

Project Baseline Summary Report

Data Source: EM CDB

Operations/Field Office: Savannah River

Site Summary Level: Savannah River Site

Project SR-FA24 / High-Level Waste Facilities Disposition

Report Number: GEN-01b

Print Date: 3/9/2000

HQ ID: 0194

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

THE SCOPE OF WORK DESCRIBED IN THIS PROJECT IS WRITTEN FOR FUNDING AT THE PLANNING LEVEL. This Facilities Disposition project begins at the end of the waste removal program after all HLW facilities have been de-inventoried and readied for final disposition. Disposition scope is broken into two parts: disposition of facilities and long-term surveillance and maintenance. HLW disposition includes the original ITP/Late Wash facility in FY15-16 (SR-HL04); the vitrification facility in FY27-28 (SR-HL05); the two Glass Waste Storage Buildings in FY24-25 and FY27-28 respectively (SR-HL06); and the Salt Processing Facility in FY27-28 (SR-HL13). Disposition will involve equipment disposal; de-inventorying and flushing of process buildings; dismantling above-ground buildings as appropriate; capping, isolating and sealing process buildings; and capping filters and pump pits. This Facilities Disposition project also includes long-term surveillance and maintenance for the facilities listed above as well as for the H and F Tank Farms (SR-HL01 and SR-HL02) and Waste Pretreatment Facilities (SR-HL04). (Note: Operational closure of the F and H Tank Farms and the Waste Pretreatment facilities are not included in this PBS but in Waste Removal Operations and Tank Closure (SR-HL03) because tanks and tank groups will be operationally closed as they are emptied during the waste removal program.) TECHNICAL APPROACH will include safe disposal of highly radioactive equipment; use of special compounds (such as waste tank grout) to bind up residual high-level contaminants; and monitoring equipment. New technical approaches will be needed to enhance flushing of radioactive equipment and process facilities and develop improved compounds to bind up residual contamination to prevent future leaching into the environment.

Project Status in FY 2006:

No disposition will occur prior to FY2006.

Post-2006 Project Scope:

This PBS does include the following facility disposition: the original ITP/Late Wash facility (FY15-16); the vitrification facility (FY27-28); the two Glass Waste Storage Buildings (FY24-25 and FY27-28); and the Salt Processing Facility (FY27-28). After operational closure, minimal surveillance and maintenance costs are assumed each year (at the rate of \$5 million in FY99 constant year dollars).

Project End State

The process facilities will be de-inventoried, flushed and dispositioned to a low surveillance and maintenance state.

Cost Baseline Comments:

The cost baseline reflects the following facility operational closures: the original ITP/Late Wash facility in FY15-16 (estimated \$37 million costs in constant FY99 dollars); the vitrification facility in FY27-28 (estimated \$109 million costs in constant FY99 dollars); the two Glass Waste Storage Buildings in FY24-25 and FY27-28 (estimated \$8 million costs in constant FY99 dollars); and the Salt Alternative Facility in FY27-28 (estimated \$84 million costs in constant FY99 dollars). Operational closure cost estimates are management judgment based on limited de-inventorying, flushing, isolating, and capping. (NOTE: These are not engineering quality estimates.)

After operational closure, minimal surveillance and maintenance costs are assumed each year at the rate of \$5 million in FY99 constant year dollars.

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Project Description Narratives

Safety & Health Hazards:

Deactivation and long term surveillance and maintenance operations encounter the same radioactive constituents as do the original process facilities (Strontium-90, Cesium-137, Plutonium-238, Plutonium-239, and Plutonium-241) though in the form of contaminated equipment and process facilities. Facility disposition will be done under radiological conditions to avoid direct personnel exposure and prevent contamination. Other hazards include exposure to residual process chemicals (such as benzene, formic acid, nitric acid, and sodium hydroxide) as well as miscellaneous hazards commonly encountered in industrial settings (lifting, tripping, falls, rotating equipment, etc.). These hazards are controlled both through engineering controls (remote operation, hand rails, motor guards, etc.) and through administrative controls (policies and procedures, training, personal protective equipment, etc.).

Safety & Health Work Performance:

All work will be performed using a WSRC Integrated Safety Management System (ISMS) approach. The ISMS integrates safety considerations into management and work practices at all levels to accomplish missions while protecting the public, the worker, and the environment. The key elements of the WSRC ISMS are to define the scope of work, identify and analyze hazards associated with the work, develop and implement hazard controls, perform work within controls, and provide feedback on adequacy of controls and continue to improve safety management. The WSRC Integrated Procedures Management System is the primary mechanism for implementing the objective, principles and functions of the ISMS. This system establishes Company-Level, Division-level, and Program-specific procedures consistent with organizational roles, and ensures a consistent, disciplined site-wide approach to safety while performing work.

PBS Comments:

Baseline Validation Narrative:

General PBS Information

Project Validated?	Date Validated:
Has Headquarters reviewed and approved project?	No
Date Project was Added:	3/30/1999
Baseline Submission Date:	7/3/1999
FEDPLAN Project?	No

Drivers:	CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
	N	N	N	N	N	N	Y	N

Project Identification Information

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 Project **SR-FA24 / High-Level Waste Facilities Disposition**

Report Number: **GEN-01b**
 Print Date: **3/9/2000**
 HQ ID: **0194**

General PBS Information

DOE Project Manager: H. B. Gnann
DOE Project Manager Phone Number: 803-208-6076
DOE Project Manager Fax Number: 803-208-7414
DOE Project Manager e-mail address: howard.gnann@srs.gov
Is this a High Visibility Project (Y/N):

Planning Section

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006	
PBS Baseline (current year dollars)	0	1,505,851	1,505,851						0	0	0	0	0	0	0	
PBS Baseline (constant 1999 dollars)	0	520,233	520,233						0	0	0	0	0	0	0	
PBS EM Baseline (current year dollars)	0	1,505,851	1,505,851						0	0	0	0	0	0	0	
PBS EM Baseline (constant 1999 dollars)	0	520,233	520,233						0	0	0	0	0	0	0	
	2007	2008	2009	2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (current year dollars)	0	0	0	0	42,207	35,465	8,746	592,911	61,893	70,712	80,788	92,300	105,451	120,477	137,644	157,257
PBS Baseline (constant 1999 dollars)	0	0	0	0	28,584	21,024	4,538	269,263	24,603	24,603	24,603	24,603	24,603	24,603	24,603	24,603
PBS EM Baseline (current year dollars)	0	0	0	0	42,207	35,465	8,746	592,911	61,893	70,712	80,788	92,300	105,451	120,477	137,644	157,257

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	2007	2008	2009	2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	28,584	21,024	4,538	269,263	24,603	24,603	24,603	24,603	24,603	24,603	24,603	24,603

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
			3.60%	3.60%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%
2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project:

Current Projected End Date of Project: 9/30/2070

Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	Actual 1997 Cost:	Actual 1998 Cost:
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	0 Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):	0
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	0	

Project Cost Changes

Cost Adjustments Reconciliation Narratives

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Project **SR-FA24 / High-Level Waste Facilities Disposition**

Project Reconciliation

Cost Change Due to Scope Deletions (-):

Cost Reductions Due to Efficiencies (-):

Cost Associated with New Scope (+): 520,225 New PBS

Cost Growth Associated with Scope Previously Reported (+):

Cost Reductions Due to Science & Technology Efficiencies (-):

Subtotal: 520,225

Additional Amount to Reconcile (+): 8

Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): **520,233**

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Complete the Disposition on the In-Tank Precipitation and Late Wash Facilities	SR-FA24-160		9/30/2016								
Complete Disposition of all HLW Program Facilities	SR-FA24-280		9/30/2028								
End of Project	SR-FA24-700		9/30/2070								

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Complete the Disposition on the In-Tank Precipitation and Late Wash Facilities	SR-FA24-160			Y							
Complete Disposition of all HLW Program Facilities	SR-FA24-280										
End of Project	SR-FA24-700				Y						

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