities of undisposed radioactive wastes will increase during routine operations because of the lack of a compliant disposal facility, unacceptable safety risks to the public result. Cleanup activities will be congested and as a result contaminated and/or hazardous materials may be inadvertently released to uncontrolled areas and subsequently travel offsite and exceed established limits. This is assumed to occur within 1-10 years.

Baseline worker health & safety risks: Unmanaged or uncontained contamination poses a major threat to site staff safety and health. Virtually all Hanford Programs and many offsite generators will have significant impacts to mission, or create a large inventory, or unmanaged radioactive waste will lead to unacceptable exposures to site workers. There are increased risks of deterioration of facilities containing legacy wastes that could expose staff to high levels of contamination. As the current containers deteriorate, the condition would escalate leading to increasing and expanding exposures. Both short and long term ES&H risks of staff to contaminated and/or hazardous materials would result.

Baseline environmental health risks: There would be a greatly increased potential for contamination spread to the environment. Virtually all programs generating waste will be in RCRA non-compliance, therefore all cleanup progress will be impacted. High level contamination spread of low level, transuranic, and hazardous wastes would cause severe environmental damage over time that would not be easily containable.

Where are we going? Conditions at project completion or transfer and risk-related conditions in the outyears that relate to long-term ENDSTATE commitments

Endstate conditions, inventories: All onsite and offsite mixed wastes (treated) would be disposed in RCRA compliant disposal facilities. Onsite and offsite low level waste would be disposed in the LLBG. All post 1970 TRU would be retrieved and shipped offsite for disposal by RL-WM04. All generator facilities have ceased operations, all cleanup activities are complete, Solid Waste facilities are deactivated, and closure of all burial grounds is achieved.

Endstate public health risks: As Solid Waste operations occur, public exposures exceeding limits are prevented. Radioactive wastes are permanently disposed in safe manner and produce essentially no threat to the public.

Endstate worker health & safety risks: Radiological exposures to workers for surveillance and monitoring activities after endstate are within acceptable limits. Minimal industrial hazards are present.

Endstate environmental health risks: RCRA compliant disposal of radioactive wastes and 5820.2A compliant disposal of low level wastes produce a low risk to the environment.

How are we getting there? Risks that REMAIN at the end of each budget year as currently planned.

General rationale: Since this project has a long term mission, if the project is stopped in any year, the risks are

essentially the same as 1997, although as generators cease operations and the number of cleanup projects is reduced, some reduction in the magnitude of risks is assumed. Beginning in FY 2001, if the project is stopped after disposal operations have been performed in the mixed waste disposal trenches, there is an increased environmental risk associated with rainwater accumulation and subsequent liner failure or trench overflow causing significant increase of environmental damage.

Public health and critical project events & years: Since this project has a long term mission, if the project is stopped in any year, the risks are essentially the same as 1997 with increased risks due to the stockpiling of waste by the generators, although as generators cease operations and the number of cleanup projects is reduced, some reduction in the magnitude of risks is assumed.

Worker health & safety and critical project events & years (e.g., risks to other Hanford workers if this project were stopped): Since this project has a long term mission, if the project is stopped in any year, the risks are essentially the same as 1997, although as generators cease operations and the number of cleanup projects is reduced, some reduction in the magnitude of risks is assumed.

Environmental health and critical project events & years: Since this project has a long term mission, if the project is stopped in any year, the risks are essentially the same as 1997, although as generators cease operations and the number of cleanup projects is reduced, some reduction in the magnitude of risks is assumed.

ANNUAL risks for key project years

Annual risks remain constant throughout the long-term mission of this project. Key activity years are dependent on the onsite cleanup activities and the operations of onsite and offsite generators.

Risk Interfaces, Related Projects, Issues

Interfaces and transitions: Interfaces will exist between Solid Waste and all onsite cleanup operations, all onsite waste generators, and offsite waste generators. Interface with RL-WM04 during life cycle of that project for waste verification and TRU retrieval activities.

Related & interdependent projects: Interfaces will exist between Solid Waste and all onsite cleanup operations, all onsite waste generators, and offsite waste generators. Interface with RL-WM04 during life cycle of that project for waste verification and TRU retrieval activities.

Waste streams, disposal plans, long-term risks: Radioactive and dangerous wastes from cleanup activities and generator operations must be disposed.

Major risk issues and risk assumptions related to project implementation and interim and final endstates

It is assumed that waste generators will continue to support actual waste receipt activities.

References:

Central Waste Complex Safety Analysis Report (SAR) approved 1992, document WHC-SD-WM-SAR-049

Central Waste Complex Interim Safety Basis (ISB) submitted to DOE-RL for approval, document

WHC-SD-WM-ISB-007, Rev. 0-A

Central Waste Complex Interim Operational Safety Requirements (ISOR) submitted to DOE-RL for approval, document TSR-005

Solid Waste Burial Grounds Interim Safety Basis approved August 1995, document WHC-SD-WM-ISB-002

Solid Waste Burial Grounds Interim Safety Analysis approved August 1995, document WHC-SD-WM-SARR-028

Solid Waste Burial Grounds Interim Operational Safety Requirements (ISOR) approved August 1995, document TSR-001

Transuranic Waste Storage and Assay Facility Interim Safety Basis approved January 1997, document

WHC-SD-WM-ISB-004, Rev. 0-A

Transuranic Waste Storage and Assay Facility Interim Safety Operational Safety Requirements (ISOR) approved January 1997, document TSR-002

Nonradioactive Dangerous Waste Storage Facility approved December, 1990, document WM-SAR-019, Rev. 0.

Risk Data Sheets: R96N0004, R96N0005, R96N0018, R96N0209, R96N0217, R96N0218, R96N0221, R96N0005, R96N0018, R96N0031

FY1998

September 26, 1997

B.1.2.0 Work Breakdown Structure

RL PBS	RL WBS Level	Title
RL-WM03	1.2.1.1.1A	LLBG Min. Safe
	1.2.1.1.1B	LLBG Operations
	1.2.1.1.1C	MW Trench Min. Safe (Storage)
	1.2.1.1.1D	MW Trench Operations
	1.2.1.1.1E	CWC Min. Safe
	1.2.1.1.1F	CWC Operations
	1.2.1.1.1G	616 Facility Min. Safe
	1.2.1.1.1H	616 Facility Operations
	1.2.1.1.1J	TRUSAF Min. Safe
	1.2.1.1.1K	TRUSAF Operations
	1.2.1.1.6M	Program Management

B.1.2.1 WBS Dictionary

The following pages contain the WBS dictionary for RL-WM03 as contained in the Central Milestone Module (CMM).

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: SOLID WASTE STORAGE & DISPOSAL	2. Date	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1	6. Corresponding FDS No.	7. Baseline CR No.	
8. Organization Name			9. B & R No.
10. Scope of Work			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: LOW LEVEL BURIAL GROUNDS MINIMUM SAFE	2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1A	6. Corresponding FDS No. 1A1A	7. Baseline CR No.	
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT			9. B & R No.
10. Scope of Work Provides for minimum safe operations and maintenance of Solid Waste burial grounds to maintain compliant conditions for monitoring and surveillance of existing waste inventories; and for preparation to receive low level wastes from onsite and offsite generators for disposal.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: LOW LEVEL BURIAL GROUNDS OPERATIONS	2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1B	6. Corresponding FDS No. 1A1B	7. Baseline CR No.	
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT			9. B & R No.
10. Scope of Work LLBG Operations.			

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HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY WASTE MANAGEMENT WBS: 1.2

9/15/1997

1. Activity Title: MIXED WASTE TRENCH MINIMUM SAFE		2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1C	6. Corresponding FDS No. 1A1C	7. Baseline CR No.		
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT				9. B & R No.
10. Scope of Work Provides for minimum safe operations and maintenance of Solid Waste mixed waste trenches to maintain compliant conditions for monitoring and surveillance of existing waste inventories; and for preparation to receive mixed wastes from onsite generators for safe interim storage/disposal.				

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: MIXED WASTE TRENCH OPERATIONS	2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1D	6. Corresponding FDS No. 1A1D	7. Baseline CR No.	
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT			9. B & R No.
10. Scope of Work Mixed waste trench operations.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: CENTRAL WASTE COMPLEX MINIMUM SAFE	2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1E	6. Corresponding FDS No. 1A1E	7. Baseline CR No.	
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT			9. B & R No.
10. Scope of Work Provides for minimum safe operations and maintenance of Solid Waste Central Waste Complex (CWC) facilities to maintain compliant facility conditions for monitoring and surveillance of existing waste inventories; and for preparation to receive low level, mixed and/or transuranic (TRU) wastes for safe interim storage or disposal.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: CENTRAL WASTE COMPLEX OPERATIONS		2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1F	6. Corresponding FDS No. 1A1F	7. Baseline CR No.		
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT				9. B & R No.
10. Scope of Work Central Waste Complex operations.				

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: 616 FACILITY MINIMUM SAFE	2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1G	6. Corresponding FDS No. 1A1G	7. Baseline CR No.	
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT			9. B & R No.
10. Scope of Work: Provides for the minimum surveillance and maintenance activities for the 616 facility.			

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HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY WASTE MANAGEMENT WBS: 1.2

9/15/1997

1. Activity Title: 616 FACILITY OPERATIONS	2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1H	6. Corresponding FDS No. 1A1H	7. Baseline CR No.	
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT			9. B & R No.
10. Scope of Work 616 Facility operations.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: TRUSAF FACILITY MINIMUM SAFE	2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1J	6. Corresponding FDS No. 1A1J	7. Baseline CR No.	
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT			9. B & R No.
10. Scope of Work Provides for the minimum surveillance and maintenance activities for the TRUSAF facility.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: TRUSAF FACILITY OPERATIONS		2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1K	6. Corresponding FDS No. 1A1K	7. Baseline CR No.		
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT				9. B & R No.
10. Scope of Work TRUSAF operations.				

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HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY WASTE MANAGEMENT WBS: 1.2

9/15/1997

1. Activity Title: WASTE MANAGEMENT HANFORD PROGRAM MGMT.		2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1M	6. Corresponding FDS No. 1A6M	7. Baseline CR No.		
8. Organization Name 33400 - STRATEGIC PLANNING				9. B & R No.
10. Scope of Work Provides for the overall program coordination, direction and customer interface to insure the proper conduct of operations in the Waste Management Project. This consists of baseline management activities, strategic planning, procurement services, construction project administration, EM integration activities, and safeguards and security. Also includes maintenance activities supporting solid waste facility trailers.				

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: LOW LEVEL BURIAL GROUNDS CLOSURE (W-329)		2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.1N	6. Corresponding FDS No. 1A1N	7. Baseline CR No.		
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT				9. B & R No.
10. Scope of Work This project represents the overall program for final closure of all solid waste burial grounds in the 200 East and 200 West areas of the Hanford site. The solid waste burial grounds are subject to permitting agreements entered into between the Washington State Department of Ecology and the Department of Energy/Richland Operations Office. As such, the burial grounds are subject to the closure requirements given in the Washington Administrative Code (WAC)-173-303. This project provides for the development of strategies, finalization of design, and the ultimate installation of closure covers for the burial grounds. TRU retrieval activities must be completed prior to the closure of the burial grounds.				

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HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY WASTE MANAGEMENT WBS: 1.2

9/15/1997

1. Activity Title: LEACHATE TANKER		2. Date 9/11/1997	3. PBS Number RL-WM03	4. Dict Rev
5. Contract WBS No. 1.2.1.1.2D	6. Corresponding FDS No. 2A1D	7. Baseline CR No.		
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT				9. B & R No.
10. Scope of Work Leachate tanker.				

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B.1.2.2 Responsibility Assignment Matrix

The following page contains the Responsibility Assignment Matrix (RAM)
as contained in the Central Milestone Module (CMM).

9/16/1997

Mission Area Responsibility Assignment Matrix

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Proj Lvl (PBS #)	FIS Act Number	Activity Title	Activity Manager	Responsible Organization	Cost Account
RL-WM03		SOLID WASTE STORAGE & DISPOSAL			
	1A1A	LOW LEVEL BURIAL GROUNDS MINIMUM SAFE	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A1B	LOW LEVEL BURIAL GROUNDS OPERATIONS	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A1C	MIXED WASTE TRENCH MINIMUM SAFE	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A1D	MIXED WASTE TRENCH OPERATIONS	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A1E	CENTRAL WASTE COMPLEX MINIMUM SAFE	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A1F	CENTRAL WASTE COMPLEX OPERATIONS	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A1G	616 FACILITY MINIMUM SAFE	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A1H	616 FACILITY OPERATIONS	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A1J	TRUSAF FACILITY MINIMUM SAFE	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A1K	TRUSAF FACILITY OPERATIONS	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A1N	LOW LEVEL BURIAL GROUNDS CLOSURE (W-329)	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A6H	WASTE MANAGEMENT HANFORD PROGRAM MGMT.	D.E. McKENNEY	33400 - STRATEGIC PLANNING	
	2A1D	LEACHATE TANKER	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	



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B.1.3.0 Schedule Baseline

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary (PBS) guidance.

Activity ID				Activity Description	Early Start	Early Finish	Activity
RL-WM03 Solid Waste Storage and Disposal							
SEMS 23.5.5 Central Waste Complex Ops & Maint							
RAW/CWC STORAGE							
SW3D1	Operate RMW/CWC Storage		01OCT97*	30SEP48	Operate RMW/CWC Storage		
SW3D2	From LW - 200 Area ETF			30SEP48	From LW - 200 Area ETF		
SW3D4	To AS - Provide WSCF Support to RMW Trenches			30SEP48	To AS - Provide WSCF Support to RMW Trenches		
SW3D5	To AS - Provide Commercial Suppt to RMW Trenches			30SEP48	To AS - Provide Commercial Suppt to RMW Trenches		
SW3D6	To AS - WSCF Ship Mixed Waste to CWC			30SEP48	To AS - WSCF Ship Mixed Waste to CWC		
SW3D7	Receive B-Cell Wastes			16SEP99*	Receive B-Cell Wastes		
SW3D8	From FS - B-Cell Wastes to SW			16SEP99	From FS - B-Cell Wastes to SW		
SEMS 23.8.B Non-Rad Dang Wat Stor Fac Closeout							
HAZARDOUS WASTE STORAGE							
SW3C1	616 Bldg Standby		01OCT97*	30SEP99	616 Bldg Standby		
SW3C2	To FS - 616 Bldg.			30SEP99	To FS - 616 Bldg.		
SEMS 23.10.6 TRUSAF Closeout							
TRUSAF FACILITY							
SW3B1	Trusaf Shutdown		01OCT97*	31MAR98	Trusaf Shutdown		
SW3B2	To TW - TRUSAF to Facility Transition			31MAR98	To TW - TRUSAF to Facility Transition		
SEMS 24.1.5 Low Level Burial Grounds Ops & Mn.							
LOW LEVEL BURIAL GROUNDS							
SW3E1	Operate LLW Burial Grounds		01OCT97*	30SEP48	Operate LLW Burial Grounds		
SW3E2	To AS - Provide WSCF Support to Burial Grounds			30SEP48	To AS - Provide WSCF Support to Burial Grounds		
SW3E3	To AS - Provide Comm Support to Burial Grounds			30SEP48	To AS - Provide Comm Support to Burial Grounds		

Project Start: 05/01/97										Sheet 1 of 2									
Project End: 01/02/98																			
Data Date: 10SEP97																			
Run Date:																			
© Primavera Systems, Inc.										WASTE MANAGEMENT HANFORD PBS WM03 - SW STORAGE & DISPOSAL PROJECT MASTER BASELINE SCHEDULE									
																			



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**WASTE MANAGEMENT HANFORD
PBS WM03 - SW STORAGE & DISPOSAL
PROJECT MASTER BASELINE SCHEDULE**

PAGES



SW3D1
SW3D2
SW3D4
SW3D5
SW3D6
SW3D7
SW3D8
SW3C1
SW3C2
SW3B1
SW3B2
SW3E1
SW3E2
SW3E3

B.1.3-3

Activity ID	Activity Description	Early Start	Early Finish
WASTE RECEIPTS			
SW3A7	From AS - Ship WSCF LLR Waste to Burial Ground	30SEP48	
SW3A8	From AS - Ship 222-S LLR Waste to CWC	30SEP48	
SW3A9	From AS - Ship 222-S Mixed Waste to CWC	30SEP48	
SW3AC	Receive Waste from all On-Site Generators	01OCT97*	
SW3AD	Last Shipment from Other DOE Sites	28SEP35*	
SW3AE	Last Shipment from Off-Site Labs	28SEP35*	
SW3AF	Last Shipment from Off-Site Universities	28SEP35*	
SW3AG	Last Shipment from Other Off-Site Generators	28SEP35*	
SW3AH	Receive Waste from Off-Site Generators	01OCT97*	
PROGRAM MANAGEMENT FOR WHC			
SW3G1	Complete Phase I Sample Projections (Labs)	26NOV97*	
SW3G2	Submit Monitoring Evaluation Report to DOE-RL	31MAR98*	
SW3G3	Complete Phase II Sample Projections (Labs)	29MAY98*	
SW3G4	Complete Revision of WHC-EP-0063-1	30SEP98*	

Activity ID	Activity Description	Early Start	Early Finish	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
RL-WM03 Solid Waste Storage and Disposal																			
HSEMS 2.3.5.5 Central Waste Complex Ops & Maint																			
RMW/CWG STORAGE																			
SW3D1	Operate RMW/CWG Storage	01OCT97*	30SEP98																
HSEMS 2.3.6 Non-Radiating West Stor Fac Closeout																			
HAZARDOUS WASTE STORAGE																			
SW3C1	616 Bldg Standby	01OCT97*	30SEP98																
HSEMS 2.3.10.3 TRUSAF Closeout																			
TRUSAF FACILITY																			
SW3B1	Trusaf Shutdown	01OCT97*	31MAR98																
SW3B2	To TW - TRUSAF to Facility Transition		31MAR98																
HSEMS 2.4.1.1.5 Low Level Burial Grounds Ops & Mnt																			
LOW LEVEL BURIAL GROUNDS																			
SW3E1	Operate LLW Burial Grounds	01OCT97*	30SEP98																
HSEMS 2.4.2.5 Mixed Waste Disposal Trenches O & M																			
RMW TRENCHES																			
SW3F1	Operate RMW Trenches - Storage	01OCT97*	30SEP98																
OTHER																			
WASTE RECEIPTS																			
SW3A/C	Receive Waste from all On-Site Generators	01OCT97*	30SEP98																
SW3A/H	Receive Waste from Off-Site Generators	01OCT97*	30SEP98																



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WASTE MANAGEMENT HANFORD
PBS WM03 - SW STORAGE & DISPOSAL
FY98 - EXECUTION YEAR PMBS

12/98

Early Start
Project Start
Early Finish
Project Finish
Early Date
Project Date

MYMP/SSPP PLANNING MILESTONE LIST
REPORTING PERIOD 10/01/97 TO 12/31/20

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MILESTONE CONTROL #	TPA-MS NUMBER	TPA TYPE	MS LEVEL	MS TITLE	TYPE	-----DATES-----			PROJ CIN	PBS #
						PLANNED BASELINE	APPROVED BASELINE	REVISED BASELINE		
AIC-01-001	M-91-13	I	HQ	INITIATE DISPOSAL OF CH-LLMW	EA	6/30/01				RL-IM03
A6M-49-001	M-91-01	I	HQ	COMPLETE FACILITIES PRIOR TO DISPOSAL OF POST-1970 TRU/TRUM	EA	12/31/00				RL-IM03
A6M-49-002	M-91-00	M	HQ	COMPLETE ALL FACILITIES FOR HANDLING TRU/TRUM, LLMW & GTC3	EA	6/30/08				RL-IM03
A6M-98-001			RL	SUBMIT MONITORING EVALUATION REPORT TO DOE-RL	OTH	3/31/98				RL-IM03
A6M-98-002			RL	COMPLETE REVISION OF MFC-EP-0063-4	OTH	9/30/98				RL-IM03
A6M-98-003			RL	COMPLETE PHASE I SAMPLE PROJECTIONS (LABS)	OTH	11/26/97				RL-IM03
A6M-98-004			RL	COMPLETE PHASE II SAMPLE PROJECTIONS (LABS)	OTH	5/29/98				RL-IM03

PHMC

MILESTONE DESCRIPTION SHEET

Title: INITIATE DISPOSAL OF CH-LLMW				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.1.1				Due Date: 6/30/01	
PBS No: RL-WM03					
MC #: AIC-01-001			TPA No: M-91-13		Rev:
MILESTONE LEVEL:	MILESTONE TYPE:	DNFSB STATUS:	DELIVERABLE:	ADDRESS TO:	
X DOE-HQ DOE-RL DOE-FO CONTRACTOR	X EA PEG OTHER	DNFSB (Y/N): N COMMIT #: RECOMM #:	Report Letter Drawing(s) Other (Specify)	DOE-HQ DOE-RL Other (Specify)	
Milestone Description: Initiate disposal of CH LLMW.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE FACILITIES PRIOR TO DISPOSAL OF POST-1970 TRU/TRUM				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.1.1				Due Date: 12/31/00	
PBS No: RL-WM03					
MC #: A6M-49-001			TPA No: M-91-01		Rev:
MILESTONE LEVEL:	MILESTONE TYPE:	DNFSB STATUS:	DELIVERABLE:	ADDRESS TO:	
X DOE-HQ DOE-RL DOE-FO CONTRACTOR	X EA PEG OTHER	DNFSB (Y/N): N COMMIT #: RECOMM #:	Report X Letter Drawing(s) Other (Specify)	DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Complete the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, and treatment/processing prior to disposal of all Hanford Site post-1970 TRU/TRUM. Note: The date for completion of M-91-01 will be determined after required technology has been determined through the TRU/TRUM PMP, but will be no later than December 2000.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE ALL FACILITIES FOR HANDLING TRU/TRUM, LLMW & GTC3				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.1.1				Due Date: 6/30/08	
PBS No: RL-WM03					
MC #: A6M-49-002			TPA No: M-91-00		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Complete the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal of all Hanford Site TRU/TRUM, LLMW, and GTC3.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT MONITORING EVALUATION REPORT TO DOE-RL			Date: 8/25/97	
Assigned To: D.E. McKENNEY			CIN:	
Program WBS Designator: 1.2.1.1			Due Date: 3/31/98	
PBS No: RL-WM03				
MC #: A6M-98-001		TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)
Milestone Description: Evaluate methods and costs for monitoring disposal facility performance, particularly release of contaminants into the vadose zone and tracking of infiltration and moisture movement in the vadose zone. Recommend monitoring approach.				
Description of what constitutes completion of this milestone: Submittal of letter report to DOE-RL.				

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE REVISION OF WHC-EP-0063-4				Date: 8/25/97	
Assigned To: J.B. BUCKLEY				CIN:	
Program WBS Designator: 1.2.1.1				Due Date: 9/30/98	
PBS No: RL-WM03					
MC #: A6M-98-002			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report Letter Drawing(s) X Other (Specify) DOCUMENT REVISION	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Revise WHC-EP-0063-4 (or subsequent title/rev.) to incorporate WM Liquids facilities acceptance criteria.					
Description of what constitutes completion of this milestone: Submittal of revision to WHC-EP-0063-4 (or subsequent title/rev.) to DOE-RL for approval by 9/30/98.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE PHASE I SAMPLE PROJECTIONS (LABS)			Date: 8/26/97	
Assigned To: D.E. McKENNEY			CIN:	
Program WBS Designator: 1.2.1.1			Due Date: 11/26/97	
PBS No: RL-WM03				
MC #: A6M-98-003		TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)
Milestone Description: Update the site sample projections every six months. This is accomplished by collecting input from the major programs (TWRS, Solid Waste, Liquid Effluents, Environmental Restoration, Spent Nuclear Fuels) and compiling the needs into a supporting document.				
Description of what constitutes completion of this milestone: A letter report summarizing the results of the projections will be transmitted to DOE-RL by November 26, 1997.				

PHMC
MILESTONE DESCRIPTION SHEET

Title: COMPLETE PHASE II SAMPLE PROJECTIONS (LABS)				Date: 8/26/97	
Assigned To: D.E. McKENNEY				CIN:	
Program WBS Designator: 1.2.1.1				Due Date: 5/29/98	
PBS No: RL-WM03					
MC #: A6M-98-004			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Update the site sample projections every six months. This is accomplished by collecting input from the major programs (TWRS, Solid Waste, Liquid Effluents, Environmental Restoration, Spent Nuclear Fuels) and compiling the needs into a supporting document.					
Description of what constitutes completion of this milestone: A letter report summarizing the results of the projections will be transmitted to DOE-RL by May 29, 1998.					

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September 26, 1997

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HNF-SP-1229

Rev. 1

Waste Management Project

WBS 1.2

FY1998

September 26, 1997

B.1.4.0 Cost Baseline

WASTE MANAGEMENT PROJECT
SUMMARY OF LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

D 4 4 2

TOTAL BCWS/PMB¹

Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover Is **NOT** Included.

WASTE MANAGEMENT PROJECT
SUMMARY OF LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY
BY PROJECT BASELINE SUMMARY (PBS)

FY 1998

EXHIBIT 1a

(\$000s)

PROJECT WBS : 1.2.1.1													
PBS TITLE	PBS NO	FY2007- FY2010	FY2011- FY2015	FY2016- FY2020	FY2021- FY2025	FY2026- FY2030	FY2031- FY2035	FY2036- FY2040	FY2041- FY2045	FY2046- FY2050	TOTAL		
SOLID WASTE STORAGE/DISPOSAL	RL-WM03	151,211	263,158	174,805	174,805	174,805	174,805	15,790	15,790	15,790	1,473,586		
TOTAL BCWS/PMB¹	-	151,211	263,158	174,805	174,805	174,805	174,805	15,790	15,790	15,790	1,473,586		

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS)

Equals Performance Measurement Baseline (PMB); Expense Carryover is NOT Included.

WASTE MANAGEMENT PROJECT
LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

PROJECT WBS: 1.2.1.1		(\$000s)										
PBS NO: RL-WM03												
PBS TITLE: Solid Waste Storage and Disposal												
FUND TYPE	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	SUBTOT	
OPERATING EXPENSE	28,493	31,716	31,545	21,674	24,925	24,634	25,245	26,860	27,505	30,256	FY1997- FY2006	
CENRTC	460			200	604	664	707	781	629	445	4,490	
GENERAL PLANT PROJECT	224			470	1,811	2,033	2,135	2,182	2,220	1,980	13,055	
LINE ITEM (List Each One)												
W-112	1,793										1,793	
W-329 BG Closure									4,269	17,167	21,436	
											-	
											-	
Subtotal Line Items	1,793	-	-	-	-	-	-	-	4,269	17,167	23,229	
TOTAL BCWS/PMB ¹	30,970	31,716	31,545	22,344	27,340	27,331	28,087	28,823	34,623	49,848	312,627	
MGMT RESERVE ²											-	
LINE ITEM CONTINGENCY ²											-	
OFFSITE TRANSFERS ³											-	
Subtotal	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	30,970	31,716	31,545	22,344	27,340	27,331	28,087	28,823	34,623	49,848	312,627	

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover NOT included.

²Management Reserve and Line Item Contingency held by RL.

³Work Performed at Sites Other Than Hanford.

WASTE MANAGEMENT PROJECT
LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

PROJECT WBS: 1.2.1.1		(\$000s)														TOTAL	
PBS NO: RL-WM03																	
PBS TITLE: Solid Waste Storage and Disposal																	
FUND	TYPE	FY2007-	FY2011-	FY2016-	FY2021-	FY2026-	FY2031-	FY2036-	FY2041-	FY2046-	FY1997-						
		FY2010	FY2015	FY2020	FY2025	FY2030	FY2035	FY2040	FY2045	FY2050	FY2050						
OPERATING EXPENSE		114,311	226,258	137,905	137,905	137,905	137,905	15,290	15,290	15,290	1,209,912						
CENRTC		8,900	8,900	8,900	8,900	8,900	8,900	500	500	500	59,390						
GENERAL PLANT PROJECT		28,000	28,000	28,000	28,000	28,000	28,000				181,055						
LINE ITEM (List Each One)																	
W-112											1,793						
W-328 BG Closure											21,438						
											-						
											-						
											-						
Subtotal Line Items											23,229						
TOTAL BCWS/PMB ¹		151,211	263,158	174,805	174,805	174,805	174,805	15,790	15,790	15,790	1,473,566						
MGMT RESERVE ²											-						
LINE ITEM CONTINGENCY ²											-						
OFFSITE TRANSFERS ³											-						
Subtotal											-						
TOTAL		151,211	263,158	174,805	174,805	174,805	174,805	15,790	15,790	15,790	1,473,566						

Note: The information for FY1998 and FY1999 cont. aligns the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover NOT included.

²Management Reserve and Line Item Contingency Held by RL.

³Work Performed at Sites Other Than Hanford

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH
BY PROJECT BASELINE SUMMARY (PBS)
BY ACTIVITY DATA SHEET (ADS)
EXECUTION YEAR

PROJECT WBS: 1.2.1.1

PBS NO: RL-WM03

PBS TITLE: Solid Waste Storage and Disposal

ADS TITLE	ADS NO	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
Solid Waste	2200-0	OP EXP	2,554	1,998	2,351	2,399	2,111	2,460	2,468	2,243	2,454	2,368	2,305	6,005	31,716
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT	2,554	1,998	2,351	2,399	2,111	2,460	2,468	2,243	2,454	2,368	2,305	6,005	31,716
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT	-	-	-	-	-	-	-	-	-	-	-	-	-
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT	-	-	-	-	-	-	-	-	-	-	-	-	-
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.
 *Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is **NOT** Included.

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH
BY PROJECT BASELINE SUMMARY (PBS)
BY ACTIVITY DATA SHEET (ADS)
EXECUTION YEAR

(\$000s)

PROJECT WBS: 1.2.1.1		(\$000US)													
PBS NO: RL-WM03															
PBS TITLE: Solid Waste Storage and Disposal															
ADS TITLE	ADS NO	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT													-
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT													-
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT													-
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT													-
TOTAL BCWS/PMB ¹			2,554	1,998	2,351	2,399	2,111	2,460	2,468	2,243	2,454	2,368	2,305	6,005	31,716

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is NOT Included.

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH BY FUND TYPE BY PROJECT
EXECUTION YEAR
(\$000s)

PROJECT WBS	PROJECT TITLE	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.2.1.1	Solid Waste Storage and Disposal (RL-WM03)	Operating Expense	2,554	1,998	2,351	2,399	2,111	2,460	2,468	2,243	2,454	2,368	2,305	6,005	31,716
		CENRTC													0
		GPP													0
		Line Item													0
		Total BCWS/PMB¹	2,554	1,998	2,351	2,399	2,111	2,460	2,468	2,243	2,454	2,368	2,305	6,005	31,716
		Mgmt Reserve ²													0
		Line Item Contingency ²													0
		Offsite Transfers ³													0
Total			2,554	1,998	2,351	2,399	2,111	2,460	2,468	2,243	2,454	2,368	2,305	6,005	31,716

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is Not Included.

²Management Reserve and Line Item Contingency Held By RL.

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH BY COST ELEMENT BY PROJECT
EXECUTION YEAR
(\$000s)

PROJECT WBS	PROJECT TITLE	COST ELEMENT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.2.1.1	Solid Waste Storage and Disposal (RL-WM03)	0 Salaries	1,083	849	996	1,012	893	1,042	1,047	965	1,017	1,009	989	987	11,889
		1 Material	59	46	54	54	49	56	56	51	56	54	54	54	643
		2 Purchased Serv	196	146	178	194	160	193	195	171	191	183	174	185	2,165
		3 Other Contr Chgs	34	27	31	31	30	34	34	31	34	31	31	31	379
		4 Internal Serv	98	77	90	90	81	94	94	85	94	90	90	90	1,073
		5 Internal Chgs	177	139	162	162	146	169	169	154	169	162	162	162	1,933
		6 LMSI	5	4	4	4	3	4	4	4	4	4	4	4	48
		7 Overheads	523	406	480	488	431	502	501	458	502	484	473	6475	11,725
		8 Revenue													0
		9 Enterprise Cos	179	136	164	161	143	170	164	141	151	155	145	151	1,860
Total BCWS/PMB¹			2,954	1,832	2,159	2,196	1,939	2,264	2,264	2,060	2,218	2,172	2,122	8,139	31,716

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is **Not** Included.

WASTE MANAGEMENT PROJECT
SUMMARY OF LIFE CYCLE BUDGET AUTHORITY (B/A) BY YEAR BY
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

(\$000\$)

PROJECT WBS: 1.2.1.1

HNF-SP-1229, Rev. 1[illegible]

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

EXHIBIT 4a

PROJECT WBS : 1.2.1.1											
PBS TITLE	PBS NO	FY2007-	FY2011-	FY2016-	FY2021-	FY2026-	FY2031-	FY2036	FY2041-	FY2046	TOTAL
		FY2010	FY2015	FY2020	FY2025	FY2030	FY2035	FY2040	FY2045	FY2050	FY1997- FY2050
SOLID WASTE STORAGE/DISPOSAL	RL-WM03	151,211	263,158	174,805	174,805	174,805	174,805	15,790	15,790	15,790	
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Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

WASTE MANAGEMENT PROJECT
LIFE CYCLE BUDGET AUTHORITY (B/A) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

9/23/97

Page 1 of 2

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Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

WASTE MANAGEMENT PROJECT
LIFE CYCLE BUDGET AUTHORITY (B/A) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

(\$000s)

PROJECT WBS: 1.2.1.1		TOTAL															
PBS NO: RL-WM03																	
PBS TITLE: Solid Waste Storage and Disposal																	
FUND	TYPE	FY2007-	FY2011-	FY2016-	FY2021-	FY2026-	FY2031-	FY2036-	FY2041-	FY2046-	FY1997-						
		FY2010	FY2015	FY2020	FY2025	FY2030	FY2035	FY2040	FY2045	FY2050	FY2050						
OPERATING EXPENSE		116,375	145,247	137,905	137,905	137,905	137,905	15,290	15,290	15,290	1,128,825						
CENRTC		8,091	14,005	8,900	8,900	8,900	8,900	500	500	500	63,383						
GENERAL PLANT PROJECT		22,400	28,000	28,000	28,000	28,000	28,000				175,352						
LINE ITEM (List Each One)																	
W-329 BG Closure		4,345	75,906								101,687						
											-						
											-						
											-						
											-						
Subtotal Line Items		4,345	75,906	-	-	-	-	-	-	-	101,687						
TOTAL NEW B/A		151,211	263,158	174,805	174,805	174,805	174,805	15,790	15,790	15,790	1,469,247						

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

Staffing

Waste Management Project
3 DIGIT CONTRACTOR IDENTIFIER-PR-WM12
Revision 0
AVERAGE ANNUAL FULL TIME EQUIVALENTS
(includes Major Subcontractors but not Enterprise Companies)

PHBS 1.2.1.1 Submittal Date: 8/29/97

PBS Number	PBS Title	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
RL-WM03	Solid Waste										
	Storage and										
	Disposal	170	156	156	156	156	156	156	156	156	156
Total PBS FTEs		<u>170</u>	<u>156</u>	<u>156</u>	<u>156</u>	<u>156</u>	<u>156</u>	<u>156</u>	<u>156</u>	<u>156</u>	<u>156</u>

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

B.2 Solid Waste Treatment (RL-WM04)

B.2.1.0 Solid Waste Treatment Technical Baseline (RL-WM04)

B.2.1.1 Solid Waste Treatment Organization Mission (RL-WM04)

The Solid Waste Treatment project provides on-site and commercial mixed waste treatment, waste verification and repackaging, and decontamination services to customers throughout the Hanford Site. This work supports agreements with the Federal Facility Compliance Agreement (Tri-Party Agreement) stakeholders and addresses specific milestones (M-19-00, M-19-01, M-32-03, M-91-00, M-91-01, M-91-02, M-91-13, and M-91-15) for initiating and completing treatment for a variety of low-level waste (LLW), low-level mixed waste (LLMW), transuranic (TRU), and transuranic mixed (TRUM) wastes. Wastes are treated for disposal purposes under varying criteria. This work is accomplished through existing facilities on the Hanford Site such as the T-Plant complex, the Waste Receiving and Processing Facility (WRAP), and through off-site treatment contracts. Capital projects associated with mixed waste treatment activities are also addressed in this project baseline summary.

WASTE AND DECONTAMINATION SERVICES: (T-Plant Complex)

The Waste and Decontamination Services project provides mixed waste treatment, waste verification and repackaging, and decontamination services to customers throughout the Hanford Site. Work is performed at the T-Plant Complex which has been providing decontamination services to the site since 1957. The T-Plant complex is divided into two sub-complexes, the 221-T canyon facility and the 2706-T complex. The entire complex has a Resource Conservation and Recovery Act Treatment, Storage and Disposal permit and each of the two complexes has its own unique characteristics that allow for a variety of services to be provided to Hanford Site customers.

The 221-T canyon was originally constructed in 1943 to extract plutonium from reactor fuel. It began a mission as a high-dose decontamination facility in 1957. Throughout the years various pieces of large contaminated equipment have been stored in the canyon. Spent nuclear fuel from the decommissioned Shippingport reactor is also stored under water in the canyon. Processing in the canyon also includes items contaminated with alpha-bearing radionuclides. Currently, work in the 221-T canyon includes mixed waste treatment of alpha contaminated mixed waste, decontamination of Tank Waste Remediation sampling equipment, and canyon clean-out activities.

The 2706-T Complex began work in 1959 as a low-dose decontamination facility with specific emphasis on large rolling stock equipment. Since then, it has also assumed the mission of waste verification and mixed waste treatment of non-alpha-bearing wastes. The facility was expanded in 1992 to accommodate the larger demand for its expanded waste treatment services.

Operation of the T-Plant Complex also requires standard operations support activities such as training and certification, maintenance, emergency response, equipment upgrades, environmental, safety and health support, and general administrative and management support.

Operation of the T-Plant Complex maintains the overall objective of providing decontamination services of high-dose rate waste and contaminated equipment to meet applicable standards for disposal, storage, re-use, or free release. Low-dose rate waste and contaminated equipment is also managed for repair and return to service and supporting site goals in pollution prevention, recycling, waste reduction, and mixed waste treatment. Safe storage of high-dose contaminated equipment and spent nuclear fuel are also provided.

WASTE RECEIVING AND PROCESSING FACILITY (WRAP):

This Project Baseline Summary also provides for the startup and operation of the WRAP Module 1. The WRAP

Module 1 facility will provide low-level mixed waste and low-level waste verification sampling capability for waste already in storage as well as newly generated waste. The WRAP Module 1 will provide verification or characterization required by Washington Administrative Code 173-303 and 10 Code of Federal Regulations 264 for the Low Level Burial Grounds and Resource Conservation and Recovery Act compliant storage facilities to be able to accept solid waste (drums and boxes) for storage or disposal. Without WRAP-1 operations, stockpiling of solid radioactive wastes could occur across the Hanford site.

WRAP Module 1 will also provide certification and treatment for suspect transuranic solid waste in above ground and retrievable underground storage at Hanford. The transuranic fraction will be transported to the Waste Isolation Pilot Project for disposal, while the non-transuranic fraction will be segregated for on-site disposal in the Low Level Burial Grounds or for further processing. Many of the suspect transuranic containers have been underground longer than 20 years, which was the longest period of underground storage initially intended.

MIXED WASTE TREATMENT PROGRAM

The Radioactive Mixed Waste Treatment project provides for the Resource Conservation and Recovery Act and Toxic Substances Control Act required treatment and disposal of several categories of mixed waste and the operation of the Radioactive Mixed Waste trenches. The mixed waste covered under this project includes waste to be generated in the future as well as mixed waste currently stored on the Hanford Site. Tri-Party Agreement Milestones M-19-01, M-19-02, and M-19-03 are satisfied in this work scope for backlog soils treatment and stabilization work. The treatment program is governed by Tri-Party Agreement milestones M19 and M91.

CAPITAL PROJECT W-259

Capital project number W-259 is a line-item project that adds a new liquid waste collection system to the T-Plant Complex. This waste collection system upgrade is required by Tri-Party Agreement Milestone M-32-03.

CAPITAL PROJECT W-113

This Project Baseline Summary provides for the activities associated with the design, construction, startup, and operation of a facility that will be used to retrieve contact handled suspect transuranic waste from one underground storage trench at the Hanford site. A phased approach to retrieval has been selected and this project addresses Phase I. The waste has been buried in containers that were not intended to be in the ground for more than twenty years. These containers will begin exceeding this twenty year period in 1998 and will continue to deteriorate the longer they remain underground. The Record of Decision for the Hanford Defense Waste - Environmental Impact Statement states that the post 1970 transuranic waste must be retrieved. Retrieval of waste is governed by the M-91 set of Tri-Party Agreement milestones.

CAPITAL PROJECT W-156

This Project Baseline Summary provides for the activities associated with the design, construction, startup, and operation of a facility that will be used to retrieve remote handled transuranic waste from the 218-W-4B Alpha Caissons. The Record of Decision for the Hanford Defense Waste-Environmental Impact Statement states that the post 1970 transuranic waste must be retrieved. Retrieval of waste is governed by the M-91 set of Tri-Party Agreement milestones.

CAPITAL PROJECT W-221

This Project Baseline Summary provides for the activities associated with the design, construction, startup, and operation of a facility that will be used to retrieve contact handled-transuranic/remote handled-transuranic waste from underground storage trenches at the Hanford site. A phased approach to retrieval has been selected and this project addresses Phase II. The waste has been buried in containers that were not intended to be in the ground for more than twenty years. Many of these containers have begun exceeding this twenty year limit and will continue to deteriorate the longer they remain underground. The Record of Decision for the Hanford Defense Waste-Environmental Impact Statement states that the post 1970 transuranic waste must be retrieved. Retrieval of waste is governed by the M-91 set of Tri-Party Agreement milestones.

FUTURE CAPITAL PROJECT/TREATMENT CONTRACT - M91 FACILITY

Construct facility or provide for a contract to treat remote-handled transuranic mixed waste and low-level mixed waste in support of Tri-Party Agreement Milestone M-91.

B.2.1.2 Solid Waste Treatment End Point Targets from Hanford Strategic Plan

B.2.1.2.1 Solid Waste Treatment Principal End Point Targets

- * Spent fuels consolidated in the 200 Area in safe, stable, cost-effective interim storage pending national decisions on their ultimate disposition.
- * Transition high cost surplus facilities in the central plateau and south 600 areas to a low cost, stable, deactivated condition.
- * Provide safe, stable, interim storage for nuclear materials in the 200 Area pending decisions on their ultimate disposition.
- * Retrievably stored TRU waste retrieved, processed, shipped offsite to WIPP.
- * Low level and low level mixed waste from onsite and offsite sources (including PNNL special case wastes) will continue to be disposed of in the 200 Area.

B.2.1.2.2 Solid Waste Treatment Supported End Point Targets

-None-

B.2.1.3 Solid Waste Treatment Major Facilities

B.2.1.3.1 T-Plant Facility

B.2.1.3.1.1 T-Plant Facility Description

T-Plant was constructed in 1944 in the 200-W Area of Hanford. It originally operated as a separation facility for irradiated production reactor fuel. Later it was used for high-level decontamination and repair of equipment as well as storage of fuel assemblies (PWR Core II).

B.2.1.3.1.2 T-Plant Facility Facility Technical Logic:

The technical logic for the T Plant facility is captured in the facility's functional flow block diagram which shows the functions performed for each applicable life cycle phase of the facility and the sequence in which the functions are executed.

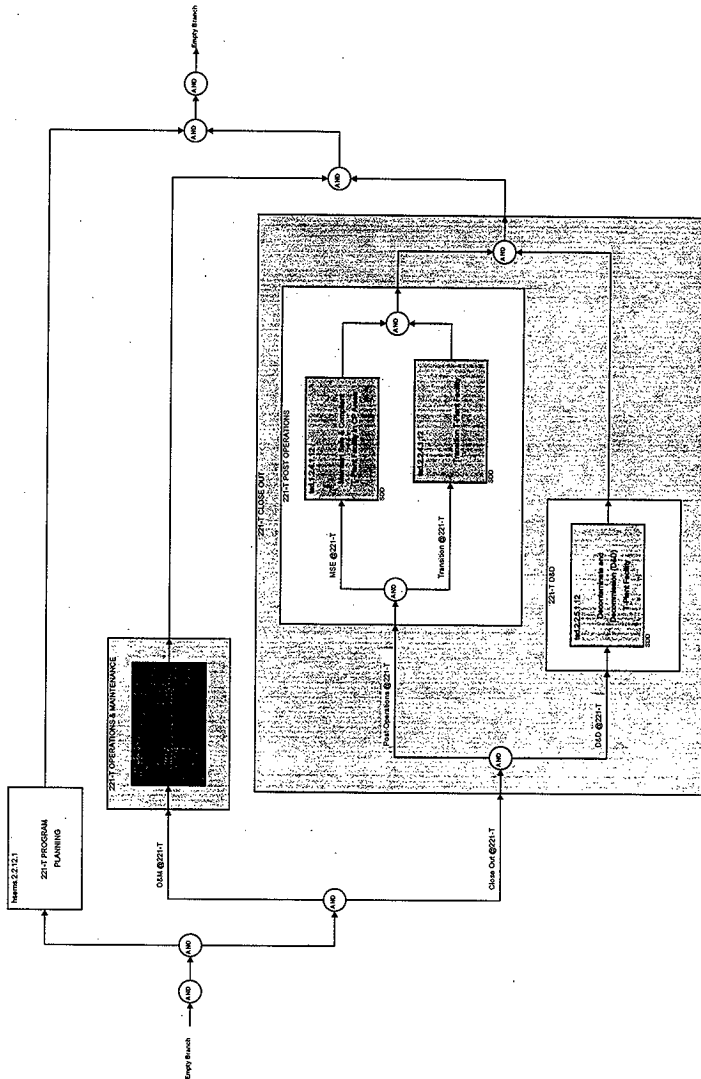


Figure B-6 221-T

B.2.1.3.1.3 T-Plant Facility Requirements and Life Cycle Function Descriptions

Requirements:

- Central Plateau high cost surplus facilities shall be transitioned to a low cost, stable, deactivated condition
- Central Plateau inactive facilities shall be maintained within the approved safety envelope
- T Plant contaminated equipment shall be surveilled and maintained within the approved safety envelope
- T Plant tank actions shall be completed by Sep 30, 1999
- PWR fuel shall be safely stored in T Plant
- Central Plateau asbestos abatement shall be performed as necessary
- Nuclear materials shall be safely stored in the 200 area pending national decisions on their ultimate disposition

Life Cycle Function Descriptions:

B.2.1.3.1.3.1 221-T PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.2.1.3.1.3.2 221-T OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

221-T OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.2.1.3.1.3.3 221-T POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

221-T POST OPERATIONS SPECIFIC FUNCTIONS

B.2.1.3.1.3.4 Maintain Safe & Compliant T-Plant Facility in CP Areas

Maintain the T-Plant facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.2.1.3.1.3.5 Transition T-Plant Facility

Initiate the transition phase of decontamination and decommissioning for the T-Plant facility.

B.2.1.3.1.4 T-Plant Facility Boundary Diagram***Table B.2-1 T-Plant Facility Boundary Diagram***

External Interfaces -None- Hanford Site Environmental System Interfaces -None-		External Interfaces -None- Hanford Site Environmental System Interfaces hsens.2.4.3 200 Area Treated Effluent Disposal Facility hsens.2.5.1 222-S Laboratory hsens.2.5.2 Waste Sampling and Characterization Facility

B.2.1.3.1.5 T-Plant Facility Interface Description and Forecast**EXTERNAL INPUTS**

-None-

INTERNAL INPUTS

-None-

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS**Table B.2-2 Internal Outputs for T-Plant Facility**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.2.4.3 200 Area Treated Effluent Disposal Facility T Plant Wastewater <i>Treated Liquid Effluent Transferred by 221-T.</i>	Treated Liquid Effluent	1998 - 2030	124000	cubic meters
hsems.2.5.1 222-S Laboratory Analytical Laboratory Services for 200-TP <i>Analytical Laboratory Services for 200-TP</i>	Analytical Laboratory Services	1998 - 2020	4140	samples
hsems.2.5.2 Waste Sampling and Characterization Facility In-Field Laboratory Services for 200-TP <i>In-Field Laboratory Services for 200-TP</i>	In-Field Laboratory Services	1998 - 2020	161.0	samples

B.2.1.3.2 2706-T Facility**B.2.1.3.2.1 2706-T Facility Description**

2706-T Facility is located in the 200-W Area of Hanford and is used as an equipment low-level decontamination facility.

B.2.1.3.2.2 2706-T Facility Technical Logic:

The Department of Energy (DOE), in partnership with its contractors, shall plan, acquire, operate, maintain, and dispose of physical assets as valuable national resources. Stewardship of these physical assets shall be accomplished in a cost-effective manner to meet the DOE mission. This shall incorporate industry standards, a graded approach, and performance objectives.

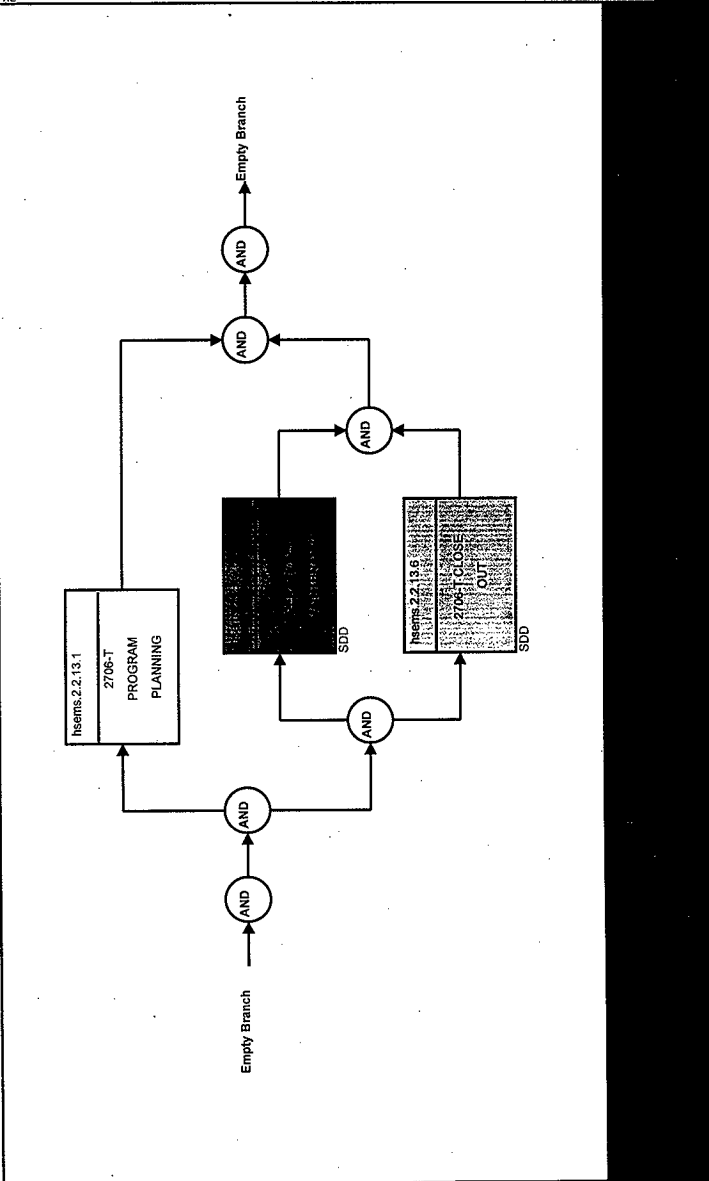


Figure B-7 2706-T

B.2.1.3.2.3 2706-T Requirements and Life Cycle Function Descriptions**Requirements:**

- Facilities discharging to the 200 Area TEDF shall implement Best Available Technology (BAT)/All Known, Available, and Reasonable Treatment (AKART). The generator shall provide the information required by WAC 173-240, Submission of Plans and Reports for Construction of Waste Water Facilities.
- Central Plateau inactive facilities shall be maintained within the approved safety envelope
- Liquid waste car shall be maintained
- Liquid waste car shall be tested
- Liquid waste car shall be certified
- Central Plateau asbestos abatement shall be performed as necessary
- Provide decontamination and maintenance services in support of essential safety operations at the 2706-T Building: equipment decontamination: LLW and RMW packaging.

Life Cycle Function Descriptions:**B.2.1.3.2.3.1 2706-T PROGRAM PLANNING WORK SCOPE SUMMARY**

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.2.1.3.2.3.2 2706-T OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

2706-T OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS**B.2.1.3.2.3.3 Decontaminated Equipment**

Treat received contaminated equipment and materials to reduce their level of contamination so they may be returned to the owner for further use in the Hanford Site clean up mission, or recycled for other uses outside the clean up mission.

B.2.1.3.2.3.4 Receive Contaminated Equipment

Receive contaminated equipment and materials from programs involved in the Hanford Site clean up mission.

B.2.1.3.2.3.5 Repair Low-Dose Rate Equipment

Repair low dose rate contaminated equipment so that it may be returned back to service.

B.2.1.3.2.3.6 Transport Disposition Ready Equipment

Certify the radiological condition of the equipment and materials being shipped from the decontamination treatment process. Transport certified decontaminated equipment and materials to the owner for further use in the Hanford Site clean up mission, or for recycle for other uses outside the clean up mission.

B.2.1.3.2.3.7 2706-T POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

2706-T POST OPERATIONS SPECIFIC FUNCTIONS**B.2.1.3.2.3.8 Maintain Safe & Compliant 2706-T Decontamination Facility in CP Areas**

Maintain the 2706-T facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facility is made available for clean-up.

B.2.1.3.2.3.9 Transition 2706-T Decontamination Facility in CP Areas

Initiate the transition phase of decontamination and decommissioning for the 2706-T Decontamination Facility.

B.2.1.3.2.4 2706-T Boundary Diagram**Table B.2-3 2706-T Boundary Diagram**

External Interfaces -None- Hanford Site Environmental System Interfaces hsems.2.5.6 Central Plateau Electrical System		External Interfaces -None- Hanford Site Environmental System Interfaces hsems.2.2.12 T-Plant Facility

B.2.1.3.2.5 2706-T Interface Description and Forecast**EXTERNAL INPUTS**

-None-

INTERNAL INPUTS**Table B.2-4 Internal Inputs for 2706-T**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.2.5.6 Central Plateau Electrical System Electricity services for 2706-T Electrical power services for 2706-T.	Electricity	1998 - 2017	8320	MW-hr

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS**Table B.2-5 Internal Outputs for 2706-T**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.2.2.12 T-Plant Facility 2706-T LLW Transfer LLW from decontamination of equipment for transfer to underground tank storage.	LLW (Liquid)	1997 - 2028	3680	cubic meters

B.2.1.3.3 M-91 Facility**B.2.1.3.3.1 M-91 Facility Description**

The primary functions of M-91 include processing, packaging, and certification of retrieved and newly generated RH-TRU wastes, retrieved and newly generated remote handled radioactive mixed waste, and handling, processing, repackaging, and certification for retrieved and newly generated CH-TRU waste that cannot be processed in WRAP 1 or other commercial options.

B.2.1.3.3.2 M-91 Facility Facility Technical Logic:

The technical logic for the M-91 facility is captured in the facility's functional flow block diagram which shows the functions performed for each applicable life cycle phase of the facility and the sequence in which the functions are executed.

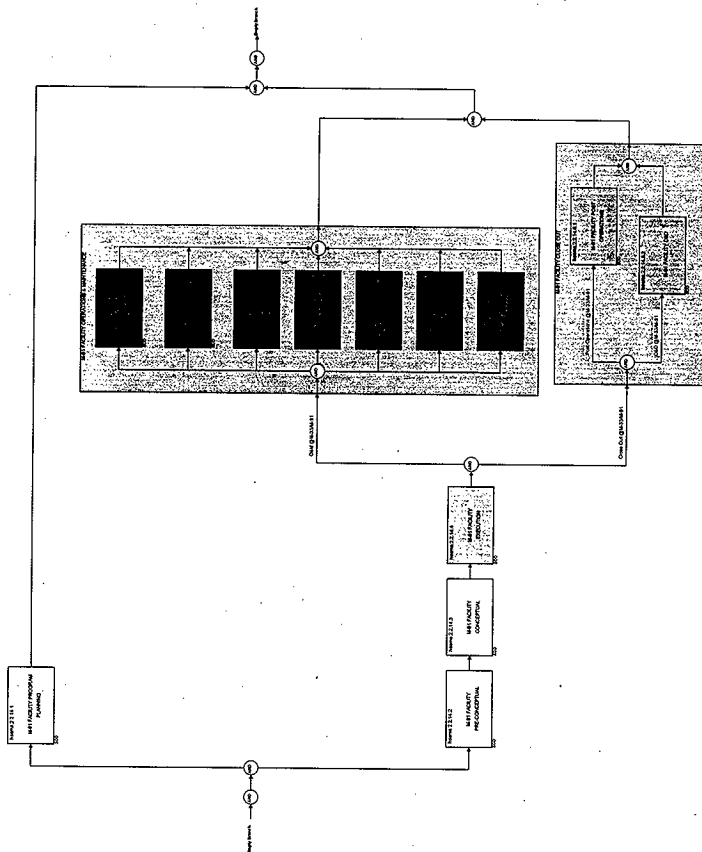


Figure B-8 M-91 FACILITY

B.2.1.3.3.3 M-91 Facility Requirements and Life Cycle Function Descriptions

Requirements:

- Comply with requirements identified in WHC-IP-1120, Standards/Requirements Identification Document (S/RID).
- Solid waste shall be treated to convert the waste to an acceptable form for final disposition.
- Container contents of newly generated waste shall be inspected to verify waste contents.
- Contents of "unknown" or "backlog" wastes shall be inspected to provide segregation and ensure compliant packaging of waste.
- (b)(3) Mixed transuranic waste shall be treated, where feasible and practical, to destroy the hazardous waste component.
- Central Plateau high cost surplus facilities shall be transitioned to a low cost, stable, deactivated condition
- Transitioned facilities shall be decontaminated and decommissioned sufficiently to enable removal or closure through entombment
- Central Plateau inactive facilities shall be maintained within the approved safety envelope
- Low level waste from offsite sources shall be received in the 200 area
- TRU/TRUM waste shall be prepared for shipment to the Waste Isolation Pilot Plant
- Complete treatment/and or direct disposal of at least 1644 cubic meters of contact handled low level mixed waste (CH-LLMW) already in storage as of October, 1995, as well as newly generated Hanford Site low level mixed waste.

TPA milestone date is 9/30/2002.

- Initiate Treatment of Contact Handled Low Level Mixed Waste (CH-LLMW). Due Date: 9/30/1999.
- Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing prior to disposal of all Hanford Site Post 1970 TRU/TRUM

Due Date: TBD But No Later Than 12/31/2000

- Initiate processing of contact handled TRU/TRUM waste at Waste Receiving and Processing Facility/WRAP1 (contact handled, small container)

Due Date: 12/31/1998

- Complete construction of small container contact handled (CH) TRU/TRUM retrieval facility (s) and Initiate (Project W-113) retrieval of small container TRU/TRUM from 200 Area burial grounds.

Due Date: 9/30/2000

- Complete Project W-113 for Post 1970 CH TRU/TRUM Retrieval

Due Date: 9/30/2004

- Complete construction and initiate hot operations of RH and large size TRU/TRUM processing facility (a final acquisition schedule for this facility will be established as an interim milestone no later than December 2000).

Due Date: 6/30/2005

- Complete acquisition of facilities and initiate treatment of RH and large container (CH) LLMW

Due Date: 6/30/2008

- RH-TRU waste packages (RH canisters) shall be no larger than a nominal 26 inches (0.66 m) in diameter with a maximum length of 10 feet, 1 inch (3.1m), including the pintle, per Westinghouse WID Operation Drawing H-2-91273 (Reference 31).

- All waste packages shall be provided with cleats, offsets, chimes, skids or 7-pack handling fixture for handling by means of fork trucks, cranes, or similar handling devices. Lifting rings and other auxiliary lifting devices on the waste packages, if provided, shall be recessed, offset, or hinged in a manner which does not inhibit stacking the waste packages.

Remote-Handled Waste

RH-TRU waste packages shall be equipped with an axial lifting pintle of a design acceptable to the WIPP (Drawing H-2-91273). The waste packages shall have no other lifting devices.

• Contact-Handled Waste

In addition to DOT labeling requirements, each waste container shall be uniquely identified by means of a label permanently attached in a conspicuous location. The package identification number shall be in medium to low density Code 39 barcode symbology per MIL-STD-1189B (Reference 40) in characters at least 1 inch high, and alphanumeric characters at least 1/2 inch high.

The identification marking must be reasonably expected to remain legible and affixed to the container for a period of 10 years under anticipated conditions of interim storage before shipment to the WIPP and emplacement underground.

Remote-Handled Waste

Each RH canister shall be uniquely identified by means of an identification number permanently attached to the container in a conspicuous location using characters at least 2 inches high.

The identification marking must be reasonably expected to remain legible and affixed to the canister for a period of 10 years under anticipated conditions of interim storage before shipment to the WIPP and emplacement underground.

- Provide decontamination and maintenance services in support of essential safety operations at the 2706-T Building: equipment decontamination: LLW and RMW packaging.

Life Cycle Function Descriptions:

B.2.1.3.3.3.1 M-91 FACILITY PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

M-91 FACILITY PROGRAM PLANNING SPECIFIC FUNCTIONS

B.2.1.3.3.3.2 M-91 FACILITY PRE-CONCEPTUAL WORK SCOPE SUMMARY

This phase leads to the formal start of a project through the identification of a need and development of mission need documentation. The program manager will then use this documentation to evaluate the proposal and determine if the need supports the missions, goals, and objectives of the Department and program. Cost accrued for activities in this phase are not part of the total project cost or the life cycle cost for the project.

M-91 FACILITY PRE-CONCEPTUAL SPECIFIC FUNCTIONS

B.2.1.3.3.3.3 M-91 FACILITY CONCEPTUAL WORK SCOPE SUMMARY

This is the initial formal project phase. Activities in this phase are dedicated to development of a design concept and basis for initiation of effective preliminary physical design, and establishment of a project baseline. The project baseline, including mutually dependent technical, schedule, and cost components should be reviewed and approved at the Approve Baseline Critical Decision prior to initiation of the execution phase.

This phase also marks the initial formation of the project team with the appointment of the project manager. During this phase the project team identifies the specific resources that will be required to accomplish project objectives and establish the scope, schedule, and cost for the project. During this phase the project management team develops the initial project planning documentation for execution of the project. For an environmental restoration project, the assessment phase is usually equivalent to this phase.

M-91 FACILITY CONCEPTUAL SPECIFIC FUNCTIONS

B.2.1.3.3.3.4 M-91 FACILITY DESIGN WORK SCOPE SUMMARY

The preliminary stage of the project design utilizes the conceptual design and/or design criteria that have been prepared for the project as the design basis. Sufficient design should be performed to firmly fix the project scope and further develop schedules and costs. Preliminary design generally includes preliminary trade-off studies, including evaluation of alternative design approaches; definition of the project design criteria and establishment of quality levels for systems and components to be applied in the detailed design stage; and specifications for equipment procurement.

Proper environmental planning is critical to project management. The project manager should carefully integrate the requirements of NEPA with the appropriate stage of the project development. The development of an environmental analysis will depend on the availability of an appropriate level of engineering detail. Compliance with the NEPA process allows public participation and requires consideration of alternatives and mitigating measures. Most importantly in this process, the project manager should complete the required NEPA documentation prior to alternative so subsequent project planning and project decisions will reflect environmental values.

The detailed design effort usually begins after NEPA documentation and preliminary design have been approved and, if appropriate, a preliminary design is selected from multiple alternatives. Details are developed during this stage transforming the preliminary design framework into a complete design for the project. The detailed design usually ends with the detailed design review and Approval to Start Construction/Remedial Action Critical Decision.

M-91 FACILITY DESIGN SPECIFIC FUNCTIONS

B.2.1.3.3.3.5 M-91 FACILITY CONSTRUCTION WORK SCOPE SUMMARY

Day-to-day work that is required to construct plant and capital equipment in a condition suitable for it to be used for

its designated purpose.

M-91 FACILITY CONSTRUCTION SPECIFIC FUNCTIONS

B.2.1.3.3.3.6 M-91 FACILITY TURNOVER WORK SCOPE SUMMARY

At the end of the construction/remediation stage of a project, the project manager should focus on transition activities, which require strong coordination with the operating organizations. All the roles and responsibilities, acceptance testing, and start-up planning for transition should be addressed in the project planning documentation. Not all projects will undergo transition activities but may proceed directly to close out as prescribed by the project planning documentation.

The project manager should submit acceptance/completion documentation to support the Acceptance/Completion Critical Decision. This decision typically occurs before beginning operations. It indicates that the technical performance has been demonstrated as acceptable and that no further transition activities are necessary. During the transition, the project manager should work closely with operating organizations to complete acceptance testing and start-up in accordance with the project planning documentation. At certain times during the transition, the operations organizations may take beneficial occupancy and take ownership of all documents.

M-91 FACILITY TURNOVER SPECIFIC FUNCTIONS

B.2.1.3.3.3.7 M-91 FACILITY OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

M-91 FACILITY OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.2.1.3.3.3.8 Manage Cat I MLLW

Receive, store, handle, assess, treat, package, transport onsite, and ship offsite or disposition solid waste categorized as Category I Mixed Low Level Waste.

B.2.1.3.3.3.9 Manage Cat III MLLW

Receive, store, handle, assess, treat, package, transport onsite, and ship offsite or disposition solid waste categorized as Category III Mixed Low Level Waste.

B.2.1.3.3.3.10 Process CH TRU/TRUM Requiring Special Treatment

Process CH TRU/TRUM waste that requires special treatment to prepare and package waste for disposal at WIPP.

B.2.1.3.3.3.11 Process RH TRU/TRUM Waste

Process RH TRU/TRUM waste to prepare and package waste for disposal at WIPP.

B.2.1.3.3.3.12 Retrieve Retrievably Stored TRU/TRUM

Retrieve Pre-1970 buried TRU/TRUM waste for processing.

B.2.1.3.3.3.13 Treat RH Category I Low Level Solid Waste

Receive, handle, assess, treat, and package for transport onsite solid waste categorized as RH Category I LLW.

B.2.1.3.3.3.14 Treat RH Category III Low Level Solid Waste

Receive, handle, assess, treat, and package for transport onsite solid waste categorized as RH Category I LLW.

B.2.1.3.3.3.15 M-91 FACILITY POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

M-91 FACILITY POST OPERATIONS SPECIFIC FUNCTIONS

B.2.1.3.3.3.16 Maintain Safe & Compliant M-91 Facility in CP Areas

Maintain the M-91 facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.2.1.3.3.3.17 Transition M-91 Facility

Initiate the transition phase of decontamination and decommissioning for the M-91 facility.

B.2.1.3.3.3.18 M-91 FACILITY D&D WORK SCOPE SUMMARY

Day-to-day work, including remediating, stabilizing, controlling, and managing environmental contamination, that is required to allow future land-use objectives.

M-91 FACILITY D&D SPECIFIC FUNCTIONS

B.2.1.3.3.3.19 Decontaminate and Decommission (D&D) M-91 Facility

Initiate the final decontamination and decommissioning of M-91 facility.

B.2.1.3.3.4 M-91 Facility Boundary Diagram

Table B.2-6 M-91 Facility Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces hsems.2.3.5 Central Waste Complex	External Interfaces Waste Isolation Pilot Project Hanford Site Environmental System Interfaces hsems.2.2.15 WRAP Module 1 hsems.2.3.5 Central Waste Complex hsems.2.4.2 Mixed Waste Disposal Trenches

B.2.1.3.3.5 M-91 Facility Interface Description and Forecast**EXTERNAL INPUTS**

-None-

INTERNAL INPUTS**Table B.2-7 Internal Inputs for M-91 Facility**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.2.3.5 Central Waste Complex				
Storage to M-91, RH LLMW I	RH LLMW I	1997 - 2070	3480	cubic meters
<i>RH LLMW I Transferred by Storage to M-91</i>				
Storage to M-91, CH TRUM	CH TRUM	1997 - 2070	8620	cubic meters
<i>CH TRUM Transferred by Storage to M-91</i>				
Storage to M-91, RH TRUM	RH TRUM	1997 - 2070	1880	cubic meters
<i>RH TRUM Transferred by Storage to M-91</i>				
Storage to M-91, CH LLMW I	CH LLMW I	1997 - 2070	5460	cubic meters
<i>CH LLMW I Transferred by Storage to M-91</i>				

EXTERNAL OUTPUTS**Table B.2-8 External Outputs for M-91 Facility**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
X Waste Isolation Pilot Project				
M-91, RH-TRUM	RH TRUM	1997 - 2070	2180	cubic meters
<i>RH TRUM Transferred by M-91 to WIPP</i>				

INTERNAL OUTPUTS**Table B.2-9 Internal Outputs for M-91 Facility**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.2.2.15 WRAP Module 1				
M-91, CH-TRUM	CH TRUM	1997 - 2070	4990	cubic meters
<i>Processed CH-TRUM from M-91 to WRAP for shipment out to WIPP.</i>				
hsems.2.3.5 Central Waste Complex				
M-91 to Storage, CH LLMW I	CH LLMW I	1997 - 2070	3830	cubic meters
<i>CH LLMW I Transferred by M-91 to Storage</i>				
hsems.2.4.2 Mixed Waste Disposal Trenches				
M-91 to Disposal, RH LLMW I	RH LLMW I	1997 - 2070	4760	cubic meters
<i>RH LLMW I Disposed by M-91 to Disposal</i>				

B.2.1.3.4 WRAP Module 1 Facility

B.2.1.3.4.1 WRAP Module 1 Facility Description

The WRAP I facility will accept contact handled low level and mixed low level waste (CH-LLW and CH-MLLW) and transuranic (CH-TRU and CH-TRUM) waste for inspection, certification, and preparation for final disposal. The facility began processing CH-LLW in March of 1997 and will commence processing of CH-TRU, CH-TRUM waste in 1998. WRAP I will be operational 175 days per year (70% TOE). WRAP I is designed to process annually: 6,825 drums (4,200 drums newly generated waste and 2,625 drums retrieved waste) and 70 standard waste boxes.

B.2.1.3.4.2 WRAP Module 1 Facility Technical Logic:

The technical logic for the WRAP facility is captured in the facility's functional flow block diagram which shows the functions performed for each applicable life cycle phase of the facility and the sequence in which the functions are executed.



B.2.1.3.4.3 WRAP Module 1 Requirements and Life Cycle Function Descriptions

Requirements:

- * Comply with requirements identified in WHC-IP-1120, Standards/Requirements Identification Document (S/RID).
- * Solid waste shall be treated to convert the waste to an acceptable form for final disposition.
- * Container contents of newly generated waste shall be inspected to verify waste contents.
- * Contents of "unknown" or "backlog" wastes shall be inspected to provide segregation and ensure compliant packaging of waste.
- * (b)(3) Mixed transuranic waste shall be treated, where feasible and practical, to destroy the hazardous waste component.
- * Central Plateau high cost surplus facilities shall be transitioned to a low cost, stable, deactivated condition
- * Transitioned facilities shall be decontaminated and decommissioned sufficiently to enable removal or closure through entombment
- * Packaged Hanford TRU waste shall be shipped to Waste Isolation Pilot Plant
- * Central Plateau inactive facilities shall be maintained within the approved safety envelope
- * Low level waste from offsite sources shall be received in the 200 area
- * WRAP I facility shall be operated within the approved safety envelop.
- * WRAP I facility shall be maintained within the approved safety envelop.
- * TRU/TRUM waste shall be prepared for shipment to the Waste Isolation Pilot Plant
- * Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal of all Hanford Site TRU/TRUM, LLMW, and GTC3.

Due Date: TBD

- * Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing prior to disposal of all Hanford Site Post 1970 TRU/TRUM

Due Date: TBD But No Later Than 12/31/2000

- * Initiate processing of contact handled TRU/TRUM waste at Waste Receiving and Processing Facility/WRAP1 (contact handled, small container)

Due Date: 12/31/1998

- * Contractor waste certification shall be in accordance with DOE/WIPP-069, revision 4, Waste Acceptance Criteria for Waste Isolation Pilot Plant.

• The RCRA regulations, as they apply to the WIPP, include Standards for the Owners/Operators of Treatment, Storage, or Disposal (TSD) facilities that are codified in 40 CFR Parts 264 and 265. These require the owner/operator to obtain a chemical and physical characterization of the waste, and ensure that the waste shipped to the facility is the waste specified on the shipping manifest. These RCRA requirements for the WIPP facility will be satisfied at the generator sites before transport of waste to the WIPP.

Sites may use process knowledge and/or sampling and analysis to characterize the hazardous component of their wastes. In addition, each site must characterize a statistically representative sample of its waste to demonstrate that it meets the requirements of the NMD. Sampling and analysis activities shall be detailed in the site Quality Assurance Project Plans, (QAPJP).

Waste generator and/or storage sites have the responsibility for collecting data that will be used to comply with the NMD. Headspace gas samples shall be collected and analyzed for total volatile organic compounds (VOCs) and toxic metals specified in the WAP contained in the WIPP RCRA Part B Permit Application.

For the waste generated or retrieved from storage during but not part of the test phase, the following criteria must be satisfied for a statistical population of packages:

- Real-time radiography or equivalent examination
- Radionuclide assay for total alpha activity
- Headspace analysis for inorganic and organic gases
- Visual examination of the waste
- Analysis of sludges for pH and major cations and anions.

• Waste containers for emplacement in the WIPP shall be noncombustible and meet all applicable requirements of 49 CFR /173.412 (Reference 14) for Type A packaging. Waste containers of various sizes, shown to meet Department of Transportation (DOT) Type A requirements by methods detailed in MLM 3245 (Reference 30) are acceptable at the WIPP. In addition, waste containers shall be used, handled and stored in a manner that is expected to maintain their Type A packaging specification from the time of certification to emplacement in the WIPP. Remote-handled TRU waste containers shall be noncombustible and meet, as a minimum, the structural requirements and design conditions for Type A packaging as contained in 49 CFR/173.412. In addition, all RH-TRU waste containers shall be certified to the WIPP-approved specifications and shall be used, handled and stored in a manner that is expected to maintain their Type A packaging specification from the time of certification to emplacement in the WIPP.

• RH-TRU waste packages (RH canisters) shall be no larger than a nominal 26 inches (0.66 m) in diameter with a maximum length of 10 feet, 1 inch (3.1m), including the pindle, per Westinghouse WID Operation Drawing H-2-91273 (Reference 31).

• The maximum size of CH-TRU waste packages in the WIPP is limited by access to the waste hoist and the size of the waste hoist cage. Existing packages of CH-TRU waste that meet the criterion in Section 3.2.2.1 are:

- Standard 55-gal. (208-L) metal drum (DOT Spec. 17C and 17H)
- Standard 55-gal. (208-L) metal drum (DOT Spec. 6M)
- Rectangular metal box (74.4 X 50.5 X 38.5 in. LWH)
- Rectangular metal box (68 X 54 X 38.5 in. LWH)
- Rectangular metal box (88 X 54 X 54 in. LWH)
- Rectangular metal box (71 X 57 X 52.5 in. LWH)
- Rectangular metal box (50.4 X 58.4 X 72.4 in. LWH)
- Rectangular metal box (4 X 4 X 7 ft. LWH)
- Standard waste box (37 in. high X 71 in. long OD/54.25 in. short OD X 45.06 in. side).

The TRUPACT-II limits the CH-TRU waste containers to 55-gallon drums, or SWBs. Other acceptable waste containers may be added in the future.

The RH-TRU waste package size is based on the handling of an overpacked RH canister in the WIPP transfer cask.

WBS 1.2

- All waste packages shall be provided with cleats, offsets, chimes, skids or 7-pack handling fixture for handling by means of fork trucks, cranes, or similar handling devices. Lifting rings and other auxiliary lifting devices on the waste packages, if provided, shall be recessed, offset, or hinged in a manner which does not inhibit stacking the waste packages.

Remote-Handled Waste

RH-TRU waste packages shall be equipped with an axial lifting pintle of a design acceptable to the WIPP (Drawing H-2-91273). The waste packages shall have no other lifting devices.

- Powders, ashes, and similar particulate waste materials shall be immobilized if more than 1 weight percent of the waste matrix in each package is in the form of particulate below 10 microns in diameter, or if more than 15 weight percent is in the form of particles below 200 microns in diameter.
- Liquid waste will not be placed in the WIPP. TRU waste for emplacement in the WIPP shall contain as little residual liquid as is reasonably achievable. All internal containers (e.g., bottles, cans, etc.) must be well-drained, but may contain residual liquids. As a guideline, residual liquid in well-drained containers will be restricted to approximately one percent of the volume of the internal container. In no case shall the total liquid equal or exceed one volume percent of the waste container (e.g., drum or SWB).

Retrievably-Stored Waste

Real-Time Radiography (RTR) or visual examination shall be used at DOE facilities to determine the presence and quantity of liquids in TRU wastes. Although some differences exist between the RTR equipment sensitivity at DOE sites, all facilities shall be able to certify TRU waste using RTR in accordance with the less than one volume percent liquid criterion for the external waste container. The RTR records shall include a description of the location of any liquid that is detected (e.g., between rigid liner and 55-gallon poly bag liner or within one gallon poly bottle) and an estimate of its volume.

- Waste for shipment in TRUPACT-II shall contain less than 1 volume percent of the waste container as liquids. Same as TRUPACT-II requirements. (This requirement is anticipated based on initial negotiations with the NRC, but will not be finalized until review is complete and a C of C is issued.)

• WIPP OPERATIONS AND SAFETY CRITERIA

Contact-Handled and Remote Handled Wastes

Pyrophoric materials, other than radionuclides, shall be rendered safe by mixing them with chemically stable materials (e.g., concrete, glass) or shall be processed to remove their hazardous properties. Not more than one percent by weight of the waste in each waste container may be pyrophoric forms of radionuclides, and these shall be generally dispersed in the waste.

- Transuranic waste shall contain no explosives or compressed gases. 49 CFR Part 173 Subpart C (Reference 14) defines explosives and 49 CFR Part 173 Subpart G defines compressed gases.
- Documented procedures or RTR verifications are used to ensure that individual waste packages contain no pressurized vessels. Documented procedures are also used to exclude explosive items, compounds, or combination of materials that could form explosive compounds within the waste package. If such materials are present, they must be treated or diluted such that a detonation is not possible.

• 3.3.5 TRU MIXED WASTES

3.3.5.1 WIPP OPERATIONS AND SAFETY CRITERIA

Contact-Handled Waste

Transuranic wastes shall contain no hazardous wastes unless they exist as co-contaminants with transuranics. Waste packages containing hazardous waste shall be identified with the appropriate DOT label. All TRU-contaminated corrosive, inactive, and ignitable materials shall be treated to remove the hazardous characteristic. Hazardous wastes to be reported are listed in 40 CFR 261, Subparts C and D (Reference 18).

Remote-Handled Waste

Transuranic wastes shall contain no hazardous wastes unless they exist as co-contaminants with transuranics. All TRU-contaminated corrosive, reactive, and ignitable materials shall be neutralized and rendered nonhazardous. Hazardous waste to be reported are listed in 40 CFR 261, Subparts C and D (Reference 18).

3.3.5.2 TRANSPORTATION: WASTE PACKAGE REQUIREMENTS

TRUPACT-II Requirements

Aqueous materials which have a pH less than 2 or more than 12.5 per 40 CFR 261.22(a)(1) are prohibited from the wastes (Reference 18).

RH Cask Requirements

Aqueous materials which have a pH less than 2 or more than 12.5 per 40 CFR 261.22(a)(1) (Reference 18) are prohibited from the wastes. (These are preliminary requirements based on meetings with the NRC and the SARP to be submitted for approval.)

3.3.5.3 RCRA REQUIREMENTS

RCRA - Waste Determination

Generators of TRU waste must determine whether their waste is regulated by RCRA as a hazardous waste. The determination is based on whether representative samples or process knowledge of the solid waste indicates that it is specifically identified or listed in 40 CFR Part 261 (Reference 18). Each hazardous waste must be assigned one or more of the applicable EPA hazardous waste codes. Only those waste codes included in the WIPP RCRA Part A Permit Application (Reference 19) can be managed at the WIPP. Wastes that exhibit the characteristics of Ignitability (DO01), Corrosivity (DO02), or Reactivity (DO03), as defined in 40 CFR 261 (Reference 18), will not be accepted at the WIPP.

WIPP RCRA Permit Application Requirements and QAPjPs

The WAP included in the WIPP RCRA Part B Permit Application (Reference 20) specifies the waste analysis requirements applicable to the TRU mixed wastes to be shipped to WIPP. These include the specific sampling and analysis requirements specified in the NMD issued by the EPA. The QAPP (Reference 8) addresses analysis and sampling requirements to show compliance with the NMD criteria. The QAPjP establishes site-specific procedures for sampling and analytical protocols and QA/QC guidances for the WIPP Test Phase. The additional information required by 40 CFR 265.13 and 264.13 (Reference 18), such as test methods, sampling methods, frequency, and accuracy, are required to be addressed in the site-specific QAPjPs.

Waste generator and/or storage sites have the responsibility for sampling and analyzing headspace gases to demonstrate compliance with the waste characterization requirements in the NMD. The headspace gas samples shall be collected and analyzed in accordance with procedures specific in each site's QAPjP. The QAPP (Reference 8) contains a more detailed explanation of responsibilities for various organizations involved in the waste characterization program. The waste characterization requirements of the NMD (Reference 23) are:

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Headspace Gases

Flammability

See Section 3.4.7.3 for requirements.

Nonflammable VOCs (Comparability)

The NMD (Reference 23) mandates that any waste package that is sent to the WIPP must meet the requirement that the headspace concentration within a package does not exceed two times (2X) the maximum concentration for five nonflammable VOCs. This requirement is designed to ensure that the wastes to be emplaced in the WIPP are in fact similar to the wastes described in the NM-VP (Reference 22). The five nonflammable VOCs are:

Carbon Tetrachloride
Methylene Chloride
1,1,1-Trichloroethane
Trichloroethylene
1,1,2-Trichloro-1,2,2-trifluoroethane.

The five nonflammable compounds and their 2X maximum concentration limits are reported in the NMD (Reference 23) and the WAP in the WIPP RCRA Part B Permit Application (Reference 20), and the methodology for demonstrating compliance is presented in the QAPP (Reference 8).

Nonflammable VOCs (No-Migration Demonstration)

The NMD (Reference 23) mandates that any waste package that is sent to the WIPP must meet the requirement that the headspace concentration within a package does not exceed ten times (10X) the average concentration of three nonflammable VOCs.

(TWO of the five compounds listed above do not have to meet this requirement) The three nonflammable VOCs that must meet the requirement are:

Carbon Tetrachloride
Methylene Chloride
Trichloroethylene.

The three nonflammable compounds and their 10X average concentration are reported in the NMD (Reference 23) and the WAP in the WIPP RCRA Part B Permit Application (Reference 20), and the methodology for demonstrating compliance is presented in the QAPP (Reference 8).

Sludges

In addition to the headspace analyses specified above, sludges shall be analyzed for total VOCs and toxic metals specified in the WAP for the WIPP RCRA Part B Permit Application (Reference 20). Sampling and analysis procedures for VOCs and toxic metals in TRU sludges are being developed and, when completed, the requirements will be included in the QAPP (Reference 8).

3.3.5.4 PERFORMANCE ASSESSMENT CRITERIA

No additional requirements.

3.3.5.5 COMPLIANCE

The types and quantities of hazardous wastes must be entered in the data package (Section 3.5.1.1). This information must be consistent with the acceptable EPA hazardous waste codes for WIPP as specified in the RCRA Part A Permit Application (Reference 19).

The basis for the identification of the hazardous wastes will be process knowledge supplemented with sampling.

3.3.5.6 TECHNICAL JUSTIFICATION

Transuranic mixed waste is defined as TRU waste that contains constituents considered hazardous in accordance with 40 CFR Part 261 (Reference 18). Because of the presence of hazardous constituents, the waste is subject to dual regulation under the AEA (Reference 21) and the RCRA (Reference 18). Dual regulation has made it necessary to make a RCRA hazardous waste determination for the purposes of manifesting for transportation, for reporting waste management activities, and for ensuring adequate health and safety programs. The DOE Order 5400.3 (Reference 33) requires the implementation of and compliance with the RCRA regulations.

Waste characterization data or other determinations made about the disposition of the waste shall be maintained for necessary audits.

• 3.3.6 SPECIFIC ACTIVITY OF WASTE

3.3.6.1 WIPP OPERATIONS AND SAFETY CRITERIA

Contact-Handled Waste

For purposes of TRU waste certification, the lower limit of > 100 nanocuries/gram (nCi/g) of TRU radionuclides in the waste shall be interpreted as > 100 nCi per gram of waste matrix. The weight of added external shielding and the waste containers (including any rigid liners) shall be subtracted prior to performing the nCi/g calculation. This is also applicable to wastes managed as TRU under the provisions of DOE Order 5820.2A (e.g., U-233 and Ra-226) (Reference 13).

Remote-Handled Waste

For purposes of TRU waste certification, the lower limit of > 100 nCi/g of TRU radionuclides in the waste shall be interpreted as > 100 nCi/g of waste matrix. The weight of added external shielding and the waste containers (including any rigid liners) shall be subtracted prior to performing the nCi/g calculation.

The maximum activity concentration for a RH-TRU waste package shall not exceed 23 curies/liter.

The concentration may be averaged over the waste container.

3.3.6.2 TRANSPORTATION: WASTE PACKAGE REQUIREMENTS

TRUPACT-II Requirements

Same as WIPP Operations And Safety Criteria. Section 3.3.6.1.

RH Cask Requirements

Same as WIPP Operations And Safety Criteria, Section 3.3.6.1.

3.3.6.3 RCRA REQUIREMENTS

None.

3.3.6.4 PERFORMANCE ASSESSMENT CRITERIA

Same as WIPP Operations And Safety Criteria, Section 3.3.6.1.

3.3.6.5 COMPLIANCE

Documented evidence shall exist to show that the specific activity of any TRU waste package is greater than 100 nCi/g of waste and that the activity of RH-TRU waste does not exceed 23 Ci/liter.

3.3.6.6 TECHNICAL JUSTIFICATION

The DOE Order 5820.2A "Radioactive Waste Management," Chapter II.3.a.(2), (Reference 13) states:

"The lower concentration limit for transuranic waste (> 100 nCi/g of waste) shall apply to the contents of any single waste package at the time of assay. The mass of the waste container including shielding shall not be used in calculating specific activity of the waste."

The upper limit of RH-TRU waste activity arises from the WIPP Final Environmental Impact Statement (Reference 34).

3.4.1 WASTE PACKAGE WEIGHT

3.4.1.1 WIPP OPERATIONS AND SAFETY CRITERIA

Contact-Handled Waste

All CH-TRU waste packages or package assemblies shall weigh no more than 21,000 pounds.

Remote-Handled Waste

All RH-TRU waste packages shall weigh no more than 8,000 pounds.

3.4.1.2 TRANSPORTATION: WASTE PACKAGE REQUIREMENTS

TRUPACT-II Requirements

The following weight limits shall apply for waste package assemblies transported in the TRUPACT-II package:

1,000 lbs per drum

1,450 lbs per drum overpacked in a SWB

4,000 lbs per SWB

7,265 lbs per TRUPACT-II payload

19,250 lbs per TRUPACT-II payload, including the weight of the TRUPACT-II.

Recent enhancements in the TRUPACT-II design have resulted in an average payload weight of approximately 6,200 lbs. The total weight of the top seven-pack of drums or SWB including error shall be less than or equal to the total weight including error of the lower seven-pack of drums or SWB. The DOT limit of 80,000 lbs gross vehicle weight (GVW) must also be met.

RH Cask Requirements

To be determined.

3.4.1.3 RCRA REQUIREMENTS

None.

3.4.1.4 PERFORMANCE ASSESSMENT CRITERIA

None.

3.4.1.5 COMPLIANCE

For CH-TRU waste packages, documented evidence shall exist that the waste package has been weighed and the weight of the waste package or package assembly meets the requirements. The weight of the waste package cannot exceed the weight for which the waste package has been certified in accordance with 49 CFR 173.463 (Reference 14).

For RH-TRU waste, the canister weight may be calculated based on the weight of the empty canister plus the weight of waste that will be placed in the canister. The weight of the canister cannot exceed the weight for which the waste package has been certified in accordance with 49 CFR 173.463 (Reference 14).

3.4.1.6 TECHNICAL JUSTIFICATION

The CH-TRU waste handling system of the WIPP is limited by the capacity of the fork trucks that will transfer the CH-TRU waste materials on and off the waste hoist. These fork trucks have a rated lift capacity of 26,000 pounds. As this rated capacity must include an allowance for pallets and overpacks, estimated to be 5,000 pounds, a CH-TRU waste package may weigh a maximum of 21,000 pounds.

The WIPP has established a RH-TRU overpack gross weight limit of 10,000 pounds. It is estimated that a RH-TRU overpack may weigh 2,000 pounds, leaving a maximum gross weight of 8,000 pounds for the loaded RH canister.

The TRUPACT-II weight limits are based on the provisions of the TRUPACT-II SARP (Reference 9).

* Contact-Handled Waste

The fissile or fissionable radionuclide content of CH-TRU waste packages shall be no greater than the following values, in Pu-239 fissile-gram equivalent:

- 200 g per 55-gallon (0.21 m³) drum
- 500 g per DOT 6M container
- 5 g per ft³ (0.028 m³) in boxes, up to 350 g maximum.

The Pu-239 FGE shall be calculated using the methods detailed in Appendix 1.3.7 of the TRUPACT-II SARP (Reference 9).

- Remote-Handled Waste

The fissile or fissionable radionuclide content of RH-TRU waste packages shall not exceed 600 g total (in Pu-239 FGE).

- The fissile or fissionable radionuclide content of CH-TRU waste in the TRUPACT-II, including two times the measurement error, shall be less than 200 grams for a 55-gallon drum or less than 325 grams for a SWB. The sum of the fissile equivalents of all waste packages in the entire payload quantity including two times the error may not exceed 325 grams. See the calculational methods detailed in Appendix 1.3.7 of the TRUPACT-II SARP for details.

- Waste Packages shall not exceed 1000 Ci of Pu-239 equivalent activity (PE-Ci).

- All RH-TRU waste packages shall have a surface dose rate at any point no greater than 1000 rem/hr. Neutron contributions are limited to 270 mrem/hr. Neutron contributions of greater than 20 mrem/hr. to the total waste package dose rate shall be reported in the data package. At least 95% of the RH canisters must have dose rates of ≤ 100 rem/hr, and no more than 5% of the RH canisters are allowed to have but ≤ 1000 rem/hr may be shipped to the WIPP.

- Removable surface contamination on waste packages or package assemblies to be emplaced in WIPP shall not be greater than 50 picocuries per 100 sq. cm for alpha-emitting radionuclides and 450 picocuries per 200 sq. cm for beta-gamma-emitting radionuclides. Fixation of surface contamination to meet the above criterion is not permitted.

- The thermal power generated by waste materials in any RH-TRU waste package shall not exceed 300 watts.

- Waste containers with waste that could potentially generate gases shall be vented.

- Contact-Handled Waste

In addition to DOT labeling requirements, each waste container shall be uniquely identified by means of a label permanently attached in a conspicuous location. The package identification number shall be in medium to low density Code 39 barcode symbology per MIL-STD-1189B (Reference 40) in characters at least 1 inch high, and alphanumeric characters at least 1/2 inch high.

The identification marking must be reasonably expected to remain legible and affixed to the container for a period of 10 years under anticipated conditions of interim storage before shipment to the WIPP and emplacement underground.

Remote-Handled Waste

Each RH canister shall be uniquely identified by means of an identification number permanently attached to the container in a conspicuous location using characters at least 2 inches high.

The identification marking must be reasonably expected to remain legible and affixed to the canister for a period of 10 years under anticipated conditions of interim storage before shipment to the WIPP and emplacement underground.

- A data package with certification attesting to the fact that the waste package meets the requirements of these criteria shall be transmitted to the WIPP operator in advance of shipment. This data package/certification shall be based upon a QA program subject to audit and verification and shall provide information on the items specified below:

- Package identification number
- Package assembly identification number (if applicable)
- Date of waste package certification
- WAC exception number (if applicable)
- Waste generation site
- Date of package closure
- Maximum surface dose rate in mrem/hr and specific neutron dose rate if greater than 20 mrem/hr
- Weight (in kg)

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- Container type
- Physical description of waste form (content code)
- Assay information, including PE-Ci, alpha Ci, and Pu-239 FGE content
- Radionuclide information including radionuclide symbol, quantity, and measure (in grams or Curies)
- Radioactive mixed waste (identity and quantity of listed wastes and those that exhibit the characteristics of a hazardous waste)
- Weight and volume percent of organic materials content
- Measured or calculated thermal power (if over 0.1 watt/ft³)
- Shipment number
- Date of shipment
- Vehicle type
- TRUPACT-II number(s) (CH-TRU waste), or cask number (RH-TRU waste)
- Other information considered significant by the generator
- Name of certifying official who approved the waste package
- Name of person who certifies that the shipment meets the TRUPACT-II TRAMPAC

A hard copy of the signed and dated Certification Statement, certifying that the waste content and packaging are in accordance with the WIPP WAC and that the waste is unclassified, shall be maintained on file at each site for WACCC audits.

The specific data format for the transmittal of this information is contained in Appendix B of this document.

3.5.1.2 TRANSPORTATION: WASTE PACKAGE REQUIREMENTS

TRUPACT-II Requirements

The documentation required for the certification of an individual waste package or a group of waste packages for an individual TRUPACT-II is given in Section 13.0 of Appendix 1.3.7 of the TRUPACT-II SARP. The format of these tables is not mandatory, however, all listed parameters must be included in any site documentation. This documentation may be computer generated based on the site's waste data base.

RH Cask Requirements

To be determined.

3.5.1.3 RCRA REQUIREMENTS

A generator must prepare a specific hazardous waste manifest in accordance with the EPA requirements of 40 CFR/262.20 through 262.23. A generator must also sign the certification on the manifest that indicates that the generator has a program in place to reduce the volume and toxicity of the waste generated. Identification numbers that link each RCRA-regulated waste container and its waste data package must also accompany the manifest. The identification numbers must be attached to the waste profile documentation. The Land Disposal Restriction (LDR) Certification required by the 40 CFR 268 must also accompany the manifest and data package.

- Provide decontamination and maintenance services in support of essential safety operations at the 2706-T Building: equipment decontamination: LLW and RMW packaging.

Life Cycle Function Descriptions:

B.2.1.3.4.3.1 WRAP MODULE 1 PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.2.1.3.4.3.2 WRAP MODULE 1 OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

WRAP MODULE 1 OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.2.1.3.4.3.3 Conduct Specialized Treatments for CH MLLW

Perform specialized treatment for contact handled low level mixed waste. Treatment may consist of compaction, solidification or absorption of liquied, neutralization of corrosives, immobilization of particulate, and reaction of reactive substances.

B.2.1.3.4.3.4 Disposition Transuranic Mixed Waste

Disposition of Post-1970 TRU/TRUM waste is defined as picking up packaged waste from the treatment/storage facility that has been certified packaged in accordance with offsite disposal facility acceptance criteria, certifying that it meets transportation requirements for offsite transportation, and transporting it to an offsite disposal facility (WIPP).

B.2.1.3.4.3.5 Disposition Transuranic Waste

Disposition of TRU waste is defined in a number of ways dependent upon the type of TRU waste being dispositioned.

B.2.1.3.4.3.6 Process CH TRU/TRUM in Drums and SWB

Process CH TRU/TRUM waste received in drums and standard waste boxes to prepare and package waste for disposal at WIPP.

B.2.1.3.4.3.7 Treat CH Category I Low Level Solid Waste

Receive, handle assess, treat, and package for transport onsite solid waste categorized as CH Category I LLW.

B.2.1.3.4.3.8 Treat CH Category III Low Level Solid Waste

Receive, handle assess, treat, and package for transport onsite solid waste categorized as CH Category III LLW.

B.2.1.3.4.3.9 WRAP MODULE 1 POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

WRAP MODULE 1 POST OPERATIONS SPECIFIC FUNCTIONS

B.2.1.3.4.3.10 Maintain Safe & Compliant WRAP Module 1 Facility in CP Areas

Maintain the WRAP Module 1 facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.2.1.3.4.3.11 Transition WRAP Module 1 Facility

Initiate the transition phase of decontamination and decommissioning for the WRAP Module 1 facility.

B.2.1.3.4.3.12 WRAP MODULE 1 D&D WORK SCOPE SUMMARY

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Day-to-day work, including remediating, stabilizing, controlling, and managing environmental contamination, that is required to allow future land-use objectives.

WRAP MODULE 1 D&D SPECIFIC FUNCTIONS

B.2.1.3.4.3.13 Decontaminate and Decommission (D&D) WRAP Module 1 Facility

Initiate the final decontamination and decommissioning of the WRAP Module 1 facility.

B.2.1.3.4.4 WRAP Module 1 Boundary Diagram

Table B.2-10 WRAP Module 1 Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces hsems.2.2.14 M-91 Facility hsems.2.3.5 Central Waste Complex hsems.2.5.4 Central Plateau Water System hsems.2.5.5 Central Plateau Office Facilities hsems.2.5.6 Central Plateau Electrical System hsems.2.5.8 Central Plateau Telecommunication System hsems.2.5.9 Central Plateau Shop Facilities hsems.2.5.10 Central Plateau Storage Support Facilities hsems.2.5.13 Central Plateau Road System hsems.4.7.1 331 Complex		External Interfaces Waste Isolation Pilot Project Hanford Site Environmental System Interfaces hsems.2.4.1 Low-Level Waste Burial Grounds hsems.2.4.2 Mixed Waste Disposal Trenches hsems.2.5.1 222-S Laboratory hsems.2.5.2 Waste Sampling and Characterization Facility

B.2.1.3.4.5 WRAP Module 1 Interface Description and Forecast**EXTERNAL INPUTS**

-None-

INTERNAL INPUTS**Table B.2-11 Internal Inputs for WRAP Module 1**

Stream	Category	Period	Baseline	Units
hsems.2.2.14 M-91 Facility M-91, CH-TRUM <i>Processed CH-TRU(M) from M-91 to WRAP for shipment out to WIPP.</i>	CH TRUM	1997 - 2070	4990	cubic meters
hsems.2.3.5 Central Waste Complex Storage to WRAP1, CH TRUM <i>CH TRUM Transferred by Storage to WRAP1</i>	CH TRUM	1997 - 2070	9840	cubic meters
hsems.2.5.4 Central Plateau Water System Potable Water for 200-WRAP <i>Potable Water for 200-WRAP</i>	Potable Water	1998 - 2034	962.0	Mgal
hsems.2.5.5 Central Plateau Office Facilities Pager Service for 200-WRAP <i>Pager Service for 200-WRAP</i> Office Space (Program Owned) for 200-WRAP <i>Office Space (Program Owned) for 200-WRAP</i>	Site Pagers (none forecasted)	1998 - 2034	666.0	no. of pagers
hsems.2.5.6 Central Plateau Electrical System Electricity for 200-WRAP <i>Electricity for 200-WRAP</i>	Electricity	1998 - 2034	15500	MW-hr
hsems.2.5.8 Central Plateau Telecommunication System Video Communication for 200-WRAP <i>Video Communication for 200-WRAP</i> Pagers, National/Regional for 200-WRAP <i>Pagers, National/Regional for 200-WRAP</i> Voice (Telephone) Communication for 200-WRAP <i>Voice (Telephone) Communication for 200-WRAP</i> Data (HLAN) Transmission for 200-WRAP <i>Data (HLAN) Transmission for 200-WRAP</i>	Video Communication Service National or Regional Pagers Voice Communications Service HLAN Computers	1998 - 2034 1998 - 2034 1998 - 2034 1998 - 2034	22200 74.0 1850 1850	hours no. of pagers no. of phones no. of PCs
hsems.2.5.9 Central Plateau Shop Facilities Lifting (Cranes) for 200-WRAP <i>Lifting (Cranes) for 200-WRAP</i> Custodial Services for 200-WRAP <i>Custodial Services for 200-WRAP</i> Maintenance Services Sheetmetal for 200-WRAP <i>Maintenance Services Sheetmetal for 200-WRAP</i> Maintenance Services Carpenter for 200-WRAP <i>Maintenance Services Carpenter for 200-WRAP</i> Maintenance Services Carpenter for 200-WRAP <i>Maintenance Services Carpenter for 200-WRAP</i> Fab Shop Services for 200-WRAP <i>Fab Shop Services for 200-WRAP</i>	Lifting Services Custodial Services Maintenance Services (Sheetmetal) Maintenance Services (Carpenter) (none forecasted)	1998 - 2034 1998 - 2034 1998 - 2034 1998 - 2034 (none forecasted)	10300 74000 1.1 4.81	crane days sq. ft. FTE FTE
hsems.2.5.10 Central Plateau Storage Support Facilities Allocated Storage for 200-WRAP <i>Allocated Storage for 200-WRAP</i>	Allocated Storage	1998 - 2034	370.0	sq. ft.
hsems.2.5.13 Central Plateau Road System Heavy Trucks for 200-WRAP <i>Heavy Trucks for 200-WRAP</i> Sedans/Light Trucks for 200-WRAP <i>Sedans/Light Trucks for 200-WRAP</i> Hanford Road Sys. Heavy Traffic for 200-WRAP <i>Hanford Road Sys. Heavy Traffic for 200-WRAP</i>	Heavy Trucks Sedans/Light Trucks Hanford Road System (Heavy Traffic)	1998 - 2034 1998 - 2034 1998 - 2034	4620 74.0 3700	vehicle days no. of vehicles truck loads
hsems.4.6 South 600 Area Radiological Labs Radioactive Standards (Calibrations) for 200-WRAP <i>Radioactive Standards (Calibrations) for 200-WRAP</i> Bioassay and Dosimetry Services for 200-WRAP <i>Bioassay and Dosimetry Services for 200-WRAP</i>	Radioactive Standards Lab Services Bioassay and Dosimetry Services	1998 - 2034 1998 - 2034	4400 888.0	calibrations samples

Table B.2-11 Internal Inputs for WRAP Module 1 (Continued)

Stream	Category	Period	Baseline	Units
hsems.4.7.1 331 Complex Biological Laboratory Services for 200-WRAP Biological Laboratory Services for 200-WRAP	Biological Laboratory Services	1998 - 2034	370.0	samples
Industrial Hygiene Services for 200-WRAP Industrial Hygiene Services for 200-WRAP	Industrial Hygiene Services	1998 - 2034	370.0	samples
Non-rad Standards (Calibrations) for 200-WRAP Non-rad Standards (Calibrations) for 200-WRAP	Non-rad Standards Lab Services	1998 - 2034	740.0	calibrations

EXTERNAL OUTPUTS**Table B.2-12 External Outputs for WRAP Module 1**

Stream	Category	Period	Baseline	Units
X Waste Isolation Pilot Project WRAP1 to WIPP, CH TRUM CH TRUM Transferred by WRAP1 to WIPP	CH TRUM	1997 - 2070	11100	cubic meters
WRAP1, CH-TRUM CH TRUM Transferred by WRAP Module 1.	CH TRUM	1998 - 2035	3950	cubic meters
WRAP1, CH-TRU CH TRU Transferred by WRAP Module 1.	CH TRU	1998 - 2035	14100	cubic meters
M-91 to WIPP (via WRAP1), CH TRUM CH TRUM Transferred by M-91 to WIPP (via WRAP1)	CH TRUM	1997 - 2070	4990	cubic meters

INTERNAL OUTPUTS**Table B.2-13 Internal Outputs for WRAP Module 1**

Stream	Category	Period	Baseline	Units
hsems.2.4.1 Low-Level Waste Burial Grounds WRAP1, CH-LLW-I CH LLW I Transferred by WRAP Module 1.	CH LLW I	1997 - 2070	393.0	cubic meters
hsems.2.4.2 Mixed Waste Disposal Trenches WRAP1, CH-LLMW-I CH LLMW I Transferred by WRAP Module 1.	CH LLMW I	1997 - 2070	75.5	cubic meters
hsems.2.5.1 222-S Laboratory Analytical Laboratory Services for 200-WRAP Analytical Laboratory Services for 200-WRAP	Analytical Laboratory Services	1998 - 2034	5770	samples
hsems.2.5.2 Waste Sampling and Characterization Facility In-Field Laboratory Services for 200-WRAP In-Field Laboratory Services for 200-WRAP	In-Field Laboratory Services	1998 - 2034	74.0	samples

B.2.1.3.5 Thermal Treatment Facility

B.2.1.3.5.1 Thermal Treatment Facility Description

The Thermal Treatment Facility (TTF) is a commercial facility contracted to perform thermal treatment of CH-LLMW. The TTF will accept CH-LLMW requiring thermal treatment. The TTF will provide thermal treatment and residue characterization for the waste volumes that have specific combinations of physical characteristics and hazardous constituents. Primarily, the TTF will treat all volumes of waste that contain PCBs, reactive metals, or organic materials. Initially, the facility will be contracted to operate only through 2009. However, the contract is expected to be extended, if necessary, to finish processing all volumes of CH-LLMW requiring thermal treatment.

B.2.1.3.5.2 Thermal Treatment Facility Facility Technical Logic:

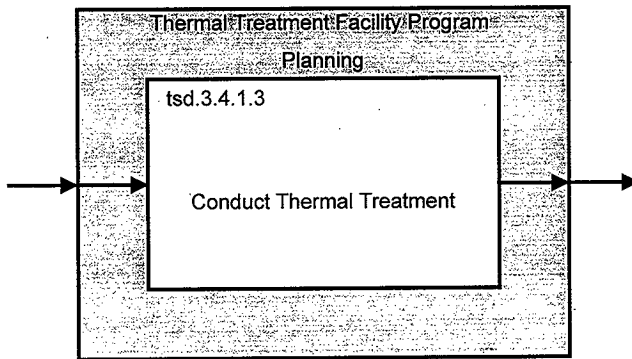


Figure B-10 Thermal Treatment Facility

B.2.1.3.5.3 Thermal Treatment Facility Requirements and Life Cycle Function Descriptions

Requirements:

- Comply with requirements identified in WHC-IP-1120, Standards/Requirements Identification Document (S/RID).
- Solid waste shall be treated to convert the waste to an acceptable form for final disposition.
- Initiate thermal treatment of currently stored and newly generated CH-LLMW. At least 600 cubic meters will be provided for treatment by December 2005.

Due Date: 12/31/2000

- Provide decontamination and maintenance services in support of essential safety operations at the 2706-T Building: equipment decontamination: LLW and RMW packaging.

Life Cycle Function Descriptions:

B.2.1.3.5.3.1 Thermal Treatment Facility Program Planning WORK SCOPE SUMMARY

Functions that include planning and developing the low level mixed waste thermal treatment contract; establishing broad priorities; providing contract technical direction; preparing and defending the contract budget; controlling milestones; integrating all components of the contract; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for contract success.

Thermal Treatment Facility Program Planning SPECIFIC FUNCTIONS

B.2.1.3.5.3.2 Conduct Thermal Treatment

Establish vendor contracts to perform NDE/NDA of contact handled low level mixed waste containers, open-sort contents, thermal treatment process(es), and packaging of disposition ready category I and III low level mixed waste containers for Hanford Site mixed low level waste burial trench.

B.2.1.3.5.4 Thermal Treatment Facility Boundary Diagram

Table B.2-14 Thermal Treatment Facility Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces hsems, 2.3.5 Central Waste Complex		External Interfaces -None- Hanford Site Environmental System Interfaces -None-

B.2.1.3.5.5 Thermal Treatment Facility Interface Description and Forecast

EXTERNAL INPUTS

-None-

INTERNAL INPUTS

Table B.2-15 Internal Inputs for Thermal Treatment Facility

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.2.3.5 Central Waste Complex Storage to CTT, CH LLMW I CH LLMW I Transferred by Storage to CTT	CH LLMW I	1997 - 2070	3320	cubic meters

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS

-None-

B.2.1.3.6 Low-Level Mixed Waste Stabilization Facility**B.2.1.3.6.1 Low-Level Mixed Waste Stabilization Facility Description**

The LLMW Stabilization Treatment Program (STP) facility is a commercial facility contracted to perform stabilization of CH-LLMW not requiring thermal treatment. The commercial STP facility will provide non-thermal treatment for CH-LLMW (Category I and III only) in preparation for final disposal at the mixed waste disposal trenches. The facility is expected to become operational in September of 1999 (fiscal year 2000). The STP will process annually 2,294 cubic meters of CH-LLMW packaged in drums and 381 cubic meters of CH-LLMW contained in boxes as large as 6'x8'x12'.

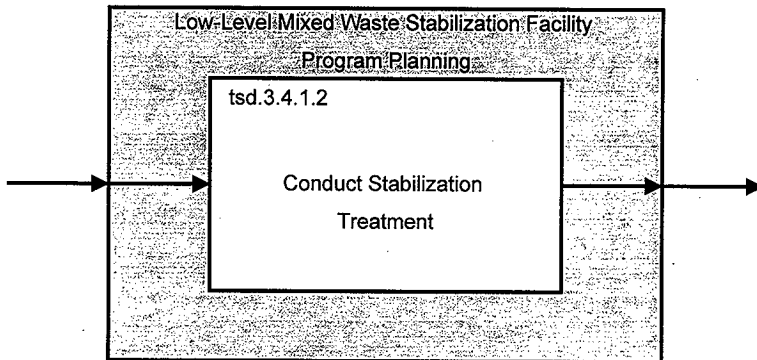
B.2.1.3.6.2 Low-Level Mixed Waste Stabilization Facility Facility Technical Logic:

Figure B-11 Low-Level Mixed Waste Stabilization Facility

B.2.1.3.6.3 Low-Level Mixed Waste Stabilization Facility Requirements and Life Cycle Function Descriptions

Requirements:

- Comply with requirements identified in WHC-IP-1120, Standards/Requirements Identification Document (S/RID).
- Solid waste shall be treated to convert the waste to an acceptable form for final disposition.

Life Cycle Function Descriptions:

B.2.1.3.6.3.1 Low-Level Mixed Waste Stabilization Facility Program Planning WORK SCOPE SUMMARY

Functions that include planning and developing the low level mixed waste stabilization contract; establishing broad priorities; providing contract technical direction; preparing and defending the contract budget; controlling milestones; integrating all components of the contract; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for contract success.

Low-Level Mixed Waste Stabilization Facility Program Planning SPECIFIC FUNCTIONS

B.2.1.3.6.3.2 Conduct Stabilization Treatment

Establish vendor contracts for performing non-thermal treatment of contact handled low level mixed waste in preparation of final disposal at the mixed waste disposal trenches.

B.2.1.3.6.4 Low-Level Mixed Waste Stabilization Facility Boundary Diagram

Table B.2-16 Low-Level Mixed Waste Stabilization Facility Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces hsems.2.3.5 Central Waste Complex		External Interfaces -None- Hanford Site Environmental System Interfaces -None-

B.2.1.3.6.5 Low-Level Mixed Waste Stabilization Facility Interface Description and Forecast

EXTERNAL INPUTS

-None-

INTERNAL INPUTS

Table B.2-17 Internal Inputs for Low-Level Mixed Waste Stabilization Facility

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.2.3.5 Central Waste Complex Storage to STP, CH LLMW I CH LLMW I Transferred by Storage to STP	CH LLMW I	1997 - 2070	33800	cubic meters

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS

-None-

B.2.1.4 Drivers for Solid Waste Treatment

Table B.2-18 Source Documents for Solid Waste Treatment

Name	Title
DOE Order 5820.2A	Radioactive Waste Management
DOE/EIS-0222D	Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land Use Plan
DOE/RL-89-10	Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement), Rev.4
DOE/RL-96-14	Updated Draft Mission Direction Document, June 1996
DOE/RL-96-92	Hanford Strategic Plan
DOE/WIPP-069, rev.4	
ST 4502	State Waste Discharge Permit for the 200 Area TEF
WHC-IP-1120, Rev. 1	Standards/Requirements Identification Document (S/RID)
WHC-SD-WM-MAR-008, TWRS	
Mission Analysis Report	
WHC-SP-1114 Rev 2	Solid Waste Program Fiscal Year 1997 Multi-Year Work Plan

B.2.1.5 Solid Waste Treatment Risk Management

Units of Analysis (and any RDS #):

T-Plant Canyon Minimum Safe: R96N0009, R96N0010, R96N0012, R96N0024

Remote Handled Waste Treatment: R96N0009, R96N0010, R96N0012, R96N0023

2706-T Minimum Safe: R96N0009, R96N0010, R96N0012, R96N0024

2706-T Operations: R96N0024

RMW Treatment/Disposal: R96N0020, R96N0025, R96N0015

WRAP-1 Min Safe: R96N0004, R96N0030

WRAP-1 Operations R96N0006, R96N0007, R96N0030

Secondary Containment Project W-259: R96N0019

TRU Retrieval Phase I Project W-113: R96N0013

Advanced TRU Retrieval Project W-156 and TRU Retrieval Phase II Project W-221: R96N0016

Risk roll-up by year:

	1997	1998	1999	2000	2001	2002	2003	2004
Public	NA - 4B	LOW - 4A	LOW - 4A	LOW - 4A	LOW - 4A	LOW - 4A	LOW - 4A	LOW - 4A
Worker	MED - 3B	MED - 3B	MED - 3B	MED - 3A	MED - 3A	MED - 3A	MED - 3A	MED - 3A
Environment	NA - 4B	NA - 4B	LOW - 3C	LOW - 3C	LOW - 3C	LOW - 3C	LOW - 3C	LOW - 3C

	2005	2006	2007 - 2010	2011 - 2015	2016 - 2020	2021 - 2025	2026 - 2030	2031 - 2035
Public	LOW - 4A	LOW - 4A	LOW - 4A	LOW - 4A	LOW - 4A	LOW - 4A	LOW - 4A	LOW - 4A
Worker	MED - 3A	MED - 3A	MED - 3A	MED - 3A	MED - 3A	MED - 3A	MED - 3A	MED - 3A
Environment	LOW - 3C	LOW - 3C	LOW - 3C	LOW - 3C	NA - 4B	NA - 4B	NA - 4B	NA - 4B

Has the risk evaluation been externally peer reviewed? N

Have regulators and stakeholders been involved in validating the project risk evaluations? N

C.1. Narrative

Identification of relevant PBS interfaces -- e.g., if the project ends and is transferred to another PBS. This project interfaces with all other site programs in providing mixed waste treatment activities and high-dose/low-dose/alpha decontamination services. There is also an interface with the Spent Nuclear Fuels project for the removal of spent nuclear fuel from the T-Plant Canyon. WRAP-1 will receive newly generated waste from Hanford site generators and suspect TRU waste from TRU retrieval projects. LLW will be sent to LLBG for disposal, TRU waste will be sent to the WIPP for disposal, and LLMW/TRUM will be sent to storage or treatment.

WRAP-1 will operate in support of LLBG and WIPP until generator facilities no longer require WRAP-1 services, at which time the facility will be shutdown, decontaminated, and decommissioned.

W-113 will continue until completion in FY 2004 in support of Burial Grounds closure. At project termination appropriate equipment and personnel will transition to TRU Retrieval Phase II Project W-221. Project W-113 will provide WRAP-1 a feed stream of suspect TRU waste containers for continuous processing.

Project W-156 will continue until completion BY FY 2015 in support of Burial Grounds closure.

Project W-221 will continue until completion in FY 2010 in support of Burial Grounds closure. TRU Retrieval Phase II will provide WRAP-1 a feed stream of suspect TRU waste containers for continuous processing.

Any construction of RH-TRU processing facilities requires funding of the TRU retrieval projects as a feed stream.

Brief description of Project, hazards and activities (2-3 sentences, including project phases)

The Waste Treatment project provides mixed waste treatment through on-site activities and off-site vendor contracts. Waste to be treated include waste that is stored and that which is newly generated. Also provided is decontamination support for materials and equipment as requested by Hanford site customers. In addition to the industrial hazards associated with WRAP-1 equipment and operations, there are risks of worker exposure to radioactive and hazardous materials. These risks are mitigated by procedures, training, administrative controls, and maintenance of facility systems and equipment. The project also provides line-item capital upgrades for compliance projects and transuranic waste retrieval projects. Waste that is not treated must continue to be held in storage posing a greater risk to on-site workers. Waste that is not retrieved will continue to degrade in underground storage and increase risk for environmental contamination.

In addition to the industrial hazards associated with TRU Retrieval Phase 1, Phase 2, and Caisson Retrieval equipment and operations, there are risks of worker exposure to radioactive and hazardous materials. These risks are mitigated by procedures, training, administrative controls, and maintenance of facility systems and equipment.

Risk reduction metric(s) and demarcation of risk levels

How will this project reduce Hanford risks? What key project events are planned that will change risk? This overall waste treatment project reduces risk on the Hanford Site by centralizing mixed waste and then reducing the chemical and radiological hazards associated with it through decontamination or treatment. This reduces the both the probability of an event occurring and its potential off-site hazard.

The baseline risks for this project are medium. LLMW treated in this project would otherwise be packaged for compliant storage if they were not treated. Since there is an option of monitored storage, the buildup of backlog wastes to be treated poses no additional risk to the environment, worker, or public. Risks are reduced to near zero at the end of the project. All available wastes will have been treated to regulatory standards and facilities will be decommissioned. WRAP-1 is a service facility and has no specific interim or final endpoint targets in the Hanford Mission Direction Document or Hanford Strategic Plan. However WRAP-1 supports site cleanup activities necessary to ensure public health and safety, and protect the environment. WRAP-1 must be available to support LLBG, WIPP,

and Mixed Waste Treatment activities. Risks during the outyears, 2000 - 2070 are similar to the risks for 1999 as the mission of the treatment facilities and programs is not expected to change in any great degree.

Capital Project W113: This project will remove 10,000 suspect TRU waste drums/boxes from underground storage for disposal, treatment, and/or compliant storage. These waste containers will begin exceeding their design life for underground storage, retrieval reduces the risk of soil and eventual ground water contamination.

Capital Project W156: This project will remove TRU waste from the Alpha Caissons storage for disposal, treatment, and/or compliant storage. Retrieval reduces the risk of soil and eventual ground water contamination.

Capital Project W221: This project will remove 20,000 suspect TRU waste drums/boxes from underground storage for disposal, treatment, and/or compliant storage. These waste containers have begun exceeding their design life for underground storage, retrieval reduces the risk of soil and eventual ground water contamination.

What risk performance measures have been selected to track changes in risk? Are these direct metrics such as dose or indirect metrics such as volume of stabilized material?

Public Health metric(s): The metrics chosen to represent certain of these risks include radiological stack emissions from continuing operations and dose from accidental releases, if any should occur.

Worker Health & Safety metric(s): Occurrence reporting incidents, first aid cases, lost work days, and restricted work days, accrued radiological dose.

Environmental Health metric(s): Amount of waste retrieved, treated, stored, and disposed, chemical usage, and spill reporting.

Risk Drivers (primary accident and/or exposure scenarios, with frequency or probability and rough estimate of magnitude):

T-Plant Complex: Operation of the T-Plant complex poses only a low risk to the public health and safety as documented in the T-Plant Interim Safety Basis, document number WHC-SD-WM-15B-006. The evaluation of the bounding scenarios of operation shows that the risk of operation fall within a hazard category 3 classification. Hazard category 3 facilities show the potential for significant consequences only in the local facility area. The bounding accidents include a spray leak from the waste storage tanks for radiological release and the conflagration of stored sodium metal. The spray leak scenario results in a release of 8.06 Curies of various radionuclides that result in a potential onsite (plant) worker dose of 2.32 REM and an off-site receptor dose of 0.039 REM. The majority of this dose arises from the release of Sr-90, Y-90, Plutonium isotopes and Am-241. The sodium metal fire scenario results in a 6.88 mg/cubic meter airborne concentration of NaOH for the onsite worker which is 5 times below ERPG-2 to ERPG-3 guidelines. For off-site exposure a value of 0.116 mg/cubic meter is reached which is at least 20 times below the ERPG-1 to ERPG-2 guidelines. This all results in a low risk rating for public safety and health. The primary risk drivers for the on-site workers at the complex are industrial in nature. The T-Plant Complex is over 50 years old and was not constructed to the same industrial safety standards as today. Combined with the heavy physical nature of work at the plant, this creates in a higher incidence of lost work days and injuries and results in a medium risk rating.

WRAP Facility: Operation of WRAP-1, and its support to the site cleanup, is the primary risk driver. No quantitative estimates have been made of the risk associated with this scenario. Hazards for WRAP-1 have been formally assessed in the WRAP-1 FSAR.

Mixed Waste Treatment Program: Most mixed waste treatment will occur at off-site facilities and will not affect the risk profile of Hanford facilities. Any activities that are chosen to be performed on the Hanford site will need to fit within the existing safety structures of the facility where they will be performed and will not increase the risk profile of these facilities. If mixed waste treatment is not accomplished, waste volumes will build up at facilities and at the CWC. These storage facilities are permitted for such storage and an increase in volume stored will not increase the risk profile for their operations. Any risk rating for this work will be low.

Retrieval Projects: These projects will remove TRU and suspect TRU waste drums/boxes from underground storage for disposal, treatment, and/or compliant storage. These waste containers have begun exceeding their design life for underground storage, retrieval reduces the risk of soil and eventual ground water contamination.

Where are we now? BASELINE risks existing at the beginning of 1997 - "stopped project" risks against which progress will be measured (scenarios, contaminants/materials, concentrations, risk levels). Refer to Table C.1.A in the Ten Year Plan Guidance.

Formal evaluations of stopped project scenarios have not been undertaken. The following is a qualitative discussion of existing conditions.

Existing conditions, inventories: There is a large quantity of mixed waste and contamination equipment stored on the Hanford Site. If the waste is left untreated it will accumulate on the site in various locations in compliant storage. Contaminated equipment will just stockpile locally at facilities. Replacement materials and equipment will have to be purchased. The Hanford "Legacy" includes radioactive and hazardous solid wastes, spent nuclear fuel, contaminated soil, and facilities with high mortgages for continued surveillance and maintenance. WRAP-1 essential to the cleanup and remediation of the Hanford site. TRU Retrieval Phase I addresses roughly 10,000 of the over 30,000 buried suspect TRU waste containers at Hanford. This represents nearly 250 Kg of plutonium. Caisson Retrieval addresses the roughly 5,500 TRU waste containers in the Alpha Caissons. This represents approximately 279 Kg of uranium and 247 Kg of plutonium. TRU Retrieval Phase II addresses the remaining roughly 20,000 buried suspect TRU waste containers at Hanford. This represents nearly 480 Kg of plutonium.

Baseline public health risks: Without treatment of mixed waste inventories, the volume of the waste will continue to grow. An increased volume in storage increases the risk that some of the material could expose off-site individuals. This additional risk is taken to be very low because waste will continue to be stored in compliance in RCRA requirements. **Retrieval Projects:** These projects will remove TRU and suspect TRU waste drums/boxes from underground storage for disposal, treatment, and/or compliant storage. These waste containers have begun exceeding their design life for underground storage. Retrieval reduces the risk of potential spread of contamination from degrading containers and reduces risk to the public.

Baseline worker health & safety risks: Without treatment of mixed waste inventories, the volume of the waste will continue to grow. An increased volume in storage increases the risk that some of the material could expose on-site workers. There is a measurable increase in risk to workers as the volume of materials increases. **Retrieval Projects:** These projects will remove TRU and suspect TRU waste drums/boxes from underground storage for disposal, treatment, and/or compliant storage. These waste containers have begun exceeding their design life for underground storage. Retrieval reduces the risk of potential spread of contamination from degrading containers and reduces risk to the worker.

Baseline environmental health risks: Without treatment of mixed waste inventories, the volume of the waste will continue to grow. An increased volume in storage increases the risk that some of the material could be released to the environment. There is a measurable increase in risk to the environment as the volume of materials increases. **Retrieval Projects:** These projects will remove TRU and suspect TRU waste drums/boxes from underground storage for disposal, treatment, and/or compliant storage. These waste containers have begun exceeding their design life for underground storage, retrieval reduces the risk of soil and eventual ground water contamination.

Where are we going? Conditions at project completion or transfer and risk-related conditions in the outyears that relate to long-term END STATE commitments

END STATE conditions, inventories: All on-site mixed waste will have been disposed or treated/disposed in compliance with RCRA requirements. All post-1970 TRU would be retrieved and shipped off-site for disposal. All generator facilities will have ceased operations, all clean-up activities are complete, and closure of all RCRA facilities is completed.

END STATE public health risks: There is no risk to the public at the end state. All mixed waste materials have

been treated and permanently disposed of in RCRA compliant facilities.

END STATE worker health & safety risks: There is no risk to the worker at the end state. All mixed waste materials have been treated and permanently disposed of in RCRA compliant facilities.

END STATE environmental health risks: There is very low risk to the environment at the end state. All mixed waste materials have been treated and permanently disposed of in RCRA compliant facilities.

How are we getting there? Risks that REMAIN at the end of each budget year as currently planned (Purpose: to show how much progress in risk reduction will have been made, and how much risk would still remain if the project were stopped at the end of that year and never restarted. Refer to Table C.1.A)

General rationale: This is a long term project. If the project is stopped in any year, mixed waste and contaminated materials will continue to be generated and accumulated. The risks would be approximately the same in the out years as in the current year for a stopped project scenario. There would be some decrease in risk levels as other site projects come to their end states and quit generating mixed waste and contaminated materials.

Public health and critical project events & years: This is a long term project. If the project is stopped in any year, mixed waste and contaminated materials will continue to be generated and accumulated. The risks would be approximately the same in the out years as in the current year for a stopped project scenario. There would be some decrease in risk levels as other site projects come to their end states and quit generating mixed waste and contaminated materials.

Worker health & safety and critical project events & years (e.g., risks to other Hanford workers if this project were stopped): This is a long term project. If the project is stopped in any year, mixed waste and contaminated materials will continue to be generated and accumulated. The risks would be approximately the same in the out years as in the current year for a stopped project scenario. There would be some decrease in risk levels as other site projects come to their end states and quit generating mixed waste and contaminated materials.

Environmental health and critical project events & years: This is a long term project. If the project is stopped in any year, mixed waste and contaminated materials will continue to be generated and accumulated. Waste containers that are not retrieved will continue to degrade and release contaminants into the environment. This would also make future retrieval even more hazardous to the onsite worker and public. There would be some decrease in risk levels as other site projects come to their end states and quit generating mixed waste and contaminated materials. However, there would be a year-by-year increase in risk levels for TRU waste that is not retrieved and treated. The longer the delay in retrieval the more TRU material will be released into the environment.

ANNUAL risks for key project years

Annual risks remain essentially the same throughout each year. However, there would be a year-by-year increase in risk levels to the environment for TRU waste that is not retrieved and treated. The longer the delay in retrieval the more TRU material will be released into the environment.

Risk Interfaces, Related Projects, Issues

Interfaces and transitions: Interfaces exist throughout the life of the project with all on-site generators until they reach their end states. An interface will continue to exist with RL-WM03 for waste storage and mixed waste treatment feed stream. An interface exists with the Spent Nuclear Fuels project for the removal of Spent Nuclear Fuel from the T-Plant Canyon.

Related & interdependent projects: Waste storage, spent nuclear fuels, and all Hanford Site generators of mixed waste and contaminated equipment.

Waste streams, disposal plans, long-term risks: Wastes generated from this operation will be disposed of in RCRA compliant disposal facilities on the Hanford Site. Generating facilities will require treatment options of their mixed wastes to reach their end states. At the end state there is only minor risk to any receptor.

Major risk issues and risk assumptions related to project implementation and interim and final end states: It is assumed that compliant waste storage at generating facilities and the Central Waste Complex will always be funded. It is assumed that the WIPP site will take TRU waste as currently scheduled. All new mixed waste treatment operations at T-Plant will be screened for and pass Unreviewed Safety Question screening to fall within the existing bounds of authorized operations in the T-Plant Interim Safety Basis. WRAP proceeds to timely operations with an

approved Final Safety Analysis Report. Most new mixed waste treatment operations will occur off-site at contracted vendor facilities. A remaining major risk issue is the continuing degradation of buried TRU containers until their retrieval and treatment.

References:

Interim Safety Basis for Solid Waste Facilities: T-Plant, WHC-SD-WM-ISB-006, Rev 0.

Waste Receiving and Processing Facility Final Safety Analysis Report, HNF-SD-W026-SAR-002, Rev 0C

Risk Data Sheets: R96N0004, R96N0006, R96N0007, R96N0009, R96N0010, R96N0012, R96N0013, R96N0015, R96N0016, R96N0019, R96N0020, R96N0023, R96N0024, R96N0030, R96N0225

Solid Waste Program Multi-Year Program Plan

FY1998

September 26, 1997

B.2.2.0 Work Breakdown Structure

RL PBS	RL WBS Level	Title
RL-WM04	1.2.2.1.2A	2706-T Min. Safe
	1.2.2.1.2B	2706-T Operations
	1.2.2.1.2C	T-Plant Min. Safe
	1.2.2.1.2E	WRAP Min. Safe
	1.2.2.1.2F	WRAP Operations
	1.2.2.1.2G	RMW Treatment
	1.2.2.1.2H	W-259 Secondary Containment - Expense
	1.2.2.1.3H	W-259 Secondary Containment - Line Item

B.2.2.1 WBS Dictionary

The following pages contain the WBS dictionary for RL-WM04 as contained in the Central Milestone Module (CMM).

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: SOLID WASTE TREATMENT	2. Date	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1	6. Corresponding FDS No.	7. Baseline CR No.	
8. Organization Name			9. B & R No.
10. Scope of Work			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: 2706-T FACILITY MINIMUM SAFE	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.1A	6. Corresponding FDS No. 1A2A	7. Baseline CR No.	
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT			9. B & R No.
10. Scope of Work Provides for minimum safe operations at the 2706-T facility. Activities are designed to keep the facility in a safe and compliant status. Maintenance activities will include preventative, corrective, and designated calibration and/or testing services. Training will maintain established qualifications for plant personnel to work in a treatment, storage, and disposal facility.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: 2706-T FACILITY DECON OPERATIONS	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.1B	6. Corresponding FDS No. 1A2B	7. Baseline CR No.	
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT			9. B & R No.
10. Scope of Work Provides decontamination and waste verification activities, including low-dose beta-gamma decontamination, and waste verification in the 2706-T/TA facility. Training and certification that is directly related to decontamination / verification will be provided.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: T PLANT CANYON MINIMUM SAFE		2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.1C	6. Corresponding FDS No. 1A2C	7. Baseline CR No.		
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT				9. B & R No.
10. Scope of Work Provides for minimum safe operations at the T Plant Waste and Decontamination Services Canyon Facility. These activities support compliance and safety requirements.				

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: REMOTE HANDLED WASTE TREATMENT (T CANYON)	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.ID	6. Corresponding FDS No. 1A2D	7. Baseline CR No.	
8. Organization Name 32A00 - SOLID WASTE PROJECT MANAGEMENT			9. B & R No.
10. Scope of Work Provides high-dose and dual survey (beta-gamma and alpha) decontamination services, and spent nuclear fuel removal at T Plant. Provides for training and certification of operators.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: WRAP FACILITY MINIMUM SAFE		2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.1E	6. Corresponding FDS No. 1A2E	7. Baseline CR No.		
8. Organization Name 32600 - WRAP 1				9. B & R No.
10. Scope of Work Provides for minimum safe operations at the Waste Receiving and Processing (WRAP) Module 1 facility; including surveillance, preventative and corrective maintenance, management/administration, and training activities.				

HANFORD SITE WORK BREAKDOWN STRUCTURE.DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: WRAP FACILITY OPERATIONS	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.1F	6. Corresponding FDS No. 1A2F	7. Baseline CR No.	
8. Organization Name 32600 - WRAP 1			9. B & R No.
10. Scope of Work Provides for the operational activities to perform the NDE/NDA, LLW and TRU process line operations. NDE/NDA and visual/repacking will be performed on Low Level Waste (LLW), Transuranic waste (TRU), and LLW/TRU Mixed Waste. LLW will be verified and sent to the burial grounds for disposal. LLW/TRU Mixed Waste will be segregated and sent to storage or treatment. TRU waste will be verified/certified for shipment to the Waste Isolation Pilot Project (WIPP) for disposal.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: RADIOACTIVE MIXED WASTE (RMW) TREATMENT		2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.1G	6. Corresponding FDS No. 1A2G	7. Baseline CR No.		
8. Organization Name 32400 - STRATEGIC PLANNING				9. B & R No.
10. Scope of Work Provides for RCRA required treatment and disposal of several categories of radioactive mixed waste (RMW) that will be generated in the future, as well as those currently stored on the Hanford site. RMW waste categories include approximately 250 barrels of hydraulic oil containing polychlorinated biphenyls contaminated with plutonium; contact handled (CH) low level mixed waste (LLMW) currently stored in the Central Waste Complex (CWC) awaiting treatment to comply with land disposal restrictions (LDR); HALLAM and SRE sodium presently stored on the Hanford site to be processed for disposal or reuse; and solidified liquids and soils from the 183-H facility ready for disposal. Where possible, direct disposal methods for those wastes currently meeting treatment criteria will be pursued at the Low Level Burial Grounds (LLBG) or in the Environmental Remediation Disposal Facility (ERDF). The common denominator is that they all require treatment, or the approval of a regulatory waiver, before they can be disposed. Until then, they will continue to be stored at the Hanford site. Provides funds for Termination for Convenience, and treatment activities for LLMW Stabilization and Thermal Treatment contracts. Also supports the completion of Tri-Party Agreement Milestone M-19. Large containers of contact handled; and all remote handled, TRU waste will be processed and/or packaged, and stored until it is shipped offsite for final disposition at WIPP and supports Tri-Party Agreement Milestone M-91.				

HANFORD SITE WORK BREAKDOWN STRUCTURE.DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: SECONDARY CONTAINMENT PROJECT (W-259)	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.1H	6. Corresponding FDS No. 1A2H	7. Baseline CR No.	
8. Organization Name 32D00 - CAPITAL/PROJECTS MANAGEMENT			9. B & R No.
10. Scope of Work Provides the expense funding supporting the construction of a double contained waste collection system for the 2706-T Decontamination Facility. These wastes are currently managed in the 221-T canyon piping and tank systems, which are not in compliance with federal and state requirements. This project implements Tri-Party Agreement Milestone M-32-03.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: TRU RETRIEVAL PHASE I (W-113)	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.1J	6. Corresponding FDS No. 1A2J	7. Baseline CR No.	
8. Organization Name 32D00 - CAPITAL/PROJECTS MANAGEMENT			9. B & R No.
10. Scope of Work Provides the expense funding supporting design, construction and startup of a facility that will be used to retrieve contact handled (CH) suspect Transuranic (TRU) waste from one underground storage trench at the Hanford site. A phased approach to retrieval has been selected, and Project W-113 addresses Phase I. The waste has been buried in containers that were not intended to be in the ground for more than twenty years. Many of these containers have now exceeded this twenty year period. The Record of Decision for the Hanford Defense Waste - Environmental Impact Statement (HDW-EIS) states that the post-1970 TRU waste must be retrieved. Phase I will retrieve roughly one third of the CH TRU waste containers stored since 1970 that are expected to be intact, approximately 10,000 drums/boxes. Equipment will be provided to x-ray and assay the waste containers through non-destructive techniques for proper identification of the content to the extent necessary to meet site requirements at an onsite RCRA permitted facility.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: TRU RETRIEVAL PHASE II (W-221)		2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.1K	6. Corresponding FDS No. 1A2K	7. Baseline CR No.		
8. Organization Name 32D00 - CAPITAL/PROJECTS MANAGEMENT				9. B & R No.
10. Scope of Work Provides the expense funding supporting retrieval of remote handled (RH) suspect Transuranic (TRU) waste from 25 underground storage trenches at the Hanford site. A phased approach has been selected; and Project W-221 addresses Phase II, which is defined as retrieval of all TRU/suspect TRU waste that is not recovered in Phase I TRU Retrieval (W-113) or Caisson Retrieval (W-156). The waste has been buried in containers that were not intended to be in the ground for more than twenty years. Many of these containers have now exceeded this twenty year period. The Record of Decision for the Hanford Defense Waste -Environmental Impact Statement (HDW-EIS) states that the post-1970 TRU waste must be retrieved. This will enable final closure of the respective burial grounds.				

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: CAISSON RETRIEVAL (W-156)	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.1M	6. Corresponding FDS No. 1A2M	7. Baseline CR No.	
8. Organization Name 32D00 - CAPITAL/PROJECTS MANAGEMENT			9. B & R No.
10. Scope of Work Provides expense funding supporting retrieval of remote handled (RH) Transuranic (TRU) waste from the Alpha Caissons. The Record of Decision for the Hanford Defense Waste - Environmental Impact Statement (HDW-EIS) states that the post-1970 TRU waste must be retrieved. A total of 5,485 one-gallon waste containers are stored in four underground caissons. This will enable the final closure of the respective burial grounds.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: TRU RETRIEVAL PHASE I (W-113) - CENRTC	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.2J	6. Corresponding FDS No. 2A2J	7. Baseline CR No.	
8. Organization Name 32D00 - CAPITAL/PROJECTS MANAGEMENT			9. B & R No.
10. Scope of Work Provides capital equipment funding supporting the design, construction and startup of a facility that will be used to retrieve contact handled (CH) suspect Transuranic (TRU) waste from one underground storage trench at the Hanford site. A phased approach to retrieval has been selected, and Project W-113 addresses Phase I. The waste has been buried in containers that were not intended to be in the ground for more than twenty years. Many of these containers have now exceeded this twenty year period. The Record of Decision for the Hanford Defense Waste - Environmental Impact Statement (HDW-EIS) states that the post-1970 TRU waste must be retrieved. Phase I will retrieve roughly one third of the CH TRU waste containers stored since 1970 that are expected to be intact, approximately 10,000 drums/boxes. Equipment will be provided to x-ray and assay the waste containers through non-destructive techniques for proper identification of the content to the extent necessary to meet site requirements at an onsite RCRA permitted facility.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: TRU RETRIEVAL PHASE II (W-221) - CENRTC	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.2K	6. Corresponding FDS No. 2A2K	7. Baseline CR No.	
8. Organization Name 32D00 - CAPITAL/PROJECTS MANAGEMENT			9. B & R No.
10. Scope of Work Provides capital equipment funding supporting the retrieval of remote handled (RH) suspect Transuranic (TRU) waste from underground storage trenches at the Hanford site. A phased approach has been selected; and project W-221 addresses Phase II, which is defined as retrieval of all TRU/suspect TRU waste that is not recovered in Phase I TRU Retrieval (W-113) or Caisson Retrieval (W-156). The waste has been buried in containers that were not intended to be in the ground for more than twenty years. Many of these containers have now exceeded this twenty year period. The Record of Decision for the Hanford Defense Waste -Environmental Impact Statement (HDW-EIS) states that the post-1970 TRU waste must be retrieved. Provides for retrieval of remote handled (RH) TRU waste from twenty five underground trenches for continuous processing within WRAP 1. This will enable final closure of the respective burial grounds.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: CAISSON RETRIEVAL (W-156) - CENRTC	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.2M	6. Corresponding FDS No. 2A2M	7. Baseline CR No.	
8. Organization Name 32D00 - CAPITAL/PROJECTS MANAGEMENT			9. B & R No.
10. Scope of Work Provides capital equipment funding supporting the retrieval of remote handled (RH) Transuranic (TRU) waste from the Alpha Caissons. The Record of Decision for the Hanford Defense Waste -Environmental Impact Statement (HDW-EIS) states that the post-1970 TRU waste must be retrieved. Provides for the retrieval of RH TRU waste from four underground caissons. There are a total of 5,485 one-gallon waste containers stored in these caissons. This will enable the final closure of the respective burial grounds.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: SECONDARY CONTAINMENT PROJECT (W-259) -	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.3H	6. Corresponding FDS No. 3A2H	7. Baseline CR No.	
8. Organization Name 32D00 - CAPITAL/PROJECTS MANAGEMENT			9. B & R No.
10. Scope of Work Provides line item funding to support the construction of a double contained waste collection system for the 2706-T Decontamination Facility. These wastes are currently managed in the 221-T canyon piping and tank systems, which are not in compliance with federal and state requirements. This project implements Tri-Party Agreement Milestone M-32-03.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: TRU RETRIEVAL PHASE I (W-113) - LINE ITE	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.3J	6. Corresponding FDS No. 3A2J	7. Baseline CR No.	
8. Organization Name 32D00 - CAPITAL/PROJECTS MANAGEMENT			9. B & R No.
10. Scope of Work Provides line item funding to support the design, construction and startup of a facility that will be used to retrieve contact handled (CH) suspect Transuranic (TRU) waste from one underground storage trench at the Hanford site. A phased approach to retrieval has been selected, and Project W-113 addresses Phase I. The waste has been buried in containers that were not intended to be in the ground for more than twenty years. Many of these containers have now exceeded this twenty year period. The Record of Decision for the Hanford Defense Waste - Environmental Impact Statement (HDW-EIS) states that the post-1970 TRU waste must be retrieved. Phase I will retrieve roughly one third of the CH TRU waste containers stored since 1970 that are expected to be intact, approximately 10,000 drums/boxes. Equipment will be provided to x-ray and assay the waste containers through non-destructive techniques for proper identification of the content to the extent necessary to meet site requirements at an onsite RCRA permitted facility.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/16/1997

1. Activity Title: TRU RETRIEVAL PHASE II (W-221) - LINE IT	2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.3K	6. Corresponding FDS No. 3A2K	7. Baseline CR No.	
8. Organization Name 32D00 - CAPITAL/PROJECTS MANAGEMENT			9. B & R No.
10. Scope of Work Provides line item funding to support the retrieval of remote handled (RH) suspect Transuranic (TRU) waste from underground storage trenches at the Hanford site. A phased approach has been selected; and Project W-221 addresses Phase II, which is defined as retrieval of all TRU/suspect TRU waste that is not recovered in Phase I TRU Retrieval (W-113) or Caisson Retrieval (W-156). The waste has been buried in containers that were not intended to be in the ground for more than twenty years. Many of these containers have now exceeded this twenty year period. The Record of Decision for the Hanford Defense Waste -Environmental Impact Statement (HDW-EIS) states that the post-1970 TRU waste must be retrieved. Provides for retrieval of remote handled (RH) TRU waste from twenty five underground trenches for continuous processing within WRAP 1. This will enable final closure of the respective burial grounds.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: CAISSON RETRIEVAL (W-156) - LINE ITEM		2. Date 9/11/1997	3. PBS Number RL-WM04	4. Dict Rev
5. Contract WBS No. 1.2.2.1.3M	6. Corresponding FDS No. 3A2M	7. Baseline CR No.		
8. Organization Name 32D00 - CAPITAL/PROJECTS MANAGEMENT				9. B & R No.
10. Scope of Work Provides line item funding to support the retrieval of remote handled (RH) Transuranic (TRU) waste from the Alpha Caissons. The Record of Decision for the Hanford Defense Waste -Environmental Impact Statement (HDW-EIS) states that the post-1970 TRU waste must be retrieved. Provides for the retrieval of RH TRU waste from four underground caissons. There are a total of 5,485 one-gallon waste containers stored in these caissons. This will enable the final closure of the respective burial grounds.				

FY1998

September 26, 1997

B.2.2.2 Responsibility Assignment Matrix

The following page contains the Responsibility Assignment Matrix (RAM) as contained in the Central Milestone Module (CMM).

Mission Area Responsibility Assignment Matrix

9/16/1997

Proj Lvl (PBS #)	FDS Act Number	Activity Title	Activity Manager	Responsible Organization	Cost Account
RL-W004		SOLID WASTE TREATMENT			
	1A2A	2706-T FACILITY MINIMUM SAFE	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A2B	2706-T FACILITY DECON OPERATIONS	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A2C	T PLANT CANYON MINIMUM SAFE	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A2D	REMOTE HANDLED WASTE TREATMENT (T CANYON)	R.J. GIROIR	32400 - SOLID WASTE PROJECT MANAGEMENT	
	1A2E	WRAP FACILITY MINIMUM SAFE	L.W. ROBERTS	32600 - WRAP 1	
	1A2F	WRAP FACILITY OPERATIONS	L.W. ROBERTS	32600 - WRAP 1	
	1A2G	RADIOACTIVE MIXED WASTE (RMA) TREATMENT	D.E. MCKENNEY	32400 - STRATEGIC PLANNING	
	1A2H	SECONDARY CONTAINMENT PROJECT (W-259)	D.B. POWELL	32D00 - CAPITAL/PROJECTS MANAGEMENT	
	1A2J	TRU RETRIEVAL PHASE I (W-113)	D.B. POWELL	32D00 - CAPITAL/PROJECTS MANAGEMENT	
	1A2K	TRU RETRIEVAL PHASE II (W-221)	D.B. POWELL	32D00 - CAPITAL/PROJECTS MANAGEMENT	
	1A2M	CAISSON RETRIEVAL (W-156)	D.B. POWELL	32D00 - CAPITAL/PROJECTS MANAGEMENT	
	2A2J	TRU RETRIEVAL PHASE I (W-113) - CEINRTC	D.B. POWELL	32D00 - CAPITAL/PROJECTS MANAGEMENT	
	2A2K	TRU RETRIEVAL PHASE II (W-221) - CEINRTC	D.B. POWELL	32D00 - CAPITAL/PROJECTS MANAGEMENT	
	2A2M	CAISSON RETRIEVAL (W-156) - CEINRTC	D.B. POWELL	32D00 - CAPITAL/PROJECTS MANAGEMENT	
	3A2H	SECONDARY CONTAINMENT PROJECT (W-259) - LINE ITEM	D.B. POWELL	32D00 - CAPITAL/PROJECTS MANAGEMENT	
	3A2J	TRU RETRIEVAL PHASE I (W-113) - LINE ITEM	D.B. POWELL	32D00 - CAPITAL/PROJECTS MANAGEMENT	
	3A2K	TRU RETRIEVAL PHASE II (W-221) - LINE ITEM	D.B. POWELL	32D00 - CAPITAL/PROJECTS MANAGEMENT	
	3A2M	CAISSON RETRIEVAL (W-156) - LINE ITEM	D.B. POWELL	32D00 - CAPITAL/PROJECTS MANAGEMENT	

FY1998

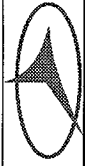
September 26, 1997

B.2.3.0 Schedule Baseline

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary (PBS) guidance.

Activity ID		Activity Description	Early Start	Early Finish	FX01	FX04	FX07	FX10	FX13	FX16	FX19	FX22	FX25	FX28	FX31	FX34	FX37	FX40	FX43	FX46	FX49	FX52		
RL-WM04 Solid Waste Treatment																								
HSEMS 22-10-5 WRAP Module Ops & Maint																								
WRAP OPERATIONS																								
SW4E1	Wrap 1 Operation	01OCT97*	30SEP31	Wrap 1 Operation M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1 A2F-99-001																				
SW4E2	M-91-02 Initiate Process of CH-TRU/TRUM at WRAP1	31DEC98*																						
SW4E3	To AS - Provide 222-S Support to WRAP 1 Ops		30SEP32*																					
SW4E4	To AS - Provide WSCF Support to WRAP 1 Ops		30SEP31																					
SW4E5	To TW - WRAP 1 Transition		30SEP31																					
SW4E6	Last Shipment from WRAP to WIPP		30SEP32*																					
OTHER																								
W-259 - PLANT SECOND CONTAINER																								
SW4A1	W-259 Leak Detection Upgrades - Construction	01OCT97*	30SEP99	W-259 Leak Detection Upgrades - Construction A2H-99-002																				
SW4A2	M-32-03 Complete W-259 Construction		30SEP99																					
SW4A3	M-32-00 Comp Ident Dang Wst Tk Correct Actions		30SEP99	M-32-00 Comp Ident Dang Wst Tk Correct Actions A2H-99-003																				
FUEL REMOVAL																								
SW4B1	Start Shipping SNF	01MAR01*		Start Shipping SNF																				
SW4B2	To SN - Start Shipping SNF	01MAR01		To SN - Start Shipping SNF																				
SW4B3	To SN - Fuel to SNF Prep & Transfer		28SEP01	To SN - Fuel to SNF Prep & Transfer SSS - W4																				
SW4B4	Trans Spent Fuel from T Plant to SNF	01MAR01	28SEP01	Trans Spent Fuel from T Plant to SNF																				
WASTE DECON/TREATMENT SERVICES																								
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	01OCT197*	30SEP04	High Dose Equipment/Waste Decon (Remote Handled)																				
SW4C2	To AS - Provide 222-S Support to T Plant		30SEP04	To AS - Provide 222-S Support to T Plant																				
To AS - Provide 222-S Support to WRAP 1 Ops																								
To TW - WRAP 1 Transition																								
Last Shipment from WRAP to WIPP																								
To AS - Provide 222-S Support to WRAP 1 Ops																								
To TW - WRAP 1 Transition																								
Last Shipment from WRAP to WIPP																								

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Sheet 1 of 4

WASTE MANAGEMENT HANFORD
PBS WM04 - SW TREATMENT
PROJECT MASTER BASELINE SCHEDULE

Project Start: 09OCT97
 Project End: 30SEP04
 Data Date: 09OCT97
 Revision: 10SEP97

Scale for Project Bar: 100%
 Scale for Critical Path: 100%

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B.2.3-4

Activity ID	Activity Description	Early Start	Early Finish	FY01	FY04	FY07	FY10	FY13	FY16	FY19	FY22	FY25	FY28	FY31	FY34	FY37	FY40	FY43	FY46	FY49	FY52
M-91-15 Comp Acq of Facil/Init. Treat RH(CH)MLLW																					
SW4/J5	M-91-15 Comp Acq of Facil/Init. Treat RH(CH)MLLW		30JUN08*																		
SW4/J6	M-91-00 Comp Facil. Handling TRU/TRUM,MLLW & GTC3		30JUN08*																		
SW4/J7	Transfer to Facility Transition		28SEP28																		

M-91-15 Comp Acq of Facil/Init. Treat RH(CH)MLLW

◇ 2C-08-109

M-91-00 Comp Facil. Handling TRU/TRUM,MLLW & GTC3

◇ A6M-49-002

Transfer to Facility Transition



B.2.3-5



Sheet 6 of 6

WASTE MANAGEMENT HANFORD
PBS WM04 - SW TREATMENT
PROJECT MASTER BASELINE SCHEDULE

PMS



10/01/01
10/01/04
10/01/07

Printed Date: 10/01/07
Date Code: 10/01/07
Rev Code: 10/01/07

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Activity ID	Activity Description	Early Start	Early Finish
RL-WM04 Solid Waste Treatment			
WASTE DECONSTRUCTION OPERATIONS			
SW4E1	Wrap 1 Operation	01OCT97*	30SEP98
OTHER			
W-259 LEAK DETECTION UPGRADES - CONSTRUCTION			
SW4A1	W-259 Leak Detection Upgrades - Construction	01OCT97*	30SEP98
WASTE DECONTAMINATION SERVICES			
SW4C1	High Dose Equipment/Waste Decon (Remote Handled)	01OCT97*	30SEP98
SW4C5	Low Dose Equipment Decon/Sampling (2706-T)	01OCT97*	30SEP98
MLLW THERMAL TREATMENT			
SW4F1	Thermal Treatment Contract - Procure & Admin.	01OCT97*	30SEP98
MLLW NON-THERMAL TREATMENT			
SW4G1	MLLW Stabilization Contract - Procure/Implement	01OCT97*	30SEP98
SW4G2	M-19-01-T03 Comp./NEPA Req'ts for Stab. of CH-LLMW		30SEP98*
RH TRU TREATMENT			
SW4H1	RH TRU Treatm't Contract/Facil.Procure/Implement	01OCT97*	30SEP98
LARGE RH/GTCS MLLW TREATMENT			
SW4J1	LargeRH/GTCS Contract/Facil. Procure/Implement	01OCT97*	30SEP98
PROGRAM MANAGEMENT FOR WWH			
SW4K1	Complete Phase I Sample Projections (Labs)		28NOV97*
SW4K2	Submit Monitoring Evaluation Report to DOE-RL		31MAR98*
SW4K3	Complete Phase II Sample Projections (Labs)		29MAY98*
SW4K4	Complete Revision of WHC-EP-0063-4		30SEP98*

Project Start
End Date
Start Date
End Date
Start Date
End Date

01OCT97
30SEP98
01OCT97
30SEP98
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Only for
Project for
Task for
Date Activity

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WWP/SSPP PLANNING MILESTONE LIST
REPORTING PERIOD 10/01/97 TO 12/31/20

MILESTONE CONTROL #	TPA-MS NUMBER	TPA TYPE	MS LEVEL	MS TITLE	TYPE	DATES			PROJ CIN	PBS #
						PLANNED BASELINE	APPROVED BASELINE	REVISED BASELINE		
A2H-99-001	M-32-03-T06	T	RL	COMPLETE SCHEDULED UPGRADES TO T PLANT TANK SYSTEM (PROJ W-259)	OTH	9/30/99				RL-WM04
A2H-99-002	M-32-03	I	HQ	COMPLETE T PLANT TANK ACTIONS	EA	9/30/99				RL-WM04
A2H-99-003	M-32-00	M	HQ	COMPLETE IDENTIFIED DANGEROUS WASTE TANK CORRECTIVE ACTIONS	EA	9/30/99				RL-WM04
A2G-98-001	M-19-01-T03	T	RL	COMPL NEPA REQ MTS FOR STABILIZATION OF CH-LLMW	OTH	9/30/98				RL-WM04
A2G-99-002	M-19-01	I	HQ	INITIATE TREATMENT OF CH-LLMW	EA	9/30/99				RL-WM04
A2G-02-003	M-19-00	M	HQ	COMP TREATMENT/DISPOSAL OF 1.644 C.M. OF CH-LLMW	EA	9/30/02				RL-WM04
A2F-99-001	M-91-02	I	HQ	INITIATE PROCESSING OF CH-TRU/TRUM AT WRAP1	EA	12/31/98				RL-WM04
A2G-99-101	M-91-10	I	HQ	SUBMIT LLMW & GTC3 PMP TO ECOLOGY (HAN-COB-2)	EA	6/30/99				RL-WM04
A23-00-001	M-91-04	I	HQ	COMP CONST OF CH TRU/TRUM RETRIEVAL FACILITY	EA	9/30/00				RL-WM04
A2G-00-102	M-91-03	I	HQ	SUBMIT TRU/TRUM PMP TO ECOLOGY	EA	6/30/00				RL-WM04
A2G-01-103	M-91-11-T01	T	RL	SUBMIT LLMW FACILITY ES/FDC TO ECOLOGY	OTH	12/31/00				RL-WM04
A2G-01-104	M-91-12	I	HQ	INITIATE THERMAL TREATMENT OF CH-LLMW	EA	12/31/00				RL-WM04
A2G-03-105	M-91-05-T01	T	RL	SUBMIT TRU/TRUM FACILITY ES/FDC TO ECOLOGY	OTH	12/31/02				RL-WM04
A2G-03-106	M-91-06-T01	T	RL	AWARD CONTRACTS FOR RH TRU/TRUM	OTH	9/30/03				RL-WM04
A2G-04-107	M-91-14-T01	T	RL	AWARD CONTRACTS FOR RH & LARGE LLMW	OTH	10/30/03				RL-WM04
A23-04-002	M-91-07	I	HQ	COMP W-113 FOR POST-1970 CH TRU/TRUM RETRIEVAL	EA	9/30/04				RL-WM04
A2G-05-108	M-91-08-T01	T	RL	COMP CONST / START OPS OF RH-TRU/TRUM FACILITY	OTH	6/30/05				RL-WM04
A2G-08-109	M-91-15	I	HQ	COMPLETE FACILITIES/INITIATE TREATMENT OF RH/CH-LLMW	EA	6/30/08				RL-WM04

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE SCHEDULED UPGRADES TO T PLANT TANK SYSTEM (PROJ W-259)				Date: 7/15/97	
Assigned To: L.T. BLACKFORD				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 9/30/99	
PBS No: RL-WM04					
MC #: A2H-99-001			TPA No: M-32-03-T06		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Complete scheduled upgrades to T Plant tank system (Project W-259).					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE T PLANT TANK ACTIONS				Date: 7/15/97	
Assigned To: L.T. BLACKFORD				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 9/30/99	
PBS No: RL-WM04					
MC #: A2H-99-002			TPA No: M-32-03		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Complete T Plant tank actions.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE IDENTIFIED DANGEROUS WASTE TANK CORRECTIVE ACTIONS			Date: 7/15/97	
Assigned To: R.E. ENGELMAN			CIN:	
Program WBS Designator: 1.2.2.1			Due Date: 9/30/99	
PBS No: RL-WM04				
MC #: A2H-99-003		TPA No: M-32-00		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)
Milestone Description: Complete identified dangerous waste tank corrective actions. Completion of interim milestone tasks may identify the need for additional actions or interim milestones in the future.				
Description of what constitutes completion of this milestone: Letter to DOE-RL.				

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPL.NEPA REQ'MTS FOR STABILIZATION OF CH-LLMW				Date: 10/03/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 9/30/98	
PBS No: RL-WM04					
MC #: A2G-98-001			TPA No: M-19-01-T03		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Complete all NEPA requirements related to the commercial contract for stabilization of Contact Handled Low Level Mixed Waste.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: INITIATE TREATMENT OF CH-LLMW			Date: 10/03/96	
Assigned To: D.E. MCKENNEY			CIN:	
Program WBS Designator: 1.2.2.1			Due Date: 9/30/99	
PBS No: RL-WM04				
MC #: A2G-99-002		TPA No: M-19-01		Rev:
MILESTONE LEVEL: ☒ DOE-HQ ☐ DOE-RL ☐ DOE-FO ☐ CONTRACTOR	MILESTONE TYPE: ☒ EA ☐ PEG ☐ OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: ☐ Report ☒ Letter ☐ Drawing(s) ☐ Other (Specify)	ADDRESS TO: ☐ DOE-HQ ☒ DOE-RL ☐ Other (Specify)
Milestone Description: Initiate treatment of Contact Handled Low Level Mixed Waste.				
Description of what constitutes completion of this milestone: Letter to DOE-RL.				

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMP TREATMENT/DISPOSAL OF 1,644 C.M. OF CH-LLMW				Date: 10/03/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 9/30/02	
PBS No: RL-WM04					
MC #: A2G-02-003			TPA No: M-19-00		Rev:
MILESTONE LEVEL: X DOE-HQ X DOE-RL X DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Complete treatment and/or direct disposal of at least 1,644 cubic meters of Contact Handled Low Level Mixed Waste already in storage as of October 1, 1995; as well as newly generated Hanford Site Low Level Mixed Waste. Cumulative treatment and/or direct disposal rates will be at least 246 cubic meters by the end of FY 2000, 822 cubic meters by the end of FY 2001, and 1,644 cubic meters by the end of FY 2002. For the purpose of these M-19 series milestones, direct disposal of Low Level Mixed Waste will be considered equivalent to treatment.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: INITIATE PROCESSING OF CH-TRU/TRUM AT WRAP1			Date: 12/31/96	
Assigned To: D.E. MCKENNEY			CIN:	
Program WBS Designator: 1.2.2.1			Due Date: 12/31/98	
PBS No: RL-WM04				
MC #: A2F-99-001		TPA No: M-91-02		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)
Milestone Description: initiate processing of Contact Handled TRU/TRUM Waste at Waste Receiving and Processing Facility / WRAP 1 (Contact Handled, Small Container).				
Description of what constitutes completion of this milestone: Letter to DOE-RL.				

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT LLMW & GTC3 PMP TO ECOLOGY (HAN-CJB-2)				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 6/30/99	
PBS No: RL-WM04					
MC #: A2G-99-101			TPA No: M-91-10		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report Letter Drawing(s) X Other (Specify) PMP	ADDRESS TO: DOE-HQ DOE-RL X Other (Specify) ECOLOGY	
Milestone Description: Submit Hanford Site LLMW and Greater Than Class 3 (GTC3) Waste project management plan (PMP) to Ecology pursuant to agreement action plan section 11.5.					
Description of what constitutes completion of this milestone: Submit PMP to Ecology.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMP CONST OF CH TRU/TRUM RETRIEVAL FACILITY				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 9/30/00	
PBS No: RL-WM04					
MC #: A2J-00-001			TPA No: M-91-04		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Complete construction of Small Container Contact Handled (CH) TRU/TRUM Retrieval Facility(s), and initiate (Project W-113) retrieval of small container TRU/TRUM from 200 area burial grounds.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT TRU/TRUM PMP TO ECOLOGY				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 6/30/00	
PBS No: RL-WM04					
MC #: A2G-00-102			TPA No: M-91-03		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report Letter Drawing(s) X Other (Specify) PMP	ADDRESS TO: DOE-HQ DOE-RL X Other (Specify) ECOLOGY	
Milestone Description: Submit Hanford Site TRU/TRUM Waste project management plan (PMP) to Ecology pursuant to agreement section 11.5.					
Description of what constitutes completion of this milestone: Submit PMP to Ecology.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT LLMW FACILITY ES/FDC TO ECOLOGY			Date: 12/31/96	
Assigned To: D.E. MCKENNEY			CIN:	
Program WBS Designator: 1.2.2.1			Due Date: 12/31/00	
PBS No: RL-WM04				
MC #: A2G-01-103		TPA No: M-91-11-T01		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report Letter Drawing(s) X Other (Specify) ES/FDC	ADDRESS TO: DOE-HQ DOE-RL X Other (Specify) ECOLOGY ~
Milestone Description: Complete and submit LLMW treatment facility engineering study / functional design criteria study to Ecology.				
Description of what constitutes completion of this milestone: Submit ES/FDC to Ecology.				

PHMC

MILESTONE DESCRIPTION SHEET

Title: INITIATE THERMAL TREATMENT OF CH-LLMW				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 12/31/00	
PBS No: RL-WM04					
MC #: A2G-01-104			TPA No: M-91-12		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Initiate thermal treatment of currently stored and newly generated CH LLMW. At least 600 cubic meters will be provided for treatment by December 2005.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT TRU/TRUM FACILITY ES/FDC TO ECOLOGY				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 12/31/02	
PBS No: RL-WM04					
MC #: A2G-03-105			TPA No: M-91-05-T01		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report Letter Drawing(s) X Other (Specify) ES/FDC	ADDRESS TO: DOE-HQ DOE-RL X Other (Specify) ECOLOGY	
Milestone Description: Complete and submit TRU/TRUM retrieval and processing facility engineering study / functional design criteria study to Ecology.					
Description of what constitutes completion of this milestone: Submit ES/FDC to Ecology.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: AWARD CONTRACTS FOR RH TRU/TRUM				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 9/30/03	
PBS No: RL-WM04					
MC #: A2G-03-106			TPA No: M-91-06-T01		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Award necessary privatized contracts for processing Remote Handled (RH) and Large Size TRU/TRUM.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: AWARD CONTRACTS FOR RH & LARGE LLMW				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 10/30/03	
PBS No: RL-WM04					
MC #: A2G-04-107			TPA No: M-91-14-T01		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Award commercialization contract(s) for treatment of RH and Large Size LLMW per approved LLMW/GTC3 PMP and associated agreement change requests.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMP W-113 FOR POST-1970 CH TRU/TRUM RETRIEVAL				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 9/30/04	
PBS No: RL-WM04					
MC #: A2J-04-002			TPA No: M-91-07		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Complete Project W-113 for post-1970 CH TRU/TRUM retrieval.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMP CONST / START OPS OF RH-TRU/TRUM FACILITY				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 6/30/05	
PBS No: RL-WM04					
MC #: A2G-05-108			TPA No: M-91-08-T01		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Complete construction and initiate hot operations of RH and Large Size TRU/TRUM processing facility (A final acquisition schedule for this facility will be established as an interim milestone no later than December 2000).					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE FACILITIES/INITIATE TREATMENT OF RH/CH-LLMW				Date: 12/31/96	
Assigned To: D.E. MCKENNEY				CIN:	
Program WBS Designator: 1.2.2.1				Due Date: 6/30/08	
PBS No: RL-WM04					
MC #: A2G-08-109			TPA No: M-91-15		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Complete acquisition of facilities and initiate treatment of RH and Large Container (CH) LLMW.					
Description of what constitutes completion of this milestone: Letter to DOE-RL.					

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HNF-SP-1229
Rev. 1
Waste Management Project
WBS 1.2

FY1998

September 26, 1997

B.2.4.0 Cost Baseline

EXHIBIT 1a

B.2.4-2

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

9/23/97

WASTE MANAGEMENT PROJECT

EXHIBIT 1a

HNF-SP-1229, Rev. 1

PROJECT WBS: 1.2.2.1													(90000)												
PBS TITLE	PBS NO	FY2007- FY2010	FY2011- FY2015	FY2016- FY2020	FY2021- FY2025	FY2026- FY2030	FY2031- FY2035	FY2036- FY2040	FY2041- FY2045	FY2046- FY2050	TOTAL														
											FY1997- FY2050	FY1997- FY2050													
SOLID WASTE TREATMENT	RL-WM04	196,344	216,900	213,570	209,980	207,210	137,292				1,908,137	-													
												-													
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Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover Is **NOT** Included.

WASTE MANAGEMENT PROJECT
LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

(\$000s)

PROJECT WBS: 1.2.3.1		SUBTOT										
PBS NO: RL-WM04		FY1997- FY2006										
PBS TITLE: Solid Waste Treatment												
FUND	FUND TYPE	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	
	OPERATING EXPENSE	33,698	25,132	25,471	55,902	66,479	90,107	86,367	79,473	85,341	77,866	625,936
	CENRTC	378			2,891	1,072	1,993	1,130	1,155	1,193	1,221	10,533
	GENERAL PLANT PROJECT	3,265			1,974	158						5,397
	LINE ITEM (List Each One)											
	Project W-259 Secondary Containment	4,465	4,600									9,065
	Project W-026 WRAP	933										933
	Project W-113 TRU Retrieval	147			4,939							5,086
	M-91 RH Waste				7,460	10,924						18,384
	W-221 Phase II TRU Retrieval				4,636	9,095	13,506	3,709		5,386	14,475	30,946
	W-156 Claisson Retrieval											
	Subtotal Line Items	5,545	4,600		17,535	20,019	13,506	3,709		5,386	14,475	84,775
	TOTAL BCWS/PMB ¹	42,886	29,732	25,471	78,102	87,728	105,606	91,206	80,628	91,920	93,562	726,841
	MGMT RESERVE ²											
	LINE ITEM CONTINGENCY ²											
	OFFSITE TRANSFERS ³											
	Subtotal											
	TOTAL	42,886	29,732	25,471	78,102	87,728	105,606	91,206	80,628	91,920	93,562	726,841

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover NOT included.²Management Reserve and Line Item Contingency Held by RL.³Work Performed at Sites Other Than Hanford.

WASTE MANAGEMENT PROJECT
LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

(\$000s)

PROJECT WBS: 1.2.2.1		TOTAL											
PBS NO: RL-WM04		FY1997- FY2050											
PBS TITLE: Solid Waste Treatment													
FUND		FY2007-	FY2014-	FY2016-	FY2021-	FY2026-	FY2031-	FY2036	FY2041-	FY2046			
TYPE		FY2010	FY2015	FY2020	FY2025	FY2030	FY2035	FY2040	FY2045	FY2050			
OPERATING EXPENSE		176,460	214,985	211,595	208,095	205,395	136,495						
CENRTC		4,884	1,905	1,975	1,885	1,815	797						
GENERAL PLANT PROJECT													
LINE ITEM (List Each One)													
Project W-259 Secondary Containment													
Project W-428 WRAP													
Project W-113 TRU Retrieval													
M-91 RH Waste													
W-221 Phase II TRU Retrieval													
W-156 Caisson Retrieval													
Subtotal Line Items		15,000 ¹											
TOTAL BCWS/PMB ¹		196,344	216,900	213,570	209,980	207,210	137,292						
MGMT RESERVE ²													
LINE ITEM CONTINGENCY ³													
OFFSITE TRANSFERS ³													
Subtotal													
TOTAL		196,344	216,900	213,570	209,980	207,210	137,292						

Note: The information for FY1998 and FY1999 contains the Planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover NOT included²Management Reserve and Line Item Contingency Held by RL³Work Performed at Sites Other Than Hanford

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH
BY PROJECT BASELINE SUMMARY (PBS)
BY ACTIVITY DATA SHEET (ADS)
EXECUTION YEAR

(\$000s)

PROJECT WBS: 1.2.2.1

PBS NO: RL-WR04

PBS TITLE: Solid Waste Treatment

(\$000s)

ADS TITLE	ADS NO	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
Solid Waste		2200-0 OP EXP	1,148	821	1,018	1,023	889	1,082	1,035	908	1,035	978	978	1,618	12,533
		CENRTC													-
		GPP													
		LI													
		SUBTOT	1,148	821	1,018	1,023	889	1,082	1,035	908	1,035	978	978	1,618	12,533
Waste and Decon Services	2320-0	OP EXP	1,069	826	973	973	863	1,029	1,051	951	1,051	971	971	971	11,699
		CENRTC													-
		GPP													
		LI													
		SUBTOT	1,069	826	973	973	863	1,029	1,051	951	1,051	971	971	971	11,699
Plant Secondary Containment	2320-2	OP EXP	110	76	90	59	52	63	66	58	66	89	89	82	900
		CENRTC													-
		GPP													
		LI	423	330	385	385	348	403	403	367	401	385	385	385	4,600
		SUBTOT	533	406	475	444	400	466	469	425	467	474	474	467	5,500
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT													-

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

* Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is NOT Included.

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH
BY PROJECT BASELINE SUMMARY (PBS)
BY ACTIVITY DATA SHEET (ADS)
EXECUTION YEAR

EXHIBIT 2a

(\$000s)

(\$000s)

PROJECT WBS: 1.2.2.1															
PBS NO: RL-WM04															
PBS TITLE: Solid Waste Treatment															
ADS TITLE	ADS NO	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
		OP EXP													
		CENRTC													
		GPP													
		LI													
		SUBTOT													
		OP EXP													
		CENRTC													
		GPP													
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Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.
¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is NOT included.

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH BY FUND TYPE BY PROJECT
EXECUTION YEAR
(\$000s)

PROJECT	PROJECT TITLE	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
WBS															
1.2.2.1	Solid Waste Treatment (RL-WM04)	Operating Expense	2,318	1,723	2,082	2,056	1,815	2,165	2,153	1,918	2,153	2,039	2,039	2,671	25,132
		CENRTC													0
		GPP													0
		Line Item	423	330	385	385	348	403	403	367	401	385	385	385	4,600
		Total BCWS/PMB ¹	2,741	2,053	2,467	2,441	2,163	2,568	2,556	2,285	2,554	2,424	2,424	3,056	29,732
		Mgmt Reserve ²													0
		Line Item Contingency ²													0
		Offsite Transfers ³													0
Total			2,741	2,053	2,467	2,441	2,163	2,568	2,556	2,285	2,554	2,424	2,424	3,056	29,732

Note: The information for FY 1998 and FY 1999 contains the planning guidance while FY 2000 and beyond contains the Project Baseline Summary guidance.

B.2.4-8

¹ Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is Not Included.

² Management Reserve and Line Item Contingency Held By RL.

WASTE MANAGEMENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH BY COST ELEMENT BY PROJECT
EXECUTION YEAR
(\$000s)

PROJECT WBS	PROJECT TITLE	COST ELEMENT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL	
1.2.2.1	Solid Waste Treatment (RL-WM04)	0 Salaries	1,204	954	1,104	1,090	993	1,133	1,155	1,055	1,155	1,105	1,106	1,105	13,159	
		1 Material	91	71	83	83	75	87	87	80	87	83	83	83	83	993
		2 Purchased Serv	162	132	150	150	138	157	162	149	162	149	149	149	509	2,169
		3 Other Contr Chgs	25	19	23	23	20	24	24	21	24	23	23	23	23	272
		4 Internal Serv	153	120	140	140	126	146	146	133	146	140	140	140	165	1,695
		5 Internal Chgs	46	36	42	42	38	44	44	40	44	42	42	42	42	502
		6 LMSI	5	4	5	5	5	5	5	5	5	5	5	5	5	59
		7 Overheads	579	454	531	525	474	548	554	503	554	531	531	531	600	6,394
		8 Revenue														0
		9 Enterprise Cos	412	323	376	376	340	395	395	359	395	376	376	376	376	4,499
Total BCWS/PMB ¹			2,677	2,113	2,454	2,434	2,209	2,539	2,572	2,345	2,572	2,454	2,455	2,908	29,732	

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover Is Not Included.

EXHIBIT 4a

(\$000\$)

B.2.4-10

9/23/97

WASTE MANAGEMENT PROJECT
SUMMARY OF LIFE CYCLE BUDGET AUTHORITY (B/A) BY YEAR BY
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

EXHIBIT 4a

PROJECT WBS : 1.2.2.1													(0000s)												
PBS TITLE			PBS NO	FY2007- FY2010		FY2011- FY2015		FY2016- FY2020		FY2021- FY2025		FY2026- FY2030		FY2031- FY2035		FY2036- FY2040		FY2041- FY2045		FY2046- FY2050		TOTAL			
				FY2010	FY2007- FY2010	FY2015	FY2011- FY2015	FY2020	FY2016- FY2020	FY2025	FY2021- FY2025	FY2030	FY2026- FY2030	FY2035	FY2031- FY2035	FY2040	FY2036- FY2040	FY2045	FY2041- FY2045	FY2050	FY2046- FY2050	FY1997- FY2050	FY2050		
SOLID WASTE TREATMENT			RL-WM04	196,344	196,344	216,900	216,900	213,570	213,570	209,980	209,980	207,210	207,210	137,292	137,292							1,900,113	1,900,113		
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Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

WASTE MANAGEMENT PROJECT
LIFE CYCLE BUDGET AUTHORITY (B/A) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

(\$000s)

(\$0000S)

PROJECT WBS: 1.2.2.1														SUBTOT	
PBS NO: RL-WM04														FY1997- FY2006	
PBS TITLE: Solid Waste Treatment														FY2006	
FUND TYPE	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006					
OPERATING EXPENSE	28,482	25,131	25,471	55,902	66,479	90,107	86,367	79,473	85,341	77,866					
CENRTC	48			2,691	1,072	1,993	1,130	1,155	1,193	1,221					
GENERAL PLANT PROJECT	2,332			1,974	158								10,503		
LINE ITEM (List Each One)													4,464		
Project W-259 Secondary Containment	4,000	4,600											8,600		
M-91 RH Waste				7,960	10,924								18,884		
W-221 Phase II Retrieval				4,636	9,095	13,506	3,709						30,946		
W-113 TRU Retrieval				4,939					5,386	14,475			24,800		
W-156 Caisson Retrieval													-		
Subtotal Line Items	4,000	4,600	-	17,535	20,019	13,506	3,709	-	5,386	14,475			83,230		
TOTAL NEW B/A	34,862	29,731	25,471	78,102	87,728	105,606	91,206	80,628	91,920	93,562			718,816		

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

WASTE MANAGEMENT PROJECT
LIFE CYCLE BUDGET AUTHORITY (B/A) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

EXHIBIT 4

PROJECT WBS: 1.2.2.1		TOTAL															
PBS NO: RL-WM04		FY1997- FY2050															
PBS TITLE: Solid Waste Treatment																	
FUND TYPE		FY2007- FY2010	FY2011- FY2015	FY2016- FY2020	FY2021- FY2025	FY2026- FY2030	FY2031- FY2035	FY2036- FY2040	FY2041- FY2045	FY2046- FY2050							
OPERATING EXPENSE		176,460	214,995	211,595	208,095	205,395	136,495										1,773,654
CENRTC		4,884	1,905	1,975	1,885	1,815	797										23,764
GENERAL PLANT PROJECT																	4,464
LINE ITEM (List Each One)																	
Project W-259 Secondary Containment																	8,600
M-91 RH Waste																	18,884
W-221 Phase II Retrieval																	30,946
W-113 TRU Retrieval																	24,800
W-156 Calsson Retrieval		15,000															15,000
Subtotal Line Items		15,000	-	-	-	-	-	-	-	-							98,230
TOTAL NEW B/A		196,344	216,900	213,570	209,980	207,210	137,292	-	-	-							1,900,112

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

Staffing

Waste Management Project
3 DIGIT CONTRACTOR IDENTIFIER-PR-WM12
Revision 0

AVERAGE ANNUAL FULL TIME EQUIVALENTS

(includes Major Subcontractors but not Enterprise Companies)

PHBS 1.2.1.1

Submittal Date: 8/29/97

PBS Number	PBS Title	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007

RL-WM04 Solid Waste
 Treatment

187	182	182	182	182	182	182	182	182	182	182	182

Total PBS FTEs

<u>187</u>	<u>182</u>	<u>182</u>	<u>182</u>	<u>182</u>	<u>182</u>	<u>182</u>	<u>182</u>	<u>182</u>	<u>182</u>	<u>182</u>	<u>182</u>

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

This document was too large to scan as a whole document; therefore, it is divided into smaller sections.

DOCUMENT NUMBER: HNF-SP-1229

SECTION 2 OF 2

B.3-1 - APPENDIX A

TITLE:

WASTE MANAGEMENT PROJECT
FISCAL YEAR 1998 MULTI-YEAR
WORK PLAN WBS 1.2

DATE:

9/01/97

REV:

1

ORIGINATOR:

D.B. VAN LEUVEN, C.G. MATTESSON

CO:

WMH, FDH

REFERENCES:

KEYWORDS:

PROJECTS:

T FARM, WRAP, ETF, LERF, T EDF

B.3 Liquid Effluents Project (RL-WM05)

B.3.1.0 Liquid Effluents Project Technical Baseline (RL-WM05)

B.3.1.1 Liquid Effluents Project Organization Mission (RL-WM05)

The Liquid Effluent Project (LEP) provides integrated liquid effluent management to support cleanup of the Hanford Site. Its mission is to responsibly manage current and future liquid effluent streams in a safe, cost-effective, and environmentally-compliant manner. Waste volume reduction support is also provided to tank waste remediation. The mission is achieved through planning and integration; stakeholder interaction; definition of requirements for generators; and provision of timely storage, treatment and disposal capability.

The LEP receives, treats, and disposes of liquid effluents from other projects. Waste acceptance criteria are established for liquid effluents, and compliance with discharge limits is verified. Transfers to other projects include solid waste from liquid effluent treatment, samples, and deactivated facilities.

This activity includes operation, maintenance, technical support, and management/administration of the following facilities: 242-A Evaporator, Liquid Effluent Retention Facility (LERF), 200 Area Effluent Treatment Facility (ETF), 200 Area Treated Effluent Disposal Facility (200 Area TEDF), 300 Area Treated Effluent Disposal Facility (300 Area TEDF), 307 Retention Basins, and 340 Waste Handling Facility. The LEP operates and maintains the process sewer (PS) system, retention process sewer (RPS) system including the 307 Retention Basins, and Radioactive Liquid Waste System (RLWS) all of which are in the 300 Area. The LEP is responsible for commitments identified in the Miscellaneous Streams Plan and Schedule, and for continuing management of Miscellaneous Streams to ensure the requirements of discharge permits are met. The LEP is also responsible for shutdown planning and integration for the 340 Waste Handling Facility; preparation of a biennial tritium treatment technology report as required by the Tri-Party Agreement; and management of waste sites in the Hanford Site Waste Information Data System (WIDS) assigned to the LEP.

The LEP baseline and project planning assumptions are

1. BASELINE: 340 Waste Handling Facility ceases receipt of wastes at end of FY 1998. Waste Management Project custody of the 340 Waste Handling Facility ends in FY 2001.
2. BASELINE: 242-A Evaporator will cease operations in FY 2011; cleanout occurs in FY 2012 and FY 2013.
3. BASELINE: 300 Area TEDF will be turned over to a private entity for operation at the end of FY 2025.
4. BASELINE: TWRS privatization schedule is: Phase 1 from 6/02 to 5/12; Phase 2 from 10/11 to 12/29.
5. BASELINE: TWRS Phase 2 facilities include evaporation capability.
6. PLANNING: Liquid Effluent Facilities will be fully utilized in cleaning up Hanford Site.
7. PLANNING: 300 Area TEDF will require general plant upgrades starting in FY 2000 and every five years thereafter.
8. BASELINE: ETF/LERF will receive waste water from TWRS until FY 2030. The ETF/ LERF will be turned over to Facility Stabilization in FY 2033. Cleanout and stabilization of LERF/ETF will occur in FY 2031 and FY 2032; funding

equal to the min. safe budget will be required for LERF/ETF in those years.

9. PLANNING: 200 Area ETF and LERF upgrades will be necessary in FY 2002 and every 5 years of operation thereafter. Replacement of the LERF cover or liner may be necessary. 242-A Evaporator upgrades will be necessary in FY 2002.

10. BASELINE: The mission for 200 Area TEDF will end if FY 2030; deactivation will be complete in FY 2031. A new pond or major upgrade will be necessary in FY 2010.

11. The 300 Area TEDF will be operated for as long as the 300 Area process sewer waste water streams continue (estimated to be FY 2025). The 300 Area TEDF may then be privatized to commercial operation in support of economic diversification of the 300 Area.

B.3.1.2 Liquid Effluents Project End Point Targets from Hanford Strategic Plan

B.3.1.2.1 Liquid Effluents Project Principal End Point Targets

- Reuse facilities in the south 600 area for economic diversification where feasible.

B.3.1.2.2 Liquid Effluents Project Supported End Point Targets

- Spent fuel removed and K-Basins cleaned sufficient to transition to D&D.
- Groundwater use remains restricted for a yet to be determined period, groundwater intercepted or contained to within designated boundaries.
- Operate the ERDF to accept waste from remediation of CERCLA units across the Hanford Site.
- Drain, decontaminate, and stabilize K-Basins Facility.
- Transition high cost surplus facilities in the central plateau and south 600 areas to a low cost, stable, deactivated condition.
- Continue to provide safe storage for Cs/Sr capsules in the WESF indefinitely.
 - (1) WESF decoupled and a standalone facility.
- Transition the PUREX facility and B-Plant to low cost, stable, deactivated condition.
- Complete stabilization of plutonium in PFP (DNFSB 94-1 implementation).
- Complete transition of the 300 Area Fuels Supply.
- Transition the 324/327 Buildings to a low cost, stable, deactivated condition and disposition their nuclear materials (including 324 Building radioactive tank wastes).
- Low level and low level mixed waste from onsite and offsite sources (including PNNL special case wastes) will continue to be disposed of in the 200 Area.
- Retrieve tank wastes to the extent needed for tank closure, divide into high level and low activity fractions and immobilize.

- For Cs/Sr capsules declared waste, send to Yucca Mountain for HLW repository disposal.

B.3.1.3 Liquid Effluents Project Major Facilities

B.3.1.3.1 242-A Evaporator Facility

B.3.1.3.1.1 242-A Evaporator Facility Description

The 242-A Evaporator concentrates dilute liquid tank wastes by evaporation. The volume of tank wastes is reduced to eliminate the need to construct additional storage tanks. The concentrated tank waste is returned to the DSTs for storage. Process condensate from the 242-A Evaporator is sent to the LERF for storage while awaiting treatment in the ETF. The 242-A Evaporator is a RCRA-compliant facility and the only waste volume reduction facility for tank wastes. It began operation in 1977 and has a waste volume reduction capacity of 70,000 gal/day.

B.3.1.3.1.2 242-A Evaporator Facility Technical Logic:

The technical logic for the 242-A Evaporator is captured in the facility's functional flow block diagram which shows the functions performed for each applicable life cycle phase of the facility and the sequence in which the functions are executed.

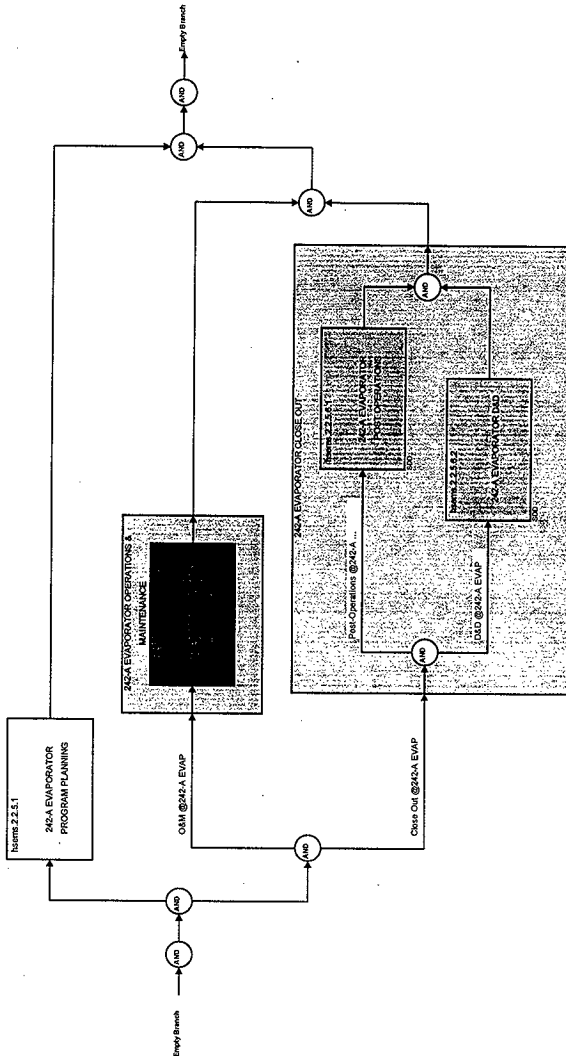


Figure B-12 242-A EVAPORATOR

B.3.1.3.1.3 242-A Evaporator Requirements and Life Cycle Function Descriptions

Requirements:

- Operation of the 242-A Evaporator shall be in accordance with the Hanford Facility RCRA Permit WA7890008967.
- The draft Hanford Air Operating Permit contains terms and conditions of the Washington Department of Ecology Air Operating Permit (permit number not established, application DOE/RL-95-07), and the Washington Department of Health Hanford Site Radioactive Air Emissions License No. FF-01.
- Operation and maintenance of the 242-A Evaporator shall be in accordance with the 242-A Evaporator/Crystallizer Safety Analysis Report, WHC-SD-WM-SAR-023.
- Waste volume reduction support shall be provided to tank waste remediation.
- Facilities which reach the end of their mission and are removed from operational status shall meet the acceptance criteria for turnover of surplus facilities for deactivation and decommissioning as specified in WHC-CM-1-3, Management Requirements and Procedures, MRP 6.15, "Facility Shutdown, Standby, and Transfer."
- Radioactive airborne emissions shall not exceed the DCGs in WHC-CM-7-5, Environmental Compliance, Appendix C. Emissions of other contaminants shall not exceed the threshold values in WHC-CM-4-40, Industrial Hygiene Manual. [40 CFR 61, WAC 173-480, WAC 246-247]
- Pollution prevention and waste minimization requirements are specified in WHC-CM-7-5, Environmental Compliance, Section 14, "Pollution Prevention." Facilities shall minimize the volume of system-generated waste.
- Solid low-level waste and mixed low-level waste transferred to the Central Waste Complex shall meet the acceptance criteria for onsite storage and disposal specified in Hanford Site Solid Waste Acceptance Criteria, WHC-EP-0063.

Life Cycle Function Descriptions:

B.3.1.3.1.3.1 242-A EVAPORATOR PROGRAM PLANNING WORK SCOPE SUMMARY

No Description

B.3.1.3.1.3.2 242-A EVAPORATOR OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

242-A EVAPORATOR OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.3.1.3.1.3.3 Concentrate Liquid Tank Waste

Concentrate liquid tank waste using the 242-A Evaporator to reduce the volume of waste. Return the concentrated tank waste to tank farms and transfer the process condensate to the LERF.

B.3.1.3.1.4 242-A Evaporator Boundary Diagram

Table B.3-1 242-A Evaporator Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces hsems.2.3.2 Double Shell Tank (DST) System hsems.2.5.3 Central Plateau Steam System hsems.2.5.4 Central Plateau Water System hsems.2.5.5 Central Plateau Office Facilities hsems.2.5.6 Central Plateau Electrical System hsems.2.5.8 Central Plateau Telecommunication System hsems.2.5.9 Central Plateau Shop Facilities hsems.2.5.10 Central Plateau Storage Support Facilities hsems.2.5.13 Central Plateau Road System hsems.4.6.9 Misc. Rad Labs hsems.4.7.1 331 Complex		External Interfaces Offsite Landfill Hanford Site Environmental System Interfaces hsems.2.2.16 Liquid Effluent Retention Facility hsems.2.3.2 Double Shell Tank (DST) System hsems.2.4.3 200 Area Treated Effluent Disposal Facility hsems.2.5.1 222-S Laboratory

B.3.1.3.1.5 242-A Evaporator Interface Description and Forecast**EXTERNAL INPUTS**

-None-

INTERNAL INPUTS**Table B.3-2 Internal Inputs for 242-A Evaporator**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Total</u>	<u>FY98</u>	<u>Units</u>
hsems.2.3.2 Double Shell Tank (DST) System Dilute Tank Waste <i>HLW Transferred by Double Shell Tank (DST) System.</i>	HLW	1998 - 2011	117000	25000	cubic meters
hsems.2.5.3 Central Plateau Steam System Steam for 242-A Evap <i>Steam for 242-A Evap</i>	Steam	1998 - 2013		9.7	Mlbs
hsems.2.5.4 Central Plateau Water System Potable Water for 242-A Evap <i>Potable Water for 242-A Evap</i>	Potable Water	1998 - 2013		0.05	Mgal
hsems.2.5.5 Central Plateau Office Facilities Office Space (Program Owned) for 242-A Evap <i>Office Space (Program Owned) for 242-A Evap</i> Office Space (Infrastructure Owned) for 242-A Evap <i>Office Space (Infrastructure Owned) for 242-A Evap</i>	Office Space (Program Owned)	1998 - 2013		4200	sq. ft.
	Office Space (Infrastructure Owned)	1998 - 2013		30000	sq. ft.
hsems.2.5.6 Central Plateau Electrical System Electricity for 242-A Evap <i>Electricity for 242-A Evap</i>	Electricity	1998 - 2013		1770	MW-hr
hsems.2.5.8 Central Plateau Telecommunication System Voice (Telephone) Communication for 242-A Evap <i>Voice (Telephone) Communication for 242-A Evap</i> Data (HLAN) Transmission for 242-A Evap <i>Data (HLAN) Transmission for 242-A Evap</i>	Voice Communications Service	1998 - 2013		49.0	no. of phones
	HLAN Computers	1998 - 2013		50.0	no. of PCs
hsems.2.5.9 Central Plateau Shop Facilities Lifting (Cranes) for 242-A Evap <i>Lifting (Cranes) for 242-A Evap</i> Maintenance Services Pipefitter for 242-A Evap <i>Maintenance Services Pipefitter for 242-A Evap</i> Maintenance Services Electrician for 242-A Evap <i>Maintenance Services Electrician for 242-A Evap</i> Fabrication Services Electrician for 242-A Evap <i>Fabrication Services Electrician for 242-A Evap</i> Fabrication Services Pipefitter for 242-A Evap <i>Fabrication Services Pipefitter for 242-A Evap</i>	Lifting Services	1998 - 2013		10.0	crane days
	Maintenance Services (Pipefitter)	1998 - 2013		0.3	FTE
	Maintenance Services (Electrician)	1998 - 2013		0.1	FTE
	Fabrication Services (Electrician)	1998 - 2013		0.1	FTE
	Fabrication Services (Pipefitter)	1998 - 2013		0.3	FTE
hsems.2.5.10 Central Plateau Storage Support Facilities Allocated Storage for 242-A Evap <i>Allocated Storage for 242-A Evap</i>	Allocated Storage	1998 - 2013		6650	sq. ft.
hsems.2.5.13 Central Plateau Road System Sedans/Light Trucks for 242-A Evap <i>Sedans/Light Trucks for 242-A Evap</i>	Sedans/Light Trucks	1998 - 2013		2.0	no. of vehicles
hsems.4.6.9 Misc. Rad Labs Radioactive Standards (Calibrations) for 242-A Evap <i>Radioactive Standards (Calibrations) for 242-A Evap</i> Bioassay and Dosimetry Services for 242-A Evap <i>Bioassay and Dosimetry Services for 242-A Evap</i>	Radioactive Standards Lab Services	1998 - 2013		4200	calibrations
	Bioassay and Dosimetry Services	1998 - 2013		3600	samples
hsems.4.7.1 331 Complex Industrial Hygiene Services for 242-A Evap <i>Industrial Hygiene Services for 242-A Evap</i>	Industrial Hygiene Services	1998 - 2013		600.0	samples

EXTERNAL OUTPUTS

Table B.3-3 External Outputs for 242-A Evaporator

Stream	Category	Period	Total	FY98	Units
X Offsite Landfill					
242-A Evaporator Sanitary Solid Waste	Sanitary Solid Waste	1998 - 2013	0.8	0.05	tons
<i>Sanitary solid waste generated during day to day operations of the 242-A Evaporator.</i>					

INTERNAL OUTPUTS

Table B.3-4 Internal Outputs for 242-A Evaporator

Stream	Category	Period	Total	FY98	Units
hsems.2.2.16 Liquid Effluent Retention Facility					
242-A Evaporator Deactivation Wastewater	Waste Water	2012 - 2013	757.0	0	cubic meters
<i>Waste water generated during deactivation of the 242-A evaporator facility.</i>					
242-A Evaporator Process Condensate	Waste Water	1998 - 2011	55600	7260	cubic meters
<i>Waste water generated during evaporation of dilute tank waste.</i>					
hsems.2.3.2 Double Shell Tank (DST) System					
242-A HLW from Training Runs	HLW	1998 - 2011	10000	719.0	cubic meters
<i>HLW generated from training runs of the 242-A evaporator.</i>					
Concentrated Tank Waste	HLW	1998 - 2011	58700	12500	cubic meters
<i>HLW Transferred by 242-A Evaporator.</i>					
hsems.2.4.3 200 Area Treated Effluent Disposal Facility					
242-A Evaporator Steam Condensate	Treated Liquid Effluent	1998 - 2011	985000	70400	cubic meters
<i>Steam Condensate from 242-A Evaporator for disposal.</i>					
242-A Evaporator Cooling Water	Treated Liquid Effluent	1998 - 2011	11400000	815000	cubic meters
<i>Treated Liquid Effluent Transferred by 242-A Evaporator.</i>					
hsems.2.5.1 222-S Laboratory					
Analytical Laboratory Services for 242-A Evap	Analytical Laboratory Services	1998 - 2013		80.0	samples
<i>Analytical Laboratory Services for 242-A Evap</i>					

B.3.1.3.2 Liquid Effluent Retention Facility

B.3.1.3.2.1 Liquid Effluent Retention Facility Description

The LERF consists of three RCRA-compliant surface impoundments for temporarily storing process condensate from the 242-A Evaporator and other liquid effluents. The LERF provides equalization of the flow and pH of the feed to the ETF. Each LERF basin has a capacity of 7.8 million gallons. Spare capacity is maintained equal to the volume of one LERF basin as contingency in the event a leak should develop in an operational basin. The basins are constructed of two high-density polyethylene (HDPE) flexible membrane liners. A system is provided to detect, collect, and remove leachate from between the primary and secondary liners. Beneath the secondary liner is a 3 ft thick soil/bentonite barrier should the primary and secondary liners fail. Each basin has a mechanically-tensioned floating membrane cover constructed of very low-density polyethylene (VLDPE) to keep out unwanted material and to minimize evaporation of the basin contents. The LERF began operation in April 1994 and is designed for a 20-year life.

B.3.1.3.2.2 Liquid Effluent Retention Facility Facility Technical Logic:

The technical logic for the Liquid Effluent Retention Facility is captured in the facility's functional flow block diagram which shows the functions performed for each applicable life cycle phase of the facility and the sequence in which the functions are executed.



B.3.1.3.2.3 Liquid Effluent Retention Facility Requirements and Life Cycle Function Descriptions

Requirements:

- Operation of the LERF shall be in accordance with the Hanford Facility RCRA Permit WA7890008967.
- Operations and maintenance of the LERF shall be in accordance with the Liquid Effluent Retention Facility Final Hazard Categorization Report, HNF-SD-WM-SAD-040, and the Liquid Effluent Retention Facility Auditable Safety Analysis, HNF-SD-LEF-ASA-002.
- Solids shall not be allowed to accumulate in the LERF basins which may require special cleanout actions. [LERF Treatment Exemption, 95-LEP-015, 40 CFR 2681]
- Storage of wastewater containing LDR constituents shall be allowed for up to one year prior to treatment in the ETF. [LERF Treatment Exemption, 95-LEP-015, 40 CFR 268]
- Operation of the LERF must be consistent with the information and limits contained in the Notice of Construction (NOC) Application DOE/RL No. 9001137.
- Facilities which reach the end of their mission and are removed from operational status shall meet the acceptance criteria for turnover of surplus facilities for deactivation and decommissioning as specified in WHC-CM-1-3, Management Requirements and Procedures, MRP 6.15, "Facility Shutdown, Standby, and Transfer."
- Radioactive airborne emissions shall not exceed the DCGs in WHC-CM-7-5, Environmental Compliance, Appendix C. Emissions of other contaminants shall not exceed the threshold values in WHC-CM-4-40, Industrial Hygiene Manual. [40 CFR 61, WAC 173-480, WAC 246-247]
- Pollution prevention and waste minimization requirements are specified in WHC-CM-7-5, Environmental Compliance, Section 14, "Pollution Prevention." Facilities shall minimize the volume of system-generated waste.
- Solid low-level waste and mixed low-level waste transferred to the Central Waste Complex shall meet the acceptance criteria for onsite storage and disposal specified in Hanford Site Solid Waste Acceptance Criteria, WHC-EP-0063.

Life Cycle Function Descriptions:

B.3.1.3.2.3.1 LIQUID EFFLUENT RETENTION FACILITY PROGRAM PLANNING WORK SCOPE SUMMARY

No Description

B.3.1.3.2.3.2 LIQUID EFFLUENT RETENTION FACILITY OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

LIQUID EFFLUENT RETENTION FACILITY OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.3.1.3.2.3.3 Store Liquid Effluents in the LERF

Collect and store liquid effluents in the LERF for treatment in the ETF.

B.3.1.3.2.4 Liquid Effluent Retention Facility Boundary Diagram

Table B.3-5 Liquid Effluent Retention Facility Boundary Diagram

External Interfaces Hanford Legacy Hanford Site Environmental System Interfaces hsems.1.1.2 Reactors on the River Soil Site Operable Units hsems.1.2.1 100 K Area Facilities hsems.2.1.1 Central Plateau Groundwater Operable Units hsems.2.2.1 LAW Plant, Phase I hsems.2.2.2 LAW/HLW Plant, Phase I hsems.2.2.3 LAW Treatment Facility, Phase II hsems.2.2.4 HLW Treatment Facility, Phase II hsems.2.2.5 242-A Evaporator hsems.2.4.2 Mixed Waste Disposal Trenches hsems.2.4.4 Environmental Restoration Disposal Facility		External Interfaces -None- Hanford Site Environmental System Interfaces hsems.2.2.17 200 Area Effluent Treatment Facility

B.3.1.3.2.5 Liquid Effluent Retention Facility Interface Description and Forecast**EXTERNAL INPUTS****Table B.3-6 External Inputs for Liquid Effluent Retention Facility**

	Stream	Category	Period	Total	FY98	Units
X.0	Hanford Legacy					
	LERF Starting Inventory	Waste Water	1998 - 1998	36600	36600	cubic meters
	<i>Initial waste water in LERF basins.</i>					

INTERNAL INPUTS**Table B.3-7 Internal Inputs for Liquid Effluent Retention Facility**

	Stream	Category	Period	Total	FY98	Units
hsems.1.1.2	Reactors on the River Soil Site Operable Units					
	N Basin Waste Water	Waste Water	1998 - 1998	3780	3780	cubic meters
	<i>Waste water generated during cleanout of the N Basins.</i>					
hsems.1.2.1	100 K Area Facilities					
	K Basin Deactivation Wastewater	Waste Water	2003 - 2005	9080	0	cubic meters
	<i>Waste water generated during deactivation of the K Basins.</i>					
	K Basin Level Control Water	Waste Water	1998 - 2001	1510	189.0	cubic meters
	<i>K Basin level control water.</i>					
hsems.2.1.1	Central Plateau Groundwater Operable Units					
	200-UP-1 Groundwater	Waste Water	1998 - 1998	24800	24800	cubic meters
	<i>Groundwater transferred by Central Plateau Groundwater Operable Units.</i>					
	BHI Waste Water	Waste Water	1998 - 2000	13200	4730	cubic meters
	<i>BHI wastewater schedule is start in 2/1999, 2 wells/mo, 14 wells total. Volume is 250,000 gal/well.</i>					
	Groundwater Monitoring Purgewater	Waste Water	1998 - 2030	20900	321.0	cubic meters
	<i>Waste water from purging groundwater monitoring wells.</i>					
hsems.2.2.1	LAW Plant, Phase I					
	LAW Phase 1 Waste Water	Waste Water	2002 - 2011	119000	0	cubic meters
	<i>Waste water generated during immobilization of low activity tank waste.</i>					
	Law Ph -I Deactivation Waste Water	Waste Water	2011 - 2012	252.0	0	cubic meters
	<i>Waste water transferred by LAW Plant, Phase I during deactivation.</i>					
hsems.2.2.2	LAW/HLW Plant, Phase I					
	LAW/HLW Phase 1 Waste Water	Waste Water	2002 - 2011	240000	0	cubic meters
	<i>Waste water transferred by LAW/HLW Plant, Phase I.</i>					
	LAW/HLW Plant, Phase I Deactivation Waste Water	Waste Water	2011 - 2012	504.0	0	cubic meters
	<i>Waste water transferred by LAW/HLW Plant, Phase I.</i>					
hsems.2.2.3	LAW Treatment Facility, Phase II					
	LAW Phase 2 Deactivation Waste Water	Waste Water	2025 - 2026	1890	0	cubic meters
	<i>Waste water generated during deactivation of the phase 2 low activity tank waste immobilization facility.</i>					
	LAW Phase 2 Waste Water	Waste Water	2012 - 2028	551000	0	cubic meters
	<i>Waste water generated during phase 2 immobilization of low activity tank waste.</i>					
hsems.2.2.4	HLW Treatment Facility, Phase II					
	HLW Phase 2 Deactivation Waste Water	Waste Water	2029 - 2029	1890	0	cubic meters
	<i>Waste water generated during deactivation of the Phase 2 high level tank waste immobilization facility.</i>					
	TWRS Priv Ph 2 HLW, Waste Water	Waste Water	2012 - 2028	551000	0	cubic meters
	<i>Waste water generated during Phase 2 immobilization of high level tank waste.</i>					
hsems.2.2.5	242-A Evaporator					
	242-A Evaporator Deactivation Wastewater	Waste Water	2012 - 2013	757.0	0	cubic meters
	<i>Waste water generated during deactivation of the 242-A evaporator facility.</i>					
	242-A Evaporator Process Condensate	Waste Water	1998 - 2011	55600	7260	cubic meters
	<i>Waste water generated during evaporation of dilute tank waste.</i>					
hsems.2.4.2	Mixed Waste Disposal Trenches					
	Mixed Waste Disposal Trench Leachate	Waste Water	1999 - 2030	48400	0	cubic meters
	<i>Waste water from Mixed Waste Disposal Trench leachate.</i>					
hsems.2.4.4	Environmental Restoration Disposal Facility					
	ERDF Leachate	Waste Water	1998 - 2014	54500	3400	cubic meters
	<i>Waste water leachate from the Environmental Restoration Disposal Facility.</i>					

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS

Table B.3-8 Internal Outputs for Liquid Effluent Retention Facility

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Total</u>	<u>FY98</u>	<u>Units</u>
hsems.2.2.17 200 Area Effluent Treatment Facility					
LERF Waste Water Transfer	Waste Water	1998 - 2030	1740000	24800	cubic meters
Waste water transferred from LERF to the Effluent Treatment Facility.					

B.3.1.3.3 200 Area Effluent Treatment Facility

B.3.1.3.3.1 200 Area Effluent Treatment Facility Description

Liquid effluents from the LERF are treated in the ETF to remove toxic metals, radionuclides, and ammonia and to destroy organics. The ETF treatment process constitutes best available treatment (BAT) technology and includes pH adjustment, filtration, ultraviolet light/peroxide (UV/OX) destruction of organics, reverse osmosis (RO), and ion exchange. Treatment capacity of the ETF is 150 gal/min. Storage tanks allow for holdup of the treated effluent to allow verification that the effluent has been treated to acceptable levels prior to discharge. The treated effluent is discharged under a WAC 173-216 State Waste Discharge Permit to a state-approved land disposal site (SALDS) located north of the 200 West Area. The ETF began operation in December, 1995 and has a 30 year design life.

The LERF/ETF can generally accept low level, RCRA-regulated, mixed low level, and CERCLA-regulated liquid effluents, and also industrial wastewaters for storage and treatment. A delisting petition was specifically approved for treating 242-A Evaporator process condensate for the waste codes F001 through F005, and F039 leachate (as derived from F001 through F005). A truck unloading station enables liquid effluents to be received from other projects and transferred to either the LERF for storage, or directly to the ETF for treatment. A groundwater transfer system is available for transferring groundwater from the 200 West Area to LERF for treatment in the ETF.

B.3.1.3.3.2 200 Area Effluent Treatment Facility Facility Technical Logic:

The technical logic for the 200 Area Effluent Treatment Facility is captured in the facility's functional flow block diagram which shows the functions performed for each applicable life cycle phase of the facility and the sequence in which the functions are executed.

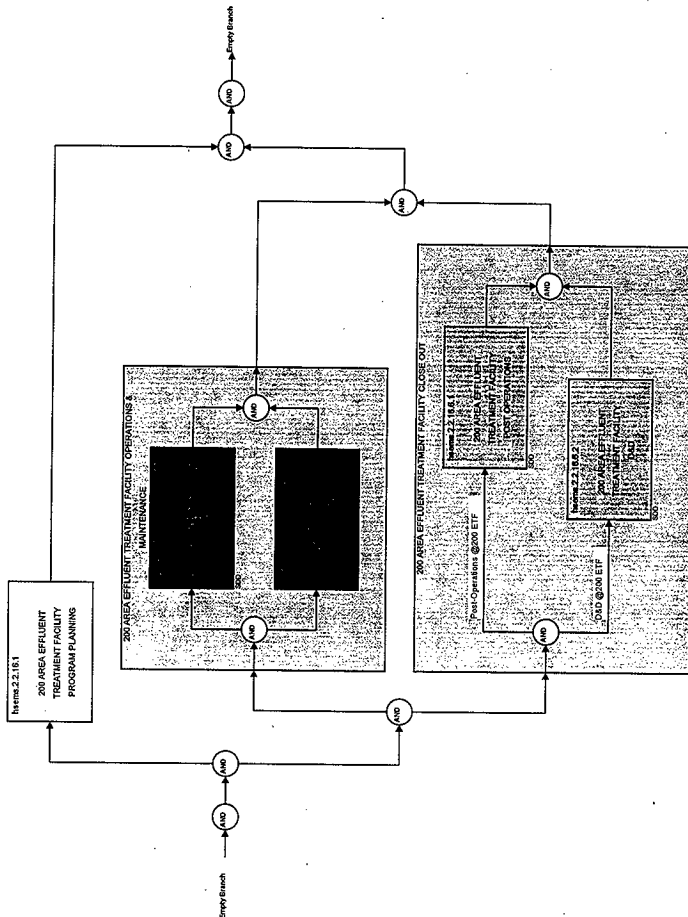


Figure B-14 200 AREA EFFLUENT TREATMENT FACILITY

B.3.1.3.3.3 200 Area Effluent Treatment Facility Requirements and Life Cycle Function Descriptions

Requirements:

- Discharge limits for the ETF are specified in the WAC 173-216 State Waste Discharge Permit No. ST 4500, and the U.S. Environmental Protection Agency (EPA) approval of the 200 Area Effluent Treatment Facility Delisting Petition, DOE/RL-92-72 (documented in 60 FR 31115 and codified in 40 CFR 261, Appendix IX, Table 2). Constituents not identified in the permit are subject to the limits in WAC 173-200, Water Quality Standards for Ground Waters of the State of Washington, and 4 percent of the derived concentration guide values in DOE Order 5400.5, Radiation Protection of the Public and Environment, as applicable.
- Operation of the ETF shall be in accordance with the Hanford Facility RCRA Permit WA7890008967.
- The draft Hanford Air Operating Permit contains terms and conditions of the Washington Department of Ecology Air Operating Permit (permit number not established, application DOE/RL-95-07), and the Washington Department of Health Hanford Site Radioactive Air Emissions License No. FF-01.
- Solid waste transferred to the ERDF shall meet the waste acceptance criteria specified in Environmental Restoration Disposal Facility Waste Acceptance Criteria, BHI-00139.
- Operation and maintenance of the ETF shall be in accordance with the Hazard Categorization Report for the 200 Area Effluent Treatment Facility, WHC-SD-C018H-HC-002, and the 200 Area Effluent Treatment Facility Auditable Safety Analysis, WHC-SD-ETF-ASA-001.
- Operation of the ETF must be consistent with the information and limits contained in the Notice of Construction (NOC) Application DOE/RL No. 93-RPB-056 (EPA) and No. 93-RPS-275 (Phase II).
- Facilities which reach the end of their mission and are removed from operational status shall meet the acceptance criteria for turnover of surplus facilities for deactivation and decommissioning as specified in WHC-CM-1-3, Management Requirements and Procedures, MRP 6.15, "Facility Shutdown, Standby, and Transfer."
- Radioactive airborne emissions shall not exceed the DCGs in WHC-CM-7-5, Environmental Compliance, Appendix C. Emissions of other contaminants shall not exceed the threshold values in WHC-CM-4-40, Industrial Hygiene Manual. [40 CFR 61, WAC 173-480, WAC 246-247]
- Pollution prevention and waste minimization requirements are specified in WHC-CM-7-5, Environmental Compliance, Section 14, "Pollution Prevention." Facilities shall minimize the volume of system-generated waste.
- Solid low-level waste and mixed low-level waste transferred to the Central Waste Complex shall meet the acceptance criteria for onsite storage and disposal specified in Hanford Site Solid Waste Acceptance Criteria, WHC-EP-0063.

Life Cycle Function Descriptions:

B.3.1.3.3.3.1 200 AREA EFFLUENT TREATMENT FACILITY PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components

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of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.3.1.3.3.2 200 AREA EFFLUENT TREATMENT FACILITY OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

200 AREA EFFLUENT TREATMENT FACILITY OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.3.1.3.3.3 Dispose of Liquid Effluents Treated by the ETF

Dispose of liquid effluents treated by the ETF and meeting discharge requirements to the 200 West Area SALDS.

B.3.1.3.3.4 Treat Liquid Effluents in the ETF

Treat liquid effluents in the ETF by removing or destroying contaminants sufficient to meet discharge requirements.

B.3.1.3.3.4 200 Area Effluent Treatment Facility Boundary Diagram

Table B.3-9 200 Area Effluent Treatment Facility Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces hsems.2.2.16 Liquid Effluent Retention Facility hsems.2.5.4 Central Plateau Water System hsems.2.5.5 Central Plateau Office Facilities hsems.2.5.6 Central Plateau Electrical System hsems.2.5.9 Central Plateau Shop Facilities hsems.2.5.13 Central Plateau Road System hsems.4.7.1 331 Complex		External Interfaces 200W SALDS Hazardous Waste Disposal Contracts Offsite Landfill Hanford Site Environmental System Interfaces hsems.2.3.5 Central Waste Complex hsems.2.5.2 Waste Sampling and Characterization Facility hsems.2.5.7 Central Plateau Liquid Sanitary Waste System

B.3.1.3.3.5 200 Area Effluent Treatment Facility Interface Description and Forecast**EXTERNAL INPUTS**

-None-

INTERNAL INPUTS**Table B.3-10 Internal Inputs for 200 Area Effluent Treatment Facility**

Stream	Category	Period	Total	FY98	Units
hsems.2.2.16 Liquid Effluent Retention Facility					
LERF Waste Water Transfer	Waste Water	1998 - 2030	1740000	24800	cubic meters
<i>Waste water transferred from LERF to the Effluent Treatment Facility.</i>					
hsems.2.5.4 Central Plateau Water System					
Potable Water for 200A-LEF	Potable Water	1998 - 2032		0.5	Mgal
Potable Water for 200A-LEF					
Raw Water for 200A-LEF	Raw Water	1998 - 2032		10.0	Mgal
Raw Water for 200A-LEF					
hsems.2.5.5 Central Plateau Office Facilities					
Office Space (Program Owned) for 200A-LEF	Office Space (Program Owned)	1998 - 2032		13000	sq. ft.
<i>Office Space (Program Owned) for 200A-LEF</i>					
hsems.2.5.6 Central Plateau Electrical System					
Electricity for 200A-LEF	Electricity	1998 - 2032		5360	MW-hr
<i>Electricity for 200A-LEF</i>					
hsems.2.5.9 Central Plateau Shop Facilities					
Fab Shop Services for 200A-LEF	(none forecasted)				
Fab Shop Services for 200A-LEF					
Lifting (Cranes) for 200A-LEF	Lifting Services	1998 - 2032		5.0	crane days
Lifting (Cranes) for 200A-LEF					
Custodial Services for 200A-LEF	Custodial Services	1998 - 2032		13000	sq. ft.
Custodial Services for 200A-LEF					
hsems.2.5.13 Central Plateau Road System					
Heavy Equipment for 200A-LEF	Heavy Equipment (Other)	1998 - 2032		10.0	equipment days
Heavy Equipment for 200A-LEF					
Sedans/Light Trucks for 200A-LEF	Sedans/Light Trucks	1998 - 2032		4.0	no. of vehicles
Sedans/Light Trucks for 200A-LEF					
hsems.4.6 South 600 Area Radiological Labs					
Radioactive Standards (Calibrations) for 200A-LEF	Radioactive Standards	1998 - 2032		84.0	calibrations
<i>Radioactive Standards (Calibrations) for 200A-LEF</i>					
hsems.4.7.1 331 Complex					
Non-rad Standards (Calibrations) for 200A-LEF	Non-rad Standards Lab Services	1998 - 2032		100.0	calibrations
<i>Non-rad Standards (Calibrations) for 200A-LEF</i>					
Industrial Hygiene Services for 200A-LEF	Industrial Hygiene Services	1998 - 2032		120.0	samples
<i>Industrial Hygiene Services for 200A-LEF</i>					

EXTERNAL OUTPUTS**Table B.3-11 External Outputs for 200 Area Effluent Treatment Facility**

Stream	Category	Period	Total	FY98	Units
X 200W SALDS					
Treated Liquid Effluents Discharged to 200W	Treated Liquid Effluent	1998 - 2030	1790000	83600	cubic meters
<i>SALDS</i>					
<i>Treated Liquid Effluent Disposed by 200 Area Effluent Treatment Facility.</i>					
X Hazardous Waste Disposal Contracts					
ETF, HAZ	HAZ	1998 - 2034	81.9	0.514	cubic meters
<i>HAZ Transferred by 200 Area Effluent Treatment Facility.</i>					
X Offsite Landfill					
ETF, Sanitary Solid Waste	Sanitary Solid Waste	1998 - 2034	384.0	10.3	tons
<i>Sanitary Solid Waste generated from day to day operations of treating waste water at the 200 Area ETF.</i>					

INTERNAL OUTPUTS**Table B.3-12 Internal Outputs for 200 Area Effluent Treatment Facility**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Total</u>	<u>FY98</u>	<u>Units</u>
hsems.2.3.5 Central Waste Complex					
ETF, CH-LLMW-I	CH LLMW I	1998 - 2034	2490	15.6	cubic meters
<i>CH LLMW I Transferred by 200 Area Effluent Treatment Facility.</i>					
ETF, CH-LLW-I	CH LLW I	1998 - 2034	81.9	0.514	cubic meters
<i>CH LLW I Transferred by 200 Area Effluent Treatment Facility.</i>					
ETF, CH-LLMW-III	CH LLMW III	1998 - 2025	29.5	0.771	cubic meters
<i>CH LLMW III solid waste generated during treatment of mixed low level liquid waste.</i>					
hsems.2.5.2 Waste Sampling and Characterization Facility					
In-Field Laboratory Services for 200A-LEF	In-Field Laboratory Services	1998 - 2032		224.0	samples
<i>In-Field Laboratory Services for 200A-LEF</i>					
Analytical Laboratory Services for 200A-LEF	Analytical Laboratory Services	1998 - 2032		1510	samples
<i>Analytical Laboratory Services for 200A-LEF</i>					
hsems.2.5.7 Central Plateau Liquid Sanitary Waste System					
ETF, Sanitary Liquid Waste	Sanitary Liquid Waste	1998 - 2032	17.5	0.5	Mgal
<i>Sanitary Liquid Waste generated from day to day operations of treating waste water at the 200 Area ETF.</i>					

B.3.1.3.4 200 Area Treated Effluent Disposal Facility

B.3.1.3.4.1 200 Area Treated Effluent Disposal Facility Description

The 200 Area Treated Effluent Disposal Facility (TEDF) is a collection and disposal system for non-RCRA permitted waste streams. The discharge from the 200 Area TEDF must comply with limits specified in the WAC 173-216 state waste discharge permit. The 200 Area TEDF began operation in April 1995 and has a 30 year life. Design capacity of the 200 Area TEDF is 3400 gal/min; testing has shown the 200 Area TEDF can accommodate up to 4200 gal/min. The 200 Area TEDF includes more than 12 miles of polyvinyl chloride pipe up to 14 inches in diameter. The effluent is discharged to two 5 acre disposal ponds located east of the 200 East Area.

B.3.1.3.4.2 200 Area Treated Effluent Disposal Facility Facility Technical Logic:

The technical logic for the 200 Area Treated Effluent Disposal Facility is captured in the facility's functional flow block diagram which shows the functions performed for each applicable life cycle phase of the facility and the sequence in which the functions are executed.

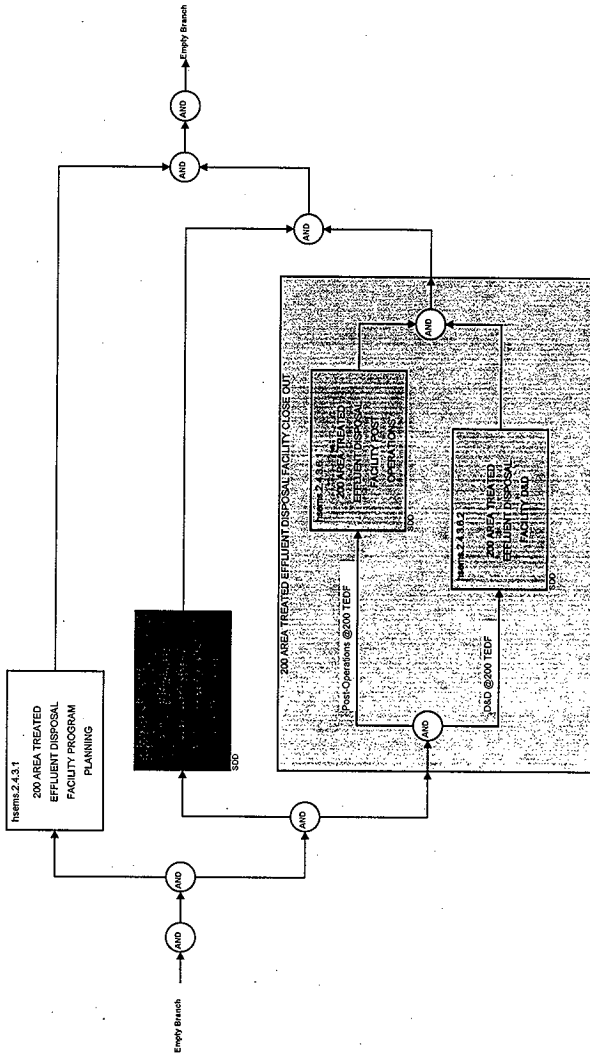


Figure B-15 200 AREA TREATED EFFLUENT DISPOSAL FACILITY

B.3.1.3.4.3 200 Area Treated Effluent Disposal Facility Requirements and Life Cycle Function Descriptions

Requirements:

- The discharge from the 200 Area TEDF must meet the limits specified in the WAC 173-216 State Waste Discharge Permit No. ST 4502. Constituents not identified in the permit are subject to the limits in WAC 173-200, Water Quality Standards for Ground Waters of the State of Washington, and 4 percent of the derived concentration guide values in DOE Order 5400.5, Radiation Protection of the Public and Environment, as applicable. The wastewater can not contain any listed dangerous waste.
- Facilities discharging to the 200 Area TEDF shall implement Best Available Technology (BAT)/All Known, Available, and Reasonable Treatment (AKART). The generator shall provide the information required by WAC 173-240, Submission of Plans and Reports for Construction of Waste Water Facilities.
- Operation and maintenance of the 200 Area TEDF shall be in accordance with the general safety requirements in WHC-CM-1-10, Safety Manual. A preliminary safety evaluation was completed for the 200 Area TEDF titled "Preliminary Safety Evaluation - 200 Area Treated Effluent Disposal Facility, Project W-049H." The 200 Area TEDF is a general-use facility and safety documentation is not required according to DOE Order 5481.1B.
- Facilities which reach the end of their mission and are removed from operational status shall meet the acceptance criteria for turnover of surplus facilities for deactivation and decommissioning as specified in WHC-CM-1-3, Management Requirements and Procedures, MRP 6.15, "Facility Shutdown, Standby, and Transfer."
- Radioactive airborne emissions shall not exceed the DCGs in WHC-CM-7-5, Environmental Compliance, Appendix C. Emissions of other contaminants shall not exceed the threshold values in WHC-CM-4-40, Industrial Hygiene Manual. [40 CFR 61, WAC 173-480, WAC 246-247]
- Pollution prevention and waste minimization requirements are specified in WHC-CM-7-5, Environmental Compliance, Section 14, "Pollution Prevention." Facilities shall minimize the volume of system-generated waste.
- Solid low-level waste and mixed low-level waste transferred to the Central Waste Complex shall meet the acceptance criteria for onsite storage and disposal specified in Hanford Site Solid Waste Acceptance Criteria, WHC-EP-0063.
- Requirements for effluent monitoring, sampling, analysis, operating group notification, physical interface points, implementing procedures, and configuration control are documented in the 200 Area Treated Effluent Disposal Facility Interface Control Document, HNF-SD-W049H-ICD-001.

Life Cycle Function Descriptions:

B.3.1.3.4.3.1 200 AREA TREATED EFFLUENT DISPOSAL FACILITY PROGRAM PLANNING WORK SCOPE SUMMARY

No Description

B.3.1.3.4.3.2 200 AREA TREATED EFFLUENT DISPOSAL FACILITY OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

200 AREA TREATED EFFLUENT DISPOSAL FACILITY OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.3.1.3.4.3.3 Collect Liquid Effluent Streams in the 200 Area TEDF

Collect liquid effluents from generators that have implemented Best Available Technology/All Known and Reasonable Treatment (BAT/AKART) on the liquid effluent streams.

B.3.1.3.4.3.4 Dispose of Liquid Effluents Received by the 200 Area TEDF

Dispose of liquid effluents received by the 200 Area TEDF and meeting discharge requirements to the 200 East Area SALDS.

B.3.1.3.4.4 200 Area Treated Effluent Disposal Facility Boundary Diagram

Table B.3-13 200 Area Treated Effluent Disposal Facility Boundary Diagram

External Interfaces -None-		External Interfaces 200E SALDS Hanford Site Environmental System Interfaces -None-
Hanford Site Environmental System Interfaces hsems.2.2.1 LAW Plant, Phase I hsems.2.2.2 LAW/HLW Plant, Phase I hsems.2.2.3 LAW Treatment Facility, Phase II hsems.2.2.4 HLW Treatment Facility, Phase II hsems.2.2.5 242-A Evaporator hsems.2.2.6 Plutonium-Uranium Extraction Plant hsems.2.2.7 B Plant hsems.2.2.8 Waste Encapsulation and Storage Facility hsems.2.2.9 Plutonium Finishing Plant hsems.2.2.12 1-Plant Facility hsems.2.3.1 Single Shell Tank (SST) System hsems.2.5.1 222-S Laboratory hsems.2.5.3 Central Plateau Steam System hsems.2.5.4 Central Plateau Water System		

B.3.1.3.4.5 200 Area Treated Effluent Disposal Facility Interface Description and Forecast**EXTERNAL INPUTS**

-None-

INTERNAL INPUTS**Table B.3-14 Internal Inputs for 200 Area Treated Effluent Disposal Facility**

Stream	Category	Period	Total	FY98	Units
hsems.2.2.1 LAW Plant, Phase I LAW Plant Phase 1 Non-radioactive/Non-dangerous Liquid Effluent <i>Treated Liquid Effluent Transferred by the function LAW PLANT, PHASE I.</i>	Treated Liquid Effluent	2002 - 2012	333000	0	cubic meters
hsems.2.2.2 LAW/HLW Plant, Phase I LAW/HLW Plant Phase 1 Non-radioactive/Non-dangerous Liquid Effluent <i>Treated Liquid Effluent Transferred by the function LAW/HLW PLANT, PHASE I.</i>	Treated Liquid Effluent	2002 - 2012	666000	0	cubic meters
hsems.2.2.3 LAW Treatment Facility, Phase II LAW Phase 2 Non-radioactive/Non-dangerous Liquid Effluent <i>Treated Liquid Effluent Transferred by the function LAW TREATMENT FACILITY, PHASE II OPERATIONS & MAINTENANCE.</i>	Treated Liquid Effluent	2012 - 2029	3600000	0	cubic meters
hsems.2.2.4 HLW Treatment Facility, Phase II TWRS Ph2 HLW WW, Non-radioactive/Non-dangerous Liquid Effluent <i>Waste water from the Phase 2 high level tank waste immobilization facility that has been treated using BATIAKART.</i>	Treated Liquid Effluent	2012 - 2029	3600000	0	cubic meters
hsems.2.2.5 242-A Evaporator 242-A Evaporator Steam Condensate <i>Steam Condensate from 242-A Evaporator for disposal.</i>	Treated Liquid Effluent	1998 - 2011	985000	70400	cubic meters
242-A Evaporator Cooling Water <i>Treated Liquid Effluent Transferred by 242-A Evaporator.</i>	Treated Liquid Effluent	1998 - 2011	11400000	815000	cubic meters
hsems.2.2.6 Plutonium-Uranium Extraction Plant PUREX Chemical Sewer <i>Treated Liquid Effluent Transferred by Plutonium-Uranium Extraction Plant.</i>	Treated Liquid Effluent	1998 - 1998	0.0	0.0	cubic meters
hsems.2.2.7 B Plant B Plant Chemical Sewer <i>Treated Liquid Effluent Transferred by B Plant.</i>	Treated Liquid Effluent	1998 - 2019	308000	14000	cubic meters
hsems.2.2.8 Waste Encapsulation and Storage Facility B Plant/WESF Cooling Water <i>Treated Liquid Effluent Transferred by Waste Encapsulation and Storage Facility.</i>	Treated Liquid Effluent	1998 - 2019	666000	30200	cubic meters
hsems.2.2.9 Plutonium Finishing Plant PFP Wastewater <i>Treated Liquid Effluent Transferred by Plutonium Finishing Plant.</i>	Treated Liquid Effluent	1998 - 2028	1510000	77500	cubic meters
hsems.2.2.12 T-Plant Facility T Plant Wastewater <i>Treated Liquid Effluent Transferred by 221-T.</i>	Treated Liquid Effluent	1998 - 2030	124000	3780	cubic meters
hsems.2.3.1 Single Shell Tank (SST) System 241-A Tank Farm Cooling Water <i>Treated Liquid Effluent Transferred by Single Shell Tank (SST) System.</i>	Treated Liquid Effluent	1998 - 2018	922000	43900	cubic meters
hsems.2.5.1 222-S Laboratory 222-S Lab Wastewater <i>Treated Liquid Effluent Transferred by 222-S Laboratory.</i>	Treated Liquid Effluent	1998 - 2030	312000	9460	cubic meters
hsems.2.5.3 Central Plateau Steam System 284W Power Plant Wastewater <i>Treated Liquid Effluent Transferred.</i>	Treated Liquid Effluent	1998 - 2030	1770000	53700	cubic meters
284E Power Plant Wastewater <i>Treated Liquid Effluent Transferred.</i>	Treated Liquid Effluent	1998 - 2030	2030000	120000	cubic meters
hsems.2.5.4 Central Plateau Water System 242-A-81 Water Services Building Wastewater <i>Treated liquid effluents for disposal from the 242-A-81 water services building.</i>	Treated Liquid Effluent	1998 - 2011	42300	3020	cubic meters

EXTERNAL OUTPUTS

Table B.3-15 External Outputs for 200 Area Treated Effluent Disposal Facility

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Total</u>	<u>FY98</u>	<u>Units</u>
X 200E SALDS Treated Liquid Effluent Discharged to 200E SALDS Treated Liquid Effluent Disposed by 200 Area Treated Effluent Disposal Facility.	Treated Liquid Effluent	1998 - 2030	28200000	1240000	cubic meters

INTERNAL OUTPUTS

-None-

B.3.1.3.5 300 Area Treated Effluent Disposal Facility**B.3.1.3.5.1 300 Area Treated Effluent Disposal Facility Description**

The 300 Area Treated Effluent Disposal Facility (TEDF) provides treatment for waste water from laboratories, research facilities, office buildings, and fuel fabrication facilities in the 300 Area. The waste water is received via the 300 Area Process Sewer (PS). The 300 Area TEDF is designed for continuous receipt of waste waters with storage capacity of up to 5 days at the design flow rate of 300 gal/min. The facility treats the waste water using Best Available Technology. The treatment process includes iron co-precipitation, pH adjustment, filtration, ultraviolet light/peroxide (UV/OX) destruction of organics, and ion exchange. Sludge from the iron co-precipitation process is dewatered and used for backfill in the low-level waste trench. The treated liquid effluent is monitored and discharged through an outfall to the Columbia River under a NPDES permit. Capability exists to divert the treated effluent to holding tanks prior to discharge if needed until determination can be made for final disposal based on sampling.

B.3.1.3.5.2 300 Area Treated Effluent Disposal Facility Facility Technical Logic:

The technical logic for the 300 Area Treated Effluent Disposal Facility is captured in the facility's functional flow block diagram which shows the functions performed for each applicable life cycle phase of the facility and the sequence in which the functions are executed.

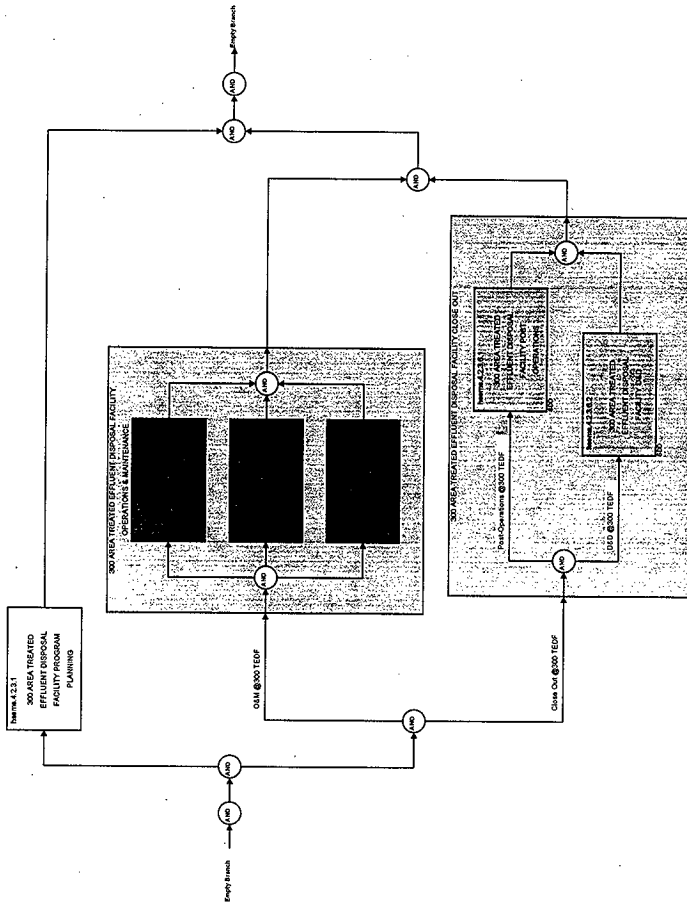


Figure B-16 300 AREA TREATED EFFLUENT DISPOSAL FACILITY

B.3.1.3.5.3 300 Area Treated Effluent Disposal Facility Requirements and Life Cycle Function Descriptions

Requirements:

- Discharge limits for the 300 Area TEDF are specified in the National Pollutant Discharge Elimination System Permit No. WA-002591-7, and the Washington Department of Natural Resources Land Lease. Constituents not identified in the permits are subject to the limits in WAC 173-201A, Water Quality Standards for Surface Waters of the State of Washington, and 4 percent of the derived concentration guide values in DOE Order 5400.5, Radiation Protection of the Public and Environment, as applicable.
- 300 Area facilities shall be transitioned to the surveillance and maintenance phase
- South 600 Area safety related upgrades for inactive facilities shall be provided
- Facilities which reach the end of their mission and are removed from operational status shall meet the acceptance criteria for turnover of surplus facilities for deactivation and decommissioning as specified in WHC-CM-1-3, Management Requirements and Procedures, MRP 6.15, "Facility Shutdown, Standby, and Transfer."
- Radioactive airborne emissions shall not exceed the DCGs in WHC-CM-7-5, Environmental Compliance, Appendix C. Emissions of other contaminants shall not exceed the threshold values in WHC-CM-4-40, Industrial Hygiene Manual. [40 CFR 61, WAC 173-480, WAC 246-247]
- Pollution prevention and waste minimization requirements are specified in WHC-CM-7-5, Environmental Compliance, Section 14, "Pollution Prevention." Facilities shall minimize the volume of system-generated waste.
- Solid low-level waste and mixed low-level waste transferred to the Central Waste Complex shall meet the acceptance criteria for onsite storage and disposal specified in Hanford Site Solid Waste Acceptance Criteria, WHC-EP-0063.
- Operation and maintenance of the 300 Area TEDF shall be in accordance with the Hanford 300 Area Treated Effluent Disposal Facility Inventory at Risk Calculations and Safety Analysis, WHC-SD-WM-SAD-025.

Life Cycle Function Descriptions:

B.3.1.3.5.3.1 300 AREA TREATED EFFLUENT DISPOSAL FACILITY PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.3.1.3.5.3.2 300 AREA TREATED EFFLUENT DISPOSAL FACILITY OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

300 AREA TREATED EFFLUENT DISPOSAL FACILITY OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

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B.3.1.3.5.3.3 Collect Non-Listed Liquid Waste in the 300 Area

Collect non-listed liquid effluents from facilities located in the 300 Area.

B.3.1.3.5.3.4 Dispose of Liquid Effluents Treated by the 300 Area TEDF

Dispose of liquid effluents treated by the 300 Area TEDF and meeting discharge requirements to the Columbia River.

B.3.1.3.5.3.5 Treat Liquid Effluents in the 300 Area TEDF

Treat liquid effluents in the 300 Area TEDF by removing or destroying contaminants sufficient to meet discharge requirements. Operate and maintain the process sewer system and the retention process sewer system in the 300 Area.

B.3.1.3.5.3.6 300 AREA TREATED EFFLUENT DISPOSAL FACILITY POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe closeout or transition to private entity.

300 AREA TREATED EFFLUENT DISPOSAL FACILITY POST OPERATIONS SPECIFIC FUNCTIONS

B.3.1.3.5.3.7 Maintain Safe & Compliant 300 Area Treated Effluent Disposal Facility

Maintain the 300 Area TEDF facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.3.1.3.5.3.8 Transition 300 Treated Effluent Disposal Facility

Initiate the transition phase for the 300 Area Treated Effluent Disposal Facility

B.3.1.3.5.4 300 Area Treated Effluent Disposal Facility Boundary Diagram

Table B.3-16 300 Area Treated Effluent Disposal Facility Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces hsems.4.2.2 307 Retention Basins hsems.4.2.3 340 Waste Handling Facility hsems.4.3.2 300 Area Fuel Supply System hsems.4.3.4 309 Building hsems.4.4.1 South 600 Area Electrical System hsems.4.4.2 South 600 Area Steam System hsems.4.4.3 South 600 Area Water System hsems.4.4.5 South 600 Area Telecommunication System hsems.4.4.6 South 600 Area Office Facilities hsems.4.4.7 South 600 Area Shop Facilities hsems.4.4.8 South 600 Area Storage Facilities hsems.4.4.10 South 600 Area Road System hsems.4.4.11 South 600 Area Rail System hsems.4.5.1 336 hsems.4.6.6 306W hsems.4.6.8 320 / 3720 / 3745 hsems.4.6.9 Misc. Rad Labs hsems.4.7.1 331 Complex		External Interfaces Columbia River Offsite Landfill Hanford Site Environmental System Interfaces hsems.2.3.5 Central Waste Complex hsems.2.5.2 Waste Sampling and Characterization Facility hsems.4.4.4 South 600 Area Liquid Sanitary Waste System

B.3.1.3.5.5 300 Area Treated Effluent Disposal Facility Interface Description and Forecast**EXTERNAL INPUTS**

-None-

INTERNAL INPUTS**Table B.3-17 Internal Inputs for 300 Area Treated Effluent Disposal Facility**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Total</u>	<u>FY98</u>	<u>Units</u>
hsems.4.2.2 307 Retention Basins					
307 Industrial Waste Water <i>Industrial waste water transferred to the 300 TEDF from 307 Retention Basins.</i>	Industrial Waste Water	1998 - 2025	619000	33400	cubic meters
hsems.4.2.3 340 Waste Handling Facility					
340 Facility Industrial Waste Water Transfers <i>Industrial waste water generated from ongoing 340 Waste Handling Facility operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>	Industrial Waste Water	1998 - 1998	25000	25000	cubic meters
hsems.4.3.2 300 Area Fuel Supply System					
300 Area Fuel Supply System Industrial Waste Water Transfer <i>Industrial waste water generated from ongoing 300 Area Fuel Supply System operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>	Industrial Waste Water	1998 - 2005	209000	25000	cubic meters
hsems.4.3.4 309 Building					
309 Building Industrial Waste Water Transfer <i>Industrial waste water generated from ongoing 309 Building operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>	Industrial Waste Water	1998 - 1998	25000	25000	cubic meters
hsems.4.4.1 South 600 Area Electrical System					
Electricity for 300A-LEF <i>Electricity for 300A-LEF</i>	Electricity	1998 - 2025		3300	MW-hr
hsems.4.4.2 South 600 Area Steam System					
300 Area Steam System Industrial Waste Water Transfer <i>Industrial waste water generated from ongoing 300 Area Steam System operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>	Industrial Waste Water	1998 - 1998	25000	25000	cubic meters
hsems.4.4.3 South 600 Area Water System					
Potable Water for 300A-LEF <i>Potable Water for 300A-LEF</i>	Potable Water	1998 - 2025		0.5	Mgal
South 600 Area Water System Waste Water Transfer <i>Industrial waste water generated from ongoing South 600 Area Water System operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>	Industrial Waste Water	1998 - 2025	726000	25000	cubic meters
hsems.4.4.5 South 600 Area Telecommunication System					
Pager Service for 300A-LEF <i>Pager Service for 300A-LEF</i>	Site Pagers	1998 - 2025		10.0	no. of pagers
Voice (Telephone) Communication for 300A-LEF <i>Voice (Telephone) Communication for 300A-LEF</i>	Voice Communications Service	1998 - 2025		25.0	no. of phones
Data (HLAN) Transmission for 300A-LEF <i>Data (HLAN) Transmission for 300A-LEF</i>	HLAN Computers	1998 - 2025		20.0	no. of PCs
hsems.4.4.6 South 600 Area Office Facilities					
Office Space (Program Owned) for 300A-LEF <i>Office Space (Program Owned) for 300A-LEF</i>	Office Space (Program Owned)	1998 - 2025		3690	sq. ft.
SS Offices Industrial Waste Water <i>Industrial waste water generated from ongoing South 600 Area Office Facilities operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>	Industrial Waste Water	1998 - 2025	726000	25000	cubic meters
hsems.4.4.7 South 600 Area Shop Facilities					
Custodial Services for 300A-LEF <i>Custodial Services for 300A-LEF</i>	Custodial Services	1998 - 2025		3690	sq. ft.
Building Maintenance for 300A-LEF <i>Building Maintenance for 300A-LEF</i>	(none forecasted)				
Maintenance Services Electrician for 300A-LEF <i>Maintenance Services Electrician for 300A-LEF</i>	Maintenance Services (Electrician)	1998 - 2025		0.3	FTE
Fab Shop Services for 300A-LEF <i>Fab Shop Services for 300A-LEF</i>	(none forecasted)				
Lifting (Cranes) for 300A-LEF <i>Lifting (Cranes) for 300A-LEF</i>	Lifting Services	1998 - 2025		6.0	crane days

Table B.3-17 Internal Inputs for 300 Area Treated Effluent Disposal Facility (Continued)

Stream	Category	Period	Total	FY98	Units
Maintenance Services Pipefitter for 300A-LEF	Maintenance Services (Pipefitter)	1998 - 2025		1.1	FTE
<i>Maintenance Services Pipefitter for 300A-LEF</i>					
hsems.4.4.8 South 600 Area Storage Facilities					
SS Storage Industrial Waste Water	Industrial Waste Water	1998 - 2025	726000	25000	cubic meters
<i>Industrial waste water generated from ongoing South 600 Area Storage Facilities operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>					
hsems.4.4.10 South 600 Area Road System					
Heavy Trucks for 300A-LEF	Heavy Trucks	1998 - 2025		18.0	vehicle days
<i>Heavy Trucks for 300A-LEF</i>					
Hanford Road Sys. Heavy Traffic for 300A-LEF	Hanford Road System (Heavy Traffic)	1998 - 2025		12.0	truck loads
<i>Hanford Road Sys. Heavy Traffic for 300A-LEF</i>					
Heavy Equipment for 300A-LEF	(none forecasted)				
<i>Heavy Equipment for 300A-LEF</i>					
Sedans/Light Trucks for 300A-LEF	Sedans/Light Trucks	1998 - 2025		3.0	no. of vehicles
<i>Sedans/Light Trucks for 300A-LEF</i>					
hsems.4.4.11 South 600 Area Rail System					
Rail Transportation for 300A-LEF	(none forecasted)				
<i>Rail Transportation for 300A-LEF</i>					
hsems.4.5.1 336					
336 Building Industrial Waste Water Transfer	Industrial Waste Water	1998 - 2025	726000	25000	cubic meters
<i>Industrial waste water generated from ongoing 336 Building operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>					
hsems.4.6 South 600 Area Radiological Labs					
Radioactive Standards (Calibrations) for 300A-LEF	(none forecasted)				
<i>Radioactive Standards (Calibrations) for 300A-LEF</i>					
hsems.4.6.6 306W					
306W Industrial Waste Water Transfers	Industrial Waste Water	1998 - 2005	209000	25000	cubic meters
<i>Industrial waste water generated from ongoing 306W Building operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>					
hsems.4.6.8 320 / 3720 / 3745					
320, 3720, 3745 building industrial waste water transfers	Industrial Waste Water	1998 - 2025	726000	25000	cubic meters
<i>Industrial waste water generated from ongoing 320, 3720, 3745 Building operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>					
hsems.4.6.9 Misc. Rad Labs					
Misc Rad Lab Industrial Waste Water Transfers	Industrial Waste Water	1998 - 2025	726000	25000	cubic meters
<i>Industrial waste water generated from ongoing Miscellaneous Radiological Laboratory operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>					
hsems.4.7.1 331 Complex					
Industrial Hygiene Services for 300A-LEF	Industrial Hygiene Services	1998 - 2025		2.0	samples
<i>Industrial Hygiene Services for 300A-LEF</i>					
Non-rad Standards (Calibrations) for 300A-LEF	Non-rad Standards Lab Services	1998 - 2025		5.0	calibrations
<i>Non-rad Standards (Calibrations) for 300A-LEF</i>					
331 Complex Industrial Waste Water Transfer	Industrial Waste Water	1998 - 2025	726000	25000	cubic meters
<i>Industrial waste water generated from ongoing 331 Building operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>					

EXTERNAL OUTPUTS**Table B.3-18 External Outputs for 300 Area Treated Effluent Disposal Facility**

Stream	Category	Period	Total	FY98	Units
X Columbia River					
300 Area TEDF Discharge	Treated Liquid Effluent	1998 - 2025	6190000	334000	cubic meters
<i>Treated liquid effluent discharged to the Columbia River.</i>					
X Offsite Landfill					
300 LEF Sanitary Solid Waste	Sanitary Solid Waste	1998 - 2025	280.0	10.0	tons
<i>Solid sanitary waste generated from 300 area liquid effluent activities.</i>					

INTERNAL OUTPUTS

Table B.3-19 Internal Outputs for 300 Area Treated Effluent Disposal Facility

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Total</u>	<u>FY98</u>	<u>Units</u>
hsems.2.3.5 Central Waste Complex					
300 TEDF CH LLW I	CH LLW I	1998 - 2025	5210	200.0	cubic meters
<i>Secondary solid waste from treating industrial waste water in the 300 Area TEDF.</i>					
hsems.2.5.2 Waste Sampling and Characterization Facility					
In-Field Laboratory Services for 300A-LEF	Analytical Laboratory Services	1998 - 2025		202.0	samples
	In-Field Laboratory Services	1998 - 2025		2.0	samples
<i>In-Field Laboratory Services for 300A-LEF</i>					
hsems.4.4.4 South 600 Area Liquid Sanitary Waste System					
300 LEF Liquid Sanitary Waste Shipment	Sanitary Liquid Waste	1998 - 2025	2.07	0.074	Mgal
<i>Liquid sanitary waste generated from 300 area liquid effluent activities.</i>					

B.3.1.3.6 307 Retention Basins Facility**B.3.1.3.6.1 307 Retention Basins Facility Description**

The 300 Area Retention Process Sewer (RPS) system collects liquid effluents in the 300 Area which are potentially radioactively contaminated. These liquid effluents normally are collected in the 307 Retention Basins where they are monitored and batch released to the Process Sewer (PS) for subsequent treatment in the 300 Area TEDF.

Provisions exist for transferring off-specification liquid effluents to the Radioactive Liquid Waste system (RLWS) and 340 Waste Handling Facility for subsequent storage and transfer to Double-Shell Tanks (DSTs) in the 200 East Area.

The 307 Retention Basins consist of four basins with associated valves, pumps, and controls. Each basin has a holding capacity of 95 cubic meters (25,000 gal) with overflow to the adjacent basin.

B.3.1.3.6.2 307 Retention Basins Facility Technical Logic:

The technical logic for the 307 Retention Basins are captured in the functional flow block diagram which shows the functions performed for each applicable life cycle phase of the basins and the sequence in which the functions are executed.

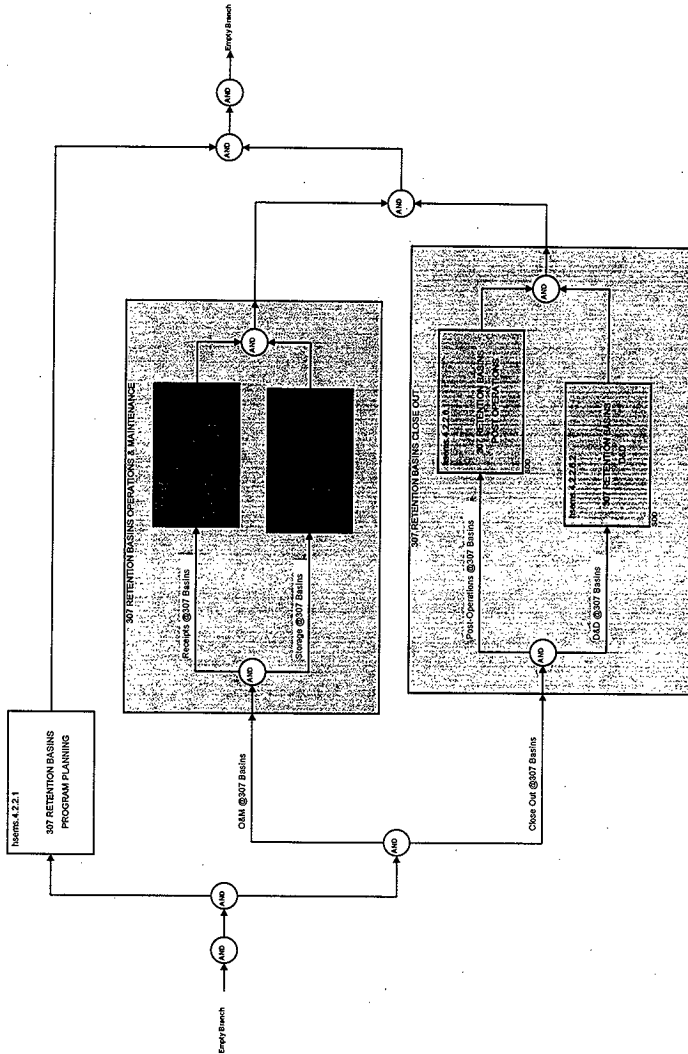


Figure B-17 307 RETENTION BASINS

B.3.1.3.6.3 307 Retention Basins Requirements and Life Cycle Function Descriptions

Requirements:

- Facilities which reach the end of their mission and are removed from operational status shall meet the acceptance criteria for turnover of surplus facilities for deactivation and decommissioning as specified in WHC-CM-1-3, Management Requirements and Procedures, MRP 6.15, "Facility Shutdown, Standby, and Transfer."
- Radioactive airborne emissions shall not exceed the DCGs in WHC-CM-7-5, Environmental Compliance, Appendix C. Emissions of other contaminants shall not exceed the threshold values in WHC-CM-4-40, Industrial Hygiene Manual. [40 CFR 61, WAC 173-480, WAC 246-247]
- Pollution prevention and waste minimization requirements are specified in WHC-CM-7-5, Environmental Compliance, Section 14, "Pollution Prevention." Facilities shall minimize the volume of system-generated waste.
- Solid low-level waste and mixed low-level waste transferred to the Central Waste Complex shall meet the acceptance criteria for onsite storage and disposal specified in Hanford Site Solid Waste Acceptance Criteria, WHC-EP-0063.
- Operation and maintenance of the 307 Retention Basins shall be in accordance with the Hanford 300 Area Retention Process Sewer Inventory at Risk Calculations and Safety Analysis, WHC-SD-WM-SAD-027.

Life Cycle Function Descriptions:

B.3.1.3.6.3.1 307 RETENTION BASINS PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.3.1.3.6.3.2 307 RETENTION BASINS OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

307 RETENTION BASINS OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.3.1.3.6.3.3 Collect Potentially-Contaminated Liquid Effluents in the 307 Retention Basins

Collect and monitor potentially-contaminated liquid effluents for transfer to the 300 Area TEDF or 340 Facility.

B.3.1.3.6.3.4 Provide Lag Storage for Non-Dangerous Liquid Waste in the 300 Area

Provide lag storage for collected liquid effluents from 300 Area facilities for the purpose of sampling to determine if the liquid can be processed through the 300 Area TEDF. Liquid effluent not suitable for treatment at the 300 Area TEDF will be transferred to the 340 Waste Handling Facility for future transport to double-shell tanks in the central plateau.

B.3.1.3.6.4 307 Retention Basins Boundary Diagram

Table B.3-20 307 Retention Basins Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces hsems.4.6.1 324 Building hsems.4.6.2 325 Building hsems.4.6.3 326 Building hsems.4.6.4 327 Building hsems.4.6.5 329 Building		External Interfaces -None- Hanford Site Environmental System Interfaces hsems.4.2.1 300 Area Treated Effluent Disposal Facility hsems.4.2.3 340 Waste Handling Facility

B.3.1.3.6.5 307 Retention Basins Interface Description and Forecast**EXTERNAL INPUTS**

-None-

INTERNAL INPUTS**Table B.3-21 Internal Inputs for 307 Retention Basins**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Total</u>	<u>FY98</u>	<u>Units</u>
hsems.4.6.1 324 Building 324 Potentially Contaminated Waste Water <i>Industrial waste water from 324 Building operations. The volume of waste water assumes equal distribution from all inputs to the RPS.</i>	Industrial Waste Water	1998 - 2003	35100	6680	cubic meters
hsems.4.6.2 325 Building 325 Potentially Contaminated Waste Water <i>Industrial waste water from 325 Building activities. The volume of waste water assumes equal distribution from all inputs to the RPS.</i>	Industrial Waste Water	1998 - 2025	183000	6680	cubic meters
hsems.4.6.3 326 Building 326 Potentially Contaminated Waste Water <i>Industrial waste water from 326 Building operations. The volume of waste water assumes equal distribution from all inputs to the RPS.</i>	Industrial Waste Water	1998 - 2025	183000	6680	cubic meters
hsems.4.6.4 327 Building 327 Potentially Contaminated Waste Water <i>Industrial waste water from 327 Building activities. The volume of waste water assumes equal distribution from all inputs to the RPS.</i>	Industrial Waste Water	1998 - 2003	35100	6680	cubic meters
hsems.4.6.5 329 Building 329 Potentially Contaminated Waste Water <i>Industrial waste water from 329 Building activities. The volume of waste water assumes equal distribution from all inputs to the RPS.</i>	Industrial Waste Water	1998 - 2025	183000	6680	cubic meters

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS**Table B.3-22 Internal Outputs for 307 Retention Basins**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Total</u>	<u>FY98</u>	<u>Units</u>
hsems.4.2.1 300 Area Treated Effluent Disposal Facility 307 Industrial Waste Water <i>Industrial Waste Water transferred to the 300 TEDF from 307 Retention Basins.</i>	Industrial Waste Water	1998 - 2025	619000	33400	cubic meters
hsems.4.2.3 340 Waste Handling Facility 307 Basins Radioactive/Mixed Liquid Waste <i>Radioactive/mixed liquid waste transferred from the 307 Basins to the 340 Dangerous Waste Handling Facility.</i>	LLMW (Liquid)	1998 - 1998	0.0	0.0	cubic meters

B.3.1.3.7 340 Waste Handling Facility

B.3.1.3.7.1 340 Waste Handling Facility Description

The 340 Waste Handling Facility provides receipt, storage, and loadout capability for low-level radioactive/mixed liquid waste generated during laboratory operations in the 300 Area. Waste is received via the radioactive liquid waste system (RLWS) or the retention process sewer (RPS) system. The waste is accumulated and stored in two 15,000 gal tanks located in a covered, below-grade vault in the 340 building. Six additional 8,000 gal tanks in the adjacent 340-A building provide backup storage capability. The 340-B building is used for rail loadout of the wastes. The waste is transported to the 204-AR Unloading facility in the 200 East Area for neutralization and storage in double-shell tanks. The 340 Waste Handling Facility does not have a RCRA permit and these waste transfers must occur within a 90 day storage limit.

The 340 Waste Handling Facility will no longer receive waste after September 1998. A new waste handling facility is being provided for the 325 building. The 340 Waste Handling Facility will be shutdown and cleaned out, deactivated, and decontaminated and decommissioned.

B.3.1.3.7.2 340 Waste Handling Facility Facility Technical Logic:

The technical logic for the 340 Waste Handling Facility is captured in the facility's functional flow block diagram which shows the functions performed for each applicable life cycle phase of the facility and the sequence in which the functions are executed.

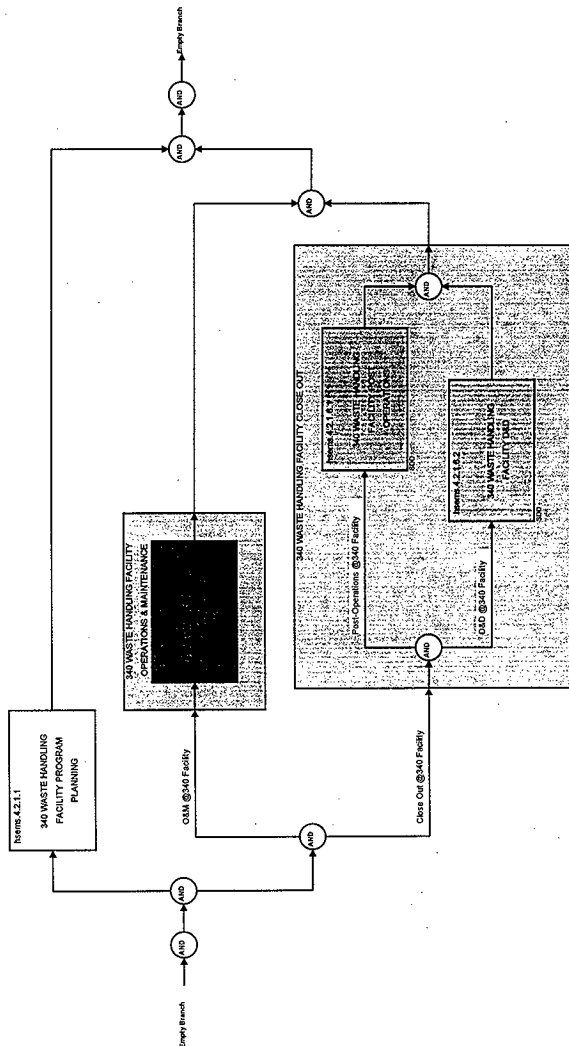


Figure B-18 340 WASTE HANDLING FACILITY

B.3.1.3.7.3 340 Waste Handling Facility Requirements and Life Cycle Function Descriptions

Requirements:

- 300 Area facilities shall be transitioned to the surveillance and maintenance phase
- South 600 area facilities shall be made available for other uses.
- South 600 Area safety related upgrades for inactive facilities shall be provided
- Facilities which reach the end of their mission and are removed from operational status shall meet the acceptance criteria for turnover of surplus facilities for deactivation and decommissioning as specified in WHC-CM-1-3, Management Requirements and Procedures, MRP 6.15, "Facility Shutdown, Standby, and Transfer."
- Radioactive airborne emissions shall not exceed the DCGs in WHC-CM-7-5, Environmental Compliance, Appendix C. Emissions of other contaminants shall not exceed the threshold values in WHC-CM-4-40, Industrial Hygiene Manual. [40 CFR 61, WAC 173-480, WAC 246-247]
- Pollution prevention and waste minimization requirements are specified in WHC-CM-7-5, Environmental Compliance, Section 14, "Pollution Prevention." Facilities shall minimize the volume of system-generated waste.
- Solid low-level waste and mixed low-level waste transferred to the Central Waste Complex shall meet the acceptance criteria for onsite storage and disposal specified in Hanford Site Solid Waste Acceptance Criteria, WHC-EP-0063.
- Operation and maintenance of the 340 Waste Handling Facility shall be in accordance with the 340 Waste Handling Facility Interim Safety Basis (ISB), WHC-SD-WM-ISB-003, and the Safety Analysis Report for Packaging (On-Site) Double-Shell Tank Car, WHC-SD-TP-SARP-015.

Life Cycle Function Descriptions:

B.3.1.3.7.3.1 340 WASTE HANDLING FACILITY PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.3.1.3.7.3.2 340 WASTE HANDLING FACILITY OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

340 WASTE HANDLING FACILITY OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.3.1.3.7.3.3 Store Radioactive/Mixed Liquid Waste in the 340 Facility

Collect and store radioactive/mixed liquid waste in the 340 Facility for transfer to DSTs. Operate and maintain the radioactive/mixed liquid waste system in the 300 Area.

WBS 1.2

B.3.1.3.7.3.4 340 WASTE HANDLING FACILITY POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

340 WASTE HANDLING FACILITY POST OPERATIONS SPECIFIC FUNCTIONS**B.3.1.3.7.3.5 Maintain Safe & Compliant 340 Waste Handling Facility in South 600 Areas**

Maintain the 340 facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.3.1.3.7.3.6 Transition 340 Waste Handling Facility

Initiate the transition phase of decontamination and decommissioning for the 340 Waste Handling Facility. Develop and obtain approval of the endpoint criteria needed for transfer to the Facility Stabilization project.

B.3.1.3.7.4 340 Waste Handling Facility Boundary Diagram***Table B.3-23 340 Waste Handling Facility Boundary Diagram***

External Interfaces -None- Hanford Site Environmental System Interfaces hsems.4.2.2 307 Retention Basins hsems.4.4.1 South 600 Area Electrical System hsems.4.4.5 South 600 Area Telecommunication System hsems.4.4.6 South 600 Area Office Facilities hsems.4.4.7 South 600 Area Shop Facilities hsems.4.4.11 South 600 Area Rail System hsems.4.6.2 325 Building hsems.4.6.3 326 Building hsems.4.6.5 329 Building hsems.4.6.9 Misc. Rad Labs		External Interfaces -None- Hanford Site Environmental System Interfaces hsems.2.3.2 Double Shell Tank (DST) System hsems.4.2.1 300 Area Treated Effluent Disposal Facility hsems.4.4.4 South 600 Area Liquid Sanitary Waste System

B.3.1.3.7.5 340 Waste Handling Facility Interface Description and Forecast

EXTERNAL INPUTS

-None-

INTERNAL INPUTS

Table B.3-24 Internal Inputs for 340 Waste Handling Facility

Stream	Category	Period	Total	FY98	Units
hsems.4.2.2 307 Retention Basins					
307 Basins Radioactive/Mixed Liquid Waste	LLMW (Liquid)	1998 - 1998	0.0		cubic meters
<i>Radioactive/mixed liquid waste transferred from the 307 Basins to the 340 Dangerous Waste Handling Facility.</i>					
hsems.4.4.1 South 600 Area Electrical System					
Electricity for 300A-340	Electricity	1998 - 2001		300.0	MW-hr
<i>Electricity for 300A-340</i>					
hsems.4.4.5 South 600 Area Telecommunication System					
Data (HLAN) Transmission for 300A-340	HLAN Computers	1998 - 2001		14.0	no. of PCs
<i>Data (HLAN) Transmission for 300A-340</i>					
Voice (Telephone) Communication for 300A-340	Voice Communications Service	1998 - 2001		15.0	no. of phones
<i>Voice (Telephone) Communication for 300A-340</i>					
hsems.4.4.6 South 600 Area Office Facilities					
Pager Service for 300A-340	Site Pagers	1998 - 2001		4.0	no. of pagers
<i>Pager Service for 300A-340</i>					
Office Space (Program Owned) for 300A-340	Office Space (Program Owned)	1998 - 2001		1580	sq. ft.
<i>Office Space (Program Owned) for 300A-340</i>					
hsems.4.4.7 South 600 Area Shop Facilities					
Custodial Services for 300A-340	Custodial Services	1998 - 2001		1580	sq. ft.
<i>Custodial Services for 300A-340</i>					
Maintenance Services Pipefitter for 300A-340	Maintenance Services (Pipefitter)	1998 - 2001		1.4	FTE
<i>Maintenance Services Pipefitter for 300A-340</i>					
Maintenance Services Electrician for 300A-340	Maintenance Services (Electrician)	1998 - 2001		0.4	FTE
<i>Maintenance Services Electrician for 300A-340</i>					
hsems.4.4.11 South 600 Area Rail System					
Rail Transportation for 300A-340	Rail Transportation Services	1998 - 2001		6.0	shipments
<i>Rail Transportation for 300A-340</i>					
hsems.4.6.2 325 Building					
325 Radioactive/Mixed Liquid Waste	LLMW (Liquid)	1998 - 1998	33.3	33.3	cubic meters
<i>Radioactive/mixed liquid waste to the 340 Waste Handling Facility. Waste volume estimates assume equal waste volumes transferred from the 324, 325, 326, 327, and 329 buildings.</i>					
hsems.4.6.3 326 Building					
326 Radioactive/Mixed Liquid Waste	LLMW (Liquid)	1998 - 1998	33.3	33.3	cubic meters
<i>Radioactive/mixed liquid waste to the 340 Waste Handling Facility. Waste volume estimates assume equal waste volumes transferred from the 324, 325, 326, 327, and 329 buildings.</i>					
hsems.4.6.5 329 Building					
329 Radioactive/Mixed Liquid Waste	LLMW (Liquid)	1998 - 1998	33.3	33.3	cubic meters
<i>Radioactive/mixed liquid waste to the 340 Waste Handling Facility. Waste volume estimates assume equal waste volumes transferred from the 324, 325, 326, 327, and 329 buildings.</i>					
hsems.4.6.9 Misc. Rad Labs					
Radioactive Standards (Calibrations) for 300A-340	Radioactive Standards Lab Services	1998 - 2001		10.0	calibrations
<i>Radioactive Standards (Calibrations) for 300A-340</i>					

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS

Table B.3-25 Internal Outputs for 340 Waste Handling Facility

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Total</u>	<u>FY98</u>	<u>Units</u>
hsems.2.3.2 Double Shell Tank (DST) System					
340 Bldg. LLMW (Liquid)	LLMW (Liquid)	1998 - 2001	400.0	100.0	cubic meters
<i>Radioactive/mixed liquid waste transferred by 340 Waste Handling Facility to DSTs.</i>					
hsems.4.2.1 300 Area Treated Effluent Disposal Facility					
340 Facility Industrial Waste Water Transfers	Industrial Waste Water	1998 - 1998	25000	25000	cubic meters
<i>Industrial waste water generated from ongoing 340 Waste Handling Facility operations. The volume of waste water assumes equal contribution from all inputs to the 300 Area Process Sewer.</i>					
hsems.4.4.4 South 600 Area Liquid Sanitary Waste System					
340 Waste Handling Facility Sanitary Liquid Waste	Sanitary Liquid Waste	1998 - 2001	0.24	0.06	Mgal
<i>Sanitary liquid waste generated during day to day operations of the 340 Waste handling Facility.</i>					

B.3.1.3.8 Miscellaneous Streams System Facility

B.3.1.3.8.1 Miscellaneous Streams System Facility Description

Miscellaneous Streams include liquid effluents generated from hydrotest, maintenance, and construction activities; cooling water and condensate discharges; and storm water run-off. These discharges are considered non-hazardous and non-radioactive. Miscellaneous Streams may or may not discharge to an engineered disposal structure. Waste streams not included are those that already have discharge permits in place, streams for which permit applications have been submitted, or streams which are covered under a NPDES permit. The Washington State Department of Ecology Consent Order No. DE-91NM-177 identifies several requirements and milestones Miscellaneous Streams. A plan for managing the Miscellaneous Streams and ensuring they will be in compliance with applicable state regulations (i.e., WAC 173-216 and WAC 173-218) is described in Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams, DOE/RL-93-94. The current inventory of Miscellaneous Streams is reported in the Inventory of Miscellaneous Streams, DOE/RL-95-82.

B.3.1.3.8.2 Miscellaneous Streams System Facility Technical Logic:

The technical logic for the Miscellaneous Waste Water Collection System is captured in the functional flow block diagram which shows the functions performed for each applicable life cycle phase of the system and the sequence in which the functions are executed.

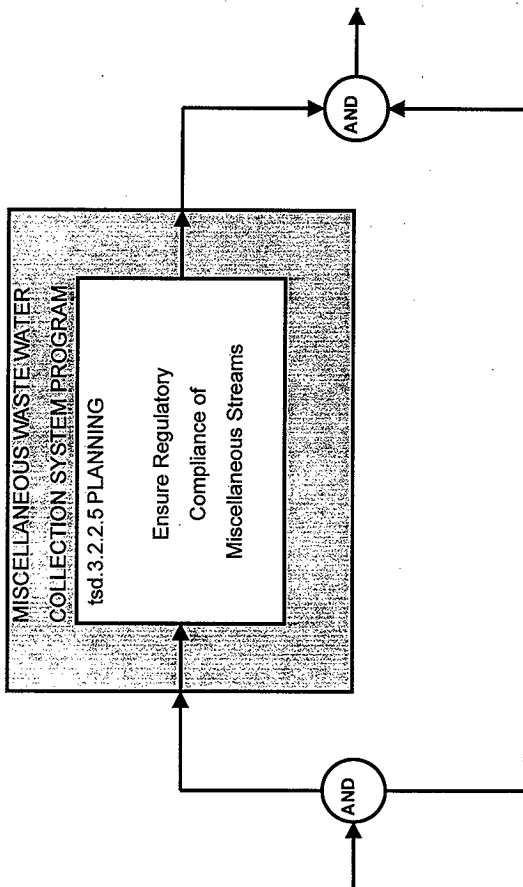


Figure B-19 Miscellaneous Waste Water Collection System

B.3.1.3.8.3 Miscellaneous Streams System Requirements and Life Cycle Function Descriptions

Requirements:

- Hydrotest, maintenance, and construction discharges are subject to the requirements contained in the State Waste Discharge Permit No. ST 4508.
- Categorical WAC 173-216 permit applications shall be used to permit groups of similar Miscellaneous Streams.
- The plan for managing Miscellaneous Streams and ensuring they will be in compliance with applicable state regulations is described in the Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams, DOE/RL-93-94. Commitments established in the plan and schedule include registration of injection wells, submittal of applications for categorical discharge permits, annual update of the Miscellaneous Streams inventory until FY1999, and implementation of best management practices.
- The inventory of Miscellaneous Streams shall be updated annually until all required categorical permit applications have been submitted.
- A study to identify options for the selection and implementation of Best Management Practices, and an implementation schedule, shall be prepared for Ecology approval.
- All existing injection wells shall be registered under WAC 173-218. New injection wells shall be registered before being placed in service.

Life Cycle Function Descriptions:

B.3.1.3.8.3.1 MISCELLANEOUS WASTE WATER COLLECTION SYSTEM PROGRAM PLANNING WORK SCOPE SUMMARY

No Description

MISCELLANEOUS WASTE WATER COLLECTION SYSTEM PROGRAM PLANNING SPECIFIC FUNCTIONS

B.3.1.3.8.3.2 Ensure Regulatory Compliance of Miscellaneous Streams

Compile and maintain inventory data, prepare and submit permit applications, and evaluate Best Management Practices for Miscellaneous Streams.

B.3.1.3.8.4 Miscellaneous Streams System Boundary Diagram

Table B.3-26 Miscellaneous Streams System Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces -None-		External Interfaces -None- Hanford Site Environmental System Interfaces -None-

B.3.1.3.8.5 Miscellaneous Streams System Interface Description and Forecast

EXTERNAL INPUTS

-None-

INTERNAL INPUTS

-None-

EXTERNAL OUTPUTS

-None-

INTERNAL OUTPUTS

-None-

B.3.1.4 Drivers for Liquid Effluents Project**Table B.3-27 Source Documents for Liquid Effluents Project**

<u>Name</u>	<u>Title</u>
40 CFR 261-268	RCRA/Hazardous Wastes/Land Disposal Restrictions
40 CFR 61	National Emissions Standards for Hazardous Air Pollutants
Consent Order DE-91NM-177	State of Washington Waste Discharge Permit Program Consent Order
DE-AC06-96RL13200	Project Hanford Management Contract, Fluor Daniel Hanford, Inc.
DOE/EIS-0222D	Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land Use Plan
DOE/RL-93-94	Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams
DOE/RL-96-14	Updated Draft Mission Direction Document, June 1996
DOE/RL-96-92	Hanford Strategic Plan
HNF-SD-W049H-ICD-001	200 Area Treated Effluent Disposal Facility Interface Control Document
NA	Washington Department of Natural Resources Land Lease
ST 4500	State Waste Discharge Permit for the 200 Area ETF
ST 4502	State Waste Discharge Permit for the 200 Area TEDF
ST 4508	State Waste Discharge Permit for Hydrotest, Maintenance, and Construction Discharges
WA-002591-7	National Pollutant Discharge Elimination System Permit for the 300 Area TEDF
WA780008967	Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit
WAC 173-200	Water Quality Standards for Ground Waters of the State of Washington
WAC 173-201A	Water Quality Standards for Surface Waters of the State of Washington
WAC 173-216	State Waste Discharge Permit Program
WAC 173-218	Underground Injection Control Program
WAC 173-303	Dangerous Waste Regulations
WAC 173-480	Ambient Air Quality Standards and Emission Limits for Radionuclides
WAC 246-247	Radiation Protection - Air Emissions
WHC-CM-1-3	Management Requirements and Procedures
WHC-CM-4-40	Industrial Hygiene Manual
WHC-CM-7-5	Environmental Compliance
WHC-EP-0063-4	Hanford Site Solid Waste Acceptance Criteria
WHC-SD-WM-ISB-003	340 Waste Handling Facility Interim Safety Basis (ISB)
WHC-SD-WM-SAD-025	Hanford 300 Area Treated Effluent Disposal Facility Inventory at Risk Calculations and Safety Analysis
WHC-SD-WM-SAD-027	Hanford 300 Area Retention Process Sewer Inventory at Risk Calculations and Safety Analysis
WHC-SD-WM-SAR-023	242-A Evaporator/Crystallizer Safety Analysis Report
WHC-SD-WM-SAR-023 Rev 1B	

B.3.1.5 Liquid Effluents Project Risk Management

Units of Analysis and associated RDSs:

- Liquid Effluent Minimum Safe Program Management (R96N0135)
- 200 Area Liquid Effluent Facility Minimum Safe (R95W0001, R96N0041, R96N0098, R96N0099, R96N0100)
- 200 Area Liquid Effluent Facility Operations (R96N0037, R96N0040, R96N0150, R96N0174)

- 300 Area Liquid Effluent Facility Minimum Safe (R96N0032, R96N0038, R96N0097)
- 340 Waste Handling Facility Shutdown (R96N0259, R96N0260)
- Miscellaneous Streams (R96N0036)

Identification of relevant PBS interfaces -- e.g., if the project ends and is transferred to another PBS:

Liquid effluents are received for treatment and disposal from the Tank Waste Remediation System Project, Spent Nuclear Fuels Project, Waste Management Project, Facility Stabilization Project, Infrastructure Project, Environmental Restoration Project (BHI), and the Technology Management Project (PNNL). Dilute liquid tank waste is received from the Tank Waste Remediation System Project for evaporation. Solid waste is transferred to the Solid Waste Program in the Waste Management Project.

After shutdown, contaminated Liquid Effluents Facilities (242-A Evaporator, LERF, ETF, 340 Facility) will be transferred to Facility Stabilization for deactivation. The 200 Area TEF will be turned over to Infrastructure Project (Landlord) for re-use or demolition. The 300 Area TEF will likely be turned over to a private entity for commercial operation.

Brief description of Project, hazards and activities:

Liquid effluents are generated by site cleanup activities (e.g., tank waste remediation). The LWP treats and disposes of these liquid effluents in accordance with applicable requirements. Tank waste volume reduction is also performed. The liquid effluents and tank wastes contain radioactive materials and hazardous chemicals. The equipment and operations in the facilities are potential industrial hazards.

The Liquid Effluent Facilities and 242-A Evaporator each have their own risk levels because of differences in waste and materials, condition of the facilities, and the support provided to other projects. The maximum risk is reported here, and generally the risk for the 200 Area Liquid Effluent Facilities (LERF, ETF, 200 Area TEF) and 242-A Evaporator is greater than the risk for the 300 Area Liquid Effluent Facilities (300 Area TEF, 340 Facility). However, risk for each of the facilities was considered in this evaluation.

Risk reduction metric(s) and demarcation of risk levels

How will this project reduce Hanford risks? What key project events are planned that will change risk?

The LWP is a service organization and has no specific interim or final endpoint targets in the Hanford Mission Direction Document or Hanford Strategic Plan. However, this project supports site cleanup activities necessary to ensure public health and worker safety, and protect the environment. The Liquid Effluent Facilities and 242-A Evaporator must be available to treat and dispose of liquid effluents, and reduce the volume of tank wastes, as needed. The endpoint targets assigned to other programs which are supported by the LWP are identified in the MYWP, Section 1.2.1 and are also listed in Section A.1.2 of this document.

What risk performance measures have been selected to track changes in risk? Are these direct metrics such as dose or indirect metrics such as volume of stabilized material?

Only indirect metrics are possible. Liquid effluents received for treatment must meet established waste acceptance criteria. The volume of liquid effluents is dependent on the progress of site cleanup by others. Limits of operation have been established for the Liquid Effluent Facilities by analyzing the hazards associated with each facility. Public health and worker safety, and protection of the environment, are contingent on operating within these limits.

Public Health metric(s):

Discharges from the Liquid Effluent Facilities and 242-A Evaporator shall not exceed permit limits or otherwise result

in a Notice of Violation. The permit limits take into consideration protection of public health.

Worker Health & Safety metric(s):

Operation of the Liquid Effluent Facilities and 242-A Evaporator shall be in accordance with Occupational Safety and Health Standards, 29 CFR 1910. Radiation exposure to workers shall comply with limits set forth in Hanford Site Radiological Control Manual, HSRCM-1.

Environmental Health metric(s):

Discharges from the Liquid Effluent Facilities and 242-A Evaporator shall not exceed permit limits or otherwise result in a Notice of Violation. The permit limits take into consideration protection of the environment.

Risk Drivers (primary accident and/or exposure scenarios, with frequency or probability and rough estimate of magnitude):

Operation of the Liquid Effluent Facilities and 242-A Evaporator, and their support to site cleanup, is the primary risk driver. No quantitative estimates have been made of the risk associated with this scenario. Hazards for the Liquid Effluent Facilities and 242-A Evaporator have been formally assessed; references are provided in Section A.1.7. The hazard categories of these facilities are shown below.

Facility	Hazard Category
242-A Evaporator	Category 3 Nuclear
LERF	Radiological
ETF	Radiological
200 Area TEDF	General Use
300 Area TEDF	General Use
340 Facility	Category 3 Nuclear

Where are we now? BASELINE risks existing at the beginning of 1997 - "stopped project" risks against which progress will be measured (scenarios, contaminants/materials, concentrations, risk levels).

Existing conditions, inventories:

The Hanford "Legacy" includes radioactive and hazardous tank wastes, spent nuclear fuel, contaminated soil and groundwater, and facilities with high mortgages for continued surveillance and maintenance. The LWP is essential to the cleanup and remediation of the Hanford Site.

Baseline public health risks:

Public health risk is medium. Not operating the 242-A Evaporator and ETF would reduce the ability to manage tank wastes. Tank wastes would be required to be stored longer. New waste additions would increase the volume of waste stored in the tanks. Salt-well pumping to remove liquids from SSTs would be restricted. The potential for tank leaks which could contaminate the groundwater and impact public safety and health would increase.

Baseline worker health & safety risks:

Worker safety risk is medium. Not operating the 242-A Evaporator and ETF would make management of tank wastes more complex. The frequency of spills and releases requiring cleanup would increase. Accidents affecting the safety of workers would be more likely to occur. Existing radioactive contamination would be uncontrolled. Inadvertent radiation exposure would occur to workers.

Baseline environmental health risks:

Environmental risk is high. Not operating the 242-A Evaporator and ETF would reduce the ability to manage tank wastes. The frequency of spills and releases, and the potential for tank leaks, would increase. Contamination would spread and adversely affect the environment.

Where are we going? Conditions at project completion or transfer and risk-related conditions in the outyears that relate to long-term ENDSTATE commitments. List interim and final risk goals, all residual hazards and contamination, condition of all remaining materials, long-term custodial requirements, institutional controls, relation to Hanford Strategic Plan. Note: materials and contaminants must be described even if the project is in a "clean and stable" condition or if the site has been remediated to allow certain interim or endstate uses.

Endstate conditions, inventories:

This activity will be complete when the endpoint targets and cleanup goals identified for other projects in the Hanford Mission Direction Document and Hanford Strategic Plan are achieved.

Endstate public health risks:

Negligible risk to public health will exist. The Liquid Effluent Facilities and 242-A Evaporator are operated in a safe and environmentally-compliant manner. Radioactive and hazardous materials will be removed and the facilities placed in a safe shutdown condition. Facilities will then undergo deactivation and D&D as necessary.

Endstate worker health & safety risks:

Negligible risk to worker health and safety will exist. The Liquid Effluent Facilities and 242-A Evaporator are operated in a safe and environmentally-compliant manner. Radioactive and hazardous materials will be removed and the facilities placed in a safe shutdown condition. Facilities will then undergo deactivation and D&D as necessary.

Endstate environmental health risks:

Negligible risk to the environment will exist. The Liquid Effluent Facilities and 242-A Evaporator are operated in a safe and environmentally-compliant manner. Radioactive and hazardous materials will be removed and the facilities placed in a safe shutdown condition. Facilities will then undergo deactivation and D&D as necessary.

How are we getting there? Risks that REMAIN at the end of each budget year as currently planned (Purpose: to show how much progress in risk reduction will have been made, and how much risk would still remain if the project were stopped at the end of that year and never restarted. Refer to Table C.1.A)

General rationale:

Risk of stopping this project will be reduced as site cleanup activities which depend on the Liquid Effluent Facilities and 242-A Evaporator are completed. Hazardous materials will be immobilized and unsafe conditions remediated.

Public health and critical project events & years:

Public health risk is reduced to low with completion of SST waste retrieval in FY 2018. All tank waste will then be contained in DSTs and the possibility of tank leaks contaminating the groundwater will no longer exist. Public health risk is eliminated with completion of Low Activity Waste (LAW) immobilization in FY 2022, and completion of High Level Waste (HLW) immobilization in FY 2029. All tank waste will then be remediated.

Worker health & safety and critical project events & years (e.g., risks to other Hanford workers if this project were stopped):

Worker safety risk is reduced to low with completion of SST waste retrieval in FY 2018, completion of LAW immobilization in FY 2022, and completion of HLW immobilization in FY 2029. Tank waste management will be less complex and the likelihood of accidents reduced. Risk of inadvertent radiation exposure and industrial accidents will continue until shutdown of the Liquid Effluent Facilities.

Environmental health and critical project events & years:

Environmental risk is reduced to low with completion of SST waste retrieval in FY 2018. All tank waste will then be

contained in DSTs and the possibility of tank leaks contaminating the groundwater will no longer exist. Environmental risk due to spills and releases will continue until completion of LAW immobilization in FY 2022, and completion of HLW immobilization in FY 2029.

ANNUAL risks for key project years (Identify years in which key planned project activities would be implemented that affect risks, such as increased worker risks during particular activities, or reduced risk as stabilization phases are completed. Annual worker risk during project implementation will be used to fill in the spreadsheet.)

The 340 Facility will shut down at the end of FY 1998. Worker safety risk will increase from low to medium during cleanout in FY 1999-2001; public health risk and environmental risk for the 340 Facility will remain low. (Worker risk due to other project activities in these years is also medium.) Plant systems not required for long-term surveillance and monitoring will be shut down. Radioactive and hazardous materials will be removed to the extent possible. Cleanout will require work in contaminated areas and nonroutine operations. Similarly, worker risk which is medium for operation of the 242-A Evaporator, will remain medium after shutdown in FY 2011 and during cleanout in FY 2012-2014. Worker risk which is low for operation of the LERF and ETF, will remain low after shutdown in FY 2030 and during cleanout in FY 2031 and 2032, due to the reduced inventory of radioactive and hazardous materials in these facilities.

Risk Interfaces, Related Projects, Issues

Interfaces and transitions:

After shutdown and cleanout the 242-A Evaporator, LERF, ETF, and 340 Facility will be turned over to the Facility Stabilization Project for deactivation. The 200 Area TEDF will be turned over to the Infrastructure Project (Landlord) for possible reuse or demolition. The 300 Area TEDF will likely be turned over to a private entity for commercial operation.

Related & interdependent projects:

The Facility Stabilization Project must provide funding for deactivation of the 242-A Evaporator, LERF, ETF, and 340 Facility.

Waste streams, disposal plans, long-term risks:

Waste volume projections have been entered in the Hanford Site Technical baseline managed by Site Systems Integration. Treated effluents are discharged in accordance with applicable permits. Solid waste is transferred to the Solid Waste Program in the Waste Management Project for safe disposal. No long-term risks exist after completing the project.

Major risk issues and risk assumptions related to project implementation and interim and final endstates:
None.

References:

References are provided in Section A.1.7.

FY1998

September 26, 1997

B.3.2.0 Work Breakdown Structure

RL PBS	RL WBS Level	Title
RL-WM05	1.2.3.1.1B	200 Area TEDF/ETF/LERF Min. Safe
	1.2.3.1.1C	200 Area ETF Operations
	1.2.3.1.1D	200 Area 242-A Evaporator Min. Safe
	1.2.3.1.1E	200 Area 242-A Evaporator Operations
	1.2.3.1.2B	200 Area Capital Equipment
	1.2.3.1.1F	300 Area TEDF Min Safe
	1.2.3.1.2F	300 Area Capital Equipment
	1.2.3.1.1G	340 Facility Min Safe
	1.2.3.1.1H	340 Facility Shutdown
	1.2.3.1.1J	Miscellaneous Streams

B.3.2.1 WBS Dictionary

The following pages contain the WBS dictionary for RL-WM05 as contained in the Central Milestone Module (CMM).

HNF-SP-1229, Rev. 1

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY WASTE MANAGEMENT WBS: 1.2

9/15/1997

1. Activity Title: LIQUID EFFLUENT PROJECT	2. Date	3. PBS Number RL-WM05	4. Dict Rev
5. Contract WBS No. 1.2.3.1	6. Corresponding FDS No.	7. Baseline CR No.	
8. Organization Name			9. B & R No.
10. Scope of Work			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: 200A TEDF/ETF/LERF SMECO		2. Date	3. PBS Number RL-WM05	4. Dict Rev
5. Contract WBS No. 1.2.3.1.1B	6. Corresponding FDS No. 1A4B	7. Baseline CR No.		
8. Organization Name 32200 - 200 Area Liquid Waste Processing Facilities				9. B & R No.
10. Scope of Work This activity provides for safe, cost effective and environmentally compliant operation, maintenance, and engineering support for the 200 Area Treated Effluent Disposal Facility (TEDF) and Liquid Effluent Retention Facility (LERF), and minimum operations and maintenance activities to maintain the 200 Area Effluent Treatment Facility (ETF) in a stand-by mode. The 200 Area TEDF is a collection and disposal system for non-RCRA permitted waste streams which already meet discharge requirements. The types of waste streams which discharge to the 200 Area TEDF include cooling water, steam condensate, floor drains, HVAC condensate, and rainwater. Facilities which discharge to the 200 Area TEDF include the Plutonium Finishing Plant, 222-S Laboratory, T Plant, 284-W Power Plant, PUREX Plant, B Plant, 242-A-81 Water Services Building, 242-A Evaporator cooling water and steam condensate, 241-A tank farm cooling water, B Plant/WESF cooling water, and 284-E Power Plant. Each facility must comply with discharge limits in the WAC 173-216 State Waste Discharge Permit without further treatment. The LERF provides temporary storage for liquid effluents awaiting treatment in the ETF. It also provides flow and pH equalization of the feed to the ETF. Projects which send liquid effluents to the LERF, or will in the future, include TWRS (process condensate from the 242-A Evaporator, waste water from Phase I and II privatization); Spent Nuclear Fuels (basin level control water, K Basins water); Waste Management (mixed waste trench leachate, T Plant, waste water from 222-S and WSCF laboratories); Facility Stabilization (B Plant waste water); and Environmental Restoration (N Basin water, ERDF leachate, 200-UP-1 groundwater). The ETF must be maintained in a safe, environmentally compliant standby mode to allow restart and operation as needed. The ETF is a RCRA-permitted facility that uses best available technology to treat the process condensate from the 242-A Evaporator and other waste water. Activities include surveillances, operations readiness, maintenance, monitoring, reporting and other support activities as required. This activity also includes preparation of a biennial tritium treatment technology report as required by the Tri-Party Agreement.				

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: ETF OPERATING CAMPAIGNS	2. Date	3. PBS Number RL-WM05	4. Dict Rev
5. Contract WBS No. 1.2.3.1.1C	6. Corresponding FDS No. 1A4C	7. Baseline CR No.	
8. Organization Name 32200 - 200 Area Liquid Waste Processing Facilities			9. B & R No.
10. Scope of Work This activity provides for safe, cost effective and environmentally compliant operation, maintenance, and engineering support for the 200 Area Effluent Treatment Facility (ETF). The ETF is a RCRA-permitted facility that uses best available technology to treat radioactive and hazardous waste water. The ETF provides for collection of liquid effluents, treatment to acceptable levels, verification of compliance with discharge limits, and discharge to a state-approved land disposal site. Projects which generate liquid effluents which are, or will be, treated in the ETF include TWRS (process condensate from the 242-A Evaporator, waste water from Phase I and II privatization); Spent Nuclear Fuels (basin level control water, K Basins water), Waste Management (mixed waste trench leachate, T Plant, waste water from 222-S and WSCF laboratories); Facility Stabilization (B Plant waste water); and Environmental Restoration (N Basin water, ERDF leachate, 200-UP-1 groundwater).			

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HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY WASTE MANAGEMENT WBS: 1.2

9/15/1997

1. Activity Title: 242A EVAPORATOR SMECO	2. Date	3. PBS Number RL-WM05	4. Dict Rev
5. Contract WBS No. 1.2.3.1.1D	6. Corresponding FDS No. 1A4D	7. Baseline CR No.	
8. Organization Name 32200 - 200 Area Liquid Waste Processing Facilities			9. B & R No.
10. Scope of Work This activity provides for minimum safe, cost effective and environmentally compliant operations and maintenance activities to maintain the 242-A Evaporator in a stand-by mode. The 242-A Evaporator must be maintained in a safe, environmentally compliant standby mode to allow restart and operation as needed. The 242-A Evaporator provides waste volume reduction support to tank waste remediation. It reduces the volume of tank wastes to eliminate the need to construct additional storage tanks. Activities include surveillances, operations readiness, maintenance, monitoring, reporting and other support activities as required.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: 242A EVAPORATOR CAMPAIGNS	2. Date	3. PBS Number RL-WM05	4. Dict Rev
5. Contract WBS No. 1.2.3.1.1E	6. Corresponding FDS No. 1A4E	7. Baseline CR No.	
8. Organization Name 32200 - 200 Area Liquid Waste Processing Facilities			9. B & R No.
10. Scope of Work This activity provides for safe, cost effective and environmentally compliant operation, maintenance, and engineering support for the 242-A Evaporator. Available storage space in the double-shell tanks (DSTs) to support remediation of the tank waste and cleanup of the Hanford Site is limited. Dilute liquid tank wastes are concentrated in the 242-A Evaporator to reduce their volume. This makes space available in the DSTs and eliminates the need to construct additional DSTs. The concentrated waste is returned to the DSTs. The process condensate from the 242-A Evaporator is temporarily stored in the Liquid Effluent Retention Facility (LERF) while awaiting treatment in the ETF. Activities include operations, sampling, sample analysis, process control plan preparation, startup maintenance and other support aactivities as required.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: 310 FACILITY SMECO	2. Date	3. PBS Number RL-WM05	4. Dict Rev
5. Contract WBS No. 1.2.3.1.1F	6. Corresponding FDS No. 1A4F	7. Baseline CR No.	
8. Organization Name 32300 - 300 Area Liquid Waste Processing Facilities			9. B & R No.
10. Scope of Work This activity provides for safe, cost-effective and environmentally sound operation, maintenance and engineering support for the 300 Area Treated Effluent Disposal Facility (TEDF). The 300 Area TEDF receives a continuous feed of wastewater from over three dozen 300 Area facilities through the Process Sewer system, and operation of the TEDF is essential to continuing 300 Area activities. The 300 Area TEDF provides for treatment of liquid industrial wastes, much of which is generated by the 300 Area laboratories, which are critical to the site cleanup mission as support for waste characterization and technology development for tank waste remediation efforts. The constituents requiring treatment are heavy metals and organics. After treatment, the effluent is monitored and discharged through an outfall to the Columbia River under a National Pollutant Discharge Elimination System (NPDES) permit. Solid waste generated from the process is disposed as fill material by the Solid Waste Program.			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/15/1997

1. Activity Title: 340 FACILITY SMECO	2. Date	3. PBS Number RL-WM05	4. Dict Rev
5. Contract WBS No. 1.2.3.1.1G	6. Corresponding FDS No. 1A4G	7. Baseline CR No.	
8. Organization Name 32300 - 300 Area Liquid Waste Processing Facilities			9. B & R No.
10. Scope of Work This activity provides for safe, cost-effective and environmentally sound operation, maintenance and engineering support for the the 340 Waste Handling Facility / 307 Retention Basins. The 340 Waste Handling Facility (including the 307 Basins) collects radioactively contaminated liquid wastes through the Radioactive Liquid Waste System (RLWS) sewer and potentially radioactively contaminated waste through the Retention Process Sewer (RPS) which serve the laboratories and other facilities in the 300 Area (primarily 324, 325, 326, 327, and 329 Buildings/Laboratories). These facilities perform tank waste and spent fuels related characterization and technology development in support of the site cleanup mission. The collected waste is periodically transferred via rail tank car to the 200 Area for storage in double shell tanks. Because there is no RCRA permit in place, wastes cannot be stored at the 340 Facility for greater than 90 days.			

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HANFORD SITE WORK BREAKDOWN STRUCTURE DICTONARY WASTE MANAGEMENT WBS: 1.2

9/15/1997

1. Activity Title: 200 AREA LIQUID EFFLUENT FACILITY CENRTC		2. Date	3. PBS Number RL-WM05	4. Dict Rev
5. Contract WBS No. 1.2.3.1.2B	6. Corresponding FDS No. 2A4B		7. Baseline CR No.	
8. Organization Name 32200 - 200 Area Liquid Waste Processing Facilities				9. B & R No.
10. Scope of Work Procurement of capital equipment/instrumentation for the 200 Area Liquid Waste Processing Facilities to support safe and compliant operations and maintenance activities.				

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HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY WASTE MANAGEMENT WBS: 1.2

9/15/1997

1. Activity Title: 300 AREA LIQUID EFFLUENT FACILITY CENRTC		2. Date	3. PBS Number RL-WM05	4. Dict Rev
5. Contract WBS No. 1.2.3.1.2F	6. Corresponding FDS No. 2A4F	7. Baseline CR No.		
8. Organization Name 32300 - 300 Area Liquid Waste Processing Facilities				9. B & R No.
10. Scope of Work Procurement of capital equipment/instrumentation for the 300 Area Liquid Waste Processing Facilities to support safe and compliant operations a maintenance activities.				

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Waste Management Project

WBS 1.2

FY1998

September 26, 1997

B.3.2.2 Responsibility Assignment Matrix

The following page contains the Responsibility Assignment Matrix (RAM) as contained in the Central Milestone Module (CMM).

Mission Area Responsibility Assignment Matrix

HNF-SP-1229, Rev. 1

9/15/1997

Proj Lvl (PBS #)	FDS Act Number	Activity Title	Activity Manager	Responsible Organization	Cost Account
RL-W005		LIQUID EFFLUENT PROJECT			
	1A4B	200A TEDF/ETF/LERF SMECO	D. W. LINDSEY	32200 - 200 Area Liquid Waste Processin	
	1A4C	ETF OPERATING CAMPAIGNS	D. W. LINDSEY	32200 - 200 Area Liquid Waste Processin	
	1A4D	242A EVAPORATOR SMECO	D. W. LINDSEY	32200 - 200 Area Liquid Waste Processin	
	1A4E	242A EVAPORATOR CAMPAIGNS	D. W. LINDSEY	32200 - 200 Area Liquid Waste Processin	
	1A4F	310 FACILITY SMECO	R. BARNETTFLOR	32300 - 300 Area Liquid Waste Processin	
	1A4G	340 FACILITY SMECO	R. BARNETTFLOR	32300 - 300 Area Liquid Waste Processin	
	2A4B	200 AREA LIQUID EFFLUENT FACILITY CEWRTC	D. W. LINDSEY	32200 - 200 Area Liquid Waste Processin	
	2A4F	300 AREA LIQUID EFFLUENT FACILITY CEWRTC	R. BARNETTFLOR	32300 - 300 Area Liquid Waste Processin	

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Waste Management Project

WBS 1.2

FY1998

September 26, 1997

B.3.3.0 Schedule Baseline

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary (PBS) guidance.

Activity ID	Activity Description	Early Start	Early Finish
RL-WM05 Liquid Waste			
Project Administration			
LWA01	Liquid Waste Program - Program Management	01OCT197*	30SEP02
LWA02	LWP - Program Management Outyears	01OCT02	30SEP32
LWA03	200 Area Operations	01OCT197*	30SEP32
LWA17	Prep Semi-Annual Tritium Eval. Tech	01OCT198*	31AUG89
LWA18	M-26-05F Comp Semi-Annual Tritium Eval. Tech		31AUG89
LWA19	Prep Semi-Annual Tritium Eval. Tech	02OCT00*	17SEP01
LWA20	M-26-05H Comp Semi-Annual Tritium Eval. Tech		17SEP01
LWA35	300 Area Operations	01OCT197*	30SEP25
LWA44	Miscellaneous Streams	01OCT197*	30SEP89
SEMS 2.2.7.5 242-A Evaporator Ops & Maint			
LWA30	242 A EVAPORATOR OPERATIONS	01OCT197*	30SEP02
LWA32	242 A EVAPORATOR OPERATIONS - OUT YEARS	01OCT02*	30SEP13
LWA32A	To FS - 242-A		30SEP13
LWA33	242 A EVAPORATOR CAMPAIGNS	01OCT197*	30SEP02
LWA34	242 A EVAPORATOR CAMPAIGNS - OUT YEARS	01OCT02*	30SEP13
LWA34A	To AS - Provide 222-S to 242-A Evaporator		30SEP13

Liquid Waste Program - Program Management

LWP - Program Management Outyears

200 Area Operations

Prep Semi-Annual Tritium Eval. Tech

M-26-05F Comp Semi-Annual Tritium Eval. Tech

LEP-39-001

Prep Semi-Annual Tritium Eval. Tech

M-26-05H Comp Semi-Annual Tritium Eval. Tech

LEP-01-001

300 Area Operations

Miscellaneous Streams

242 A EVAPORATOR OPERATIONS

242 A EVAPORATOR OPERATIONS - OUT YEARS

SSS - W81¹⁰⁰

To FS - 242-A

242 A EVAPORATOR CAMPAIGNS

242 A EVAPORATOR CAMPAIGNS - OUT YEARS

To AS - Provide 222-S to 242-A Evaporator

Sheet 175

WASTE MANAGEMENT HANFORD

PBS WM05 - LIQUID EFFLUENT

PROJECT MASTER BASELINE SCHEDULE

Project Start
Project Finish
Date Due
Not Due

06/02/00
30SEP13
06/02/00
06/02/00

Task Bar
Project Bar
Out Activity

© Primavera Systems, Inc.

Activity ID		Activity Description	Early Start	Early Finish	FY01 FY04 FY07 FY10 FY13 FY16 FY19 FY22 FY25 FY28 FY31 FY34 FY37 FY40 FY43 FY46 FY49 FY52											
HSEMS 2.2.21.5 200 Area ETF Ops & Maint																
LWA12	200 A Effluent Treatment Facilities (ETF)		01OCT97*	30SEP92	200 A Effluent Treatment Facilities (ETF) From TW - PHI HOT STARTUP To AS - Provide 222-S Suppl to 200 Area ETF To AS - Provide WSCF Suppl to 200 Area ETF To FS - 200 Area ETF To SW - Operate RMW/CWC Storage SSS - W7 200 A ETF PROCESSING 200 A ETF PROCESSING OUT YEARS From TW - HLW VITRIFICATION From ER - ERDF LEACHATE From ER - N Basin Water From SW - Operate RMW Trenches - Disposal From TW - D&D LLW FACILITY To FS - 200 Area LERF SEMCO SSS - W7											
LWA12B	From TW - PHI HOT STARTUP			30SEP92												
LWA12E	To AS - Provide 222-S Suppl to 200 Area ETF			30SEP92												
LWA12F	To AS - Provide WSCF Suppl to 200 Area ETF			30SEP92												
LWA12G	To FS - 200 Area ETF			30SEP92												
LWA12H	To SW - Operate RMW/CWC Storage			30SEP92												
LWA24	200 A ETF PROCESSING		01OCT97*	30SEP92												
LWA25	200 A ETF PROCESSING OUT YEARS		01OCT92	30SEP92												
LWA25A	From TW - HLW VITRIFICATION			30SEP92												
LWA25B	From ER - ERDF LEACHATE			30SEP92												
LWA25C	From ER - N Basin Water			30SEP92												
LWA25D	From SW - Operate RMW Trenches - Disposal			30SEP92												
LWA25E	From TW - D&D LLW FACILITY			30SEP92												
HSEMS 2.3.9.5 200 Area LERF Ops & Maint																
LWA21	200 A LERF SMECO		01OCT97*	30SEP92	200 A LERF SMECO											
LWA23	200 A LERF SMECO Outyear activities		01OCT92	30SEP92	200 A LERF SMECO outyear activities											
LWA23A	To FS - 200 Area LERF SEMCO			30SEP92												
HSEMS 2.3.9.5 200 Area LERF Ops & Maint																
200 A LERF SMECO																
200 A LERF SMECO Outyear activities																
To FS - 200 Area LERF SEMCO																

Project Start Date: 01OCT97		Early Start Date: 01OCT97		Early Finish Date: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 19SEP92		Activity Code: 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WASTE MANAGEMENT HANFORD
PBS WM05 - LIQUID EFFLUENT
PROJECT MASTER BASELINE SCHEDULE

Sheet 2.0.5

Sheet 2.0.5

B 3 3 4



Sheet 425

WASTE MANAGEMENT HANFORD
PBS WM05 - LIQUID EFFLUENT
PROJECT MASTER BASELINE SCHEDULE

Activity ID	Activity Description	Early Start	Early Finish
HSEMS 4.3.2.5.307 Lqd WstX-ier Fac Basin O & M			
LWA40	307 Basin Operations	01OCT97*	30SEP98
LWA41	307 Basin Modified Operations	01OCT98	30SEP25
HSEMS 4.4.1.5.300 Area TEDF Ops & Maint			
LWA36	310 Facility Operations (TEDF)	01OCT97*	30SEP02
LWA37	310 Facility Operations (TEDF)	01OCT02	30SEP25
LWA37C	To AS - Provide Comm Suppt to 300 Area TEDF		30SEP25
LWA37D	To ER - 300 Area TEDF		30SEP25
OTHER			
LWA05	Perform review 200A TEDF Spill Contingency	17APR98*	
LWA06	Perform 200A TEDF Solid Waste Control Plan	17APR98*	
LWA07	Update 200A TEDF Ops/Maint Plans/Summary Matrix	17APR98*	
LWA08	Submit 200A TEDF Discharge Monit. Rpt. to RL	14AUG98*	
LWA09	Operate 200A TEDF with SWD permit ST-4502	30SEP98*	
LWA13	Submit Rev. of ETF Ops and Maint. Manuals	10OCT97*	
LWA14	Submit ETF Discharge Rpt. to RL	14AUG98*	
LWA15	Operate ETF in Accordance with SWD permit ST4500	30SEP98*	
LWA20A	M-26-05J Cmp Biennial Eval of Tritium Trmt Tech	29AUG03*	
LWA20B	M-26-05L Cmp Biennial Eval of Tritium Trmt Tech	31AUG05*	

PMS



Project Start
 Project Finish
 Date Code
 Revision

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WASTE MANAGEMENT HANFORD
PBS WM05 - LIQUID EFFLUENT
PROJECT MASTER BASELINE SCHEDULE

SUBJECT

	Early Bar
	Progress Bar
	Critical Activity

Project Start	01OCT97
Project Finish	30SEP02
Date Date	01OCT97

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Activity ID	Activity Description	Early Start	Early Finish	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RL-WM05 Liquid Waste																		
Project Administration																		
LWA01	Liquid Waste Program - Program Management	01OCT97*	30SEP02															
LWA03	200 Area Operations	01OCT97*	30SEP92															
LWA35	300 Area Operations	01OCT97*	30SEP25															
LWA44	Miscellaneous Streams	01OCT97*	30SEP99															
HSEMS 2.2.7.5 242-A Evaporator Ops & Maint																		
LWA30	242 A EVAPORATOR OPERATIONS	01OCT97*	30SEP02															
LWA33	242 A EVAPORATOR CAMPAIGNS	01OCT97*	30SEP02															
HSEMS 2.2.2.1.5 200 Area ETF Ops & Maint																		
LWA12	200 A Effluent Treatment Facilities (ETF)	01OCT97*	30SEP32															
LWA24	200 A ETF PROCESSING	01OCT97*	30SEP02															
HSEMS 2.3.9.5 200 Area LERF Ops & Maint																		
LWA21	200 A LERF SMECO	01OCT97*	30SEP02															
HSEMS 2.4.3.5 200 Area TEDF Ops & Maint																		
LWA04	200 A Treated Effluent Disposal Facility (TEDF)	01OCT97*	30SEP32															
HSEMS 4.3.1.5 340 Wet Handling Fac Ops & Maint																		
LWA36	340 Operations / Cease waste receipts	01OCT97*	30SEP98															
Liquid Waste Program - Program Management																		
200 Area Operations																		
300 Area Operations																		
Miscellaneous Streams																		
242 A EVAPORATOR OPERATIONS																		
242 A EVAPORATOR CAMPAIGNS																		
200 A Effluent Treatment Facilities (ETF)																		
200 A ETF PROCESSING																		
200 A LERF SMECO																		
200 A Treated Effluent Disposal Facility (TEDF)																		
340 Operations / Cease waste receipts																		



WASTE MANAGEMENT HANFORD
PBS WM05 - LIQUID EFFLUENT
FY98 - EXECUTION YEAR PMBS

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Early Start
Project Bar
Project End
Critical Path

01OCT97
30SEP92
01OCT97
30SEP99

Print Date
Print From
Date Code
Run Date

30

MMP/SSPP PLANNING MILESTONE LIST
REPORTING PERIOD 10/01/97 TO 9/30/200

MILESTONE CONTROL #	TPA-MS NUMBER	TPA TYPE	MS LEVEL	MS TITLE	TYPE	DATES			PROJ CTN	PBS #
						PLANNED BASELINE	APPROVED BASELINE	REVISED BASELINE		
LEP-98-007			RL	SUBMIT 200A TEF DISCHARGE MONITORING REPORT TO RL	OTH	8/15/98				RL-WM05
LEP-98-021			RL	OPERATE 300-AREA TEF WITHIN NPDES PERMIT ENFORCEMENT LIMITS	OTH	9/30/98				RL-WM05
LEP-99-001	M-26-05F	I	HQ	SUBMIT TO EPA & ECOL EVAL OF DEVEL STATUS OF TRITIUM TREAT TECH	EA	8/31/99				RL-WM05
LEP-01-001	M-26-05H	I	HQ	SUBMIT TO EPA & ECOL EVAL OF DEVEL STATUS OF TRITIUM TREAT TECH	EA	8/31/01				RL-WM05
LEP-03-001	M-26-05J	I	HQ	COMPLETE BIENNIAL EVALUATION OF TRITIUM TREATMENT TECHNOLOGY	EA	8/31/03				RL-WM05
LEP-05-001	M-26-05L	I	HQ	COMPLETE BIENNIAL EVALUATION OF TRITIUM TREATMENT TECHNOLOGY	EA	8/31/05				RL-WM05
LEP-98-008			RL	PERFORM REVIEW OF 200A TEF SPILL CONTROL/CONTINGENCY PLANS	OTH	4/17/98				RL-WM05
LEP-98-009			RL	PERFORM REVIEW OF 200A TEF SOLID WASTE CONTROL PLAN	OTH	4/17/98				RL-WM05
LEP-98-010			RL	UPDATE 200A TEF OPS/MAINT PLANS AND SUMMARY MATRIX	OTH	4/17/98				RL-WM05
LEP-98-011			RL	SUBMIT ETF DISCHARGE MONITORING REPORT TO RL	OTH	8/15/98				RL-WM05
LEP-98-012			RL	OPERATE 200A TEF IN ACCORDANCE WITH SMD PERMIT ST-4502	OTH	9/30/98				RL-WM05
LEP-98-013			RL	OPERATE ETF IN ACCORDANCE WITH SMD PERMIT ST-4500	OTH	9/30/98				RL-WM05
LEP-98-015			RL	SUBMIT REVIEW OF ETF OPS AND MAINTENANCE MANUALS	OTH	10/12/97				RL-WM05
LEP-98-020			RL	COMPLETE OUTAGE AND CAMPAIGN FOR 242-A EVAPORATOR	OTH	9/30/98				RL-WM05
LEP-98-017			RL	340 FACILITY SHIPMENTS COMPLIANT WITH REGULATORY REQUIREMENTS	OTH	9/30/98				RL-WM05
LEP-98-018			RL	310 FACILITY WILL BE OPERATED WITH LESS THAN 10X DOWNTIME	OTH	9/30/98				RL-WM05
LEP-98-019			RL	PERFORM REVIEW OF 340 FACILITY AUTHORIZATION BASIS	OTH	9/30/98				RL-WM05
LEP-99-002			RL	SUBMIT TO RL AN EVALUATION OF DEVEL STATUS OF TRITIUM TREAT TECH	OTH	7/31/99				RL-WM05
LEP-98-003	M-17-008	M	FO	COMPLETE IMPLEMENTATION OF BAT/CAKAT FOR ALL PHASE II STREAMS	EA	10/30/97				RL-WM05
LEP-01-002			RL	SUBMIT TO RL EVAL OF DEVEL STATUS OF TRITIUM TREAT TECH	OTH	7/31/01				RL-WM05
LEP-03-002			RL	SUBMIT TO RL EVAL OF DEVEL STATUS OF TRITIUM TREAT TECH	OTH	7/31/03				RL-WM05
LEP-05-002			RL	SUBMIT TO RL EVAL OF DEVEL STATUS OF TRITIUM TREAT TECH	OTH	7/31/05				RL-WM05

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT 200A TEDF DISCHARGE MONITORING REPORT TO RL				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 8/15/98	
PBS No: RL-WM05					
MC #: LEP-98-007			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Report results to RL of monitoring the total effluent and groundwater to verify compliance with all permit enforcement limits and determine if Early Warning Values are being approached. This monitoring will also be used to verify that BAT/AKART source, treatment, and technology controls are being met. Based on permit, this report is due 30 days after the completed reporting period; however, Ecology has agreed to allow 60 days until further notice. Due dates are based on 60 days. For details see Sections S.9 and G.11 of the permit. Quarterly due dates to RL for FY 1998 are 11/15/97, 2/15/98, 5/16/98, and 8/15/98.					
Description of what constitutes completion of this milestone: Report to RL describing the results of the period's monitoring. This milestone supports RL submittal of the DMRs 60 days from the end of the reporting period.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: OPERATE 300 AREA TEDF WITHIN NPDES PERMIT ENFORCEMENT LIMITS				Date:	
Assigned To: R. Barmettlor				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 9/30/98	
PBS No: RL-WM05					
MC #: LEP-98-021			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Operate the 300 Area TEDF with no Notice of Violations from the EPA pertaining to the NPDES permit, and provide timely submissions of the monthly DMR.					
Description of what constitutes completion of this milestone: Submittal of a letter to RL documenting no Notices of Violations issued by EPA Region X attributable to the improper operation and maintenance of the 300 Area TEDF. Any violations caused by inappropriate generator discharges to the 300 Area TEDF are specifically excluded from the scope of this measure due to the lack of retention capabilities or real time monitoring at the facilities.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT TO EPA & ECOL EVAL OF DEVEL STATUS OF TRITIUM TREAT TECH				Date:	
Assigned To:				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 8/31/99	
PBS No: RL-WM05					
MC #: LEP-99-001			TPA No: M-26-05F		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ DOE-RL X Other (Specify) EPA and WDOE	
Milestone Description: Submit to Ecology and EPA a biennial report to evaluate the development status of tritium treatment technology that would be pertinent to the cleanup of tritiated waste water (e.g., the 242-A Evaporator Process Condensate liquid effluent) and tritium contaminated groundwater on the Hanford Site.					
Description of what constitutes completion of this milestone: Transmit a completed report via RL to Ecology and EPA by 8/31/99.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT TO EPA & ECOL EVAL OF DEVEL STATUS OF TRITIUM TREAT TECH				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 8/31/01	
PBS No: RL-WM05					
MC #: LEP-01-001			TPA No: M-26-05H		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ DOE-RL X Other (Specify) EPA AND WDOE	
Milestone Description: Submit to Ecology and EPA a biennial report to evaluate the development status of tritium treatment technology that would be pertinent to the cleanup of tritiated waste water (e.g., the 242-A Evaporator Process Condensate liquid effluent) and tritium contaminated groundwater on the Hanford Site.					
Description of what constitutes completion of this milestone: Transmit a completed report via RL to Ecology and EPA by 8/31/01.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE BIENNIAL EVALUATION OF TRITIUM TREATMENT TECHNOLOGY				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 8/31/03	
PBS No: RL-WM05					
MC #: LEP-03-001			TPA No: M-26-05J		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ DOE-RL X Other (Specify) EPA AND WDOE	
Milestone Description: Submit to Ecology and EPA a biennial report to evaluate the development status of tritium treatment technology that would be pertinent to the cleanup of tritiated waste water (e.g., the 242-A Evaporator Process Condensate liquid effluent) and tritium contaminated groundwater on the Hanford Site.					
Description of what constitutes completion of this milestone: Transmit a completed report via RL to Ecology and EPA by 8/31/03.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE BIENNIAL EVALUATION OF TRITIUM TREATMENT TECHNOLOGY				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 8/31/05	
PBS No: RL-WM05					
MC #: LEP-05-001			TPA No: M-26-05L		Rev:
MILESTONE LEVEL: X DOE-HQ DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ DOE-RL X Other (Specify) EPA AND WDOE	
Milestone Description: Submit to Ecology and EPA a biennial report to evaluate the development status of tritium treatment technology that would be pertinent to the cleanup of tritiated waste water (e.g., the 242-A Evaporator Process Condensate liquid effluent) and tritium contaminated groundwater on the Hanford Site.					
Description of what constitutes completion of this milestone: Transmit a completed report via RL to Ecology and EPA by 8/31/05.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: PERFORM REVIEW OF 200A TEDF SPILL CONTROL/CONTINGENCY PLANS				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 4/17/98	
PBS No: RL-WM05					
MC #: LEP-98-008			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Review and update spill control plans made available to Ecology upon the effective date of the permit, as needed, or annually as a minimum. See Section G.19 of the permit for complete description of requirements.					
Description of what constitutes completion of this milestone: Letter report to RL indicating that reviews have been completed and identifying changes, if any. For revisions, a letter describing the requested changes will be submitted for approval. This milestone supports RL submittal of the review to Ecology by 5/17 each year.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: PERFORM REVIEW OF 200A TEDF SOLID WASTE CONTROL PLAN				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 4/17/98	
PBS No: RL-WM05					
MC #: LEP-98-009			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Solid Waste Control Plans were made available to Ecology by the effective date of the permit. Each plan is required to be reviewed annually and updated as needed. Any proposed revision or modification to the solid waste control plans must be submitted to Ecology for prior approval. See Section G.19 of the permit for complete description.					
Description of what constitutes completion of this milestone: Letter report to RL indicating reviews have been completed. For revisions, a letter describing the requested change will be submitted for approval. This milestone supports the RL submittal of the review to Ecology by 5/17 each year.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: UPDATE 200A TEDF OPS/MAINT PLANS AND SUMMARY MATRIX				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 4/17/98	
PBS No: RL-WM05					
MC #: LEP-98-010			TPA No:		Rev:
MILESTONE LEVEL:	MILESTONE TYPE:	DNFSB STATUS:	DELIVERABLE:	ADDRESS TO:	
DOE-HQ X DOE-RL DOE-FO CONTRACTOR	EA PEG X OTHER	DNFSB (Y/N): N COMMIT #: RECOMM #:	Report X Letter Drawing(s) Other (Specify)	DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: The State Waste Discharge Permit for the 200 Area TEDF requires that annually RL submit to Ecology a letter which confirms that an annual review and update of all ETF Operations and Maintenance manuals has been completed. This includes the facility Solid Waste and Spill Control Plans.					
Description of what constitutes completion of this milestone: The transmission of a letter to RL indicating the completion of the annual review. This milestone supports RL submittal of the annual review to Ecology by 5/17 each year.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT ETF DISCHARGE MONITORING REPORT TO RL				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 8/15/98	
PBS No: RL-WM05					
MC #: LEP-98-011			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Report results to RL of monitoring the total effluent and groundwater to verify compliance with all permit enforcement limits and determine if Early Warning Values are being approached. This monitoring will also be used to verify that BAT/AKART source, treatment, and technology controls are being met. For details see Sections S.2, S.6, S.7 and G.11 of the permit. The quarterly due dates to RL in FY 1998 are 11/15/97, 02/15/98, 05/16/98 and 08/15/98.					
Description of what constitutes completion of this milestone: Report to RL describing the results of the period's monitoring. This milestone supports RL submittal of the DMRs 60 days from the end of the reporting period.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: OPERATE 200A TEDF IN ACCORDANCE WITH SWD PERMIT ST-4502				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 9/30/98	
PBS No: RL-WM05					
MC #: LEP-98-012			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	

Milestone Description:

Operate 200 Area TEDF in accordance with State Waste Discharge Permit No. ST-4502 with no formal notice of violation from Ecology.

Description of what constitutes completion of this milestone:

Submittal of a letter to RL documenting no Notices of Violation issued by EPA Region X and/or Ecology attributable to the improper operation and maintenance of the 200 Area TEDF. Any violations caused by inappropriate generator discharges to the 200 Area TEDF are specifically excluded from the scope of this measure due to the lack of retention capabilities or real time monitoring at the facilities.

PHMC

MILESTONE DESCRIPTION SHEET

Title: OPERATE ETF IN ACCORDANCE WITH SWD PERMIT ST -4500				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 9/30/98	
PBS No: RL-WM05					
MC #: LEP-98-013			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Operate the 200 Area ETF in accordance with State Waste Discharge Permit No. 4500 with no formal notice of violation from Ecology.					
Description of what constitutes completion of this milestone: Submittal of a letter to RL documenting that no Notices of Violation were issued by EPA Region X and/or Ecology attributable to the improper operation and maintenance of the 200 Area ETF. The violation point for the 200 Area ETF is the sample results from the verification tanks. Any violations measured at the groundwater under the SALDS but not attributable to discharges in excess of ETF discharge limitations are specifically excluded from this measure.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT REVIEW OF ETF OPS AND MAINTENANCE MANUALS				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 10/12/97	
PBS No: RL-WM05					
MC #: LEP-98-015			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: The State Waste Discharge Permit for the 200 Area ETF requires that annually RL submit to Ecology a letter which confirms that an annual review and update of all ETF Operations and Maintenance Manuals has been completed.					
Description of what constitutes completion of this milestone: Transmittal of a letter to RL, for forwarding to Ecology, stating completion of the annual review. This milestone supports an RL commitment to submit the annual review to Ecology by 11/12 each year.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE OUTAGE AND CAMPAIGN FOR 242-A EVAPORATOR				Date:	
Assigned To: D. W. LINDSEY				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 9/30/98	
PBS No: RL-WM05					
MC #: LEP-98-020			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Completion of one campaign per fiscal year as indicated by the engineering process control memo directing that the facility be secured and flushed.					
Description of what constitutes completion of this milestone: Submit a letter to DOE-RL by September 30, 1998 documenting successful completion of the campaign. Completion of this milestone is contingent upon TWRS staging and sampling of feed waste in sufficient time to allow processing by due date. Also, this milestone will not be completed if the constituent matrix of the proposed waste stream is not within the parameters/limits necessary for safe/compliant operation of the Evaporator.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: 340 FACILITY SHIPMENTS COMPLIANT WITH REGULATORY REQUIREMENTS				Date:	
Assigned To: R. Barmettlor				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 9/30/98	
PBS No: RL-WM05					
MC #: LEP-98-017			TPA No:		Rev: 0
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Shipment from the 340 Waste Handling and Receiving Facility will be compliant with regulatory requirements, including the 90-day clock requirement.					
Description of what constitutes completion of this milestone: No notice of regulatory requirement violations or exceedance of 90-day clock requirement during the fiscal year. Document achievement by letter to RL due 9/30/98.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: 310 FACILITY WILL BE OPERATED WITH LESS THAN 10% DOWNTIME				Date:	
Assigned To: R. Bartmettlor				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 9/30/98	
PBS No: RL-WM05					
MC #: LEP-98-018			TPA No:		Rev: 0
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Downtime at 310 Facility, other than scheduled maintenance outages, will be less than 10%.					
Description of what constitutes completion of this milestone: Document achievement by letter to RL due 9/30/98.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: PERFORM REVIEW OF 340 FACILITY AUTHORIZATION BASIS				Date:	
Assigned To: R. Barmettlor				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 9/30/98	
PBS No: RL-WM05					
MC #: LEP-98-019			TPA No:		Rev: 0
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Per DOE Order 5480.23, review the 340 Facility Authorization Basis, which was updated in 1996.					
Description of what constitutes completion of this milestone: Transmit a letter to RL documenting that such a review has been completed and requesting approval of any revisions if necessary.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT TO RL AN EVALUATION OF DEVEL STATUS OF TRITIUM TREAT TECH				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 7/31/99	
PBS No: RL-WM05					
MC #: LEP-99-002			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Prepare a biennial report to evaluate the development status of tritium treatment technology that would be pertinent to the cleanup of tritiated waste water (e.g., the 242-A Evaporator Process Condensate liquid effluent) and tritium contaminated groundwater on the Hanford Site.					
Description of what constitutes completion of this milestone: Submittal of a completed report to RL by 7/31/99. This milestone supports an RL commitment to submit a biennial tritium evaluation to Ecology and EPA by 8/31/99 (M-26-05F).					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE IMPLEMENTATION OF BAT/AKART FOR ALL PHASE II STREAMS				Date:	
Assigned To: D. W. Lindsey				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 10/30/97	
PBS No: RL-WM05					
MC #: LEP-98-003			TPA No: M-17-00B		Rev:
MILESTONE LEVEL: DOE-HQ DOE-RL X DOE-FO CONTRACTOR	MILESTONE TYPE: X EA PEG OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Completion of BAT/AKART for Phase II Streams in each facility.					
Description of what constitutes completion of this milestone: Letter sent to RL with documentation that each Phase II stream facility is tied to the 200 Area TEDF or has been eliminated and BAT/AKART for all Phase II Liquid Effluent streams has been accomplished.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT TO RL EVAL OF DEVEL STATUS OF TRITIUM TREAT TECH				Date:	
Assigned To: DW LINDSEY				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 7/31/01	
PBS No: RL-WM05					
MC #: LEP-01-002			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Prepare a biennial report to evaluate the development status of tritium treatment technology that would be pertinent to the cleanup of tritiated waste water (e.g., the 242-A Evaporator Process Condensate liquid effluent) and tritium contaminated groundwater on the Hanford Site.					
Description of what constitutes completion of this milestone: Submittal of a completed report to RL by 7/31/01. This milestone supports an RL commitment to submit a biennial tritium evaluation to Ecology and EPA by 8/31/01 (M-26-05F).					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT TO RL EVAL OF DEVEL STATUS OF TRITIUM TREAT TECH				Date:	
Assigned To: DW LINDSEY				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 7/31/03	
PBS No: RL-WM05					
MC #: LEP-03-002			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Prepare a biennial report to evaluate the development status of tritium treatment technology that would be pertinent to the cleanup of tritiated waste water (e.g., the 242-A Evaporator Process Condensate liquid effluent) and tritium contaminated groundwater on the Hanford Site.					
Description of what constitutes completion of this milestone: Submittal of a completed report by 7/31/03. This milestone support an RL commitment to submit a biennial tritium evaluation to Ecology and EPA by 8/31/03 (M-26-05J).					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT TO RL EVAL OF DEVEL STATUS OF TRITIUM TREAT TECH				Date:	
Assigned To: DW LINDSEY				CIN:	
Program WBS Designator: 1.2.3.1				Due Date: 7/31/05	
PBS No: RL-WM05					
MC #: LEP-05-002			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: X Report Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Prepare a biennial report to evaluate the development status of tritium treatment technology that would be pertinent to the cleanup of tritiated waste water (e.g., the 242-A Evaporator Process Condensate liquid effluent) and tritium contaminated groundwater on the Hanford Site.					
Description of what constitutes completion of this milestone: Submittal of a completed report to RL by 7/31/05. This milestone supports an RL commitment to submit a biennial tritium evaluation to Ecology and EPA by 8/31/05 (M-26-05L).					



HNH-SP-1229

Rev. 1

Waste Management Project

WBS 1.2

FY1998

September 26, 1997

B.3.4.0 Cost Baseline

LIQUID EFFLUENT PROJECT
SUMMARY OF LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

(\$000s)

PROJECT WBS : 1.2.3.1												
PBS TITLE	PBS NO	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	SUBTOT
LIIQUID EFFLUENT	RL-WM05	37,359	31,860	31,889	38,267	35,453	39,594	38,930	36,833	39,159	42,453	
												-
												-
												-
												-
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												-
												-
												-
TOTAL BOWS/PMB [†]		37,359	31,860	31,889	38,267	35,453	39,594	38,930	36,833	39,159	42,453	371,597

Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover Is **NOT** Included.

LIQUID EFFLUENT PROJECT
SUMMARY OF LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

(\$000s)

[illegible]

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS)
Equals Performance Measurement Baseline
(PMB); Expense Carryover Is NOT Included.

LIQUID EFFLUENT PROJECT
LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

(\$000s)

PROJECT WBS: 1.2.3.1		WM05										
PBS NO:		WM05										
PBS TITLE		LIQUID EFFLUENT PROJECT										
FUND TYPE		FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	SUBTOT FY1997-FY2006
OPERATING EXPENSE		34,464	31,860	31,589	38,167	35,353	39,494	38,830	36,733	39,059	42,353	367,902
GENRTC		515		100	100	100	100	100	100	100	100	1,315
GENERAL PLANT PROJECT		262										262
LINE ITEM (Lst Each One)												
W-262		2,118										2,118
Subtotal Line Items		2,118										2,118
TOTAL BCWS/PMB ¹		37,589	31,860	31,689	38,267	35,453	39,594	38,930	36,833	39,159	42,453	371,597
MGMT RESERVE ²												
LINE ITEM CONTINGENCY ²												
OFFSITE TRANSFERS ³												
Subtotal												
TOTAL		37,589	31,860	31,689	38,267	35,453	39,594	38,930	36,833	39,159	42,453	371,597

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB);

Expense Carryover NOT Included

²Management Reserve and Line Item Contingency Held by RL.

³Work Performed at Sites Other Than Hanford.

EXHIBIT 1

Page 4 of 12

9/23/97

PROJECT WBS: 1.2.3.1		PES NO: W005		PES TITLE: LIQUID EFF													TOTAL
FUND		FY2007- FY2010	FY2011- FY2015	FY2016- FY2020	FY2021- FY2025	FY2026- FY2030	FY2031- FY2035	FY2036- FY2040	FY2041- FY2045	FY2046						FY2046	FY1997- FY2050
TYPE																	
OPERATING EXPENSE		175,576	215,346	210,007	237,535	229,879	265,889	140,273								1,842,207	
CENRTC		400	500	500	500	250	200									3,665	
GENERAL PLANT PROJECT																262	
LINE ITEM (List Each One)																	
W-22																2,118	
																-	
																-	
																-	
																-	
Subtotal Line Items		-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,118	
TOTAL BCWS/PMB ¹		175,976	215,846	210,507	238,035	230,129	265,889	140,273	-	-	-	-	-	-	-	1,843,252	
MGMT RESERVE ²																-	
LINE ITEM CONTINGENCY ²																-	
OFFSITE TRANSFERS ³																-	
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL		175,976	215,846	210,507	238,035	230,129	265,889	140,273	-	-	-	-	-	-	-	1,843,252	

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB);

Expense Carryover NOT Included.

Management Reserve and Line Item Contingency Held by RL.

Work Performed at Sites Other Than Hanford.

LIQUID EFFLUENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH
BY PROJECT BASELINE SUMMARY (PBS)
BY ACTIVITY DATA SHEET (ADS)
EXECUTION YEAR

(\$000s)

PROJECT WBS: 1.2.3.1		LIQUID EFFLUENT PROJECT											
PBS NO: RL-WM05		PBS TITLE: LIQUID EFFLUENT PROJECT											
ADS TITLE	ADS NO	FUND TYPE	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
Liquid Effluent Project	2300-0	OP EXP	2,316	2,433	2,407	3,158	2,526	3,033	2,552	2,296	3,164	2,780	31,860
		CENRTC											-
		GPP											-
		LI											-
		SUBTOT	2,316	2,433	2,407	3,158	2,526	3,033	2,552	2,296	3,164	2,780	31,860
		OP EXP											-
		CENRTC											-
		GPP											-
		LI											-
		SUBTOT											-
		OP EXP											-
		CENRTC											-
		GPP											-
		LI											-
		SUBTOT											-
		OP EXP											-
		CENRTC											-
		GPP											-
		LI											-
		SUBTOT											-

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.
 *Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is NOT Included.

LIQUID EFFLUENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH
BY PROJECT BASELINE SUMMARY (PBS)
BY ACTIVITY DATA SHEET (ADS)
EXECUTION YEAR

(\$000s)

PROJECT WBS: 1.2.3.1		LIQUID EFFLUENT PROJECT													
PBS NO: RL-WM03															
PBS TITLE: LIQUID EFFLUENT PROJECT															
ADS TITLE	ADS NO	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT													-
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT													-
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT													-
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT													-
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		CENRTC													-
		GPP													-
		LI													-
		SUBTOT													-
		OP EXP													-
		CENRTC													-
		GPP													-
		LI													-
		SUBTOT													-
TOTAL BCWS/PMB¹			2,281	2,914	2,316	2,433	2,407	3,158	2,526	3,033	2,552	2,296	3,164	2,780	31,860

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover Is NOT Included.

LIQUID EFFLUENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH BY FUND TYPE BY PROJECT
EXECUTION YEAR
(\$000s)

PROJECT	PROJECT TITLE	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
WBS															
1.2.3.1	Liquid Effluent Projec (RL-WIM05)	Operating Expense	2,281	2,914	2,316	2,433	2,407	3,158	2,526	3,033	2,552	2,296	3,164	2,780	31,860
		CENRTC													0
		GPP													0
		Line Item													0
		Total BCWS/PMB¹	2,281	2,914	2,316	2,433	2,407	3,158	2,526	3,033	2,552	2,296	3,164	2,780	31,860
		Mgmt Reserve ²													0
		Line Item Contingency ²													0
		Offsite Transfers ³													0
Total			2,281	2,914	2,316	2,433	2,407	3,158	2,526	3,033	2,552	2,296	3,164	2,780	31,860

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB). Expense Carryover is Not Included.

²Management Reserve and Line Item Contingency Held By RL.

LIQUID EFFLUENT PROJECT
FY 1998 COST BASELINE (BCWS) BY MONTH BY COST ELEMENT BY PROJECT
EXECUTION YEAR
(\$000s)

PROJECT	PROJECT															
WBS	TITLE	COST ELEMENT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL	
1.2.3.1	Liquid	0 Salaries	1,056	1,349	1,072	1,123	1,111	1,460	1,168	1,404	1,176	1,059	1,462	1,289	14,729	
	Effluent	1 Material	97	125	108	114	106	135	108	130	120	106	138	120	1,409	
	Project	2 Purchased Serv	58	74	58	61	61	81	64	77	64	58	81	72	809	
	(RL-WM05)	3 Other Contr Chgs	24	31	24	26	26	34	27	32	27	24	34	28	337	
		4 Internal Serv	152	194	153	161	160	211	169	202	169	152	211	185	2,119	
		5 Internal Chgs	274	350	274	289	289	380	304	365	304	274	380	336	3,819	
		6 LMSI	2	2	1	2	2	2	2	2	2	2	1	2	22	22
		7 Overheads	530	677	538	564	559	733	586	704	592	592	532	734	643	7,392
		8 Revenue														0
		9 Enterprise Cos	88	112	88	93	93	122	98	117	98	98	88	122	105	1,224
Total BCWS/PMB ¹			2,281	2,914	2,316	2,433	2,407	3,158	2,526	3,033	2,552	2,296	3,164	2,780	31,890	

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover Is Not Included.

PROJECT WBS : 1.2.3.1

(900005)

SUBTOT												
PBS TITLE	PBS NO	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY1997- FY2006
LIIQUID EFFLUENT PROJECT	RL-WM05	35,289	31,860	31,689	38,267	35,453	39,594	38,930	36,833	39,159	42,453	369,527
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Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

EXHIBIT 4a

(\$000s)

PROJECT WBS : 1.2.3.1												(0000)
PBS TITLE	PBS NO	FY2007-	FY2011-	FY2016-	FY2021-	FY2026-	FY2031-	FY2036	FY2041-	FY2046	TOTAL	
		FY2010	FY2015	FY2020	FY2025	FY2030	FY2035	FY2040	FY2045	FY2050	FY1997- FY2050	
L/LIQUID EFFLUENT PROJECT	RL-WM05	175,976	215,846	210,507	238,035	230,129	265,889	140,273			1,846,182	
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Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

LIQUID EFFLUENT PROJECT
LIFE CYCLE BUDGET AUTHORITY (B/A) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

B.3.4-12

Note: The information for FY1998 and FY1999

98myfni(Exhibit4.(1)).xls

LIQUID EFFLUENT PROJECT
LIFE CYCLE BUDGET AUTHORITY (B/A) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998

PROJECT WBS:		(\$000s)														TOTAL	
PBS NO: RL-WM05		LIQUID EFFLUENT PROJECT															
FUND TYPE		FY2007- FY2010	FY2011- FY2015	FY2016- FY2020	FY2021- FY2025	FY2026- FY2030	FY2031- FY2035	FY2036- FY2040	FY2041- FY2045	FY2046- FY2050							
OPERATING EXPENSE		175,576	215,346	210,007	237,535	229,879	265,689	140,273									
CENRTC		400	500	500	500	250	200										
GENERAL PLANT PROJECT																	
LINE ITEM (List Each One)																	
W-252																	
Subtotal Line Items		-	-	-	-	-	-	-	-	-							
TOTAL NEW B/A		175,976	215,846	210,507	238,035	230,129	265,889	140,273	-	-	1,846,182						

Note: The information for FY1998 and FY1999

contains the planning guidance while FY2000
and beyond contains the Project Baseline
Summary guidance.

Liquid Effluent Project
3 DIGIT CONTRACTOR IDENTIFIER-PR-WM12
Revision 0
AVERAGE ANNUAL FULL TIME EQUIVALENTS
(includes Major Subcontractors but not Enterprise Companies)

PHBS 1.2.3.1

Submittal Date: 8/29/97

PBS Number	PBS Title	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007

RL-WM05	Liquid Effluent	208	208	208	208	208	208	208	208	208	208

Total PBS FTEs

208

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

208

208

208

208

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208

B.4 Analytical Services (RL-WM06)

B.4.1.0 Analytical Services Technical Baseline (RL-WM06)

B.4.1.1 Analytical Services Organization Mission (RL-WM06)

The Hanford Analytical Services Program supports the Hanford mission by providing analytical services to site programs. These services include waste and environmental sample analysis, process control support, field and sampling services, development services and site expertise in chemistry and data quality. The Analytical Services Program operates on-site analytical laboratories, contracts commercial services, establishes site laboratory quality standards, and integrates all Hanford analytical services through the site Sample Management Office. Cost effective, quality and timely services are provided utilizing a combination of government-contracted and commercial capabilities based on biannual site analytical services projections.

B.4.1.2 Analytical Services End Point Targets from Hanford Strategic Plan

B.4.1.2.1 Analytical Services Principal End Point Targets

- Transition high cost surplus facilities in the central plateau and south 600 areas to a low cost, stable, deactivated condition.

B.4.1.2.2 Analytical Services Supported End Point Targets

- Spent fuel removed and K-Basins cleaned sufficient to transition to D&D.
- Spent fuels (light water reactor) removed to interim storage in 400 Area pending availability of 200 Area interim storage.
- Spent fuels (TRIGA and light water reactor) and applicable FFTF fuels removed from 400 Area interim storage area to 200 Area.
- Continue to provide safe storage for Cs/Sr capsules in the WESF indefinitely.
 - (1) WESF decoupled and a standalone facility.
- Complete stabilization of plutonium in PFP (DNFSB 94-1 implementation).
- Retrievably stored TRU waste retrieved, processed, shipped offsite to WIPP.
- Low level and low level mixed waste from onsite and offsite sources (including PNNL special case wastes) will continue to be disposed of in the 200 Area.

B.4.1.3 Analytical Services Major Facilities

B.4.1.3.1 222-S Laboratory Facility

B.4.1.3.1.1 222-S Laboratory Facility Description

The 222-S Laboratory is a laboratory facility in the 200-W Area of Hanford used for characterization of high level radioactive waste/materials. It was built in 1950-1951 and houses an analytical laboratory and a chemical sciences laboratory. Two of its three general areas contain radionuclides.

B.4.1.3.1.2 222-S Laboratory Facility Technical Logic:

The Department of Energy (DOE), in partnership with its contractors, shall plan, acquire, operate, maintain, and dispose of physical assets as valuable national resources. Stewardship of these physical assets shall be accomplished in a cost-effective manner to meet the DOE mission. This shall incorporate industry standards, a graded approach, and performance objectives.

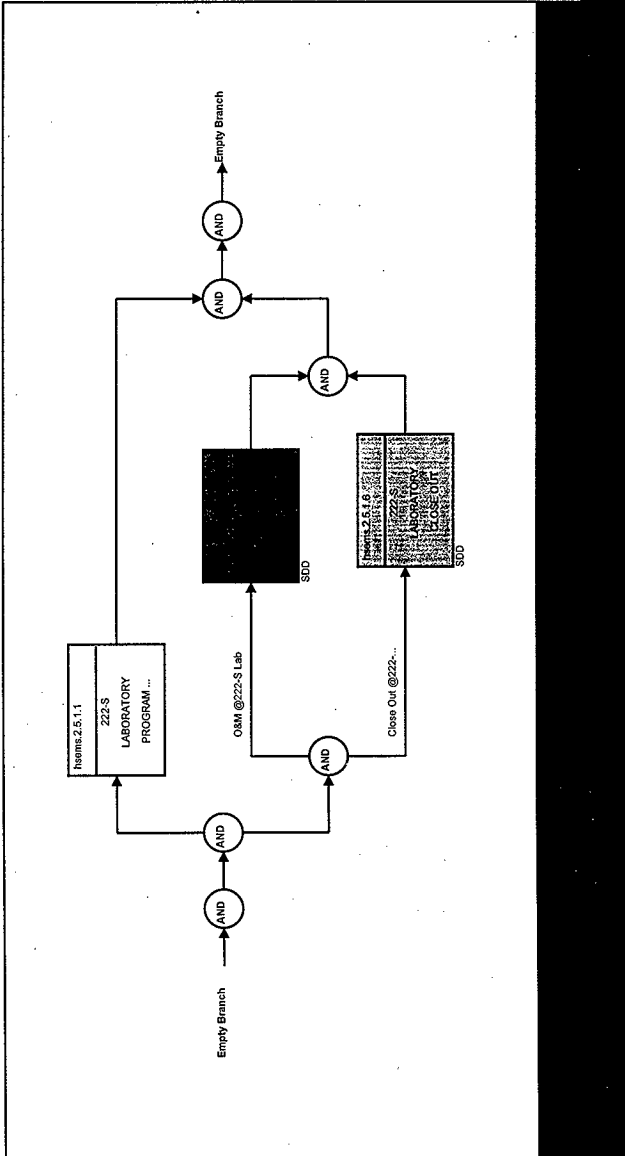


Figure B-20 222-S LABORATORY

B.4.1.3.1.3 222-S Laboratory Requirements and Life Cycle Function Descriptions

Requirements:

- Facilities discharging to the 200 Area TEDF shall implement Best Available Technology (BAT)/All Known, Available, and Reasonable Treatment (AKART). The generator shall provide the information required by WAC 173-240, Submission of Plans and Reports for Construction of Waste Water Facilities.
- The Hanford Site Infrastructure shall be optimized.
- Central Plateau high cost surplus facilities shall be transitioned to a low cost, stable, deactivated condition
- Central Plateau inactive facilities shall be maintained within the approved safety envelope
- 222-S shall be operated within the approved safety envelope
- 222-S shall be maintained within the approved safety envelope
- Central Plateau asbestos abatement shall be performed as necessary

Life Cycle Function Descriptions:

B.4.1.3.1.3.1 222-S LABORATORY PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.4.1.3.1.3.2 222-S LABORATORY OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, required laboratory accreditations and certifications, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

222-S LABORATORY OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.4.1.3.1.3.3 Provide HL Radioactive Sample Services

Provide Hanford Site full-capability analytical laboratory services for characterizing routine HL radioactive matrices (alpha, beta, gamma); and first-of-a-kind development for HL radiological matrices.

B.4.1.3.1.3.4 222-S LABORATORY POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

222-S LABORATORY POST OPERATIONS SPECIFIC FUNCTIONS

B.4.1.3.1.3.5 Maintain Safe & Compliant 222-S Laboratory Facility in CP Areas

Maintain the 222-S Laboratory facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.4.1.3.1.3.6 Transition 222-S Laboratory Facility

Initiate the transition phase of decontamination and decommissioning for the 222-S Laboratory Facility

B.4.1.3.1.4 222-S Laboratory Boundary Diagram

Table B.4-1 222-S Laboratory Boundary Diagram

External Interfaces Hanford Legacy Hanford Site Environmental System Interfaces hsems.1.1.2 Reactors on the River Soil Site Operable Units hsems.1.2.1 100 K Area Facilities hsems.2.2.5 242-A Evaporator hsems.2.2.7 B Plant hsems.2.2.8 Waste Encapsulation and Storage Facility hsems.2.2.9 Plutonium Finishing Plant hsems.2.2.12 T-Plant Facility hsems.2.2.15 WRAP Module 1 hsems.2.3.1 Single Shell Tank (SST) System hsems.2.3.2 Double Shell Tank (DST) System hsems.2.3.5 Central Waste Complex hsems.2.5.2 Waste Sampling and Characterization Facility hsems.2.5.3 Central Plateau Steam System hsems.2.5.4 Central Plateau Water System hsems.2.5.5 Central Plateau Office Facilities hsems.2.5.6 Central Plateau Electrical System hsems.2.5.8 Central Plateau Telecommunication System hsems.2.5.9 Central Plateau Shop Facilities hsems.2.5.13 Central Plateau Road System hsems.4.3.1 Fast Flux Test Facility		External Interfaces Hazardous Waste Disposal Contracts Offsite Landfill Hanford Site Environmental System Interfaces hsems.2.3.2 Double Shell Tank (DST) System hsems.2.3.5 Central Waste Complex hsems.2.4.3 200 Area Treated Effluent Disposal Facility hsems.4.7.1 331 Complex

B.4.1.3.1.5 222-S Laboratory Interface Description and Forecast

EXTERNAL INPUTS

Table B.4-2 External Inputs for 222-S Laboratory

Stream	Category	Period	Baseline	Units
X.O Hanford Legacy Beginning Sanitary Solid Waste <i>Initial inventory of sanitary solid waste for the analytical labs.</i>	Sanitary Solid Waste	1997 - 1997	62.0	cubic meters

INTERNAL INPUTS

Table B.4-3 Internal Inputs for 222-S Laboratory

Stream	Category	Period	Baseline	Units
hsems.1.1.2 Reactors on the River Soil Site Operable Units Analytical Laboratory Services for Environmental Restoration <i>Analytical Laboratory Services for Environmental Restoration</i>	Analytical Laboratory Services	1998 - 2002	14400	samples
hsems.1.2.1 100 K Area Facilities Analytical Laboratory Services for SNF <i>Analytical Laboratory Services for SNF</i>	Analytical Laboratory Services	1998 - 2005	54500	samples
hsems.2.2.5 242-A Evaporator Analytical Laboratory Services for 242-A Evap <i>Analytical Laboratory Services for 242-A Evap</i>	Analytical Laboratory Services	1998 - 2013	1280	samples
hsems.2.2.7 B Plant Analytical Laboratory Services for B PLANT <i>Analytical Laboratory Services for B PLANT</i>	Analytical Laboratory Services	1998 - 1998	6.0	samples
hsems.2.2.8 Waste Encapsulation and Storage Facility Analytical Laboratory Services for WESF <i>Analytical Laboratory Services for WESF</i>	Analytical Laboratory Services	1998 - 2019	7320	samples
hsems.2.2.9 Plutonium Finishing Plant Analytical Laboratory Services for PFP <i>Analytical Laboratory Services for PFP. Dates to be replanned based upon new funding profile.</i>	Analytical Laboratory Services	1998 - 2002	107000	samples
hsems.2.2.12 T-Plant Facility Analytical Laboratory Services for 200-TP <i>Analytical Laboratory Services for 200-TP</i>	Analytical Laboratory Services	1998 - 2020	4140	samples
hsems.2.2.15 WRAP Module 1 Analytical Laboratory Services for 200-WRAP <i>Analytical Laboratory Services for 200-WRAP</i>	Analytical Laboratory Services	1998 - 2034	5770	samples
hsems.2.3 Central Plateau Storage Facilities Storage Space (Program Owned) for Analytical Services <i>Storage Space (Program Owned) for Analytical Services</i>	Allocated Storage	1998 - 2034	448000	sq. ft.
hsems.2.3.1 Single Shell Tank (SST) System In-Field Laboratory Services for TWRS <i>In-Field Laboratory Services for TWRS</i> SST Samples <i>Samples collected to support the Characterization of SSTs.</i>	In-Field Laboratory Services (none forecasted)	1998 - 2000	4130	samples
hsems.2.3.2 Double Shell Tank (DST) System Analytical Laboratory Services for TWRS <i>Analytical Laboratory Services for TWRS</i> DST Samples <i>DST characterization samples.</i>	Analytical Laboratory Services (none forecasted)	1998 - 2002	50800	samples
hsems.2.3.5 Central Waste Complex Analytical Laboratory Services for 200-SWM <i>Analytical Laboratory Services for 200-SWM</i>	Analytical Laboratory Services	1998 - 2034	296.0	samples
hsems.2.5.2 Waste Sampling and Characterization Facility Analytical Laboratory Services for Analytical Services <i>Analytical Laboratory Services for Analytical Services</i>	Analytical Laboratory Services	1998 - 2034	385000	samples
hsems.2.5.3 Central Plateau Steam System Steam for Analytical Services <i>Steam for Analytical Services</i>	(none forecasted)			
hsems.2.5.4 Central Plateau Water System Raw Water for Analytical Services <i>Raw Water for Analytical Services</i>	Raw Water	1998 - 2034	97.2	Mgal

Table B.4-3 Internal Inputs for 222-S Laboratory (Continued)

Stream	Category	Period	Baseline	Units
hsems.2.5.5 Central Plateau Office Facilities				
Office Space (Program Owned) for Analytical Services	Office Space (Program Owned)	1998 - 2034	863000	sq. ft.
Office Space (Program Owned) for Analytical Services				
hsems.2.5.6 Central Plateau Electrical System				
Electricity for Analytical Services	Electricity	1998 - 2034	348000	MW-hr
Electricity for Analytical Services				
hsems.2.5.8 Central Plateau Telecommunication System				
Voice (Telephone) Communication for Analytical Services	Voice Communications Service	1998 - 2034	9540	no. of phones
Voice (Telephone) Communication for Analytical Services				
Data (HLAN) Transmission for Analytical Services	HLAN Computers	1998 - 2034	21800	no. of PCs
Data (HLAN) Transmission for Analytical Services				
Pager Service for Analytical Services	Site Pagers	1998 - 2034	703.0	no. of pagers
Pager Service for Analytical Services				
hsems.2.5.9 Central Plateau Shop Facilities				
Lifting (Cranes) for Analytical Services	Lifting Services	1998 - 2034	296.0	crane days
Lifting (Cranes) for Analytical Services				
Custodial Services for Analytical Services	Custodial Services	1998 - 2034	4380000	sq. ft.
Custodial Services for Analytical Services				
hsems.2.5.13 Central Plateau Road System				
Sedans/Light Trucks for Analytical Services	Sedans/Light Trucks	1998 - 2034	148.0	no. of vehicles
Sedans/Light Trucks for Analytical Services				
hsems.4.3.1 Fast Flux Test Facility				
Analytical Laboratory Services for FFTF	Analytical Laboratory Services	1998 - 2003	230.0	samples
Analytical Laboratory Services for FFTF				

EXTERNAL OUTPUTS**Table B.4-4 External Outputs for 222-S Laboratory**

Stream	Category	Period	Baseline	Units
X Hazardous Waste Disposal Contracts				
222-S Lab Hazardous Waste	HAZ	1997 - 2070	308.0	cubic meters
Hazardous waste generated during day to day operations necessary to analyze high level radioactive samples.				
X Offsite Landfill				
AN SRVCS, Asbestos	Asbestos	1997 - 2025	58.0	cubic meters
Asbestos Disposed by 222-S Laboratory.				
AN SRVCS Solid Sanitary Waste	Sanitary Solid Waste	1997 - 2034	28500	cubic meters
Solid sanitary waste generated during day to day operations of the analytical labs.				

INTERNAL OUTPUTS**Table B.4-5 Internal Outputs for 222-S Laboratory**

Stream	Category	Period	Baseline	Units
hsems.2.3.2 Double Shell Tank (DST) System				
Liquid Waste From 222-S Lab to West Area DSTs	(none forecasted)			
Liquid waste from 222-S Area Lab Operations ready to be transferred to West Area DSTs.				
S Plant Transferred, HLW	HLW	1997 - 2028	15200	cubic meters
HLW Transferred by 222-S Laboratory.				
Waste from 222-S Lab to 204-AR	(none forecasted)			
Wastes from 222-S Lab operations activities transported to the 204-AR.				
hsems.2.3.5 Central Waste Complex				
ANALYT LAB, CH-TRUM	CH TRUM	1997 - 2070	19.0	cubic meters
CH TRUM Transferred by 222-S Laboratory.				
ANALYT LAB, CH-LLMW-III	CH LLMW III	1997 - 2070	1250	cubic meters
CH LLMW III solid waste generated during day to day operations necessary for analyzing high level radioactive samples.				
ANALYT LAB, CH-LLW-I	CH LLW I	1997 - 2070	14000	cubic meters
CH LLW I Transferred by 222-S Laboratory.				
ANALYT LAB, CH-LLMW-I	CH LLMW I	1997 - 2070	2310	cubic meters
CH LLMW I Transferred by 222-S Laboratory.				
ANALYT LAB, CH-LLW-III	CH LLW III	1997 - 2070	503.0	cubic meters
CH LLW III Transferred by 222-S Laboratory.				
hsems.2.4.3 200 Area Treated Effluent Disposal Facility				
222-S Lab Wastewater	Treated Liquid Effluent	1998 - 2030	312000	cubic meters
Treated Liquid Effluent Transferred by 222-S Laboratory.				

Table B.4-5 Internal Outputs for 222-S Laboratory (Continued)

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
Non-rad Standards (Calibrations) for Analytical Services	Non-rad Standards Lab Services	1998 - 2034	3920	calibrations
Non-rad Standards (Calibrations) for Analytical Services				
Radioactive Standards (Calibrations) for Analytical Services	Radioactive Standards Lab Services	1998 - 2034	11100	calibrations
Radioactive Standards (Calibrations) for Analytical Services				

B.4.1.3.2 Waste Sampling and Characterization Facility

B.4.1.3.2.1 Waste Sampling and Characterization Facility Description

The WSCF is a laboratory facility in the 200-W Area of Hanford that houses a low level radiological laboratory used for characterization of low level radioactive waste, RCRA materials, and industrial hygiene materials such as asbestos.

B.4.1.3.2.2 Waste Sampling and Characterization Facility Facility Technical Logic:

The Department of Energy (DOE), in partnership with its contractors, shall plan, acquire, operate, maintain, and dispose of physical assets as valuable national resources. Stewardship of these physical assets shall be accomplished in a cost-effective manner to meet the DOE mission. This shall incorporate industry standards, a graded approach, and performance objectives.

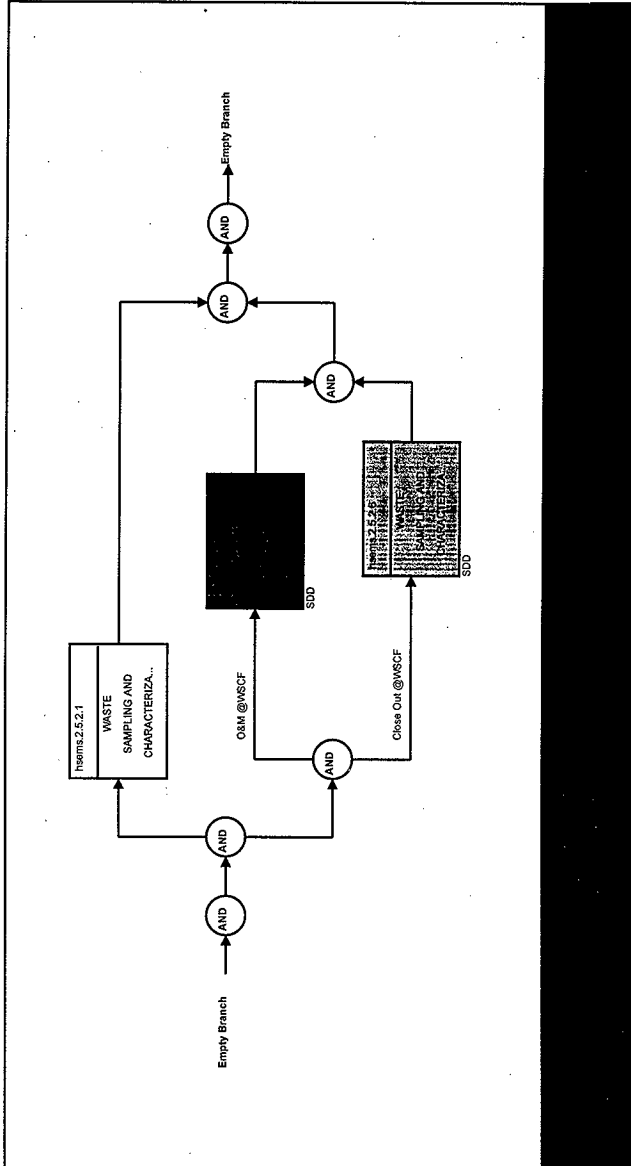


Figure B-21 WASTE SAMPLING AND CHARACTERIZATION FACILITY

B.4.1.3.2.3 Waste Sampling and Characterization Facility Requirements and Life Cycle Function Descriptions

Requirements:

- The Hanford Site Infrastructure shall be optimized.
- Central Plateau high cost surplus facilities shall be transitioned to a low cost, stable, deactivated condition
- Central Plateau inactive facilities shall be maintained within the approved safety envelope
- The Waste Sampling and Characterization Facility (WSCF) complex shall be operated within the approved safety envelope
- The Waste Sampling and Characterization Facility (WSCF) complex shall be maintained within the approved safety envelope
- Central Plateau asbestos abatement shall be performed as necessary

Life Cycle Function Descriptions:

B.4.1.3.2.3.1 WASTE SAMPLING AND CHARACTERIZATION FACILITY PROGRAM PLANNING WORK SCOPE SUMMARY

Functions that include planning and developing the overall program; establishing broad priorities; providing program technical direction; preparing and defending the program budget; controlling milestones; integrating all components of the program; providing public and private sector policy liaison; expediting interface activities and follow-up actions; and retaining overall accountability for program success.

B.4.1.3.2.3.2 WASTE SAMPLING AND CHARACTERIZATION FACILITY OPERATIONS & MAINTENANCE WORK SCOPE SUMMARY

Day-to-day work, including preventive and predictive maintenance, required laboratory accreditations and certifications, that is required to maintain and preserve plant and capital equipment in a condition suitable for it to be used for its designated purpose.

WASTE SAMPLING AND CHARACTERIZATION FACILITY OPERATIONS & MAINTENANCE SPECIFIC FUNCTIONS

B.4.1.3.2.3.3 Provide LL Radioactive Sample Services

Provide Hanford Site full-capability analytical laboratory services for characterizing routine LL radioactive matrices, and first-of-a-kind development for LL radiological matrices.

B.4.1.3.2.3.4 WASTE SAMPLING AND CHARACTERIZATION FACILITY POST OPERATIONS WORK SCOPE SUMMARY

Day-to-day work, including pre-stabilization surveillance and maintenance, stabilization, post-stabilization surveillance and maintenance, deactivation, and post-deactivation surveillance and maintenance, that is required to allow safe decontamination and decommissioning.

WASTE SAMPLING AND CHARACTERIZATION FACILITY POST OPERATIONS SPECIFIC FUNCTIONS

B.4.1.3.2.3.5 Maintain Safe & Compliant Waste Sampling and Characterization Facility in CP Areas

Maintain the Waste Sampling and Characterization facility structures, operating systems and equipment, and monitoring systems within the approved safety and compliance requirements until the facilities are made available for clean-up.

B.4.1.3.2.3.6 Transition Waste Sampling and Characterization Facility

Initiate the transition phase of decontamination and decommissioning for the Waste Sampling and Characterization Facility

B.4.1.3.2.4 Waste Sampling and Characterization Facility Boundary Diagram

Table B.4-6 Waste Sampling and Characterization Facility Boundary Diagram

External Interfaces -None- Hanford Site Environmental System Interfaces hsems.1.2.1 100 K Area Facilities hsems.2.2.12 T-Plant Facility hsems.2.2.15 WRAP Module 1 hsems.2.2.17 200 Area Effluent Treatment Facility hsems.2.3.5 Central Waste Complex hsems.4.2.1 300 Area Treated Effluent Disposal Facility		External Interfaces Hazardous Waste Disposal Contracts Hanford Site Environmental System Interfaces hsems.2.3.5 Central Waste Complex hsems.2.5.1 222-S Laboratory

B.4.1.3.2.5 Waste Sampling and Characterization Facility Interface Description and Forecast**EXTERNAL INPUTS**

-None-

INTERNAL INPUTS**Table B.4-7 Internal Inputs for Waste Sampling and Characterization Facility**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.1.2.1 100 K Area Facilities In-Field Laboratory Services for SNF In-Field Laboratory Services for SNF	In-Field Laboratory Services	1997 - 2001	30.0	samples
hsems.2.2.12 T-Plant Facility In-Field Laboratory Services for 200-TP In-Field Laboratory Services for 200-TP	In-Field Laboratory Services	1998 - 2020	161.0	samples
hsems.2.2.15 WRAP Module 1 In-Field Laboratory Services for 200-WRAP In-Field Laboratory Services for 200-WRAP	In-Field Laboratory Services	1998 - 2034	74.0	samples
hsems.2.2.17 200 Area Effluent Treatment Facility In-Field Laboratory Services for 200A-LEF In-Field Laboratory Services for 200A-LEF	In-Field Laboratory Services	1998 - 2032	7840	samples
hsems.2.3.5 Central Waste Complex In-Field Laboratory Services for 200-SWM In-Field Laboratory Services for 200-SWM	In-Field Laboratory Services	1998 - 2034	259.0	samples
hsems.4.2.1 300 Area Treated Effluent Disposal Facility In-Field Laboratory Services for 300A-LEF In-Field Laboratory Services for 300A-LEF	Analytical Laboratory Services In-Field Laboratory Services	1998 - 2025 1998 - 2025	5650 56.0	samples samples

EXTERNAL OUTPUTS**Table B.4-8 External Outputs for Waste Sampling and Characterization Facility**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
X Hazardous Waste Disposal Contracts WSCF, HAZ HAZ Transferred by Waste Sampling and Characterization Facility.	HAZ	1997 - 2025	116.0	cubic meters

INTERNAL OUTPUTS**Table B.4-9 Internal Outputs for Waste Sampling and Characterization Facility**

<u>Stream</u>	<u>Category</u>	<u>Period</u>	<u>Baseline</u>	<u>Units</u>
hsems.2.3.5 Central Waste Complex WSCF, CH-LLW-I CH LLW I Transferred by Waste Sampling and Characterization Facility.	CH LLW I	1997 - 2025	58.0	cubic meters
WSCF, CH-LLMW-I CH LLMW I Transferred by Waste Sampling and Characterization Facility.	CH LLMW I	1997 - 2025	29.0	cubic meters
hsems.2.5.1 222-S Laboratory Analytical Laboratory Services for Analytical Services Analytical Laboratory Services for Analytical Services	Analytical Laboratory Services	1998 - 2034	385000	samples

B.4.1.4 Drivers for Analytical Services

Table B.4-10 Source Documents for Analytical Services

<u>Name</u>	<u>Title</u>
DOE/EIS-0222D	Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land Use Plan
DOE/RL-96-14	Updated Draft Mission Direction Document, June 1996
DOE/RL-96-92	Hanford Strategic Plan
ST 4502	State Waste Discharge Permit for the 200 Area TEDF

B.4.1.5 Analytical Services Risk Management

The Hanford Analytical Services Program operates and maintains the 222-S high-level laboratory complex and the low-level Waste Sampling and Characterization Facility (WSCF) complex. The program also is responsible for integrating all site analytical services, establishing and implementing a site Analytical Services quality system, and for managing commercial contracts. Operation and maintenance of WSCF is comparable to that of commercial laboratories, where risks are from potential exposures to hazardous and low-level radioactive materials (less than 10mR/hr) and from common industrial hazards. Operation and maintenance of the 222-S laboratory involves a higher level of risk, mainly associated with inventories of highly radioactive (hundreds of R/hr) materials. Risks to the general public are low since release and dispersion of radioactive or hazardous materials outside of Hanford are not credible. Risks are present to worker safety and the environment at both facilities, and are higher at 222-S due to the higher radioactive inventory. Environmental risks are mainly associated with localized spills to the ground.

At minimum safe levels, 222-S and WSCF provide support to other Hanford programs to maintain their site minimum safe operations. This risk is assumed to be addressed in the other program's risk documentation. Examples of the analytical services role in other program's risks include:

- o Monitoring and assessing safety concerns in the high-level waste tanks
- o Characterizing 100-K Basin materials to support transport away from the Columbia River to the Canister Storage Building
- o Characterizing 105-N and 107-N Basin materials for the Environmental Restoration Contractor (ERC) in support of site restoration
- o Characterization of wastes generated during program operations, including stack sample analysis, liquid effluent analysis and solid waste characterization
- o Support to operating facilities, such as the 242-A Evaporator, the 200 Area Effluent Treatment Facility, and Solid Waste operations.

Risks associated with WSCF not being available are that fast turn around time analysis would not be available, resulting in impacts to the operations in the Liquid Effluents Project, and reduced capability at Hanford for timely responses to off-standard conditions.

Risks associated with 222-S not being available are greater due to the higher risks associated with the programs being supported and the limited alternatives available for high-level analytical support.

FY1998

September 26, 1997

B.4.2.0 Work Breakdown Structure

RL PBS	RL WBS Level	Title
RL-WM06	1.2.4.1.1A	HAS Management and Integration
	1.2.4.1.2A	HAS Management and Integration CENRTC
	1.2.4.1.1B	222-S Facility Operations and Maintenance
	1.2.4.1.2B	222-S CENRTC
	1.2.4.1.1C	WSCF Facility Operations and Maintenance
	1.2.4.1.2C	WSCF CENRTC
	1.2.4.1.1D	Laboratory Upgrades
	1.2.4.1.3D	222-S Projects
	1.2.4.1.1E	Commercial Laboratory Support

B.4.2.1 WBS Dictionary

The following pages contain the WBS dictionary for RL-WM06 as contained in the Central Milestone Module (CMM).

HNF-SP-1229, Rev. 1

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/22/1997

1. Activity Title: ANALYTICAL SERVICES	2. Date	3. PBS Number RL-WM06	4. Dict Rev
5. Contract WBS No. 1.2.4.1	6. Corresponding FDS No.	7. Baseline CR No.	
8. Organization Name			9. B & R No.
10. Scope of Work			

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/22/1997

1. Activity Title: HAS MANAGEMENT AND INTEGRATION		2. Date	3. PBS Number RL-WM06	4. Dict Rev
5. Contract WBS No. 1.2.4.1.1A	6. Corresponding FDS No. 1A5A	7. Baseline CR No.		
8. Organization Name HAS MANAGEMENT AND INTEGRATION			9. B & R No.	
10. Scope of Work Integration activities to establish consistent quality objectives for all analytical service providers and consistent environmental, safety, RADCON, program, and operational objectives for all onsite analytical services providers. Maintain an organization, independent of customer and service providers, that provides program planning to integrate customer needs with site-wide capabilities and coordinates Analytical Services quality system implementation and performs assessments.				

HNF-SP-1229, Rev. 1

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/22/1997

1. Activity Title: 222-S FACILITY OPERATIONS AND MAINTENANC		2. Date	3. PBS Number RL-WM06	4. Dict Rev
5. Contract WBS No. 1.2.4.1.1B	6. Corresponding FDS No. 1A5B	7. Baseline CR No.		
8. Organization Name 222-S LABORATORY			9. B & R No. EW3130030	
10. Scope of Work Ensure that the 222-S Laboratory Complex is available in a 'ready-to-serve' configuration that meets the capability and capacity requirements of the Hanford Mission. Workscope includes readiness for preparation and analyses of samples greater than 1 mr/hr. Workscope includes maintenance of the building and analytical equipment, engineering, quality assurance, health physics, utilities, waste disposal, and other activities required to ensure a safe, efficient operation of the Laboratory. This activity specifically operates at a level that supports the monitoring and characterization activities of other programs in order to maintain their minimum safe level.				

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/22/1997

1. Activity Title: WSCF FACILITY OPERATIONS AND MAINTENANCE	2. Date	3. PBS Number RL-WM06	4. Dict Rev
5. Contract WBS No. 1.2.4.1.1C	6. Corresponding FDS No. 1A5C	7. Baseline CR No.	
8. Organization Name WASTE SAMPLING AND CHARACTERIZATION FACILITY			9. B & R No. EW3130030
10. Scope of Work This activity provides for the operation and maintenance of the Waste Sample and Characterization Facility (WSCF) Complex in a ready-to-serve state. The mission of the WSCF is to provide general analytical chemistry services for samples less than 10 mR/hr in support of Hanford programmatic missions. Workscope includes operation and maintenance of the building and analytical equipment, field and analytical sampling and analyses, support from engineering, quality assurance and health physics, performance evaluation programs, laundry, utilities, waste burial/disposal, etc., production control and material control support, and other activities required to ensure a safe, efficient operation. This activity specifically operates at a level that supports the monitoring and characterization activities other programs perform in order to maintain their minimum safe level.			

HNF-SP-1229, Rev. 1

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTONARY WASTE MANAGEMENT WBS: 1.2

9/22/1997

1. Activity Title: LABORATORY UPGRADES		2. Date	3. PBS Number RL-WM06	4. Dict Rev
5. Contract WBS No. 1.2.4.1.1D	6. Corresponding FDS No. IA5D	7. Baseline CR No.		
8. Organization Name 222-S LABAORATORY				9. B & R No. EW3130030
10. Scope of Work General facility upgrades are required to ensure laboratory facility compliance with regulations such as NFPA, NEC, OSHA, etc. In addition, room life extension upgrades to address safety and production issues in order to maintain the 46-year old 222-S laboratory's viability to end of mission.				

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/22/1997

1. Activity Title: COMMERCIAL LABORATORY SUPPORT	2. Date	3. PBS Number RL-WM06	4. Dict Rev
5. Contract WBS No. 1.2.4.1.1E	6. Corresponding FDS No. 1A5E	7. Baseline CR No.	
8. Organization Name HAS MANAGEMENT & INTEGRATION			9. B & R No. EW3130030
10. Scope of Work This activity provides for the management and support of sample data laboratory administration, sample data log-in, verification, and transmittal and disposal of remaining sample waste material from commercial laboratories. This includes assistance to offsite laboratories for packaging, unpacking, logging of returned samples to site, and safe disposal of all wastes.			

HNF-SP-1229, Rev. 1

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY WASTE MANAGEMENT WBS: 1.2

9/22/1997

1. Activity Title: HAS MANAGEMENT AND INTEGRATION CENRTC		2. Date	3. PBS Number RL-WM06	4. Dict Rev
5. Contract WBS No. 1.2.4.1.2A	6. Corresponding FDS No. 2A5A	7. Baseline CR No.		
8. Organization Name HAS MANAGEMENT AND INTEGRATION				9. B & R No. EW3130030
10. Scope of Work Procurement of new, upgrade, or replacement analytical equipment and instrumentation for Chemistry, Analytical, and Technology support group (NUMATEC). Equipment replacement/upgrade is required to keep abreast of new technologies, improve productivity, and to support facility life extensions.				

HNF-SP-1229, Rev. 1

**HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2**

9/22/1997

1. Activity Title: 222-S LABORATORY CENRTC		2. Date	3. PBS Number RL-WM06	4. Dict Rev
5. Contract WBS No. 1.2.4.1.2B	6. Corresponding FDS No. 2A5B	7. Baseline CR No.		
8. Organization Name 222-S LABORATORY			9. B & R No. EW3130030	
10. Scope of Work Procurement of new, upgrade, or replacement analytical equipment and instrumentation for 222-S Laboratory. Equipment replacement/upgrade is required to keep abreast of new technologies, improve productivity, and facility life extension.				

HNF-SP-1229, Rev. 1

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY WASTE MANAGEMENT WBS: 1.2

9/22/1997

1. Activity Title: WSCF LABORATORY CENRTC		2. Date	3. PBS Number RL-WM06	4. Dict Rev
5. Contract WBS No. 1.2.4.1.2C	6. Corresponding FDS No. 2A5C	7. Baseline CR No.		
8. Organization Name WASTE SAMPLING & CHARACTERIZATION FACILITY				9. B & R No. EW3130030
10. Scope of Work Procurement of new, upgrade, or replacement analytical equipment and instrumentation for the Waste Sampling and Characterization Facility. Equipment replacement/upgrade is required to keep abreast of new technologies, improve productivity, and facility life extension.				

HANFORD SITE WORK BREAKDOWN STRUCTURE DICTIONARY
WASTE MANAGEMENT
WBS: 1.2

9/22/1997

1. Activity Title: 222-S LABORATORY PROJECTS		2. Date	3. PBS Number RL-WM06	4. Dict Rev
5. Contract WBS No. 1.2.4.1.3D	6. Corresponding FDS No. 3A5D	7. Baseline CR No.		
8. Organization Name 222-S LABORATORY				9. B & R No. 39EW31303
10. Scope of Work This activity addresses the activities to be completed in Phase II of Line Item Project W-178, 219-S Secondary Containment. Once complete, this phase will have addressed the Analytical Services portion of the M-32 milestone connecting the tanks in 219-S to the transfer pipeline in Project W-087, Radioactive Waste Transfer Lines (to be completed December 1997 with final closeout in January 1997). These tanks will receive the liquid waste from the 222-S laboratory. Once interconnected with the transfer pipelines, this system will alleviate the need to transfer liquid waste from the 222-S laboratory to the tanks via tanker truck. Failure to complete this project will result in less 219-S tank space being available than originally planned. This would result in less flexibility in the 222-S Laboratory operations. These tanks will be storing dilute quantities of radioactive wastes. The tanks will have to meet the regulations governing the stability and containment of these wastes. To accomplish this task, this activity will include the removal of Tanks 101 and 102 from service to allow the tanks to be physically removed from the concrete vault. A prefabricated stainless steel liner will then be installed in the bottom of the vault. The tanks will then be reinstalled and seismically secured. Leak capabilities will also be installed. At the end of Phase II, Tanks 101 and 102 will be placed back into service along with Tank 104 which was previously installed during Phase I of the project. Completion of these activities will bring the 219-S facility into compliance with WAC 173-303 state requirements for secondary containment and leak detection.				

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FY1998

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B.4.2.2 Responsibility Assignment Matrix

The following page contains the Responsibility Assignment Matrix (RAM) as contained in the Central Milestone Module (CMM).

Mission Area Responsibility Assignment Matrix

9/22/1997

HNF-SP-1229, Rev. 1

Proj Lvl (PBS #)	FDS Act Number	Activity Title	Activity Manager	Responsible Organization	Cost Account
RL-WW06		ANALYTICAL SERVICES			
	1A5A	HAS MANAGEMENT AND INTEGRATION	J. E. HYATT	HAS MANAGEMENT AND INTEGRATION	
	1A5B	222-S FACILITY OPERATIONS AND MAINTENANCE	L. F. PERKINS	222-S LABORATORY	
	1A5C	WSCF FACILITY OPERATIONS AND MAINTENANCE	G. E. MILLWARD	WASTE SAMPLING AND CHARACTERIZATION FAC	
	1A5D	LABORATORY UPGRADES	L. F. PERKINS	222-S LABORATORY	
	1A5E	COMMERCIAL LABORATORY SUPPORT	J. E. HYATT	HAS MANAGEMENT & INTEGRATION	
	2A5A	HAS MANAGEMENT AND INTEGRATION CEHRTC	J. E. HYATT	HAS MANAGEMENT AND INTEGRATION	
	2A5B	222-S LABORATORY CEHRTC	L. F. PERKINS	222-S LABORATORY	
	2A5C	WSCF LABORATORY CEHRTC	G. E. MILLWARD	WASTE SAMPLING & CHARACTERIZATION FACIL	
	3A5D	222-S LABORATORY PROJECTS	L. F. PERKINS	222-S LABORATORY	

FY1998

September 26, 1997

B.4.3.0 Schedule Baseline

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary (PBS) guidance.

HSEMS 2.5.1.5 222-S Labs Ops & Maint

HSEMS 2.5.1.5 222-S Labs Ops & Maint

PROVIDE 222-S SUPP. SPENT NUCLEAR FUELS PROJECT	
PROVIDE 222-S SUPP. TO 200 AREA ETF	
PROVIDE 222-S SUPP. FLAMMABILITY SAFETY ISSUE	From TW P ₆
PROVIDE 222-S SUPP. TWRS TANK WASTE CHAR.	From TW - End Character Proj./ T/O to Retrieval P ₆
PROVIDE 222-S SUPP. TWRS PROCESS WASTE SUP PROJ.	
PROVIDE 222-S SUPP. TWRS SST RETRIEVAL	From TW P ₆
PROVIDE 222-S SUPP. TO 200 AREA D & D PROJECT	PROVIDE 222-S SUPP.
PROVIDE 222-S SUPP. TANK FARMS SAFE OPERATIONS	

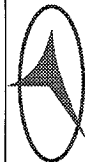
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WASTE MANAGEMENT HANFORD
PBS WM06 - ANALYTICAL SERVICES
PROJECT MASTER BASELINE SCHEDULE



B.4.3-3

B.4.3-5

B.4.3-7

Activity ID	Activity Description	Early Start	Early Finish	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RL-WM06 Analytical Services																		
AS&NS 2.5.1.5 222-S Labs Ops & Maint																		
222-S Lab Safety																		
AS601	PROVIDE 222-S SUPP. SPENT NUCLEAR FUELS PROJECT	01OCT97*	28SEP01															
AS610	PROVIDE 222-S SUPP. TO 200 AREA EIF	01OCT97*	30SEP32															
AS620	PROVIDE 222-S SUPP. FLAMMABILITY SAFETY ISSUE	01OCT97*	28SEP01															
AS625	PROVIDE 222-S SUPP. TWRS TANK WASTE CHAR.	01OCT97*	30SEP02															
AS630	PROVIDE 222-S SUPP. TWRS PROCESS WASTE SUP PROJ	01OCT97*	29SEP34															
AS650	PROVIDE 222-S SUPP. TANK FARMS SAFE OPERATIONS	01OCT97*	29SEP34															
AS664	PROVIDE 222-S SUPP. TO 200 AREA D & D PROJECT	01OCT97*	30SEP32															
AS670	PROVIDE 222-S SUPPORT TO WRAP I OPERATIONS	01OCT97*	30SEP31															
AS671	PROVIDE 222-S SUPPORT TO T PLANT	01OCT97*	28SEP35															
AS675	PROVIDE 222-S SUPPORT TO B PLANT SUBPROJECT	01OCT97*	30SEP99															
AS676	PROVIDE 222-S SUPPORT TO WESF	01OCT97*	30SEP19															
AS677	PROVIDE 222-S SUPPORT TO 300 AREA SNM	01OCT97*	29SEP00															
AS678	PROVIDE 222-S SUPPORT TO PFP DEACTIVATION	01OCT97*	13NOV06															
AS679	PROVIDE 222-S SUPPORT TO PFP STABILIZATION	01OCT97*	31MAY02															
AS680	PROVIDE 222-S SUPPORT TO PFP VAULT MANAGEMENT	01OCT97*	01OCT03															
AS681	PROVIDE 222-S SUPPORT TO K BASIN PROJECT	01OCT97*	30DEC05															
AS682	PROVIDE 222-S SUPP TO 300 AREA REVITALIZATION	01OCT97*	28SEP07															

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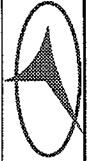
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WASTE MANAGEMENT HANFORD
PBS WM06 - ANALYTICAL SERVICES
FY98 - EXECUTION YEAR PMBS



Activity ID	Activity Description	Early Start	Early Finish	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
222-S Technology																		
AS689	PROVIDE 222-S SUPPORT TO 242-A EVAPORATOR	01OCT197*	30SEP13															
AS690	SHIP 222-S AQUEOUS LIQ. WASTE TO TANK FARMS	01OCT197*	30SEP48															
AS692	SHIP 222-S LLR WASTE TO CWC	01OCT197*	28SEP35															
AS693	SHIP 222-S MIXED WASTE TO CWC	01OCT197*	28SEP35															
AS694	222-S LIQUID CONDENSATE TO 200 AREA TEDF	01OCT197*	28SEP35															
AS699	SEND 222-S LIQUID WASTE TO 200 AREA ETF	01OCT197*	30SEP32															
ASVB2	M-32-02-102 Compl. Upgd's ExisLXfr Lines(W-487)		31DEC97*															
ASWM1	Submit Revised 222-S Part B Permit for Rev/Comm		31MAR98*															
ASWM2	Submit Annual ISB Update for Review & Approval		29MAY98*															
ASWM3	Subm Annual Update to 222-S Basin Haz Assessmnt		30SEP98*															
HSEMS 222-S WSCF Labs Ops & Maint																		
WSCF Laboratory																		
AS501	PROVIDE WSCF SUPP. FOR SPENT NUCLEAR FUELS	01OCT97*	28SEP01															
AS507	PROVIDE WSCF SUPP. FOR SITE GW REMED. ACTIONS	01OCT97*	30SEP30															
AS508	PROVIDE WSCF SUPP. TO 200 AREA ETF	01OCT97*	29SEP34															
AS509	PROVIDE WSCF SUPP. TO 200 AREA TEDF	01OCT97*	28SEP35															
AS510	SEND WSCF LL LIQUID WASTE TO 200 AREA TEDF	01OCT97*	28SEP35															
AS515	PROVIDE WSCF SUPP. TO WRAP I OPERATIONS	01OCT97*	30SEP31															
AS516	PROVIDE WSCF ANALYTICAL SUPPORT TO T PLANT	01OCT97*	28SEP35															
Submit Annual ISB Update for Review & Approval ◆ AS-98-001 Submit Annual Update to 222-S Basin Haz Assessmnt ◆ AS-98-002																		
Submit Revised 222-S Part B Permit for Rev/Comm ◆ AS-97-004																		
M-32-02-102 Compl. Upgd's ExisLXfr Lines(W-487) ◆ AS-97-014																		
PROVIDE WSCF SUPP. FOR SPENT NUCLEAR FUELS																		
PROVIDE WSCF SUPP. FOR SITE GW REMED. ACTIONS																		
PROVIDE WSCF SUPP. TO 200 AREA ETF																		
PROVIDE WSCF SUPP. TO 200 AREA TEDF																		
SEND WSCF LL LIQUID WASTE TO 200 AREA TEDF																		
PROVIDE WSCF SUPP. TO WRAP I OPERATIONS																		
PROVIDE WSCF ANALYTICAL SUPPORT TO T PLANT																		



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WASTE MANAGEMENT HANFORD
PBS WM06 - ANALYTICAL SERVICES
FY98 - EXECUTION YEAR PMBS

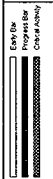
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Project Start
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Contract

Activity ID	Activity Description	Early Start	Early Finish	DEC	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
WSCF Lab/Shop																		
AS520	PROVIDE WSCF SUPPORT TO LL BURIAL GROUNDS	01OCT97*	30SEP48															
AS521	PROVIDE WSCF SUPPORT TO RAD MIXED WASTE TRENCHES	01OCT97*	30SEP48															
AS525	PROVIDE WSCF SUPP TO 300 AREA REVITALIZATION	01OCT97*	28SEP07															
Commercial Labs Ops & Maint																		
Commercial Laboratory																		
ASA11	PROVIDE COMMERCIAL LAB SUPP. TO 300 AREA TEFD	01OCT97*	23MAR26															
ASA12	PROVIDE COMMERCIAL LAB SUPP. SPENT NUCLEAR FUELS	01OCT97*	28SEP01															
ASA30	PROVIDE COMM. SUPP 100 AREA REMEDIAL ACTIONS	01OCT97*	30SEP13															
ASA31	PROVIDE COMM. SUPP. 200 AREA REMEDIAL ACTIONS	01OCT97*	30SEP30															
ASA32	PROVIDE COMM. SUPP. 300 AREA REMEDIAL ACTIONS	01OCT97*	30SEP13															
ASA35	PROVIDE COMM. LAB SUPP - 300 AREA REVITALIZATION	01OCT97*	28SEP07															
ASA36	PROVIDE COMM. LAB SUPP TO K BASIN PROJECT	01OCT97*	30DEC05															

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Project Start: 01OCT97
 Project Plan: 30SEP48
 Project Execution: 01OCT97
 Project Completion: 30SEP07

WASTE MANAGEMENT HANFORD
 PBS WM06 - ANALYTICAL SERVICES
 FY98 - EXECUTION YEAR PMBS

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MYWP/SSPP PLANNING MILESTONE LIST
REPORTING PERIOD 10/01/97 TO 12/31/20

MILESTONE CONTROL #	TPA-MS NUMBER	TPA TYPE	MS LEVEL	MS TITLE	TYPE	DATES				PBS #
						PLANNED BASELINE	APPROVED BASELINE	REVISED BASELINE	PROJ CIN	
AS-97-004			RL	SUBMIT REVISED 222-S PART B PERMIT FOR REVIEW AND COMMENT	OTH	3/31/98				RL-IM06
AS-98-001			RL	SUBMIT ANNUAL INTERIM SAFETY BASIS UPDATE FOR REVIEW AND APPROVAL	OTH	5/29/98				RL-IM06
AS-97-015	M-32-02		HQ	COMPLETE 219-S TANK INTERIM STATUS ACTIONS (M32-02)	EA	4/30/99				RL-IM06
AS-99-001	M-32-02-T03	T	RL	COMPL CONSTR UPGRADES TO 219-S FACIL (PROJ M-178) (M-32-02-T03)	OTH	4/30/99				RL-IM06
AS-98-002			RL	SUBMIT ANNUAL UPDATE TO 222-S BASELINE HAZARD ASSESSMENT	OTH	9/30/98				RL-IM06
AS-97-014	M-32-02-T02	T	RL	COMPL UPGR S FOR EXISTING TRANSFER LINES (PROJ M-087) (M-32-02-T02)	OTH	12/31/97				RL-IM06

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT REVISED 222-S PART B PERMIT FOR REVIEW AND COMMENT				Date: 8/26/97	
Assigned To: K.J. TOLLEFSON				CIN:	
Program WBS Designator: 1.2.4.1				Due Date: 3/31/98	
PBS No: RL-WM06					
MC #: AS-97-004			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: The revised 222-S Part B Permit is to be submitted to the Dept. of Ecology (Ecology) and the Environmental Protection Agency (EPA) in March 1998 for review and comment.					
Description of what constitutes completion of this milestone: A letter will be transmitted to DOE-RL March 31, 1998, stating the Part B Permit has been submitted to Ecology and EPA for review and comment.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT ANNUAL INTERIM SAFETY BASIS UPDATE FOR REVIEW AND APPROVAL				Date: 8/26/97	
Assigned To: S.L. BREY				CIN:	
Program WBS Designator: 1.2.4.1				Due Date: 5/29/98	
PBS No: RL-WM06					
MC #: AS-98-001			TPA No:		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report Letter Drawing(s) X Other (Specify) ISB UPDATE	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Submit annual update of the 222-S Facility Interim Safety Basis (ISB) to DOE-RL.					
Description of what constitutes completion of this milestone: Transmit annual update of ISB to DOE-RL by May 29, 1998.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPLETE 219-S TANK INTERIM STATUS ACTIONS (M32-02)				Date: 8/26/97	
Assigned To: M.A. CAHILL				CIN:	
Program WBS Designator: 1.2.4.1				Due Date: 4/30/99	
PBS No: RL-WM06					
MC #: AS-97-015			TPA No: M-32-02		Rev:
MILESTONE LEVEL:	MILESTONE TYPE:	DNFSB STATUS:	DELIVERABLE:	ADDRESS TO:	
X DOE-HQ DOE-RL DOE-FO CONTRACTOR	X EA PEG OTHER	DNFSB (Y/N): N COMMIT #: RECOMM #:	Report X Letter Drawing(s) Other (Specify)	X DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Complete 219-S Tank interim status actions (M-32-02). Completion of M-32-02 consists of completion of construction on Project W-087, Radioactive Waste Transfer Line (M-32-02-T02); and completion of construction on Project W-178, 219-S Secondary Containment (M-32-02-T03).					
Description of what constitutes completion of this milestone: Completion of M-32-02 is defined as preparation of the Official Acceptance of Construction, Section 1, 'Inspection and Acceptance'. A letter will be submitted to DOE-RL for transmittal to the regulators to close M-32-02.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPL.CONSTR.UPGRADES TO 219-S FACIL.(PROJ.W -178)(M-32-02-T03)				Date: 8/26/97	
Assigned To: M.A. CAHILL				CIN:	
Program WBS Designator: 1.2.4.1				Due Date: 4/30/99	
PBS No: RL-WM06					
MC #: AS-99-001			TPA No: M-32-02-T03		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: X DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Upgrade 219-S to meet secondary containment requirements (M-32-02-T03). M-32-02-T03 is the last of three Tri-Party Agreement (TPA) target milestones required to complete interim TPA milestone M-32-02, complete 219-S Tank Interim Status Actions.					
Description of what constitutes completion of this milestone: Completion of target M-32-02-T02 is defined as preparation of the Official Acceptance of Construction, Section 1, 'Inspection and Acceptance'. A letter will be submitted to DOE-RL for transmittal to the regulators to close M-32-02-T03.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: SUBMIT ANNUAL UPDATE TO 222-S BASELINE HAZARD ASSESSMENT				Date: 8/26/97	
Assigned To: D. PENFIELD				CIN:	
Program WBS Designator: 1.2.4.1				Due Date: 9/30/98	
PBS No: RL-WM06					
MC #: AS-98-002			TPA No:		Rev:
MILESTONE LEVEL:	MILESTONE TYPE:	DNFSB STATUS:	DELIVERABLE:	ADDRESS TO:	
DOE-HQ X DOE-RL DOE-FO CONTRACTOR	EA PEG X OTHER	DNFSB (Y/N): N COMMIT #: RECOMM #:	X Report X Letter Drawing(s) Other (Specify)	DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Perform annual update to Baseline Hazard Assessment (BHA) for 222-S Facility.					
Description of what constitutes completion of this milestone: Transmit a letter and the annual Baseline Hazard Assessment report to Analytical Services management and DOE-RL by September 30, 1998.					

PHMC

MILESTONE DESCRIPTION SHEET

Title: COMPL.UPGR'S FOR EXISTING TRANSFER LINES(PROJ.W-087)(M-32-02-T02)				Date: 8/19/97	
Assigned To: M.A. CAHILL				CIN:	
Program WBS Designator: 1.2.4.1				Due Date: 12/31/97	
PBS No: RL-WM06					
MC #: AS-97-014			TPA No: M-32-02-T02		Rev:
MILESTONE LEVEL: DOE-HQ X DOE-RL DOE-FO CONTRACTOR	MILESTONE TYPE: EA PEG X OTHER	DNFSB STATUS: DNFSB (Y/N): N COMMIT #: RECOMM #:	DELIVERABLE: Report X Letter Drawing(s) Other (Specify)	ADDRESS TO: DOE-HQ X DOE-RL Other (Specify)	
Milestone Description: Upgrade existing transfer lines to meet secondary containment requirements (M-32-02-T02). M-32-02-T02 is the second of three Tri-Party Agreement (TPA) target milestones required to complete interim TPA milestone M-32-02, Complete 219-S Tank Interim Status Actions.					
Description of what constitutes completion of this milestone: Completion of target milestone M-32-02-T02 is defined as preparation of the Official Acceptance of Construction, Section 1, 'Inspection and Acceptance'. A letter will be submitted to DOE-RL for transmittal to the regulators to close M-32-02-T02.					

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HNF-SP-1229

Rev. 1

Waste Management Project

WBS 1.2

FY1998

September 26, 1997

B.4.4.0 Cost Baseline

ANALYTICAL SERVICES	
SUMMARY OF LIFE CYCLE COST BASELINE (BCWS)	BY YEAR BY
BY PROJECT BASELINE SUMMARY (PBS)	
FY 1998	
(\$000s)	

[illegible]

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS)
Equals Performance Measurement Baseline
(PMB); Expense Carryover Is NOT Included.

ANALYTICAL SERVICES
SUMMARY OF LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998
(\$000s)

EXHIBIT 1a

PROJECT WBS :												
1.2.4.1												
		TOTAL										
PBS TITLE	PBS NO	FY2007-	FY2011-	FY2016-	FY2021-	FY2026-	FY2031-	FY2036-	FY2041-	FY2046-	TOTAL	
		FY2010	FY2015	FY2020	FY2025	FY2030	FY2035	FY2040	FY2045	FY2050	FY1997-	FY2050
ANALYTICAL SERVICES	RL-WM06	139,484	175,105	223,605	231,684	148,000	146,500	145,000	133,000	130,000	#####	#####
												-
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(ANALYTICAL SERVICES)
LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998
(\$000s)

PROJECT PBS:		1.2.4.1		ANALYTICAL SERVICES											SUBTOT	
PBS NO:		WM06														
PBS TITLE:																
FUND	FUND TYPE	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY1997- FY2006				
	OPERATING EXPENSE	30,227	25,405	25,618	32,921	33,506	35,049	35,607	36,666	36,624	36,578	328,207				
	CE/NTIC	1,000	1,000	1,000	2,110	2,167	2,225	2,285	2,347	2,410	2,475	19,019				
	GENERAL PLANT PROJECT						700	1,100				1,800				
	LINE ITEM (List Each One)															
	W-497 Reductive Waste Transfer Line															
	W-178 ZEP-S Secondary Containment															
	W-567-ZZS-S Auxiliary Equipment		1,986	514	1,000	3,000	1,000					2,500				
	W-xxx ZEP-S Major Upgrade											5,000				
	W-xxx WSCF Major Upgrade											-				
	Subtotal Line Items	-	1,986	514	1,000	3,000	1,000	-	-	-	-	7,500				
	TOTAL BCWS/PMB ¹	31,227	26,391	27,132	35,031	38,673	38,974	38,992	39,013	39,034	39,053	356,520				
	MGMT RESERVE ²															
	LINE ITEM CONTINGENCY ²															
	OFFSITE TRANSFERS ³															
	Subtotal	-	-	-	-	-	-	-	-	-	-	-				
	TOTAL	31,227	26,391	27,132	35,031	38,673	38,974	38,992	39,013	39,034	39,053	356,520				

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB).

²Expense Carryover NOT Included.

³Management Reserve and Line Item Contingency Held by RL.

⁴Work Performed at Sites Other Than Hanford

(ANALYTICAL SERVICES)
LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)
FY 1998
(\$000s)

PROJECT WBS:		1.2.4.1								
PBS NO:		W005								
PBS TITLE:		ANALYTICAL SERVICES								
FUND	FY2007-	FY2011-	FY2016-	FY2021-	FY2026-	FY2031-	FY2036	FY2041-	FY2046	TOTAL
TYPE	FY2010	FY2015	FY2020	FY2025	FY2030	FY2035	FY2040	FY2045	FY2050	FY1997-
OPERATING EXPENSE	127,284	159,105	159,105	153,684	132,000	132,000	132,000	128,000	127,000	1,578,379
GENRTO	9,200	11,500	11,500	3,500	11,500	11,500	11,500	3,500	1,900	94,219
GENERAL PLANT PROJECT	3,000	4,500	3,000	4,500	4,500	3,000	1,500	1,500	1,500	28,800
LINE ITEM (List Each One)										
W-487, Radioactive Waste Transfer Line										
W-178, 219-S Secondary Containment										
W067-222-S Auxiliary Equipment										
W-xxx, 222-S Major Upgrade										
W-xxx, WSCF Major Upgrade										

Note: The information for FY1998 and FY1999 cont. is the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB);

Expense Carryover NOT Included.

²Management Reserve and Line Item Contingency Held by RL

³Work Performed at Sites Other Than Hanford.

(ANALYTICAL SERVICES)
FY 1998 COST BASELINE (BCWS) BY MONTH
BY PROJECT BASELINE SUMMARY (PBS)
BY ACTIVITY DATA SHEET (ADS)
EXECUTION YEAR
(\$000s)

PROJECT WBS:		1.2.4.1														
PBS NO:		WM-06														
PBS TITLE:		ANALYTICAL SERVICES														
ADS TITLE	ADS NO	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL	
LABORATORY OPERATIONS & UPGRADES	7100-0	OP EXP	1,728	2,191	1,788	1,842	1,833	2,457	1,939	2,474	2,107	1,726	2,383	2,162	24,630	
		CENRTC	72	92	72	76	76	100	80	96	80	72	100	88	1,000	
		GPP														
		LI														
		SUBTOT	1,800	2,283	1,860	1,918	1,909	2,557	2,019	2,570	2,187	1,798	2,483	2,250	25,630	
RADIOACTIVE WASTE TRANSFER	7100-2	OP EXP	12	15	9	7									43	
		CENRTC														
		GPP														
		LI														
		SUBTOT	12	15	9	7										
219-S SECONDARY CONTAINMENT UPGRADE	7100-3	OP EXP	44	56	46	34	61	80	64	77	64	58	80	70	732	
		CENRTC														
		GPP														
		LI	-	-	-	47	179	257	200	311	150	200	225	417	1,886	
		SUBTOT	44	56	46	81	240	337	264	388	214	258	305	487	2,718	
		OP EXP														
		CENRTC														
		GPP														
		LI														
		SUBTOT														

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.
 *Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is NOT included.

EXHIBIT 2a

B.4.4-7

TOTAL RCWS/PMB¹

Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover Is NOT Included.

EXHIBIT 2

(ANALYTICAL SERVICES)

FY 1998 COST BASELINE (BCWS) BY MONTH BY FUND TYPE BY PROJECT

EXECUTION YEAR

(\$000s)

PROJECT WBS	PROJECT TITLE	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.2.4.1	ANALYTICAL SERVICES (RL-WM06)	Operating Expense	1,783	2,262	1,843	1,883	1,894	2,537	2,003	2,551	2,171	1,784	2,463	2,232	25,405
		CENRTC	71.7	91.6	71.7	75.7	75.7	99.6	79.7	95.6	79.7	71.7	99.6	87.6	1,000
		GPP													0
		Line Item				47	179	257	200	311	150	200	225	417	1,986
		Total BCWS/PMB ¹	1,855	2,353	1,915	2,006	2,149	2,894	2,283	2,957	2,401	2,055	2,788	2,737	28,391
		Mgmt Reserve ²													0
		Line Item Contingency ²													0
Total		Offsite Transfers ³													0
			1,855	2,353	1,915	2,006	2,149	2,894	2,283	2,957	2,401	2,055	2,788	2,737	28,391

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is Not Included.

²Management Reserve and Line Item Contingency Held By RL

(ANALYTICAL SERVICES)
 FY 1998 COST BASELINE (BCWS) BY MONTH BY COST ELEMENT BY PROJECT
 EXECUTION YEAR
 (\$000s)

PROJECT WBS	PROJECT TITLE	COST ELEMENT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL	
1.2.4.1	Analytical Services (RL-WM06)	0 Salaries	310	1,024	802	873	874	1,152	914	1,233	1,029	827	1,141	1,012	11,691	
		1 Material	108	137	120	121	118	152	119	143	123	108	149	134	1,522	
		2 Purchased Serv	84	105	105	91	99	134	111	117	101	82	112	114	1,255	
		3 Other Contr Chgs	6	8	6	8	8	11	9	10	9	8	11	10	104	
		4 Internal Serv	194	248	196	207	208	273	219	262	219	196	273	241	2,736	
		5 Internal Chgs	98	125	100	104	111	154	122	146	123	110	153	305	1,650	
		6 LMSI	2	3	2	2	3	3	6	3	2	2	3	3	34	
		7 Overheads	427	542	435	467	495	682	524	672	550	472	643	612	6,501	
		8 Revenue														0
		9 Enterprise Cos	125	161	149	133	233	353	259	371	245	250	303	305	2,888	
Total BCWS/PMB ¹		1,855	2,353	1,915	2,006	2,149	2,894	2,283	2,957	2,401	2,055	2,788	2,736		28,391	

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

¹Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is **Not** Included.

[illegible]

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

EXHIBIT 4a

Page 10 of 13

9/23/97

(ANALYTICAL SERVICES)
LIFE CYCLE BUDGET AUTHORITY (B/A) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)

FY 1998
(\$000s)

PROJECT WBS:		1.2.4.1											
PBS NO:		WM06											
PBS TITLE:		ANALYTICAL SERVICES											
FUND TYPE	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	SUBTOT		
OPERATING EXPENSE	28,739	25,405	25,618	32,921	33,506	35,049	35,607	36,666	36,624	36,578	FY1997- FY2006		
											FY1997- FY2006		
CENRTC	1,000	1,000	1,000	2,110	2,167	2,225	2,285	2,347	2,410	2,475	19,019		
GENERAL PLANT PROJECT						700	1,100				1,800		
LINE ITEM (List Each One)													
W-178, 219-S Secondary Containment	-	2,500									2,500		
W-387, 222-S Ancillary Equipment				1,000	3,000	1,000					5,000		
W-xxx, 222-S Major Upgrades											-		
W-xxx, WSCF Major Upgrades											-		
Subtotal Line Items	-	2,500	-	1,000	3,000	1,000	-	-	-	-	7,500		
TOTAL NEW B/A	29,739	28,905	26,618	36,031	38,673	38,974	38,992	39,013	39,034	39,053	355,032		

Note: The information for FY1998 and FY1999

contains the planning guidance while FY2000
 and beyond contains the Project Baseline
 Summary guidance.

(ANALYTICAL SERVICES)
LIFE CYCLE BUDGET AUTHORITY (B/A) BY YEAR BY FUND TYPE
BY PROJECT BASELINE SUMMARY (PBS)

FY 1998
(\$000s)

PROJECT WBS:		1.2.4.1									
PBS NO:		WM06									
PBS TITLE:		ANALYTICAL SERVICES									
FUND	FY2007- FY2010	FY2011- FY2015	FY2016- FY2020	FY2021- FY2025	FY2026- FY2030	FY2031- FY2035	FY2036- FY2040	FY2041- FY2045	FY2046- FY2050	TOTAL	
TYPE											
OPERATING EXPENSE	127,284	159,105	159,105	153,684	132,000	132,000	132,000	128,000	127,000	1,576,891	
CENRTC	9,200	11,500	11,500	3,500	11,500	11,500	11,500	3,500	1,500	94,219	
GENERAL PLANT PROJECT	3,000	4,500	3,000	4,500	4,500	3,000	1,500	1,500	1,500	28,800	
LINE ITEM (List Each One)											
W-178, 219-S Secondary Containment										2,500	
W-367, 222-S Ancillary Equipment										5,000	
W-xxx, 222-S Major Upgrades			50,000	50,000						100,000	
W-xxx, WSCF Major Upgrades				20,000						20,000	
Subtotal Line Items	-	-	50,000	70,000	-	-	-	-	-	127,500	
TOTAL NEW B/A	139,484	175,105	223,605	231,684	148,000	146,500	145,000	133,000	130,000	1,827,410	

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

STAFF1

ANALYTICAL SERVICES
3 DIGIT CONTRACTOR IDENTIFIER-PR-XXXX
 Revision 0
AVERAGE ANNUAL FULL TIME EQUIVALENTS
 (includes Major Subcontractors but not Enterprise Companies)

Submittal Date: 8/29/97

PHBS 1.2.4.1

PBS Number	PBS Title	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007

RL-WM06	Analytical Services	165	161	192	192	193	188	187	185	185	185

Total PBS FTEs

165	161	192	192	193	188	187	185	185	185

Note: The information for FY1998 and FY1999 contains the planning guidance while FY2000 and beyond contains the Project Baseline Summary guidance.

FY1998

September 26, 1997

Appendix A
Waste Management Project Pools

- **1MDDOP - Hazardous Waste Analysis**
- **1ML - Solid Waste Service Assessment Pool**
- **1MDR - Analytical Services Assessment Pool**

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25-Aug-97

Revision # 0

Cost Account Number	Cost Account Title

1MDD0P	Hazardous

WBS Number	WBS Title

6.1.1.2.1.1 Hazardous Waste Analysis

Budget Analyst

J.A. Hunt

Cost Account Manager

J.B. Buckley

Financial Manager

L.L. Powers

Program Manager

C.G. Mattsson

RL Program Manager

T.K. Teynor

Full Time Equivalents (FTEs)

■

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15

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Total

0.2

SECRET

100

100

10

100

Total Baseline

SIGNATURES

CAM:

Program Manager:

PI Program Manager:

Date: 01-11-2017

Date: 8/21/07

Date: 01/26/19

Date: 01/16/23

BASELINE APPROVAL:

Date _____

Indirect Program Administration

FY 1998 Annual Work Plan

Part II - Activity Detail

CAP # 1MDD0P

COST ACCOUNT WORKSCOPE SUMMARY

Provide documentation which meets waste disposal and landfill acceptance criteria to send non-regulated waste to offsite landfills. Shipment of hazardous and non-regulated waste directly offsite. Preparation activities include preparing shipping documents, profiling, transport scheduling, traffic inspection coordination, maintenance of records, spill response, sampling of unknown wastes and orphan containers, and demolition of stock sensitive chemicals. Provide product predetermination including technical guidance and maintenance of the Product Predetermination List. Manage contracts with offsite Treatment, Storage, and Disposal Facilities (TSDF) which receive waste from Hanford. Inspect and evaluate the condition and performance of these offsite TSDF's. Maintain the Solid Waste Engineering Analysis database which is a tool used by site waste generators to designate waste.

APPROVED BASELINE:

Activity Description

Services to Hanford Site for product predetermination, technical guidance, documentation and shipping of hazardous, non-hazardous and non-regulated waste to offsite waste disposal and landfill destinations.

Mutually Agreed Upon Workscope Deliverables and Due Dates

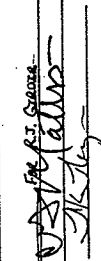
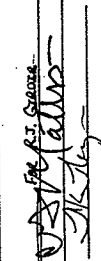
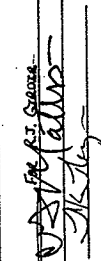
APPROVED BASELINE:		FY 1998	
Activity Description	FTEs	Dollars	
Services to Hanford Site for product predetermination, technical guidance, documentation and shipping of hazardous, non-hazardous and non-regulated waste to offsite waste disposal and landfill destinations.			
Mutually Agreed Upon Workscope Deliverables and Due Dates			
1			
2			
Subtotal Net	2.0	225	
Total Activity	2.0	251	
Approved Net	2.0	225	
Approved Total	2.0	251	

FY 1998 Annual Work Plan Part I - Summary

25-Aug-97

Revision # 0

Cost Account Number		Cost Account Title	Funding Source:	
1ML		Solid Waste Service Assessment Pool	G&A	
WBS Number		WBS Title	Service Center	X
7.1.1.3.3		Solid Waste Service Pool	DOH/PMA	
Budget Analyst		K.L. Haberman	FY 1998 CAP	
Cost Account Manager		R.J. Giroir	COST ELEMENTS	\$000'S
Financial Manager		L. L. Powers	0 Labor	2,188
Program Manager		C.G. Mattsson	1 Materials	632
RL Program Manager		T.K. Teynor	2 Purchased Services	0
			3 Other Hanford Contractors	256
Full Time Equivalents (FTEs)				
Organizational Support	Exempt	Nonexempt	Bargaining	Total
	17.9	2.5	10.5	30.9
	0.0	0.0	0.0	0.0
	17.9	2.5	10.5	30.9
			Subtotal Net Budget	
			3,948	
		4 Site Services		759
		5 Internal Charges		0
		6 LMSI Support		5
		7C DOH		339
Total Baseline			5,051	

SIGNATURES		BASELINE APPROVAL:	
CAM: 	Date: 8/26/97	Date	
Program Manager: 	Date: 8/26/97	Indirect Program Administration	
RL Program Manager: 	Date: 8/26/97		

FY 1998 Annual Work Plan

HNF-SP-1229, Rev. 1

Part II - Activity Detail

CAP # 1ML

COST ACCOUNT WORKSCOPE SUMMARY

ML accounts provide for storage or disposal of Low Level Waste, Low Level Mixed Waste and Transuranic waste receipts per the requirements of the Hanford Site Waste Acceptance Criteria in support of onsite and offsite generators and for shipment coordination of offsite hazardous waste shipments for treatment and disposal in support of onsite generators. Activities also include SWITS data management and waste forecasting.

APPROVED BASELINE:

Activity Description 1ML2

Solid Waste Assessment Data Management: SWITS input includes inventory tracking and waste forecasting activities.

Mutually Agreed Upon Workscope Deliverables and Due Dates

- 1
- 2

Subtotal Net	3.2	903.2
Total Activity	3.2	941.6

Activity Description 1ML4

Low Level Waste Disposal: waste approvals, receipts, verifications, and generator assistance, in accordance with applicable permits and waste receipt criteria. Maintain waste disposal trenches ready to receive waste

Mutually Agreed Upon Workscope Deliverables and Due Dates

- 1
- 2

Subtotal Net	14.2	1,735.5
Total Activity	14.2	2,598.8

FY 1998 Annual Work Plan

HNF-SP-1229, Rev. 1

Part II - Activity Detail, cont.

CAP # 1ML

Activity Description 1ML5

TRU storage: waste approvals, receipts, verifications, and generator assistance, in accordance with applicable permits and waste receipt criteria. Also, Non-Destructive Examination/Non-Destructive Assay verification.

Mutually Agreed Upon Workscope Deliverables and Due Dates

1
2

Subtotal Net	1.7	163.4
Total Activity	1.7	190.6

Activity Description 1ML6

RMW/CWC receipt: waste approvals, receipts, verifications, and generator assistance for storage at the Central Waste Complex, in accordance with applicable permits and waste receipt criteria.

Mutually Agreed Upon Workscope Deliverables and Due Dates

1
2

Subtotal Net	9.3	849.9
Total Activity	9.3	1,002.4

Activity Description 1ML8

Hazardous Waste Shipment: provide coordination of hazardous waste to offsite facilities for treatment and/or disposal. Perform hazardous waste designations.

Mutually Agreed Upon Workscope Deliverables and Due Dates

1
2

Subtotal Net	2.5	296.0
Total Activity	2.5	317.8
Approved Net	30.9	3,947.9
Approved Total	30.9	5,051.2

FY 1998 Annual Work Plan

Part III - DOH/PMA/Service Center Rate Calculation Worksheet

(Dollars in 000's)

CAP #

1ML

Pool Title: Solid Waste Service Assessment

Basis for Rate:

Provide the basis of the rate(s). (If another spreadsheet is used, insert that document for Part III.)

- Show what base is being used to calculate your rates.
- Where do the liquidation numbers come from? Specify by program if possible.
- Assumptions used, i.e., escalation, historical, activity based costing ...

RATES WILL BE UNAVAILABLE UNTIL WORKSCOPE AND BUDGET HAVE BEEN AGREED UPON WITH RL.

FY 1998 Annual Work Plan Part I - Summary

Revision # 0

19-Sep-97

Cost Account Number		Cost Account Title	Funding Source:	
1MDRS1		WSCF Laboratory	G&A	
WBS Number		WBS Title	Service Center	x
7.1.1.4.3.1		WSCF Laboratory	DOH/PMA	
Budget Analyst		J. L. Spahr	FY 1998 CAP	
Cost Account Manager		G. E. Millward	COST ELEMENTS	\$000'S
Financial Manager		R. A. Spahr	0 Labor	2,471
Program Manager		C. G. Mattsson	1 Materials	633
RL Program Manager		R. P. Carter	2 Purchased Services	190
			3 Other Hanford Contractors	10
			7x Fee/Non DOH	0
			8 Revenue	0
			9 Enterprise Companies	22
			Subtotal Net Budget	3,326
			4 Site Services	108
			5 Internal Charges	306
			6 LMSI Support	0
			7C DOH	383
			Total Baseline	4,123

Full Time Equivalents (FTEs)				
	Exempt	Nonexempt	Bargaining	Total
Organizational	21.1	0.8	11.1	33.0
Support	0.6	0.1	0.2	0.9
Total	21.7	0.9	11.3	33.9

SIGNATURES

CAM:

Program Manager:

RL Program Manager:

[Signature]
[Signature]
[Signature]

BASELINE APPROVAL:

Date

Date: 9/19/97

Date: 9/22/97

Date: 9/22/97

Indirect Program Administration

FY 1998 Annual Work Plan

Part II - Activity Detail

CAP # 1MDR51

COST ACCOUNT WORKSCOPE SUMMARY

Functional organization: WSCF Laboratory

Workscope Summary: Provide general analytical chemistry services for samples that are < 1mR/hr in support of Hanford programmatic missions. WSCF will provide support to 1) Liquid Effluent Facilities, 2) Industrial Hygiene, 3) RCRA Groundwater Monitoring, 4) Environmental Monitoring, and 5) Other programs as requested.

APPROVED BASELINE:Activity Description - Sample Receiving/Preparation

This activity entails receiving samples into WSCF Laboratory; logging the sample; assuring all samples are under strict chain-of-custody; ensuring inventory of radionuclides content of the Laboratory is up to date and current; and HPT screening of the samples.

Sample Receiving/Preparation
HPT Support

Mutually Agreed Upon Workscope Deliverables and Due Dates

- 1 10/01/97 to 09/30/98
Receiving samples into WSCF Laboratory; logging the sample; assuring all samples are under strict chain-of-custody; and ensuring inventory of radionuclides content of the Laboratory is up to date and current.
- 2 10/01/97 to 09/30/98
Perform radiological screening at WSCF Laboratory.

FY 1998

FTEs Dollars

1.0 77.5
0.3 31.6
0.5 32.0

Subtotal Net

Total Activity

1.8 141.1
1.8 166.8

FY 1998 Annual Work Plan Part II - Activity Detail

Activity Description - Analyses	CAP #	1MDR51
This activity is for the analytical work that is performed on each sample after it has been received. It includes Organic, Inorganic, and Radiochemical lab analyses, development and procurement of standards to support analyses at WSCF, and procurement of shop and lab supplies needed to perform analyses. It also includes maintenance on analytical equipment.		
Inorganic Chemistry	6.0	575.3
Radioanalytical Chemistry	10.0	720.1
Organic Chemistry	7.0	574.7
Standards Laboratory	0.7	50.9
Stockroom	1.1	714.1
WSCF Analytical Instrument Maintenance	0.4	28.4
<u>Mutually Agreed Upon Workscope Deliverables and Due Dates</u>		
1 10/01/97 to 09/30/98		
Analytical work performed on each sample after it has been received. It includes Organic, Inorganic and Radiochemical laboratory analyses.		
2 10/01/97 to 09/30/98		
Development and procurement of analytical standards to support analyses.		
3 10/01/97 to 09/30/98		
Procurement of analytical supplies for the Stockroom necessary to perform analyses.		
4 10/01/97 to 09/30/98		
Instrument maintenance of analytical equipment.		
Subtotal Net	25.2	2,663.5
Total Activity	25.2	3,166.6

FY 1998 Annual Work Plan Part II - Activity Detail

Activity Description - Data Administration/Reporting		CAP # 1MDR51	
This activity supports QA, and LIMS/LABCORE to track data through the Laboratory and to meet reporting requirements for WSCF Laboratory.			
LIMS/LABCORE			
QA Support		0.2	42.1
		0.8	60.6
<u>Mutually Agreed Upon Workscope Deliverables and Due Dates</u>			
1 10/01/97 to 09/30/98			
QA support to WSCF Laboratory			
2 10/01/97 to 09/30/98			
LIMS/LABCORE support to track data through the laboratory and to meet reporting requirements.			
Subtotal Net		1.0	102.7
Total Activity		1.0	117.0
<u>Activity Description - Archive/Disposal</u>			
This activity provides support to archive samples as required by the customer and/or disposal of the samples as appropriate.			
Waste Handling		2.7	183.8
<u>Mutually Agreed Upon Workscope Deliverables and Due Dates</u>			
1 10/01/97 to 09/30/98			
Archive samples and/or disposal of the samples as appropriate.			
Subtotal Net		2.7	183.8
Total Activity		2.7	387.3

FY 1998 Annual Work Plan Part II - Activity Detail

CAP # 1NDR51

Activity Description - Program/Administration

This activity provides program support and customer interface, tracking of costs versus budget, procedure maintenance, provide instructions, development of training programs/modules and training records administration per Analytical Services training requirements, and provide Sample Management support which provides determination on which laboratory provides the customer with the best product to meet their analytical requirements; ensure Data Management services meet the requirements of the new site customer; prepares SAFs which are forwarded to WSCF Laboratory and to the sampling group to notify them of all sampling and analysis requirements and prepares cost estimates for new project startup.

Procedure Maintenance

Training

Program Business Management

WSCF Sample Management

0.3 35.8
0.4 29.8
0.5 42.8
2.0 126.7

Mutually Agreed Upon Workscope Deliverables and Due Dates

- 1 10/01/97 to 09/30/98
Provide program support and customer interface.
- 2 10/01/97 to 09/30/98
Provide Sample Management support for WSCF Laboratory.
- 3 10/01/97 to 09/30/98
Procedure preparation and maintenance of existing procedures.
- 4 10/01/97 to 09/30/98
Provide instructions, development of training programs/modules and training records administration per Analytical Services training requirements.

Subtotal Net

Total Activity

Approved Net

Approved Total

3.2 235.1
3.2 285.3
33.9 3,326.2
33.9 4,123.0

1MDR51, WSCF LABORATORY
FY 1998 PROJECTIONS TO PROGRAMS

RL WBS # 7.1.1.4.3.1			
PROGRAM		FUNCTIONAL \$	PROGRAM \$
Environmental Monitoring		670	791
Transition Projects		114	135
Liquid Effluent Facilities		1,396	1,647
Solid Waste		119	140
Analytical Services		497	587
ROM (Groundwater)		692	817
Spent Nuclear Fuels		31	36
Special Activities		201	237
Bechtel		35	41
Miscellaneous Customers		92	108
Tank Characterization		161	190
		4,008	4,729

Based on Hanford Sample Projections (May 23, 1997)

FY 1998 Program Plan
Work Breakdown Structure Dictionary
DOH/Proration/Service Center Rate Calculation Worksheet
(Dollars in 000's)

RL WBS # 7.1.1.4.3.1

CAP # 1MDR51

Pool Title:

Basis for Rate:

Provide the basis of the rate(s). (If another spreadsheet is used, insert that document for Part V.)

- Show what base is being used to calculate your rates.
- Where do the liquidation numbers come from? Specify by program if possible.
- Discuss significant changes from last year to this year
- Assumptions used, i.e., escalation, historical, activity based costing ...

This is liquidated out to Programs within WHC and other contractors for samples received at WCSF Laboratory.

	Chemist/Chem Tech
	Hours*
Sample Receipt	Chemist/Chem Tech hours x 8%
Management	Chemist/Chem Tech hours x 17%
Standards Laboratory	Chemist/Chem Tech hours x 6%
Data Adm/Reporting	Chemist/Chem Tech hours x 24%
HPTs	Chemist/Chem Tech hours x 3%
Archive/Disposal	Chemist/Chem Tech hours x 8%
Program Administration	Chemist/Chem Tech hours x 21%
	= Total Analytical work hours

Stockroom Supplies

Total hours x Labor rate x overhead rate = Analytical cost x Stockroom percentage (15%)

Total Analytical cost + Stockroom + Total Infrastructure Cost + Non-Labor \$ = Unit Price

*Hours based on the time it takes for the analysis to be performed.

Assumptions:

- (1) The %s remains the same as FY 1997 but a 3% escalation factor is added for escalation for FY 1998 unit prices.

WSCF LABORATORY
FY 1998 UNIT PRICES - LABCORE

HNF-SP-1229, Rev. 1

RL WBS # 7.1.1.4.3.1

ANALYTE	METHOD REF No	MATRIX	FY 1997 PRICE
INORGANIC CHEMISTRY			
ICP Metals	6010	LIQUID	\$ 186
ICP Metals (INCL EXTRACTION)	6010	SOLID	\$ 276
ICP MS	200.8	LIQUID	\$ 200
ICP MS (INCL EXTRACTION)	200.8	SOLID	\$ 260
ICP Metals -- ADDITIONAL			\$ 53
Anions by IC	9056 / 300.0	LIQUID	\$ 159
Anions by IC	9056 / 300.0	SOLID	\$ 212
GFAA	7XXX	LIQUID	\$ 42
GFAA	7XXX	SOLID	\$ 53
GFAA (CLP)	CLP	LIQUID	\$ 340
GFAA (CLP)	CLP	SOLID	\$ 400
AA-Hg (Cold Vap AA)	7471	LIQUID	\$ 64
AA-Hg (Cold Vap AA)	7471	SOLID	\$ 85
AA-Hg -- TCLP			#VALUE!
Fluoride	340.1 / 340.2	LIQUID	\$ 53
Fluoride	340.1 / 340.2	SOLID	\$ 69
Ammonia	350.5	LIQUID	\$ 53
Ammonia	350.5	SOLID	\$ 74
Cyanide	9010	LIQUID	\$ 106
Cyanide	9010	SOLID	\$ 127
Coliform	9010	SOLID	\$ 53
Dissolved O2 (442)	442		\$ 27
Turbidity (180.1)	180.1		\$ 22
Bio Oxygen Demand	405.1		\$ 80
Chem Oxygen Demand	410.1/410.2		\$ 80
Partical Size	ASTM D422		\$ 53
Specific Gravity			\$ 53
Tot Dissolved Solids	160.1		\$ 38
Tot Suspended Solids	160.2		\$ 38
Pct solids/Moisture			\$ 32
Boildown			\$ 53
Alkalinity (Carbonate/Bi-Carbonate)	310.1		\$ 48
ConductivitY	120.1	LIQUID	\$ 23
ConductivitY	120.1	SOLID	\$ 32
pH Direct Measurement	150.1	LIQUID	\$ 19
pH Direct Measurement	150.1	SOLID	\$ 27
RADIOCHEMISTRY			
Alpha/Beta		AIR	\$ 106
Alpha/Beta		LIQUID	\$ 106
Alpha/Beta		SOLID	\$ 133
Room Air Sample			\$ 32
AgZ (incl Ru-106, Sn-113, Sb-125, I-129)			\$ 186

WSCF LABORATORY
FY 1998 UNIT PRICES - LABCORE

HNF-SP-1229, Rev. 1

RL WBS # 7.1.1.4.3.1

ANALYTE	METHOD REF No	MATRIX	FY 1997 PRICE
GEA		Air	\$ 133
GEA		Liquid	\$ 133
GEA		Solid	\$ 154
H-3		Air	\$ 133
H-3		Liquid	\$ 106
H-3		Solid	\$ 133
C-14		LIQUID	\$ 159
C-14		SOLID	\$ 212
Ni-63		LIQUID	\$ 210
Ni-63		SOLID	\$ 237
Sr-90		Air	\$ 212
Sr-90		Liquid	\$ 180
Sr-90		Solid	\$ 239
Tc-99		LIQUID	\$ 170
Tc-99		SOLID	\$ 212
I-129		LIQUID	\$ 186
I-129		SOLID	\$ 212
Pm-147		LIQUID	\$ 191
Ra-226		LIQUID	\$ 265
Ra-226		SOLID	\$ 292
Total Radium (Ra-226 PLUS Ra-228)		LIQUID	\$ 265
Total Radium (Ra-226 PLUS Ra-228)		SOLID	\$ 292
Np-237		LIQUID	\$ 212
Np-237		SOLID	\$ 265
Pu-238, 239/240		AIR	\$ 292
Pu-238, 239/240		LIQUID	\$ 223
Pu-238, 239/240		SOLID	\$ 265
Pu-241		AIR	\$ 318
Pu-241		LIQUID	\$ 318
Pu-241		SOLID	\$ 318
Am-241		AIR	\$ 265
Am-241		LIQUID	\$ 212
Am-241		SOLID	\$ 286
U-Gross		AIR	\$ 95
U-Gross		LIQUID	\$ 95
U-Gross		SOLID	\$ 159
Isotopic Uranium (U234,235,238)		AIR	\$ 265
Isotopic Uranium (U234,235,238)		LIQUID	\$ 212
Isotopic Uranium (U234,235,238)		SOLID	\$ 265
MISCELLANEOUS RAD CHEM SERVICES			
Stream Volume for Liquid Effluents		AIR	\$ 11
Composite Preparation (each composite)		AIR	\$ 53
Composite Preparation (each composite)		LIQUID	\$ 27
Archive/Hold for Composite		AIR/LIQ	\$ 11

WSCF LABORATORY
FY 1998 UNIT PRICES - LABCORE

HNF-SP-1229, Rev. 1

RL WBS # 7.1.1.4.3.1

ANALYTE	METHOD REF No	MATRIX	FY 1997 PRICE
Digestion/Leaching		SOLID	\$ 53
Sample Disposal		ALL	#VALUE!
Consulting (per hour)		ALL	\$ 132
Overtime - Chemist (per hour)		ALL	\$ 198
Overtime - Chem Tech (per hour)		ALL	\$ 180
ORGANIC CHEMISTRY			
VOA	8260	LIQUID	\$ 318
VOA	8260	SOLID	\$ 371
SVOA	8270	LIQUID	\$ 530
SVOA	8270	SOLID	\$ 583
SVOA (partial)-customized			\$ 135
Miscellaneous Organic Analysis		LIQUID	\$ 170
WTPH-G GAS	8015M	LIQUID	\$ 117
WTPH-G GAS	8015M	SOLID	\$ 119
WTPH-D DIESEL	8015M	LIQUID	\$ 122
WTPH-D DIESEL	8015M	SOLID	\$ 133
Oil/Grease	9070	LIQUID	\$ 69
Oil/Grease	9071	SOLID	\$ 80
TIC			\$ 80
TIC			\$ 80
TOC	9060		\$ 80
TOC			\$ 80
Total Carbon			\$ 80
TOX	9020	LIQUID	\$ 88
TOX	9023.0	SOLID	\$ 88
PCB's - Water	8081.0	LIQUID	\$ 110
PCB's - Solid or Oil	8081.0	SOLID	\$ 110
MISCELLANEOUS ORGANIC SERVICES			
Toxicity Characteristic Leaching Procedure (EPA 1311)	1311		
- Extraction (metals, pesticides, herbicides, & SVOA's)			\$ 90
- Extraction (zero headspace (ZHE for volatiles)			\$ 120
Analysis of Leachate by EPA SW-846 Procedures			
- Herbicides	8151.0		\$ 239
- Metals	6010		\$ 186
- Pesticides	8081.0		\$ 180
- Semi-Volatile Organics	8270		\$ 530
- Volatile Organics	8260		\$ 318
- Reactivity Cyanide			\$ 95
- Reactivity Sulfide			\$ 95
INDUSTRIAL HYGIENE			

WSCF LABORATORY
FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.1

ANALYTE	METHOD REF No	MATRIX	FY 1997 PRICE
IH ANALYSIS			
Acetic Acid			\$ 52
Acids: 6 By IC (or i)			\$ 129
Bulk Asbestos			\$ 34
Fiber Counts			\$ 20
Beryllium - Air			\$ 38
Beryllium - Smear			\$ 38
Chromium VI			\$ 42
Coal Tar Pitch Volatiles			\$ 49
Cyanide/HCN (each)			\$ 47
Formaldehyde - Chrom.			\$ 51
Glutaraldehyde			\$ 104
Hydrazine			\$ 53
ICP Scan			\$ 230
Isocyanates			\$ 150
Lead-Bulk, including Paint			\$ 35
Lead - Swipe			\$ 35
Mercury			\$ 64
Metals - Flame AA			\$ 35
NO/NO2			\$ 70
Nuisance Dust - Total			\$ 15
Nuisance Dust - Resp.			\$ 15
Oil Mist			\$ 53
PCBs - Swipes			\$ 110
PNAs			\$ 178
Silica, Crystalline			\$ 85
TBP			\$ 80
Common Org. Solvents			\$ 40
Ethylene Oxide			\$ 68
Carbon Disulfide			\$ 68
PCBs - Florisil Tubes			\$ 68
PRICES FROM SOW (Additions to orig FY 95 list)			
Pesticides/PCBs	8081		\$ 220
Paint Filler Liquid	9095		\$ 11
Ignitability	1010		\$ 37
Corrositivity	1110		\$ 11
TCL	1311		
- Metals Extraction			\$ 90
- Semi VOA Extraction			\$ 90
- Zero Headspace Ext.			\$ 120
- VOA Analysis			\$ 267
- Semi VOA Analysis			\$ 419
- Pesticides/PCB Analysis			\$ 170
- Herbicide Analysis			\$ 212

WSCF LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.1

ANALYTE	METHOD REF No	MATRIX	FY 1997 PRICE
TPH	418		\$ 58
Methylene Blue Active Substances	4251		\$ 53
Organics/Purgable Halocarbons	601		\$ 143
Organics/Acrolein and Acrylonitrile	603		\$ 85
Organochlorine Pesticide and PCBs	608		\$ 180
Organics - Base/Neutral and Acids	625		\$ 424
ADDITIONAL IH CHARGES			
24-HOUR TURNAROUND			\$ 25
EXTRA HANDLING - e.g. RAD SAMPLES			\$ 20
DIFFICULT MATRIX			\$ 60

NOTE: Prices that changed by other than escalation are shaded..

U:\YL96\POOL\CONS-WS5.WK3

FY 1998 Annual Work Plan Part I - Summary

Revision # 0		18-Sep-97	
Cost Account Number	Cost Account Title	Funding Source:	
1MDR61	222-S Non-Tank Characterization	G&A	
WBS Number	WBS Title	Service Center	x
7.1.1.4.3.2	222-S Laboratory	DOH/PIMA	
Budget Analyst	J. M. Kler	FY 1998 CAP	
Cost Account Manager	L. F. Perkins, Jr.	COST ELEMENTS	\$000'S
Financial Manager	R. A. Spohr	0 Labor	3,022
Program Manager	C. G. Mattson	1 Materials	463
RL Program Manager	R. P. Carter	2 Purchased Services	146
		3 Other Hanford Contractors	35
		7x Fee/Non DOH	0
		8 Revenue	0
		9 Enterprise Companies	59
		Subtotal Net Budget	3,725
		4 Site Services	83
		5 Internal Charges	126
		6 LMSI Support	5
		7C DOH	498
		Total Baseline	4,437

Full Time Equivalents (FTEs)			
	Exempt	Nonexempt	Bargaining Total
Organizational	10.3	0.9	25.0
Support	4.1	1.4	0.1
Total	14.4	2.3	25.1

SIGNATURES		BASELINE APPROVAL:	
CAM:	Date: 9/18/97	Date:	Date
Program Manager:	Date: 9/22/97	Indirect Program Administration	
RL Program Manager:	Date: 9/22/97		

FY 1998 Annual Work Plan					
Part II - Activity Detail				CAP #	1MDR61
COST ACCOUNT WORKSCOPE SUMMARY					
Functional Organization: 222-S Laboratory					
Workscope Summary: 222-S Laboratory is to provide analytical chemistry services for Process Control Samples that are >1mR/hr performed to ensure Facility Operations (242-A process and slurries; Environmental Restoration total activities; stacks/soil/water monitoring for B-Plant, K-Basins, etc.) are maintained within specified parameters. Process Control in general has lower QA and faster reporting requirements.					
222-S Laboratory is to provide analytical chemistry services for Protocols samples. Protocols samples are analyses that require additional oversight of operations and requires formal documentation. Protocols require QA oversight, blanks, standards, duplicates, and spikes to be performed and are subject to regulatory requirements (i.e., CERCLA, RCRA, etc.).					
222-S Laboratory supports a multitude of Programs.					
APPROVED BASELINE:				FY 1998	
Activity Description - Hot Cell/Sample Receipt Team				FTEs	Dollars
This activity entails receiving samples into 222-S Laboratory; logging the sample; assuring all samples are under strict chain-of-custody; ensuring inventory of radionuclides content of the Laboratory is up to date and current; and HPTs to perform dose rate and contamination surveys upon receipt of samples.					
Sample Custodians				0.2	13.2
Sample Receipt Team				0.6	46.1
HPT Support				1.2	98.7
Mutually Agreed Upon Workscope Deliverables and Due Dates					
1	10/01/97 to 09/30/98				
Receiving samples into 222-S Laboratory; logging the sample; assuring all samples are under strict chain-of-custody; and ensuring inventory of radionuclides content of the Laboratory is up to date and current.					
2	10/01/97 to 09/30/98				
Perform radiological screening at 222-S Laboratory.					
Subtotal Net				2.0	158.0
Total Activity				2.0	184.0

FY 1998 Annual Work Plan

Part II - Activity Detail

Activity Description - Sample Analysis Team		CAP #	1MDR61
This activity is for the analytical work that is performed on each sample after it has been received. This work entails sample preparation, Radiochemistry, Inorganic, and Organic analyses; development of procurement of standards to support analyses at 222-S; shop and laboratory supplies needed to perform analyses; HPT screening; and troubleshooting.			
Counting Room Team			
Direct Analysis/Wet Chemistry Team		6.8	546.6
Preparation Analysis Team		3.9	295.2
Radiochemical Separations Team		3.0	240.8
Standards Laboratory Team		7.2	606.9
Stockroom Support		2.4	182.0
HPT Support - Analysis		0.3	398.6
		1.6	149.6
Mutually Agreed Upon Workscope Deliverables and Due Dates			
1	10/01/97 to 09/30/98		
Analytical work performed on each sample after it has been received. This includes sample preparation and analysis of the samples.			
2	10/01/97 to 09/30/98		
Development and procurement of analytical standards to support analyses.			
3	10/01/97 to 09/30/98		
Procurement of analytical supplies for the Stockroom necessary to perform analysis.			
4	10/01/97 to 09/30/98		
HPT screening to support analysis.			
Subtotal Net		25.2	2,419.7
Total Activity		25.2	2,795.4

FY 1998 Annual Work Plan			CAP #	1MDR61
Part II - Activity Detail				
<u>Activity Description - Data Administration/Reporting</u>				
This activity provides Quality Assurance (QA) and Quality Control (QC) officer support, QA support for the preparation review and approval of project data packages. This account includes daily operations support to the LABCORE computer systems, Buyer Technical Representative activities, updating reports and instrument interfaces, and acceptance testing of updates.				
	QA Support		0.9	58.7
	LIMS/LABCORE Support		0.2	81.8
	Laboratory Leader Support		0.6	39.4
	Project Coordination		0.6	46.5
<u>Mutually Agreed Upon Workscope Deliverables and Due Dates</u>				
1	10/01/97 to 09/30/98			
	Provide Quality Assurance (QA) and Quality Control (QC) officer support for preparation review and approval of project data packages at 222-S Laboratory.			
2	10/01/97 to 09/30/98			
	LIMS/LABCORE support to track data through the laboratory and to meet reporting requirements.			
3	10/01/97 to 09/30/98			
	Preparation of Data Packages per customer's requirements.			
	Subtotal Net		2.3	226.4
	Total Activity		2.3	256.9

FY 1998 Annual Work Plan

Part II - Activity Detail

Activity Description - Archive/Disposal		CAP #	1MDR61
This activity provides support to dispose/archive of samples as required by the customer, tracking samples for disposal, provide HPTs to perform dose rate and contamination surveys for short/long term archival or for disposal, and transportation support.			
	Waste Handling	3.4	253.8
	Sample Custodian	0.4	26.2
	HPT Support	0.7	64.2
	Transportation	0.0	14.7
<u>Mutually Agreed Upon Workscope Deliverables and Due Dates</u>			
1	10/01/97 to 09/30/98		
	Archive samples and/or disposal of the samples as appropriate.		
2	10/01/97 to 09/30/98		
	Provide HPT screening for Archive and disposing to samples.		
3	10/01/97 to 09/30/98		
	Provide transportation of samples for disposal.		
4	10/01/97 to 09/30/98		
	Tracking of samples for disposal/archive.		
	Subtotal Net	4.5	358.9
	Total Activity	4.5	536.2

FY 1998 Annual Work Plan			CAP #	1MDR61
Part II - Activity Detail				
<u>Activity Description - Facility Planning Team/Support</u>				
This activity provides program support and customer interface, establishes customer points of contact, developing a facility analytical schedule, establishing facility priorities, tracking and reporting progress against the integrated schedule, Laboratory Leaders for project setup, sample disposal, and will provide customer interface for small projects, records scanning support, provide technical quality support for all aspects of the analytical process and tracking of cost versus budget support.				
Process Analysis Management			0.6	46.7
Coordinator			0.6	46.7
Laboratory Leaders			1.2	78.7
Project Coordination			0.7	52.6
Analytical Work Scheduler			0.6	46.7
QA Support			0.4	32.1
Records Management			0.7	25.1
Financial Representative			0.5	39.3
<u>Mutually Agreed Upon Workscope Deliverables and Due Dates</u>				
1	10/01/97 to 09/30/98			
	Tracking and reporting progress against the integrated schedule.			
2	10/01/97 to 09/30/98			
	Provide progress reports to customers.			
3	10/01/97 to 09/30/98			
	Conduct/coordinate technical reviews of analytical work.			
4	10/01/97 to 09/30/98			
	Develop short/long range analytical work schedule.			
5	10/01/97 to 09/30/98			
	Coordinate/perform reviews for data quality and accuracy for organic, inorganic and radiochemistry.			
6	10/01/97 to 09/30/98			
	Approve disposition of samples and preps after analysis.			
7	10/01/97 to 09/30/98			
	Establish agreements with customers for quality, schedule, and sample disposition for identified work.			
	Subtotal Net		5.3	367.9
	Total Activity		5.3	427.7

FY 1998 Annual Work Plan Part II - Activity Detail

		CAP #	1MDR61
Activity Description - Technical Support			
This activity provide procedure maintenance, develop training program/modules per Analytical Services training requirements, Sample Management support which provides determination on which laboratory provides the customer with the best product to meet their analytical requirements; ensure Data Management services meet the requirements of the new site customer, prepares SAFs which are forwarded to 222-S Laboratory and to the sampling group; and technical support from NUMATEC to perform specific analysis (Particle Size, Adiabatic Calorimetry, settled density, etc.).			
222-S Training		0.4	29.7
Procedure Administration		0.3	28.0
Sample Administrative Support		0.8	51.3
Technical Development (NUMATEC)		1.0	69.3
Misc. Support		0.2	15.6
Mutually Agreed Upon Workscope Deliverables and Due Dates			
1	10/01/97 to 09/30/98		
Procedure preparation and maintenance of existing procedures.			
2	10/01/97 to 09/30/98		
Provide instructions, development of training programs/modules and training records administration per Analytical Services training requirements.			
3	10/01/97 to 09/30/98		
Perform specific analysis per customer's requirements.			
4	10/01/97 to 09/30/98		
Provide Sample Management support.			
Subtotal Net		2.5	193.9
Total Activity		2.5	236.8
Approved Net		41.8	3,724.8
Approved Total		41.8	4,437.0

1MDR61, 222-S NON-TANK CHARACTERIZATION
FY 1998 PROJECTIONS BY PROGRAM

RL WBS # 7.1.1.4.3.2

PROGRAM	FUNCTIONAL \$	PROGRAM \$
Liquid Effluents	36	42
Solid Waste	369	435
B-Plant/WESF	165	195
PUREX	64	76
PFP	25	30
Spent Nuclear Fuels	762	899
Tank Farm Operations	385	454
Safety Issue Resolution	287	339
Environmental Monitoring	86	101
Analytical Services	564	666
Misc. Programs	25	30
Bechtel	636	750
Total 222-S Non-Tank Char.	3404	4017

(1) Based on Hanford Sample Projections (May 23, 1997)

(2) The consolidation of Laboratory consisting of 1) 183KE and 2) 210IM work are included in the programs projections.

(3) Increase support from KE-KW Basin for the IX column support and discharges from filters in May 1998 at a potential increase of \$1.5M. This is dependent upon the radiation level of the samples. If the radiation level is lower than anticipated, the samples could be transferred over to WSCF.

(4) There will be no sample screening from Bechtel, but work will increase for D&D characterization support for Redox. There is a possibility of work being delayed a year due to lack of budget in FY 1998.

(5) Possibility of work from Femald on the Uranium Product (\$4.2M)

(6) Increase workspace from transitioning the Grand Junction Laboratory - timeframe January 1998.

(7) Increase workspace from B-Plant for decommissioning tanks (cesium/strontium process).

FY 1998 UNIT PRICE DEVELOPMENT - MODEL
1MDR61, 222-S NON-TANK CHARACTERIZATION

ATTACHMENT I

RL WBS # 7.1.1.4.3.2

222-S LABORATORY	HOURS PER ANALYTE/ REPORT	% OF HOURS PER ANALYTE										
		QC	SAMPLE RECEIPT	TRAINING	ADMIN/ OPS TIME	MGMT	HPTs	STAND. LAB	TOTAL ANALYTE HRS	TOTAL LABOR \$	STOCK- ROOM	TOTAL ANALYTE \$
SAMPLE PREPARATION INORGANIC CHEMISTRY RADIOCHEMISTRY (1) ORGANIC CHEMISTRY	HOURS	20.0%	N/A	3.0%	21.6%	4.0%	10.6%	N/A		Convert Labor Hours to Dollars	9.8%	Total Labor + Stock- Room
	HOURS	20.0%	3.1%	3.0%	21.6%	4.0%	10.6%	6.0%			9.8%	
	HOURS	20.0%	20.0%	3.0%	21.6%	4.0%	10.6%	6.0%			9.8%	
	HOURS	20.0%	3.1%	3.0%	21.6%	4.0%	10.6%	6.0%			9.8%	
Duplicates = 1 Sample Sample QC = 1 Sample QC consist of Blanks, Spikes, Standards.												

222-S LABORATORY	% OF TOTAL ANALYTE HOURS						NON-LABOR \$	TOTAL UNIT PRICE (2)
	-SUPPORT TO ANALYTICAL WORK							
	ARCH/ DISP	DATA ADM/ REPTG	FAC PLN TMS/UP/ TECH	TOTAL SUPPORT HOURS	TOTAL SUPPORT LABOR \$	Convert Labor Hours to Dollars		
SAMPLE PREPARATION INORGANIC CHEMISTRY RADIOCHEMISTRY (1) ORGANIC CHEMISTRY	12.0%	4.5%	8.0%				Total Analyte \$ +	
	12.0%	4.5%	8.0%				9.0%	
	12.0%	4.5%	8.0%				9.0%	
	12.0%	4.5%	8.0%				9.0%	
Data Report	N/A	N/A	8.0%				Adder to total Analyte & Supt \$	
							9.80%	

COMMENTS:

(1) The increase in Sample Receipt percentage is due to Decon. workscope associated with radiochemistry work which requires additional handling and cleanup.

*Admin/Ops Time includes downtime, building operations, changeout, procedure review, housekeeping, etc.

222-S LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.2

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
HOT CELL/SAMPLE RECEIPT TEAM					
#EXTRD01	DLIQVOL1	LIQUID	Drainable Liquid Recovered-Vol	LO-160-103	35
#EXTRD01	DLIQVOL1	SOLID	Drainable Liquid Recovered-Vol	LO-160-103	35
#EXTRD01	DLIQWT01	LIQUID	Drainable Liquid Recovered-WT	LO-160-103	35
#EXTRD01	DLIQWT01	SOLID	Drainable Liquid Recovered-WT	LO-160-103	35
#EXTRD01	EST.G/ML	LIQUID	Estimated G/ML - Calculated	LO-160-103	35
#EXTRD01	EST.G/ML	SOLID	Estimated G/ML - Calculated	LO-160-103	35
#EXTRD01	EXTRUD01	LIQUID	Extrude Segment in Hot Cell	LO-160-103	954
#EXTRD01	EXTRUD01	SOLID	Extrude Segment in Hot Cell 1E	LO-160-103	1033
#EXTRD01	EXTRUD01	SOLID	Extrude Segment in Hot Cell -Rotary	LO-160-103	1828
#EXTRD01	LLIQWT01	LIQUID	Drainable Liquid Recovered-WT	LO-160-103	35
#EXTRD01	LLIQWT01	SOLID	Drainable Liquid Recovered-WT	LO-160-103	35
#EXTRD01	NOTEBOOK	LIQUID	Notebook with Source Data	LO-160-103	35
#EXTRD01	NOTEBOOK	SOLID	Notebook with Source Data	LO-160-103	35
#EXTRD01	ORGVOL01	LIQUID	Organic Volume Present	LO-160-103	35
#EXTRD01	ORGVOL01	SOLID	Organic Volume Present	LO-160-103	35
#EXTRD01	SLDVOL01	LIQUID	Solids Recovered - Volume	LO-160-103	35
#EXTRD01	SLDVOL01	SOLID	Solids Recovered - Volume	LO-160-103	35
#EXTRD01	SLDWT-01	LIQUID	Solids Recovered - Weight	LO-160-103	35
#EXTRD01	SLDWT-01	SOLID	Solids Recovered - Weight	LO-160-103	35
#EXTRD01			EXTRUSION - AUGERS	LO-160-103	556
#EXTRD01			EXTRUSION - SLURP	LO-160-103	318
@APPEAR1	APPEAR01	LIQUID	Appearance of a sample	LA-519-151	21
@APPEAR1	APPEAR01	SOLID	Appearance of a sample	LA-519-151	21
ARCHIV01	ARCHIV01	LIQUID	Archive aliq of sample/hotcell	None	24
ARCHIV01	ARCHIV01	SOLID	Archive aliq of sample/hotcell	None	26
ARCHIV02	ARCHIV02	LIQUID	Archive aliq of sam/sampl prep	None	23
ARCHIV02	ARCHIV02	SOLID	Archive aliq of sam/sampl prep	None	26
ARCHIVE	ARCHIVE	LIQUID	Archive an aliquot of sample	None	21
ARCHIVE	ARCHIVE	SOLID	Archive an aliquot of sample	None	21
BLKDEN01	BLKDEN01	LIQUID	Bulk Density of Sample	LO-160-103	74
BLKDEN01	BLKDEN01	SOLID	Bulk Density of Sample	LO-160-103	124
COMPOS01	COMPOS01	LIQUID	Make Composite Sample	LO-160-103	34
COMPOS01	COMPOS01	SOLID	Make Composite Sample	LO-160-103	37
FILTER01	FILTER01	LIQUID	Filter Liquid / hotcell	LA-504-101	25
FILTER02	FILTER02	LIQUID	Filter Liquid / sample prep	LA-504-101	22
FSLDWT01	FSLDWT01	LIQUID	Weight of Solids - Filtered	LA-548-141	30
FSLDWT01	FSLDWT01	SOLID	Weight of Solids - Filtered	LA-548-141	30
HOMGNZ01	HOMGNZ01	SOLID	Homogenize Sample	LO-160-103	37
SHIP-PNL	SHIP-PNL	LIQUID	Ship aliquot of sample to PNL	None	64
SHIP-PNL	SHIP-PNL	SOLID	Ship aliquot of sample to PNL	None	70
			EOX	LI-000-200	22
PCL ANALYSIS:					
@ICP-P02		SOLID	ICP (PCL Digest of Solids)	LA-505-151/162	188
@ICP-P03		LIQUID	ICP (PCL Digest) Li Only	LA-505-151/163	188
@ICP-P04		SOLID	ICP (PCL Digest) Cd, Cr, Pb	LA-505-151/164	188
@MSU-A1	@MSU-A1	SOLID	Isotopic Uranium (ICP/MS) Acid Dig- Solid	LT-506-101	188
@MSU-F1	@MSU-F1	SOLID	Isotopic Uranium (ICP/MS) Fusion Dig	LT-506-101	188

222-S LABORATORY

FY 1998 UNIT PRICES - LABCORE

IRL WBS # 7.1.1.4.3.2

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@MSU-B1	@MSU-B1	LIQUID	Isotopic Uranium (ICP/MS) Acid Dig-Liquid	LT-506-101	188
@MSU-D1	@MSU-D1	LIQUID	Isotopic Uranium (ICP/MS) Direct Liquid	LT-506-101	188
@MSACT-A1	@MSACTA1	SOLID	Actinides (ICP/MS) Acid Dig - Solid	LT-506-101	251
@MSACT-F1	@MSACTF1	SOLID	Actinides (ICP/MS) Fusion Dig	LT-506-101	251
@MSACT-B1	@MSACTB1	LIQUID	Actinides (ICP/MS) Acid Dig - Liquid	LT-506-101	251
@MSACT-D1	@MSACTD1	LIQUID	Actinides (ICP/MS) Direct Liquid	LT-506-101	251
@MSTC-A1	@MSTC-A1	SOLID	Tc-99 (ICP/MS) Acid Dig - Solid	LT-506-101	151
@MSTC-F1	@MSTC-F1	SOLID	Tc-99 (ICP/MS) Fusion Dig - Solid	LT-506-101	151
@MSTC-B1	@MSTC-B1	LIQUID	Tc-99 (ICP/MS) Acid Dig - Liquid	LT-506-101	151
@MSTC-D1	@MSTC-D1	LIQUID	Tc-99 (ICP/MS) Direct Liquid	LT-506-101	151
@MSCS-A1	@MSCS-A1	SOLID	Isotopic Cesium (ICP/MS) Acid Dig-Solid	LT-506-101	188
@MSCS-F1	@MSCS-F1	SOLID	Isotopic Cesium (ICP/MS) Fusion Dig	LT-506-101	188
@MSCS-B1	@MSCS-B1	LIQUID	Isotopic Cesium (ICP/MS) Acid Dig-Liquid	LT-506-101	188
@MSCS-D1	@MSCS-D1	LIQUID	Isotopic Cesium (ICP/MS) Direct Liquid	LT-506-101	188
@MSZR-A1	@MSZR-A1	SOLID	zR-93 (ICP/MS) Acid Dig - Solid	LT-506-101	188
@MSZR-F1	@MSZR-F1	SOLID	zR-93 (ICP/MS) Fusion Dig	LT-506-101	188
@MSZR-B1	@MSZR-B1	LIQUID	zR-93 (ICP/MS) Acid Dig - Liquid	LT-506-101	188
@MSZR-D1	@MSZR-D1	LIQUID	zR-93 (ICP/MS) Direct Liquid	LT-506-101	188
@MSSN-A1	@MSSN-A1	SOLID	Sn-126 (ICP/MS) Acid Dig - Solid	LT-506-101	188
@MSSN-F1	@MSSN-F1	SOLID	Sn-126 (ICP/MS) Fusion Dig	LT-506-101	188
@MSSN-B1	@MSSN-B1	LIQUID	Sn-126 (ICP/MS) Acid Dig - Liquid	LT-506-101	188
@MSSN-D1	@MSSN-D1	LIQUID	Sn-126 (ICP/MS) Direct Liquid	LT-506-101	188
@MSEL-A1	@MSEL-A1	SOLID	Elemental Analysis (ICP/MS) Acid Dig-Solid	LT-506-101	251
@MSEL-F1	@MSEL-F1	SOLID	Elemental Analysis (ICP/MS) Fusion Dig	LT-506-101	251
@MSEL-B1	@MSEL-B1	LIQUID	Elemental Analysis (ICP/MS) Acid Dig-Liquid	LT-506-101	251
@MSEL-D1	@MSEL-D1	LIQUID	Elemental Analysis (ICP/MS) Direct Liquid	LT-506-101	251
@VISCOS1	@VISCOS1	LIQUID	Viscosity Analysis by PCL	LT-519-115	359
@VISCOS1	@VISCOS1	SOLID	Viscosity Analysis by PCL	LT-519-115	395
@ICP-P01		SOLID	ICP (PCL Digest)	LA-505-151/161	188
ADIABC01	ADIABC01	LIQUID	Adiabatic Calorimetry	WHC-SD-WM-	987
ADIABC01	ADIABC01	SOLID	Adiabatic Calorimetry	WHC-SD-WM-	1135
BOILPT01	BOILPT01	LIQUID	Boiling Point Study	PCL does this	124
PARTSZ01	PARTSZ01	SOLID	Particle Size Analysis	LT-519-101	108
PCLDIG01			Digestion done by PCL	PCL Method	259
RSSLD-01		SOLID	Digestion - Water No Acid & A Added	LA-504-101	259
RSSLD-01		WATER	Digestion - Water Acid Added	LA-504-101	285
			Laser Ablation/Mass Spec Screen	LT-506-102	459
			TCLP Digestion/Extraction	LA-544-134	509
			Settling Rate	Test Plan	179
			Settled Density	Test Plan	179
			Centrifuge Particle Density	Test Plan	366
PREPARATION ANALYSIS TEAM					
@EDTA-01			EDTA/HEDTA by C.Z.E.	LA-533-113	44
@IC2-01		LIQUID	Organic Acids-IC Dionex 4000	LA-533-105	377
@IC2-01		SOLID	Organic Acids-IC Dionex 4000	LA-533-105	377
@IC3-01		LIQUID	Anions by IC - Dionex 100	LA-533-101	188
@IC3-01		SOLID	Anions by IC - Dionex 100	LA-533-101	188
@IC3-01		ALL	Single Analyte Paramater - IC	LA-533-101	126
@IC4-01		LIQUID	F. ORG Acid-IC Dionex 4000 / 4500	LA-533-105	377

222-S LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.2

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@IC4-01		SOLID	F. ORG Acid-IC Dionex 4000 / 4500	LA-533-105	377
@IC4-01		ALL	Single Analyte Parameter - IC	LA-533-105	188
@IC5-01		LIQUID	Anions & Cations on Dionex 500	LA-533-115	377
@IC5-01		SOLID	Anions & Cations on Dionex 500	LA-533-115	377
@IC5-01		ALL	Anions & Cations on Dionex 500	LA-533-115	188
@ICP-T01			TCLP Digest of Liquids	LA-505-151	188
@ICP-Z01			Fusion Zr Crucible (all metals)	LA-505-151	188
@KDIG-01		LIQUID	Acid Dig-Sandfilter Backwash	LA-505-162	496
@KDIG-01		SOLID	Acid Dig-Sandfilter Backwash	LA-505-162	546
@IC-01		LIQUID	Anions by IC - Dionex 4000i /4500	LA-533-105	314
@IC-01		SOLID	Anions by IC - Dionex 4000i /4500	LA-533-105	314
@ICP-A01		SOLID	ICP (Acid Digest) All Metals	LA-505-151/161	188
@ICP-A02		SOLID	ICP (Acid Digest of Solids)	LA-505-151/161	188
@ICP-A03		SOLID	ICP (Acid Digest) Li Only	LA-505-151/161	188
@ICP-A04		SOLID	ICP (Acid Digest) U Fe Mn	LA-505-151/161	188
@ICP-B01		LIQUID	ICP (Acid Digest of Liquid)	LA-505-151/161	188
@ICP-B02		LIQUID	ICP Acid Digest of a Liquid	LA-505-151/161	188
@ICP-B03		LIQUID	ICP (Acid Digest) Li Only	LA-505-151/161	188
@ICP-B04		LIQUID	ICP (Acid Digest) U Fe Mn	LA-505-151/161	188
@ICP-D01		LIQUID	ICP (Acid Added to Liquid)	LA-505-151/161	188
@ICP-D02			ICP Acid Digest of a Liquid	LA-505-151/161	188
@ICP-D03		LIQUID	ICP (Acid Digest) Li Only	LA-505-151/161	188
@ICP-D04		LIQUID	ICP (Acid Digest) U Fe Mn	LA-505-151/161	226
@ICP-F01		SOLID	ICP (Fusion Digest) All Metals	LA-505-151/161	188
@ICP-F02		SOLID	ICP (Fusion Digest)	LA-505-151/161	188
@ICP-F03		SOLID	ICP (Fusion Digest) Li Only	LA-505-151/161	188
@ICP-F04		SOLID	ICP (Fusion Digest) U Fe Mn	LA-505-151/161	188
@ICP-I01		SOLID	ICP (H2O/Acid) All Metals	LA-505-151/161	188
@ICP-QC		QC	ICP (QC) All Metals	LA-505-151	188
ICP (>1r)			ICP (High dose rate > 1r)	LA-505-151/161	218
ICP (>20)			ICP (>20 samples 5% discount rerun)	LA-505-151/161	94
ICP (1-5)			ICP (1-5 Analytes) primary	LA-505-151/161	188
ICP (35-40)			ICP (35-40 Analytes) Tertiary	LA-505-151/161	213
ICP (5-10)			ICP (5-10 Analytes) Secondary	LA-505-151/161	239
ACDGF01	ACDGF01	LIQUID	Digestion - Acid (LIQUID) ICP/FL&GFAA	LA-505-158	248
ACIDIG02	ACIDIG02	LIQUID	Acid Digest	LA-505-158	248
ACIDIG03		SOLID	Digestion - Acid (Solid) ICP/FL&HYAA/GF	LA-505-159	496
ACIDIL01	ACIDIL01	LIQUID	Acid Dilution	LA-505-158	31
CD-03	CD-03	LIQUID	Cadmium by GFAA	LA-505-402	188
CD-03	CD-03	SOLID	Cadmium by GFAA	LA-505-402	188
GRADIG01		SOLID	GFAA Acid Digest	LA-505-401	248
H20DIG02		LIQUID	Water Digest	LA-504-101	130
H20DIL01		LIQUID	Water Dilution of a Sample	LA-504-101	130
	SE-05	LIQUID	Selenium by HYAA	LA-365-132	377
	SE-05	SOLID	Selenium by HYAA	LA-365-132	377
	SUSPLSLD1	SOLID			
DIRECT ANALYSIS/WET CHEMISTRY TEAM					
@PCB			PCBs by SW-846	LA-523-434	246

222-S-LABORATORY
FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.2

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@PCB-OIL		OIL	PCBs in oil by SW-846	LA-523-434	270
@CLPEST		LIQ	Pesticides by CLP protocol	LA-523-434	246
@CLPEST		SOL	Pesticides by CLP protocol	LA-523-434	270
@CLPSVO		LIQ	Semi-VOA GC/MS by CLP protocol	LA-523-402	824
@CLPSVO		SOL	Semi-VOA GC/MS by CLP protocol	LA-523-402	906
@CLPVOA		LIQ	VOA by GC/MS - CLP protocol	LA-523-401	457
@CLPVOA		SOL	VOA by GC/MS - CLP protocol	LA-523-401	502
@IC-01	F*3-01	LIQUID	Fluoride by IC-Dionex 100	LA-533-105	283
@NPHTBP	DECANE	SOL	NPH/TBP by GC	LA-523-437	188
@NPHTBP	UNDECANE	LIQ	NPH/TBP by GC	LA-523-437	171
@PEST-WP	A-BHC	LIQ	Pesticides by CLP protocol	LA-523-434	246
@RCRA-SV	1-NAPHA	SOL	Semi-VOA GC/MS RCRA protocol	LA-523-406	906
@RCRA-SV	TRITOLP	LIQ	Semi-VOA GC/MS RCRA protocol	LA-523-406	824
@RCRAVOA	11-DCL2	SOL	VOA by GC/MS - RCRA protocol	LA-523-405	502
@RCRAVOA	VINYIDE2	LIQ	VOA by GC/MS - RCRA protocol	LA-523-405	457
@SVEVAP	2CPD4-01	LIQ	Semi-Voa Evaporator	LA-523-406	824
@TICTOC1	TIC-02	SOLID	TIC/TOC Acid Persulfate	LA-342-100	210
@TICTOC1	TOC-02	LIQUID	TIC/TOC Acid-Persulfate	LA-342-100	210
@U-01	U-02	SOLID	Uranium by Phosphorescence	LA-925-009	277
@U-01	U-02E	AIR	Uranium by Phosphorescence	LA-925-009	252
@U-01	U-02E	LIQUID	Uranium by Phosphorescence	LA-925-009	252
@U-03	U-03	AIR	ENV Uranium	LA-925-008	275
@U-03	U-03	LIQUID	ENV Uranium	LA-925-008	303
@U-03	U-03E	SOLID	ENV Uranium	LA-925-008	333
@VOA-WP	11-DCL2	LIQ	VOA by GC/MS - 624 protocol	LA-523-405	457
@VOAEVAP	BFB-01	LIQ	VOA Evaporator	LA-523-405	457
12-DBEN1			1,2-Dichlorobenzene (RCRA-VOA)	LA-523-405	44
13-DBEN1			1,3-Dichlorobenzene (RCRA-VOA)	LA-523-405	44
14-DBEN1			1,4-Dichlorobenzene (RCRA-VOA)	LA-523-405	44
1BUTAN-1	1BUTAN-1	SOL	1-Butanol	LA-523-405	44
2BUETHOL	2BUETHOL	SOL	2-Butoxyethanol	LA-523-406	44
2CPD4-01	2CPD4-01	SOL	2-Chlorophenol-d4 Surr	LA-523-406	44
2FP-01	2FP-01	SOL	2-Fluorophenol Surr	LA-523-406	44
2HEXANO1	2HEXANO1	SOL	2-Hexanone	LA-523-405	44
2PENTNON	2PENTNON	SOL	2-Pentanone	LA-523-405	44
4MET2PE1	4MET2PE1	SOL	4-Methyl-2-pentanone	LA-523-405	44
ACETONE1	ACETONE1	SOLID	Acetone	LA-523-405	31
C/R-01		LIQUID	Caustic Ratio	LA-211-105	79
C/R-01		SOLID	Caustic Ratio	LA-211-105	79
CN-03	CN-03	LIQUID	Cyanide NEW METHOD	LA-695-102	264
CN-03	CN-03	SOLID	Cyanide NEW METHOD	LA-695-102	264
CN-03	CN-03	SOLID	Cyanide NEW METHOD	LA-695-103	216
CRVI-01	CRVI-01	LIQUID	Chromium (VI) by Spec.	LA-265-101	188
CRVI-01	CRVI-01	SOLID	Chromium (VI) by Spec.	LA-265-101	188
D2EHPA			Di-2 Ethylhexyl Phosphoric acid		44
DSC-01	DSC-01	LIQUID	DSC Exotherm using Mettler	LA-514-113	251
DSC-03	DSC-03	LIQUID	DSC Exotherm on Perkin Elmer	LA-514-114	251
DSC-03	DSC-03	SOLID	DSC Exotherm on Perkin Elmer	LA-514-114	251
ETHYLGly	ETHYLGly	LIQ	Ethylene Glycol	LA-523-106	64
ETHYLGly	ETHYLGly	SOL	Ethylene Glycol	LA-523-106	70
H+ION-01			Hydrogen Ion Analysis	LA-211-102	79

222-S LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.2

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
HG-02	HG-02	LIQUID	Mercury by CVAA (Perkin Elmer)	LA-325-104	377
HG-02	HG-02	SOLID	Mercury by CVAA (Perkin Elmer)	LA-325-104	377
NH3-01	NH3-01	LIQUID	Ammonia by ISE-Std Additions	LA-631-001	88
NH3-01	NH3-01	SOLID	Ammonia-by ISE-Std Additions	LA-631-001	88
OH-01	OH-01	LIQUID	OH- by Pot. Titration	LA-211-102	79
OH-01	OH-01	SOLID	OH- by Pot. Titration	LA-211-102	79
OHDEMAND	OHDEMAND	LIQUID	Caustic Demand	LA-211-104	151
PH-01	PH-01	LIQUID	pH Direct	LA-212-106	19
PH-02	PH-02	SOLID	pH on SST Samples	LA-212-106	35
PH-QC	PH-QC	QC	pH Measurement QC		19
SOLID-01	SOLID-01	LIQUID	Solids % - Gravimetric	LA-564-101	75
SOLID-01	SOLID-01	SOLID	Solids % - Gravimetric	LA-564-101	75
SPG-01	SPG-01	LIQUID	Specific Gravity	LA-510-112	75
SPG-02	SPG-02	SOLID	Specific Gravity-Solid/Sludges	LA-510-116	201
T0TC-02	T0TC-02	LIQUID	Total Carbon by Persulfate	LA-342-100	264
TDS-01	TDS-01	LIQUID	Total Dissolv. Solids - Grav.	LA-510-115	113
TDS-01	TDS-01	SOLID	Total Dissolv. Solids - Grav.	LA-510-115	113
TGA-01	TGA-01	LIQUID	% Water by TGA using Mettler	LA-560-112	251
TGA-01	TGA-01	SOLID	% Water by TGA using Mettler	LA-560-112	251
TGA-03	TGA-03	LIQUID	% Water by TGA on Perkin Elmer	LA-514-114	251
TGA-03	TGA-03	SOLID	% Water by TGA on Perkin Elmer	LA-514-114	264
TIC-01	TIC-01	LIQUID	Tot. Inorg. Carbon by Coul.	LA-342-100	264
TIC-01	TIC-01	SOLID	Tot. Inorg. Carbon by Coul.	LA-342-100	264
TIC-02	TIC-02	LIQUID	Tot. Inorg. Carbon by Persulfate	LA-342-100	264
TIC-02	TIC-02	SOLID	Tot. Inorg. Carbon by Persulfate	LA-342-100	264
TOC-01	TOC-01	LIQUID	Tot. Organic Carbon by Coul.	LA-344-105	264
TOC-01	TOC-01	SOLID	Tot. Organic Carbon by Coul.	LA-344-105	264
TOC-02	TOC-01	SOLID	Tot. Organic Carbon by Persulfate	LA-344-105	264
TOTC-01	TOTC-01	LIQUID	Total Carbon by Coulometry	LA-344-105	264
TOTC-01	TOTC-01	SOLID	Total Carbon by Coulometry	LA-344-105	264
TOTC-02	TOTC-02	SOLID	Total Carbon by Persulfate	LA-342-100	264
WATER-01	WATER-01	LIQUID	% Water by Gravimetric	LA-564-101	75
WATER-01	WATER-01	SOLID	% Water by Gravimetric	LA-564-101	75
	AS-05		Arsenic by HYAA	LA-355-131	377
		DIRECT	CONDUCTIVITY	LA-512-104	19
			ELECTRICAL CONDUCTANCE	LA-512-104	19
RADIOCHEMICAL SEPARATIONS TEAM					
@AB-01	ALPHA01	LIQUID	Alpha and Beta Liquid Samples	LA-508-101	113
@AB-01	ALPHA01	SOLID	Alpha and Beta Liquid Samples	LA-508-101	113
@AB-02	ALPHA02	AIR	ENV ALPHA/BETA	LA-508-101	170
@AB-02	ALPHA02	SOLID	ENV ALPHA/BETA	LA-508-101	187
@AB-02	ALPHA02E	LIQUID	ENV ALPHA/BETA	LA-508-101	141
@AB-03	@AB-03	LIQUID	ENV ALPHA/BETA LARGE VOLUME	LA-508-101	141
@AIR-01	ALPHA01	AIR	AIR	LA-508-101	56
@ALPHA02	@ALPHA02	AIR	ENV Alpha Analysis of Liquids	LA-508-101	180
@ALPHA02	@ALPHA02	LIQUID	ENV Alpha Analysis of Liquids	LA-508-101	180
@ALPHA02	@ALPHA02	SOLID	ENV Alpha of Digested Solids	LA-508-101	304
@ALPHA03	@ALPHA03	LIQUID	ENV Alpha Analysis of Liquids	LA-508-101	67

222-S LABORATORY
FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.2

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@BETA-02	@BETA-02	AIR	ENV Beta of Liquid Samples	LA-508-101	180
@BETA-02	@BETA-02	LIQUID	ENV Beta of Liquid Samples	LA-508-101	180
@BETA-02		SOLID	ENV Beta of Digested Solids	LA-508-101	304
@BETA-03		LIQUID	ENV Beta Large Volume	LA-508-101	180
@GEA-00	@GEA-00	LIQUID	GEA Large Library Method	LA-548-121	156
@GEA-06	@GEA-06	AIR	ENV. GEA for Co, Cs, Eu	LA-548-121	178
@GEA-06	@GEA-06	LIQUID	ENV. GEA for Co, Cs, Eu	LA-548-121	195
@GEA-06	@GEA-06	SOLID	ENV. GEA for Co, Cs, Eu	LA-548-121	195
@GEA-07	@GEA-07	AIR	ENV GEA-2" mount for Co, Cs, Eu	LA-548-121	195
@GEA-07	@GEA-07	LIQUID	ENV GEA-2" mount for Co, Cs, Eu	LA-548-121	195
@GEA-07	@GEA-07	SOLID	ENV GEA-2" mount for Co, Cs, Eu	LA-548-121	195
@H3-04	@H3-04	LIQUID	ENV TRITIUM (H3) -Ion Removal	LA-218-115	267
@PU23904		LIQUID	ENV Pu239/Pu238/Pu240 by TTA Ex	LA-943-123	727
@PU23904		SOLID	ENV Pu239/Pu238/Pu240 by TTA Ex	LA-943-123	793
@PUAM-01		AIR	Pu239/241 by TRU-SPEC Resin	LA-953-104	577
@PUAM-01		LIQUID	Pu239/241 by TRU-SPEC Resin	LA-953-104	635
@PUAM-01		SOLID	Pu239/241 by TRU-SPEC Resin	LA-953-104	635
@PUAM-02		LIQUID	Pu238,239 by TRU-SPEC Resin	LA-953-104	635
@PUAM-02		SOLID	Pu238,239 by TRU-SPEC Resin	LA-953-104	635
@PUAM-03		LIQUID	ENV Pu239, Pu238	LA-953-104	635
@PUAM-03		SOLID	ENV Pu239, Pu238	LA-953-104	635
@PUAM-04		LIQUID	ENV Pu238,9/Am241/Cm243 Tru-Sp	LA-953-104	635
@PUAM-04		SOLID	ENV Pu238,9/Am241/Cm243 Tru-Sp	LA-953-104	635
@PUTOT01		LIQUID	Total Pu by TTA Extraction	LA-943-101	635
@PUTOT01		SOLID	Total Pu by TTA Extraction	LA-943-101	635
@TC-99-04	TC99-03	LIQUID	ENV Tc-99 Large Volume	LA-438-111	302
@TC99-00	@TC99-00	AIR	Technetium - Lig. Scint.	LA-438-101	252
@ALPHA01	ALPHA01	AIR	Alpha (AEA/FILTER)	LA-508-101	86
@ALPHA01	ALPHA01	LIQUID	Alpha in Liquid Samples	LA-508-101	201
@ALPHA01	ALPHA01	SOLID	Alpha of Digested Solid	LA-508-101	76
@AM24101	AM24101	AIR	Am241 by Extraction	LA-953-103	686
@AM24101	AM24101	LIQUID	Am241 by Extraction	LA-953-103	754
@AM24101	AM24101	SOLID	Am241 by Extraction	LA-953-103	754
@AM24102	AM24101	LIQUID	Am241Cm243 by Extraction	LA-953-103	754
@AM24102	AM24101	SOLID	Am241Cm243 by Extraction	LA-953-103	754
@AM24103	AM24103	LIQUID	ENV Am241/Cm243	LA-943-123	880
@AM24103	AM24103E	SOLID	ENV Am241/Cm243	LA-943-123	880
@BETA-01	BETA-01	AIR	Beta in (AEA/FILTER)	LA-508-101	86
@BETA-01	BETA-01	LIQUID	Beta in Liquid Samples	LA-508-101	201
@BETA-01	BETA-01	SOLID	Beta of Digested Solids	LA-508-101	75
@C14-01	C14-01	SOLID	Carbon 14 Small Volume	LA-348-104	635
@C14-01	C14-01E	LIQUID	Carbon 14 Small Volume	LA-348-104	635
@GEA-01	CO60-02	SOLID	GEA for Co60 Cs137	LA-548-121	156
@GEA-01	CS13702E	LIQUID	GEA for Co60 Cs137	LA-548-121	156
@GEA-02	AM24102	SOLID	GEA:Cs137Co60Eu154-155Am241	LA-548-121	156
@GEA-02	EU15502E	LIQUID	GEA:Cs137Co60Eu154-155Am241	LA-548-121	156
@GEA-03	CE14402	SOLID	GEA for CoNbRuCsCeEuRa	LA-548-121	156
@GEA-03	RU10602E	LIQUID	GEA for CoNbRuCsCeEuRa	LA-548-121	156
@GEA-04	@GEA-04	AIR	GEA	LA-548-121	156
@GEA-04	@GEA-04	LIQUID	GEA (ALL)	LA-548-121	156
@GEA-04	@GEA-04	SOLID	GEA (ALL)	LA-548-121	156

222-S LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.2

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@GEA-05	@GEA-05	AIR	ENV. GEA	LA-548-121	178
@GEA-05	@GEA-05	LIQUID	ENV. GEA	LA-548-121	195
@GEA-05	@GEA-05	SOLID	ENV. GEA	LA-548-121	195
@H3-01	H3-01	AIR	Tritium (H3) by Lachat	LA-218-114	213
@H3-01	H3-01	LIQUID	Tritium (H3) by Lachat	LA-218-114	213
@H3-01	H3-01	SOLID	Tritium (H3) by Lachat	LA-218-114	194
@H3-03	H3-03	LIQUID	ENV TRITIUM (H3)	LA-218-114	267
@H3-03	H3-03E	SOLID	ENV TRITIUM (H3)	LA-218-114	242
@I129-01	I129-01	SOLID	Iodine-129 Waste Tank Samples	LA-378-103	294
@I129-01	I129-01E	LIQUID	Iodine-129 Waste Tank Samples	LA-378-103	235
@NP23701	NP23701	SOLID	Np237 by TTA Extraction	LA-933-141	253
@NP23701	NP23701E	LIQUID	Np237 by TTA Extraction	LA-933-141	278
@PU23901	PU23901	SOLID	Pu239 by TRU-SPEC Resin	LA-943-127	577
@PU23901	PU23901T	AIR	Pu239 by TRU-SPEC Resin	LA-943-127	529
@PU23901	PU23901T	LIQUID	Pu239 by TRU-SPEC Resin	LA-943-127	529
@PU23902	PU23801	SOLID	Pu239/Pu238 by TRU-SPEC Resin	LA-943-127	635
@PU23902	PU23803	AIR	Pu239, Pu238	LA-943-123	727
@PU23902	PU23901T	LIQUID	Pu239/Pu238 by TRU-SPEC Resin	LA-943-127	582
@PU23903	PU23803	AIR	ENV Pu239, Pu238	LA-943-123	661
@PU23903	PU23803	LIQUID	ENV Pu239, Pu238	LA-943-123	727
@PU23903	PU23803E	SOLID	ENV Pu239, Pu238	LA-943-123	793
@SE79-01	SE79-01	SOLID	Selenium-79 by Liquid Scint.	LA-365-132	1100
@SE79-01	SE79-01E	AIR	Selenium-79 by Liquid Scint.	LA-365-132	1000
@SE79-01	SE79-01E	LIQUID	Selenium-79 by Liquid Scint.	LA-365-132	1100
@SR90-01	SR90-01	SOLID	Sr-89/90 High Level	LA-220-101	310
@SR90-01	SR90-01E	AIR	Sr-89/90 High Level	LA-220-101	284
@SR90-01	SR90-01E	LIQUID	Sr-89/90 High Level	LA-220-101	284
@SR90-03	SR90-03	LIQUID	Env SR-90	LA-220-104	355
@SR90-03	SR90-03E	SOLID	Env SR-90	LA-220-103	387
@SR90-03	SR90-03E	AIR	Env SR-90 on Sample	LA-220-103	387
@TC99-01	TC99-01	SOLID	Technetium - Liq. Scint.	LA-438-101	277
@TC99-01	TC99-01T	AIR	Technetium - Liq. Scint.	LA-438-101	252
@TC99-01	TC99-01T	LIQUID	Technetium - Liq. Scint.	LA-438-101	252
@TC99-03	TC99-03	LIQUID	ENV Tc-99	LA-438-101	302
@TC99-03	TC99-03E	SOLID	ENV Tc-99	LA-438-101	332
ASH-01		AIR	Ash and Leach of Env. Samples	LA-544-102	156
ASH-01		SOLID	Ash and Leach of Env. Samples	LA-544-102	171
CM24303		AIR	Cm-243/244 Env.	LA-943-123	686
CM24303		LIQUID	Cm-243/244 Env.	LA-943-123	880
CM24303		SOLID	Cm-243/244 Env.	LA-943-123	880
FUS-ZR01	FUS-ZR01	SOLID	Fusion (Zr Crucible) with KOH	LA-549-141	451
FUSION01	FUSION01	SOLID	Fusion with KOH	LA-549-141	496
PU23802	PU23802	AIR	Pu-238 by Ion Exchange	LA-943-127	529
PU23802	PU23802	LIQUID	Pu-238 by Ion Exchange	LA-943-127	577
PU23902	PU23902	LIQUID	Pu-239/240 by Ion Exchange	LA-943-127	582
PU23902	PU23902	SOLID	Pu-239/240 by Ion Exchange	LA-943-127	635
TE12302	TE12302		Tellurium-123m by GEA	LA-548-121	195
RADIOLOGICAL SCREENING					

222-S LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.2

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@TOTACT1			Total Activity by LSC	LA-548-111	54
DATA REPORTING					
			Data Report		2431
			Full Data Report (TANK CHAR REPT)		22102

FY 1998 Annual Work Plan Part I - Summary

Revision # 1						18-Sep-97	
Cost Account Number	Cost Account Title					Funding Source:	
IMDR62	222-S Tank Characterization			G&A			
WBS Number	WBS Title			Service Center		x	
7.1.1.4.3.3	222-S Tank Characterization			DOH/PMA			
Budget Analyst	J. M. Kier					FY 1998 CAP	
Cost Account Manager	L. F. Perkins, Jr.			COST ELEMENTS		\$000'S	
Financial Manager	R. A. Spohr			0 Labor		4,426	
Program Manager	C. G. Mattsson			1 Materials		426	
RL Program Manager	R. P. Carter			2 Purchased Services		112	
				3 Other Hanford Contractors		101	
				7x Fee/Non DOH		0	
				8 Revenue		0	
				9 Enterprise Companies		77	
Total		20.9		62.4		5,142	
				Subtotal Net Budget		5,142	
				4 Site Services		100	
				5 Internal Charges		201	
				6 LMSI Support		38	
				7C DOH		729	
				Total Baseline		6,210	
SIGNATURES				BASELINE APPROVAL:		Date	
CAM:	<i>[Signature]</i>	Date: 7/18/97					
Program Manager:	<i>[Signature]</i>	Date: 9/22/97					
RL Program Manager:	<i>[Signature]</i>	Date: 9/23/97		Indirect Program Administration			

FY 1998 Annual Work Plan			CAP #	1MDR62
Part II - Activity Detail				
COST ACCOUNT WORKSCOPE SUMMARY				
Functional Organization: 222-S Laboratory				
Workscope Summary: 222-S Laboratory is to provide analytical chemistry services for Protocol Samples that are > 10mR/hr in support of Tank Characterization programmatic missions. Protocols are analyses that require additional oversight of operations and require formal documentation. Protocols QA oversight, blanks, standard, duplicates, and spikes to be performed and are subject to regulatory requirements (i.e., GERCLA, RCRA, etc.). Protocols provide support to Tank Characterization Project (TCP) to meet their Safety and DNFSB requirements.				
222-S Laboratory scheduled to perform 20.0 AEUs in FY 1998 for Tank Characterization Program.				
APPROVED BASELINE:			FY 1998	
Activity Description - Hot Cell/Sample Receipt Team			FTEs	Dollars
This activity entails receiving samples into 222-S Laboratory; logging the sample; assuring all samples are under strict chain-of-custody; ensuring inventory of radionuclides content of the Laboratory is up to date and current; and HPTs to perform dose rate and contamination surveys upon receipt of samples.				
Sample Custodians				
Hot Cell/Sample Receipt Team			0.4	26.2
HPT Support			7.5	580.0
			2.8	221.4
Mutually Agreed Upon Workscope Deliverables and Due Dates				
1 10/01/97 to 09/30/98				
Receiving samples into 222-S Laboratory; logging the sample; assuring all samples are under strict chain-of-custody; and ensuring inventory of radionuclides content of the Laboratory is up to date and current.				
2 10/01/97 to 09/30/98				
Perform radiological screening at 222-S Laboratory for Tank Characterization.				
3 10/01/97 to 09/30/98				
Performing extrusions in the Hot Cell in support of Tank Characterization.				
Subtotal Net			10.7	827.6
Total Activity			10.7	968.7

FY 1998 Annual Work Plan				
Part II - Activity Detail				
Activity Description - Sample Analysis Team	CAP #	1MDR62		
This activity is for the analytical work that is performed on each sample after it has been received. This work entails sample preparation, Radiochemistry, Inorganic, and Organic analyses; development of procurement of standards to support analyses at 222-S; shop and laboratory supplies needed to perform analyses; HPT screening; and troubleshooting.				
Counting Room Team				
Direct Analysis/Wet Chemistry Team	2.5			195.7
Preparation Analysis Team	10.4			763.5
Radiochemical Separations Team	11.0			828.1
Standards Laboratory Team	3.1			249.1
Stockroom Support	2.9			242.2
HPT Support - Analysis	0.3			291.5
	7.4			493.4
Mutually Agreed Upon Workscope Deliverables and Due Dates				
1	10/01/97 to 09/30/98			
	Analytical work performed on each sample after it has been received. This includes sample preparation and analysis of the samples.			
2	10/01/97 to 09/30/98			
	Development and procurement of analytical standards to support analyses for Tank Characterization.			
3	10/01/97 to 09/30/98			
	Procurement of analytical supplies for the Stockroom necessary to perform analysis for Tank Characterization.			
4	10/01/97 to 09/30/98			
	HPT screening to support analysis for Tank Characterization.			
	Subtotal Net		37.6	3,063.5
	Total Activity		37.6	3,553.6

FY 1998 Annual Work Plan

Part II - Activity Detail

Activity Description - Data Administration/Reporting	CAP #	IMDR62
This activity provides Quality Assurance (QA) and Quality Control (QC) officer support, QA support for the preparation review and approval of project data packages. This account includes daily operations support to the LABCORE computer systems, Buyer Technical Representative activities, updating reports and instrument interfaces, and acceptance testing of updates.		
QA Support	1.0	77.0
LIMS/LABCORE Support	0.5	138.4
Laboratory Leader Support	0.4	26.2
Project Coordination	1.2	115.9
Mutually Agreed Upon Workscope Deliverables and Due Dates		
1 10/01/97 to 09/30/98		
Provide Quality Assurance (QA) and Quality Control (QC) officer support for preparation review and approval of project data packages at 222-S Laboratory.		
2 10/01/97 to 09/30/98		
LIMS/LABCORE support to track data through the laboratory and to meet Tank Characterization reporting requirements.		
3 10/01/97 to 09/30/98		
Preparation of Data Packages per Tank Characterization requirements.		
Subtotal Net	3.1	357.5
Total Activity	3.1	432.8

FY 1998 Annual Work Plan			CAP #	1MDR62
Part II - Activity Detail				
<u>Activity Description - Archive/Disposal</u>				
This activity provides support to dispose/archive of samples as required by the customer, tracking samples for disposal, provide HPTs to perform dose rate and contamination surveys for short/long term archival or for disposal, and transportation support.				
	Waste Handling		3.6	308.1
	Sample Custodian		0.2	13.1
	HPT Support		1.5	115.6
	Transportation		0.0	24.0
<u>Mutually Agreed Upon Workscope Deliverables and Due Dates</u>				
1	10/01/97 to 09/30/98			
	Archive samples and/or disposal of the samples as appropriate for the Tank Characterization Program.			
2	10/01/97 to 09/30/98			
	Provide HPT screening for Archive and disposing to samples.			
3	10/01/97 to 09/30/98			
	Provide transportation of samples for disposal in support of the Tank Characterization Program.			
4	10/01/97 to 09/30/98			
	Tracking of samples for disposal/archive.			
	Subtotal Net		5.3	460.8
	Total Activity		5.3	729.8

FY 1998 Annual Work Plan Part II - Activity Detail

Activity Description - Facility Planning, Team/Support		CAP #	1MDR62
This activity provides program support and customer interface, establishes customer points of contact, developing a facility analytical schedule, establishing facility priorities, tracking and reporting progress against the integrated schedule, Laboratory Leaders for project setup, sample disposal, and will provide customer interface for small projects, records scanning support, provide technical quality support for all aspects of the analytical process and tracking of cost versus budget support.			
Process Analysis Management			
Coordinator		0.4	31.1
Laboratory Leaders		0.4	31.1
Project Coordination		0.8	52.5
Analytical Work Scheduler		0.6	51.4
QA Support		0.4	31.1
Records Management		0.4	31.2
		0.3	12.3
<u>Mutually Agreed Upon Workscope Deliverables and Due Dates</u>			
1	10/01/97 to 09/30/98		
Tracking and reporting progress against the integrated schedule.			
2	10/01/97 to 09/30/98		
Provide progress reports to Tank Characterization.			
3	10/01/97 to 09/30/98		
Conduct/coordinate technical reviews of analytical work.			
4	10/01/97 to 09/30/98		
Develop short/long range analytical work schedule.			
5	10/01/97 to 09/30/98		
Coordinate/perform reviews for data quality and accuracy for organic, inorganic and radiochemistry.			
6	10/01/97 to 09/30/98		
Approve disposition of samples and preps after analysis.			
7	10/01/97 to 09/30/98		
Establish agreements with Tank Characterization for quality, schedule, and sample disposition for identified work.			
Subtotal Net		3.3	240.7
Total Activity		3.3	282.4

FY 1998 Annual Work Plan		CAP #	1MDR62
Part II - Activity Detail			
<u>Activity Description - Technical Support</u>			
This activity provide procedure maintenance, develop training program/modules per Analytical Services training requirements, and consulting services on the latest technology.			
222-S Training		0.8	59.4
Procedure Administration		0.5	55.0
Technical Development (NUMATEC)		1.0	69.3
Misc. Support		0.1	7.8
<u>Mutually Agreed Upon Workscope Deliverables and Due Dates</u>			
1	10/01/97 to 09/30/98		
Procedure preparation and maintenance of existing procedures.			
2	10/01/97 to 09/30/98		
Provide instructions, development of training programs/modules and training records administration per Analytical Services training requirements.			
3	10/01/97 to 09/30/98		
Provides consulting services by performing studies and assessments to determine data quality, data requirements, or to determine best measurement technology.			
Subtotal Net		2.4	191.5
Total Activity		2.4	242.4
Approved Net		62.4	5,141.6
Approved Total		62.4	6,209.7

FY 1988 UNIT PRICE DEVELOPMENT - MODEL
1MDR62, 222-S TANK CHARACTERIZATION

ATTACHMENT I

IRL WBS #7.1.1.4.3.3

222-S LABORATORY	HOURS PER ANALYTE/ REPORT	% OF HOURS PER ANALYTE								TOTAL LABOR \$	STOCK- ROOM	TOTAL ANALYTE \$
		QC	SAMPLE RECEIPT	TRAINING	ADMIN/ OPS TIME	MGMT	HPTs	STAND. LAB	TOTAL ANALYTE HRS			
EXTRUSION	HOURS	N/A	N/A	3.0%	21.6%	4.0%	10.6%	N/A			9.8%	Total
SAMPLE PREPARATION	HOURS	20.0%	N/A	3.0%	21.6%	4.0%	10.6%	N/A		Convert	9.8%	Labor +
INORGANIC CHEMISTRY	HOURS	20.0%	3.1%	3.0%	21.6%	4.0%	10.6%	6.0%		Labor Hours	9.8%	Stock-
RADIOCHEMISTRY (1)	HOURS	20.0%	20.0%	3.0%	21.6%	4.0%	10.6%	6.0%		to Dollars	9.8%	Room
ORGANIC CHEMISTRY	HOURS	20.0%	3.1%	3.0%	21.6%	4.0%	10.6%	6.0%			Adder to	
Total Labor \$												
Duplicates = 1 Sample Sample QC = 1 Sample QC consist of Blanks, Spikes, Standards.												

222-S LABORATORY	% OF TOTAL ANALYTE HOURS						TOTAL UNIT PRICE (2)
	SUPPORT TO ANALYTICAL WORK						
	ARCH/ DISP	DATA ADM/ REPTG	FAC PLN TMSUP/ TECH	TOTAL SUPPORT HOURS	TOTAL LABOR \$	NON- LABOR \$	
EXTRUSION	12.0%	4.5%	8.0%		Convert	9.0%	Total
SAMPLE PREPARATION	12.0%	4.5%	8.0%		Labor Hours	9.0%	Analyte
INORGANIC CHEMISTRY	12.0%	4.5%	8.0%		to Dollars	9.0%	\$ +
RADIOCHEMISTRY (1)	12.0%	4.5%	8.0%			9.0%	Total
ORGANIC CHEMISTRY	12.0%	4.5%	8.0%			9.0%	Support +
						9.0%	Non-Labor \$
							= Unit Cost
Data Report	N/A	N/A	8.0%			9.8%	

COMMENTS:

(1) The increase in Sample Receipt percentage is due to Decon. workscope associated with radiochemistry work which requires additional handling and cleanup.

*Admin/Ops Time includes downtime, building operations, changeout, procedure review, housekeeping, etc.

1MDR62, 222-S TANK CHARACTERIZATION
FY 1998 PROJECTIONS BY PROGRAM

RL WBS # 7.1.1.4.3.3

PROGRAM	FUNCTIONAL \$	PROGRAM \$
222-S Tank Characterization	5949	7020

Based on Hanford Sample Projections (May 23, 1997)
Performing 20.0 AEUs in FY 1998.

222-S. LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.3

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
HOT CELL/SAMPLE RECEIPT TEAM					
#EXTRD01	DLIQVOL1	LIQUID	Drainable Liquid Recovered-Vol	LO-160-103	35
#EXTRD01	DLIQVOL1	SOLID	Drainable Liquid Recovered-Vol	LO-160-103	35
#EXTRD01	DLIQWT01	LIQUID	Drainable Liquid Recovered-WT	LO-160-103	35
#EXTRD01	DLIQWT01	SOLID	Drainable Liquid Recovered-WT	LO-160-103	35
#EXTRD01	EST.G/ML	LIQUID	Estimated G/ML - Calculated	LO-160-103	35
#EXTRD01	EST.G/ML	SOLID	Estimated G/ML - Calculated	LO-160-103	35
#EXTRD01	EXTRUD01	LIQUID	Extrude Segment in Hot Cell	LO-160-103	954
#EXTRD01	EXTRUD01	SOLID	Extrude Segment in Hot Cell 1E	LO-160-103	1033
#EXTRD01	EXTRUD01	SOLID	Extrude Segment in Hot Cell -Rotary	LO-160-103	1828
#EXTRD01	LLIQWT01	LIQUID	Drainable Liquid Recovered-WT	LO-160-103	35
#EXTRD01	LLIQWT01	SOLID	Drainable Liquid Recovered-WT	LO-160-103	35
#EXTRD01	NOTEBOOK	LIQUID	Notebook with Source Data	LO-160-103	35
#EXTRD01	NOTEBOOK	SOLID	Notebook with Source Data	LO-160-103	35
#EXTRD01	ORGVOL01	LIQUID	Organic Volume Present	LO-160-103	35
#EXTRD01	ORGVOL01	SOLID	Organic Volume Present	LO-160-103	35
#EXTRD01	SLDVOL01	LIQUID	Solids Recovered - Volume	LO-160-103	35
#EXTRD01	SLDVOL01	SOLID	Solids Recovered - Volume	LO-160-103	35
#EXTRD01	SLDWT-01	LIQUID	Solids Recovered - Weight	LO-160-103	35
#EXTRD01	SLDWT-01	SOLID	Solids Recovered - Weight	LO-160-103	35
#EXTRD01			EXTRUSION - AUGERS	LO-160-103	556
#EXTRD01			EXTRUSION - SLURP	LO-160-103	318
@APPEAR1	APPEAR01	LIQUID	Appearance of a sample	LA-519-151	21
@APPEAR1	APPEAR01	SOLID	Appearance of a sample	LA-519-151	21
ARCHIV01	ARCHIV01	LIQUID	Archive aliq of sample/hotcell	None	24
ARCHIV01	ARCHIV01	SOLID	Archive aliq of sample/hotcell	None	26
ARCHIV02	ARCHIV02	LIQUID	Archive aliq of sam/sampl prep	None	23
ARCHIV02	ARCHIV02	SOLID	Archive aliq of sam/sampl prep	None	26
ARCHIVE	ARCHIVE	LIQUID	Archive an aliquot of sample	None	21
ARCHIVE	ARCHIVE	SOLID	Archive an aliquot of sample	None	21
BLKDEN01	BLKDEN01	LIQUID	Bulk Density of Sample	LO-160-103	74
BLKDEN01	BLKDEN01	SOLID	Bulk Density of Sample	LO-160-103	124
COMPOS01	COMPOS01	LIQUID	Make Composite Sample	LO-160-103	34
COMPOS01	COMPOS01	SOLID	Make Composite Sample	LO-160-103	37
FILTER01	FILTER01	LIQUID	Filter Liquid / hotcell	LA-504-101	25
FILTER02	FILTER02	LIQUID	Filter Liquid / sample prep	LA-504-101	22
FSLDWT01	FSLDWT01	LIQUID	Weight of Solids - Filtered	LA-548-141	30
FSLDWT01	FSLDWT01	SOLID	Weight of Solids - Filtered	LA-548-141	30
HOMGNZ01	HOMGNZ01	SOLID	Homogenize Sample	LO-160-103	37
SHIP-PNL	SHIP-PNL	LIQUID	Ship aliquot of sample to PNL	None	64
SHIP-PNL	SHIP-PNL	SOLID	Ship aliquot of sample to PNL	None	70
			EOX	LI-000-200	22
PCL ANALYSIS:					
@ICP-P02		SOLID	ICP (PCL Digest of Solids)	LA-505-151/162	188
@ICP-P03		LIQUID	ICP (PCL Digest) Li Only	LA-505-151/163	188
@ICP-P04		SOLID	ICP (PCL Digest) Cd, Cr, Pb	LA-505-151/164	188
@MSU-A1	@MSU-A1	SOLID	Isotopic Uranium (ICP/MS) Acid Dig- Solid	LT-506-101	188
@MSU-F1	@MSU-F1	SOLID	Isotopic Uranium (ICP/MS) Fusion Dig	LT-506-101	188

222-S. LABORATORY
FY 1998 UNIT PRICES - LABCORE

HNF-SP-1229, Rev. 1

RL WBS # 7.1.1.4.3.3

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@MSU-B1	@MSU-B1	LIQUID	Isotopic Uranium (ICP/MS) Acid Dig-Liquid	LT-506-101	188
@MSU-D1	@MSU-D1	LIQUID	Isotopic Uranium (ICP/MS) Direct Liquid	LT-506-101	188
@MSACT-A1	@MSACTA1	SOLID	Actinides (ICP/MS) Acid Dig - Solid	LT-506-101	251
@MSACT-F1	@MSACTF1	SOLID	Actinides (ICP/MS) Fusion Dig	LT-506-101	251
@MSACT-B1	@MSACTB1	LIQUID	Actinides (ICP/MS) Acid Dig - Liquid	LT-506-101	251
@MSACT-D1	@MSACTD1	LIQUID	Actinides (ICP/MS) Direct Liquid	LT-506-101	251
@MSTC-A1	@MSTC-A1	SOLID	Tc-99 (ICP/MS) Acid Dig - Solid	LT-506-101	151
@MSTC-F1	@MSTC-F1	SOLID	Tc-99 (ICP/MS) Fusion Dig - Solid	LT-506-101	151
@MSTC-B1	@MSTC-B1	LIQUID	Tc-99 (ICP/MS) Acid Dig - Liquid	LT-506-101	151
@MSTC-D1	@MSTC-D1	LIQUID	Tc-99 (ICP/MS) Direct Liquid	LT-506-101	151
@MSCS-A1	@MSCS-A1	SOLID	Isotopic Cesium (ICP/MS) Acid Dig-Solid	LT-506-101	188
@MSCS-F1	@MSCS-F1	SOLID	Isotopic Cesium (ICP/MS) Fusion Dig	LT-506-101	188
@MSCS-B1	@MSCS-B1	LIQUID	Isotopic Cesium (ICP/MS) Acid Dig-Liquid	LT-506-101	188
@MSCS-D1	@MSCS-D1	LIQUID	Isotopic Cesium (ICP/MS) Direct Liquid	LT-506-101	188
@MSZR-A1	@MSZR-A1	SOLID	Zr-93 (ICP/MS) Acid Dig - Solid	LT-506-101	188
@MSZR-F1	@MSZR-F1	SOLID	Zr-93 (ICP/MS) Fusion Dig	LT-506-101	188
@MSZR-B1	@MSZR-B1	LIQUID	Zr-93 (ICP/MS) Acid Dig - Liquid	LT-506-101	188
@MSZR-D1	@MSZR-D1	LIQUID	Zr-93 (ICP/MS) Direct Liquid	LT-506-101	188
@MSSN-A1	@MSSN-A1	SOLID	Sn-126 (ICP/MS) Acid Dig - Solid	LT-506-101	188
@MSSN-F1	@MSSN-F1	SOLID	Sn-126 (ICP/MS) Fusion Dig	LT-506-101	188
@MSSN-B1	@MSSN-B1	LIQUID	Sn-126 (ICP/MS) Acid Dig - Liquid	LT-506-101	188
@MSSN-D1	@MSSN-D1	LIQUID	Sn-126 (ICP/MS) Direct Liquid	LT-506-101	188
@MSEL-A1	@MSEL-A1	SOLID	Elemental Analysis (ICP/MS) Acid Dig-Solid	LT-506-101	251
@MSEL-F1	@MSEL-F1	SOLID	Elemental Analysis (ICP/MS) Fusion Dig	LT-506-101	251
@MSEL-B1	@MSEL-B1	LIQUID	Elemental Analysis (ICP/MS) Acid Dig-Liquid	LT-506-101	251
@MSEL-D1	@MSEL-D1	LIQUID	Elemental Analysis (ICP/MS) Direct Liquid	LT-506-101	251
@VISCOS1	@VISCOS1	LIQUID	Viscosity Analysis by PCL	LT-519-115	359
@VISCOS1	@VISCOS1	SOLID	Viscosity Analysis by PCL	LT-519-115	395
@ICP-P01		SOLID	ICP (PCL Digest)	LA-505-151/161	188
ADIABC01	ADIABC01	LIQUID	Adiabatic Calorimetry	WHC-SD-WM-	987
ADIABC01	ADIABC01	SOLID	Adiabatic Calorimetry	WHC-SD-WM-	1135
BOILPT01	BOILPT01	LIQUID	Boiling Point Study	PCL does this	124
PARTSZ01	PARTSZ01	SOLID	Particle Size Analysis	LT-519-101	108
PCLDIG01			Digestion done by PCL	PCL Method	259
RSSLD-01		SOLID	Digestion - Water No Acid & A Added	LA-504-101	259
RSSLD-01		WATER	Digestion - Water Acid Added.	LA-504-101	285
			Laser Ablation/Mass Spec Screen	LT-506-102	459
			TCLP Digestion/Extraction	LA-544-134	509
			Setting Rate	Test Plan	179
			Settled Density	Test Plan	179
			Centrifuge Particle Density	Test Plan	366
PREPARATION ANALYSIS TEAM					
@EDTA-01			EDTA/HEDTA by C.Z.E.	LA-533-113	44
@IC2-01		LIQUID	Organic Acids-IC Dionex 4000	LA-533-105	377
@IC2-01		SOLID	Organic Acids-IC Dionex 4000	LA-533-105	377
@IC3-01		LIQUID	Anions by IC - Dionex 100	LA-533-101	188
@IC3-01		SOLID	Anions by IC - Dionex 100	LA-533-101	188
@IC3-01		ALL	Single Analyte Parameter - IC	LA-533-101	126
@IC4-01		LIQUID	F, ORG Acid-IC Dionex 4000 / 4500	LA-533-105	377

222-S LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.3

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@IC4-01		SOLID	F, ORG Acd-IC Dionex 4000 / 4500	LA-533-105	377
@IC4-01		ALL	Single Analyte Parameter - IC	LA-533-105	188
@IC5-01		LIQUID	Anions & Cations on Dionex 500	LA-533-115	377
@IC5-01		SOLID	Anions & Cations on Dionex 500	LA-533-115	377
@IC5-01		ALL	Anions & Cations on Dionex 500	LA-533-115	188
@ICP-T01			TCLP Digest of Liquids	LA-505-151	188
@ICP-Z01			Fusion Zr Crucible (all metals)	LA-505-151	188
@KDIG-01		LIQUID	Acid Dig-Sandfilter Backwash	LA-505-162	496
@KDIG-01		SOLID	Acid Dig-Sandfilter Backwash	LA-505-162	546
@IC-01		LIQUID	Anions by IC - Dionex 4000i /4500	LA-533-105	314
@IC-01		SOLID	Anions by IC - Dionex 4000i /4500	LA-533-105	314
@ICP-A01		SOLID	ICP (Acid Digest) All Metals	LA-505-151/161	188
@ICP-A02		SOLID	ICP (Acid Digest of Solids)	LA-505-151/161	188
@ICP-A03		SOLID	ICP (Acid Digest) Li Only	LA-505-151/161	188
@ICP-A04		SOLID	ICP (Acid Digest) U Fe Mn	LA-505-151/161	188
@ICP-B01		LIQUID	ICP (Acid Digest of Liquid)	LA-505-151/161	188
@ICP-B02		LIQUID	ICP Acid Digest of a Liquid	LA-505-151/161	188
@ICP-B03		LIQUID	ICP (Acid Digest) Li Only	LA-505-151/161	188
@ICP-B04		LIQUID	ICP (Acid Digest) U Fe Mn	LA-505-151/161	188
@ICP-D01		LIQUID	ICP (Acid Added to Liquid)	LA-505-151/161	188
@ICP-D02			ICP Acid Digest of a Liquid	LA-505-151/161	188
@ICP-D03		LIQUID	ICP (Acid Digest) Li Only	LA-505-151/161	188
@ICP-D04		LIQUID	ICP (Acid Digest) U Fe Mn	LA-505-151/161	226
@ICP-F01		SOLID	ICP (Fusion Digest) All Metals	LA-505-151/161	188
@ICP-F02		SOLID	ICP (Fusion Digest)	LA-505-151/161	188
@ICP-F03		SOLID	ICP (Fusion Digest) Li Only	LA-505-151/161	188
@ICP-F04		SOLID	ICP (Fusion Digest) U Fe Mn	LA-505-151/161	188
@ICP-I01		SOLID	ICP (H2O/Acid) All Metals	LA-505-151/161	188
@ICP-QC		QC	ICP (QC) All Metals	LA-505-151	188
ICP (>1r)			ICP (High dose rate > 1r)	LA-505-151/161	218
ICP (>20)			ICP (>20 samples 5% discount rerun)	LA-505-151/161	94
ICP (1-5)			ICP (1-5 Analytes) primary	LA-505-151/161	188
ICP (35-40)			ICP (35-40 Analytes) Tertiary	LA-505-151/161	213
ICP (5-10)			ICP (5-10 Analytes) Secondary	LA-505-151/161	239
ACDGFA01	ACDGFA01	LIQUID	Digestion - Acid (LIQUID) ICP/FL&GFAA	LA-505-158	248
ACIDIG02	ACIDIG02	LIQUID	Acid Digest	LA-505-158	248
ACIDIG03		SOLID	Digestion - Acid (Solid) ICP/FL&HYAA/GF	LA-505-159	496
ACIDIL01	ACIDIL01	LIQUID	Acid Dilution	LA-505-158	31
CD-03	CD-03	LIQUID	Cadmium by GFAA	LA-505-402	188
CD-03	CD-03	SOLID	Cadmium by GFAA	LA-505-402	188
GRADIG01		SOLID	GFAA Acid Digest	LA-505-401	248
H20DIG02		LIQUID	Water Digest	LA-504-101	130
H20DIL01		LIQUID	Water Dilution of a Sample	LA-504-101	130
	SE-05	LIQUID	Selenium by HYAA	LA-365-132	377
	SE-05	SOLID	Selenium by HYAA	LA-365-132	377
	SUSPLSLD1	SOLID			
DIRECT ANALYSIS/WET CHEMISTRY TEAM					
@PCB			PCBs by SW-846	LA-523-434	246

222-S LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.3

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@PCB-OIL		Oil	PCBs in oil by SW-846	LA-523-434	270
@CLPEST		LIQ	Pesticides by CLP protocol	LA-523-434	246
@CLPEST		SOL	Pesticides by CLP protocol	LA-523-434	270
@CLPSVO		LIQ	Semi-VOA GC/MS by CLP protocol	LA-523-402	824
@CLPSVO		SOL	Semi-VOA GC/MS by CLP protocol	LA-523-402	906
@CLPVOA		LIQ	VOA by GC/MS - CLP protocol	LA-523-401	457
@CLPVOA		SOL	VOA by GC/MS - CLP protocol	LA-523-401	502
@IC-01	F*3-01	LIQUID	Fluoride by IC-Dionex 100	LA-533-105	283
@NPHBTBP	DECANE	SOL	NPH/TBP by GC	LA-523-437	188
@NPHBTBP	UNDECANE	LIQ	NPH/TBP by GC	LA-523-437	171
@PEST-WP	A-BHC	LIQ	Pesticides by CLP protocol	LA-523-434	246
@RCRA-SV	1-NAPHA	SOL	Semi-VOA GC/MS RCRA protocol	LA-523-406	906
@RCRA-SV	TRITOLP	LIQ	Semi-VOA GC/MS RCRA protocol	LA-523-406	824
@RCRAVOA	11-DCL2	SOL	VOA by GC/MS - RCRA protocol	LA-523-405	502
@RCRAVOA	VINYIDE2	LIQ	VOA by GC/MS - RCRA protocol	LA-523-405	457
@SVEVAP	2CPD4-01	LIQ	Semi-Voa Evaporator	LA-523-406	824
@TICTOC1	TIC-02	SOLID	TIC/TOC Acid Persulfate	LA-342-100	210
@TICTOC1	TOC-02	LIQUID	TIC/TOC Acid-Persulfate	LA-342-100	210
@U-01	U-02	SOLID	Uranium by Phosphorescence	LA-925-009	277
@U-01	U-02E	AIR	Uranium by Phosphorescence	LA-925-009	252
@U-01	U-02E	LIQUID	Uranium by Phosphorescence	LA-925-009	252
@U-03	U-03	AIR	ENV Uranium	LA-925-008	275
@U-03	U-03	LIQUID	ENV Uranium	LA-925-008	303
@U-03	U-03E	SOLID	ENV Uranium	LA-925-008	333
@VOA-WP	11-DCL2	LIQ	VOA by GC/MS - 624 protocol	LA-523-405	457
@VOAEVAP	BFB-01	LIQ	VOA Evaporator	LA-523-405	457
12-DBEN1			1,2-Dichlorobenzene (RCRA-VOA)	LA-523-405	44
13-DBEN1			1,3-Dichlorobenzene (RCRA-VOA)	LA-523-405	44
14-DBEN1			1,4-Dichlorobenzene (RCRA-VOA)	LA-523-405	44
1BUTAN-1	1BUTAN-1	SOL	1-Butanol	LA-523-405	44
2BUETHOL	2BUETHOL	SOL	2-Butoxyethanol	LA-523-406	44
2CPD4-01	2CPD4-01	SOL	2-Chlorophenol-d4 Surr	LA-523-406	44
2FP-01	2FP-01	SOL	2-Fluorophenol Surr	LA-523-406	44
2HEXANO1	2HEXANO1	SOL	2-Hexanone	LA-523-405	44
2PENTNON	2PENTNON	SOL	2-Pentanone	LA-523-405	44
4MET2PE1	4MET2PE1	SOL	4-Methyl-2-pentanone	LA-523-405	44
ACETONE1	ACETONE1	SOLID	Acetone	LA-523-405	31
C/R-01		LIQUID	Caustic Ratio	LA-211-105	79
C/R-01		SOLID	Caustic Ratio	LA-211-105	79
CN-03	CN-03	LIQUID	Cyanide NEW METHOD	LA-695-102	264
CN-03	CN-03	SOLID	Cyanide NEW METHOD	LA-695-102	264
CN-03	CN-03	SOLID	Cyanide NEW METHOD	LA-695-103	216
CRVI-01	CRVI-01	LIQUID	Chromium (VI) by Spec.	LA-265-101	188
CRVI-01	CRVI-01	SOLID	Chromium (VI) by Spec.	LA-265-101	188
D2EHFA			Di-2 Ethylhexyl Phosphoric acid		44
DSC-01	DSC-01	LIQUID	DSC Exotherm using Mettler	LA-514-113	251
DSC-03	DSC-03	LIQUID	DSC Exotherm on Perkin Elmer	LA-514-114	251
DSC-03	DSC-03	SOLID	DSC Exotherm on Perkin Elmer	LA-514-114	251
ETHYLGLY	ETHYLGLY	LIQ	Ethylene Glycol	LA-523-106	64
ETHYLGLY	ETHYLGLY	SOL	Ethylene Glycol	LA-523-106	70
H+ION-01			Hydrogen Ion Analysis	LA-211-102	79

222-S LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.3

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
HG-02	HG-02	LIQUID	Mercury by CVAA (Perkin Elmer)	LA-325-104	377
HG-02	HG-02	SOLID	Mercury by CVAA (Perkin Elmer)	LA-325-104	377
NH3-01	NH3-01	LIQUID	Ammonia by ISE-Std Additions	LA-631-001	88
NH3-01	NH3-01	SOLID	Ammonia by ISE-Std Additions	LA-631-001	88
OH-01	OH-01	LIQUID	OH- by Pot. Titration	LA-211-102	79
OH-01	OH-01	SOLID	OH- by Pot. Titration	LA-211-102	79
OHDEMAND	OHDEMAND	LIQUID	Caustic Demand	LA-211-104	151
PH-01	PH-01	LIQUID	pH Direct	LA-212-106	19
PH-02	PH-02	SOLID	pH on SST Samples	LA-212-106	35
PH-QC	PH-QC	QC	pH Measurement QC		19
SOLID-01	SOLID-01	LIQUID	Solids % - Gravimetric	LA-564-101	75
SOLID-01	SOLID-01	SOLID	Solids % - Gravimetric	LA-564-101	75
SPG-01	SPG-01	LIQUID	Specific Gravity	LA-510-112	75
SPG-02	SPG-02	SOLID	Specific Gravity-Solid/Sludges	LA-510-116	201
T0TC-02	T0TC-02	LIQUID	Total Carbon by Persulfate	LA-342-100	264
TDS-01	TDS-01	LIQUID	Total Dissolv. Solids - Grav.	LA-510-115	113
TDS-01	TDS-01	SOLID	Total Dissolv. Solids - Grav.	LA-510-115	113
TGA-01	TGA-01	LIQUID	% Water by TGA using Mettler	LA-560-112	251
TGA-01	TGA-01	SOLID	% Water by TGA using Mettler	LA-560-112	251
TGA-03	TGA-03	LIQUID	% Water by TGA on Perkin Elmer	LA-514-114	251
TGA-03	TGA-03	SOLID	% Water by TGA on Perkin Elmer	LA-514-114	264
TIC-01	TIC-01	LIQUID	Tot. Inorg. Carbon by Coul.	LA-342-100	264
TIC-01	TIC-01	SOLID	Tot. Inorg. Carbon by Coul.	LA-342-100	264
TIC-02	TIC-02	LIQUID	Tot. Inorg. Carbon by Persulfate	LA-342-100	264
TIC-02	TIC-02	SOLID	Tot. Inorg. Carbon by Persulfate	LA-342-100	264
TOC-01	TOC-01	LIQUID	Tot. Organic Carbon by Coul.	LA-344-105	264
TOC-01	TOC-01	SOLID	Tot. Organic Carbon by Coul.	LA-344-105	264
TOC-02	TOC-01	SOLID	Tot. Organic Carbon by Persulfate	LA-344-105	264
TOTC-01	T0TC-01	LIQUID	Total Carbon by Coulometry	LA-344-105	264
TOTC-01	T0TC-01	SOLID	Total Carbon by Coulometry	LA-344-105	264
TOTC-02	TOTC-02	SOLID	Total Carbon by Persulfate	LA-342-100	264
WATER-01	WATER-01	LIQUID	% Water by Gravimetric	LA-564-101	75
WATER-01	WATER-01	SOLID	% Water by Gravimetric	LA-564-101	75
	AS-05		Arsenic by HYAA	LA-355-131	377
		DIRECT	CONDUCTIVITY	LA-512-104	19
			ELECTRICAL CONDUCTANCE	LA-512-104	19
RADIOCHEMICAL SEPARATIONS TEAM					
@AB-01	ALPHA01	LIQUID	Alpha and Beta Liquid Samples	LA-508-101	113
@AB-01	ALPHA01	SOLID	Alpha and Beta Liquid Samples	LA-508-101	113
@AB-02	ALPHA02	AIR	ENV ALPHA/BETA	LA-508-101	170
@AB-02	ALPHA02	SOLID	ENV ALPHA/BETA	LA-508-101	187
@AB-02	ALPHA02E	LIQUID	ENV ALPHA/BETA	LA-508-101	141
@AB-03	@AB-03	LIQUID	ENV ALPHA/BETA LARGE VOLUME	LA-508-101	141
@AIR-01	ALPHA01	AIR	AIR	LA-508-101	56
@ALPHA02	@ALPHA02	AIR	ENV Alpha Analysis of Liquids	LA-508-101	180
@ALPHA02	@ALPHA02	LIQUID	ENV Alpha Analysis of Liquids	LA-508-101	180
@ALPHA02	@ALPHA02	SOLID	ENV Alpha of Digested Solids	LA-508-101	304
@ALPHA03	@ALPHA03	LIQUID	ENV Alpha Analysis of Liquids	LA-508-101	67

222-S LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.3

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@BETA-02	@BETA-02	AIR	ENV Beta of Liquid Samples	LA-508-101	180
@BETA-02	@BETA-02	LIQUID	ENV Beta of Liquid Samples	LA-508-101	180
@BETA-02		SOLID	ENV Beta of Digested Solids	LA-508-101	304
@BETA-03		LIQUID	ENV Beta Large Volume	LA-508-101	180
@GEA-00	@GEA-00	LIQUID	GEA Large Library Method	LA-548-121	156
@GEA-06	@GEA-06	AIR	ENV. GEA for Co, Cs, Eu	LA-548-121	178
@GEA-06	@GEA-06	LIQUID	ENV. GEA for Co, Cs, Eu	LA-548-121	195
@GEA-06	@GEA-06	SOLID	ENV. GEA for Co, Cs, Eu	LA-548-121	195
@GEA-07	@GEA-07	AIR	ENV GEA-2" mount for Co, Cs, Eu	LA-548-121	195
@GEA-07	@GEA-07	LIQUID	ENV GEA-2" mount for Co, Cs, Eu	LA-548-121	195
@GEA-07	@GEA-07	SOLID	ENV GEA-2" mount for Co, Cs, Eu	LA-548-121	195
@H3-04	@H3-04	LIQUID	ENV TRITIUM (H3) -Ion Removal	LA-218-115	267
@PU23904		LIQUID	ENV Pu239/Pu238/Pu240 by TTA Ex	LA-943-123	727
@PU23904		SOLID	ENV Pu239/Pu238/Pu240 by TTA Ex	LA-943-123	793
@PUAM-01		AIR	Pu239/241 by TRU-SPEC Resin	LA-953-104	577
@PUAM-01		LIQUID	Pu239/241 by TRU-SPEC Resin	LA-953-104	635
@PUAM-01		SOLID	Pu239/241 by TRU-SPEC Resin	LA-953-104	635
@PUAM-02		LIQUID	Pu238,239 by TRU-SPEC Resin	LA-953-104	635
@PUAM-02		SOLID	Pu238,239 by TRU-SPEC Resin	LA-953-104	635
@PUAM-03		LIQUID	ENV Pu239, Pu238	LA-953-104	635
@PUAM-03		SOLID	ENV Pu239, Pu238	LA-953-104	635
@PUAM-04		LIQUID	ENV Pu238,9/Am241/Cm243 Tru-Sp	LA-953-104	635
@PUAM-04		SOLID	ENV Pu238,9/Am241/Cm243 Tru-Sp	LA-953-104	635
@PUTOT01		LIQUID	Total Pu by TTA Extraction	LA-943-101	635
@PUTOT01		SOLID	Total Pu by TTA Extraction	LA-943-101	635
@TC-99-04	TC99-03	LIQUID	ENV Tc-99 Large Volume	LA-438-111	302
@TC99-00	@TC99-00	AIR	Technetium - Liq. Scint.	LA-438-101	252
@ALPHA01	ALPHA01	AIR	Alpha (AEA/FILTER)	LA-508-101	86
@ALPHA01	ALPHA01	LIQUID	Alpha in Liquid Samples	LA-508-101	201
@ALPHA01	ALPHA01	SOLID	Alpha of Digested Solid	LA-508-101	76
@AM24101	AM24101	AIR	Am241 by Extraction	LA-953-103	686
@AM24101	AM24101	LIQUID	Am241 by Extraction	LA-953-103	754
@AM24101	AM24101	SOLID	Am241 by Extraction	LA-953-103	754
@AM24102	AM24101	LIQUID	Am241Cm243 by Extraction	LA-953-103	754
@AM24102	AM24101	SOLID	Am241Cm243 by Extraction	LA-953-103	754
@AM24103	AM24103	LIQUID	ENV Am241/Cm243	LA-943-123	880
@AM24103	AM24103E	SOLID	ENV Am241/Cm243	LA-943-123	880
@BETA-01	BETA-01	AIR	Beta in (AEA/FILTER)	LA-508-101	86
@BETA-01	BETA-01	LIQUID	Beta in Liquid Samples	LA-508-101	201
@BETA-01	BETA-01	SOLID	Beta of Digested Solids	LA-508-101	75
@C14-01	C14-01	SOLID	Carbon 14 Small Volume	LA-348-104	635
@C14-01	C14-01E	LIQUID	Carbon 14 Small Volume	LA-348-104	635
@GEA-01	CO60-02	SOLID	GEA for Co60 Cs137	LA-548-121	156
@GEA-01	CS13702E	LIQUID	GEA for Co60 Cs137	LA-548-121	156
@GEA-02	AM24101	SOLID	GEA:Cs137Co60Eu154-155Am241	LA-548-121	156
@GEA-02	EU15502E	LIQUID	GEA:Cs137Co60Eu154-155Am241	LA-548-121	156
@GEA-03	CE14402	SOLID	GEA for CoNbRuCsCeEuRa	LA-548-121	156
@GEA-03	RU10602E	LIQUID	GEA for CoNbRuCsCeEuRa	LA-548-121	156
@GEA-04	@GEA-04	AIR	GEA	LA-548-121	156
@GEA-04	@GEA-04	LIQUID	GEA (ALL)	LA-548-121	156
@GEA-04	@GEA-04	SOLID	GEA (ALL)	LA-548-121	156

222-S LABORATORY

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.3

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@GEA-05	@GEA-05	AIR	ENV. GEA	LA-548-121	178
@GEA-05	@GEA-05	LIQUID	ENV. GEA	LA-548-121	195
@GEA-05	@GEA-05	SOLID	ENV. GEA	LA-548-121	195
@H3-01	H3-01	AIR	Tritium (H3) by Lachat	LA-218-114	213
@H3-01	H3-01	LIQUID	Tritium (H3) by Lachat	LA-218-114	213
@H3-01	H3-01	SOLID	Tritium (H3) by Lachat	LA-218-114	194
@H3-03	H3-03	LIQUID	ENV TRITIUM (H3)	LA-218-114	267
@H3-03	H3-03E	SOLID	ENV TRITIUM (H3)	LA-218-114	242
@I129-01	I129-01	SOLID	Iodine-129 Waste Tank Samples	LA-378-103	294
@I129-01	I129-01E	LIQUID	Iodine-129 Waste Tank Samples	LA-378-103	235
@NP23701	NP23701	SOLID	Np237 by TTA Extraction	LA-933-141	253
@NP23701	NP23701E	LIQUID	Np237 by TTA Extraction	LA-933-141	278
@PU23901	PU23901	SOLID	Pu239 by TRU-SPEC Resin	LA-943-127	577
@PU23901	PU23901T	AIR	Pu239 by TRU-SPEC Resin	LA-943-127	529
@PU23901	PU23901T	LIQUID	Pu239 by TRU-SPEC Resin	LA-943-127	529
@PU23902	PU23801	SOLID	Pu239/Pu238 by TRU-SPEC Resin	LA-943-127	635
@PU23902	PU23803	AIR	Pu239, Pu238	LA-943-123	727
@PU23902	PU23901T	LIQUID	Pu239/Pu238 by TRU-SPEC Resin	LA-943-127	582
@PU23903	PU23803	AIR	ENV Pu239, Pu238	LA-943-123	661
@PU23903	PU23803	LIQUID	ENV Pu239, Pu238	LA-943-123	727
@PU23903	PU23803E	SOLID	ENV Pu239, Pu238	LA-943-123	793
@SE79-01	SE79-01	SOLID	Selenium-79 by Liquid Scint.	LA-365-132	1100
@SE79-01	SE79-01E	AIR	Selenium-79 by Liquid Scint.	LA-365-132	1000
@SE79-01	SE79-01E	LIQUID	Selenium-79 by Liquid Scint.	LA-365-132	1100
@SR90-01	SR90-01	SOLID	Sr-89/90 High Level	LA-220-101	310
@SR90-01	SR90-01E	AIR	Sr-89/90 High Level	LA-220-101	284
@SR90-01	SR90-01E	LIQUID	Sr-89/90 High Level	LA-220-101	284
@SR90-03	SR90-03	LIQUID	Env SR-90	LA-220-104	355
@SR90-03	SR90-03E	SOLID	Env SR-90	LA-220-103	387
@SR90-03	SR90-03E	AIR	Env SR-90 on Sample	LA-220-103	387
@TC99-01	TC99-01	SOLID	Technetium - Liq. Scint.	LA-438-101	277
@TC99-01	TC99-01T	AIR	Technetium - Liq. Scint.	LA-438-101	252
@TC99-01	TC99-01T	LIQUID	Technetium - Liq. Scint.	LA-438-101	252
@TC99-03	TC99-03	LIQUID	ENV Tc-99	LA-438-101	302
@TC99-03	TC99-03E	SOLID	ENV Tc-99	LA-438-101	332
ASH-01		AIR	Ash and Leach of Env. Samples	LA-544-102	156
ASH-01		SOLID	Ash and Leach of Env. Samples	LA-544-102	171
CM24303		AIR	CM-243/244 Env.	LA-943-123	686
CM24303		LIQUID	CM-243/244 Env.	LA-943-123	880
CM24303		SOLID	CM-243/244 Env.	LA-943-123	880
FUS-ZR01	FUS-ZR01	SOLID	Fusion (Zr Crucible) with KOH	LA-549-141	451
FUSION01	FUSION01	SOLID	Fusion with KOH	LA-549-141	496
PU23802	PU23802	AIR	Pu-238 by Ion Exchange	LA-943-127	529
PU23802	PU23802	LIQUID	Pu-238 by Ion Exchange	LA-943-127	577
PU23902	PU23902	LIQUID	Pu-239/240 by Ion Exchange	LA-943-127	582
PU23902	PU23902	SOLID	Pu-239/240 by Ion Exchange	LA-943-127	635
TE12302	TE12302		Tellurium-123m by GEA	LA-548-121	195
RADIOLOGICAL SCREENING					

222-S. LABORATORY

HNF-SP-1229, Rev. 1

FY 1998 UNIT PRICES - LABCORE

RL WBS # 7.1.1.4.3.3

Code Test	Parameters Labcore	MATRIX	Description	Reference #	FY 98 PRICES
@TOTA1			Total Activity by LSC	LA-548-111	54
DATA REPORTING					
			Data Report		2431
			Full Data Report (TANK CHAR REPT)		22102

FY 1998 Annual Work Plan Part I - Summary

Revision # 0

16-Sep-97

Cost Account Number	Cost Account Title	Funding Source:	G&A	Service Center	DOH/PMMA
1MDR63	Commercial Support				
7.1.1.4.3.4	WBS Title Commercial Support			x	

Budget Analyst	J. M. Kler	FY 1998 CAP	COST ELEMENTS	\$000'S
Cost Account Manager	K. N. Pool		0 Labor	222
Financial Manager	R. A. Spohr		1 Materials	2
Program Manager	C. G. Mattsson		2 Purchased Services	0
RL Program Manager	R. P. Carter		3 Other Hanford Contractors	0

Full Time Equivalents (FTEs)			
Organizational	Exempt	Nonexempt	Total
	1.4	0.8	3.2
	0.3	0.0	0.3
	1.7	0.8	3.5

Support	Bargaining	Total	7x Fee/Non DOH	8 Revenue	9 Enterprise Companies	Subtotal Net Budget
	1.0	3.2				59
	0.0	0.3				263
	1.0	3.5				263

4 Site Services	5 Internal Charges	6 LMSI Support	7C DOH	Total Baseline
				328

SIGNATURES	DATE	BASELINE APPROVAL:
CAM: <u><i>[Signature]</i></u>	Date: <u>9/16/97</u>	Date
Program Manager: <u><i>[Signature]</i></u>	Date: <u>9/22/97</u>	
RL Program Manager: <u><i>[Signature]</i></u>	Date: <u>9/22/97</u>	Indirect Program Administration

FY 1998 Annual Work Plan

Part II - Activity Detail

CAP # 1MDR63

COST ACCOUNT WORKSCOPE SUMMARY

Functional Organization: Commercial Support

Workscope Summary: The Commercial Laboratory supports off-site commercial laboratory sampling and analysis requirements. Commercial laboratory analysis is sent by the Programs to determine what type of waste they have so that eventual disposal or burial of that waste meets EPA and state requirements. Also, programs have their samples analyzed to monitor groundwater to determine if levels meet EPA and state requirements. Sample residuals are returned to RFSH by the Commercial Laboratory for appropriate disposal and burial. Before it is transported to a commercial laboratory, the sample is received at 222-S Laboratory and a Total Activity analysis is performed to determine the radiological level.

APPROVED BASELINE:Activity Description - Commercial Support

This supports off-site commercial laboratory sampling and analysis requirement. Commercial support provides coordination activities between laboratories to determine the best usage; develop/operate/maintain data tracking systems; validation support, contract administration and verification of data. This activity also provides QA support for review, evaluation and approval of commercial analytical laboratory services contractual documentation related to QA program maintenance and implementation.

Commercial Support

FY 1998

FTEs Dollars

2.2 199.3

Mutually Agreed Upon Workscope Deliverables and Due Dates

- 1 10/01/97 to 09/30/98 This supports off-site commercial laboratory sampling and analysis requirement. Commercial support provides coordination activities between laboratories to determine the best usage; develop/operate/maintain data tracking systems; validation support, contract administration and verification of data.
- 2 10/01/97 to 09/30/98 Provides QA support for review, evaluation and approval of commercial analytical laboratory services contractual documentation related to QA program maintenance and implementation.

Subtotal Net

Total Activity

Activity Description - Sample Return

This supports sample residuals returned to RFSH by the commercial labs for appropriate disposal and burial. Disposal and burial of this waste is closely monitored by the EPA, State of Washington, and other regulatory entities to ensure proper disposal.

Sample Disposal

2.2

2.2

199.3

231.0

0.6

40.6

FY 1998 Annual Work Plan

Part II - Activity Detail

CAP # 1MDR63

Mutually Agreed Upon Workscope Deliverables and Due Dates

1 10/01/97 to 09/30/98

Supports sample residuals returned to RFSH by the commercial laboratories for appropriate disposal and burial. Disposal and burial of this waste is closely monitored by the EPA, State of Washington, and other regulatory entities to ensure proper disposal.

Subtotal Net

Total Activity

Activity Description - Radiological Screening

The sample for Commercial Laboratory is received into 222-S Laboratory for logging in and HPT screening. Once the sample is received into 222-S Laboratory, a Total Activity (Alpha/Beta) is performed to determine the contents for radiological concerns. It is then shipped to the Commercial Laboratory for analysis.

Sample Receipts

Radiological Screening

Mutually Agreed Upon Workscope Deliverables and Due Dates

1 10/01/97 to 09/30/98

Receiving samples into 222-S Laboratory for logging in support of Commercial Laboratory.

2 10/01/97 to 09/30/98

Performing a radiological screening (Total Activity analysis) to determine the contents for radiological concerns.

Subtotal Net

Total Activity

Approved Net

Approved Total

0.6	40.6
0.6	46.9

0.1	6.6
0.6	36.7

0.7	43.3
0.7	50.0
3.5	283.2
3.5	327.9

FY 1998 UNIT PRICE DEVELOPMENT - MODEL
1M0R63, COMMERCIAL SUPPORT

ATTACHMENT I

RL WBS # 71.1.4.3.4

RADIOLOGICAL SCREENING	HOURS	OC	SAMPLE RECEIPT	TRAINING	ADMIN OPS TIME	MGMT HPTS	% OF HOURS PER ANALYTE REPORT			% OF TOTAL ANALYTICAL HOURS					TOTAL UNIT PRICE (2)		
							STAND LAB	TOTAL HRS	TOTAL LABOR \$	STOCK ROOM \$	TOTAL ANALY \$	ARCH/ DATA DISP REPTO	FAC PLN TEAM/ TECH	TOTAL LABOR HOURS		TOTAL LABOR \$	
	20.0%	20.0%	3.0%	21.6%	4.0%	10.6%	8.0%		Convert Labor Hours to Dollars	9.6%		12.0%	4.5%	8.0%	Convert Labor Hours to Dollars	9.0%	Total Analytical \$ + Support \$ = Non-labor \$ = Unit Cost (\$54.00)

COMMERCIAL SUPPORT = 20% OF COMMERCIAL LABORATORY USAGE
SAMPLE DISPOSAL = 9.6% OF COMMERCIAL LABORATORY USAGE

COMMENTS:

The Radiological Screening is a Total Activity performed on the sample before it goes offsite. The Commercial support and sample disposal is based on a percentage of \$1.0M Commercial Laboratory business for FY 1997. A Chain of Custody is received by Westinghouse the Commercial Laboratory stating the amount of samples, the customer and charge code. When this is received, Commercial support and Sample Disposal cost are liquidated out to the appropriate customer.

*Admin/Opn Time includes downtime, building operations, changeout, etc.

1MDR63, COMMERCIAL SUPPORT
FY 1998 VOLUME PROJECTIONS BY PROGRAM

RL WBS # 7.1.1.4.3.4

PROGRAM	COMMERCIAL LABORATORY \$s	COMMERCIAL SUPPORT \$s (31.7%)	SAMPLE RETURN \$s (6.4%)	RAD SCREENING # of Samples	TOTAL FUNCTIONAL DOLLARS	TOTAL PROGRAM DOLLARS
Solid Waste	34,276	10,865	2,194	50	15,759	18,596
Liquid Effluents	162,811	51,611	10,420	155	8,370	83,073
Advanced Reactor	59,983	19,015	3,839	100	5,400	33,339
Spent Nuclear Fuels	214,225	67,909	13,710	200	10,800	109,055
Transition Projects	471,129	14,940	3,016	70	3,780	25,649
Waste Tank Safety	171,138	5,433	1,097	35	1,890	9,935
RCRA Grd Monit.	192,802	61,118	12,339	175	9,450	97,831
Bechtel		-	-	150	8,100	9,558
Total	728,364	230,892	46,615	935	50,490	387,036

Commercial Support budget \$231,014 / \$728,364 Commercial Laboratory = 31.7%

Sample Return budget \$46,920 / \$728,364 Commercial Laboratory = 6.4%

FY1998

September 26, 1997

Distribution List

Name

MSIN

U.S. Department of Energy, Richland Operations Office

R. P. Carter	S7-55
E. M. Bowers	S7-55
P. G. Ensign	S7-41
R. F. Guercia	S7-55
M. A. Partida	S7-55
T. K. Teynor	S7-55

Fluor-Daniel Hanford Company

R. L. Bisping	N1-26
J. W. Golden	N1-26
C. G. Mattsson	N1-26
K. J. Svoboda	N1-26
C. E. Whitford	N1-26

Lockheed Martin Services, Inc.

Central Files	B1-03
Document Processing Center	A3-94

Waste Management Federal Services of Hanford

C. M. Allender	T3-02
E. S. Aromi	H6-30
S. F. Davis	T3-02
J. E. Hyatt	T6-04
E. F. Mares	T3-02
D. E. McKenney	H6-06
J. O. Perkins	H6-30
L. L. Powers	H6-29
D. L. Renberger	T3-03
R. R. Slaybaugh	T3-02
R. A. Spohr	T3-02
R. T. Wilde	H6-10
D. B. Van Lueven	H6-10