

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Idaho**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory**

Project **ID-HLW-104 / Vitrified HLW Storage**

Report Number: **GEN-01b**

Print Date: **3/10/2000**

HQ ID: **0196**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Definition of Scope: In Project ID-HLW-103, a new Remotely Handled Immobilization Facility (RHIF) begins operation in FY-2020. It separates both liquid (accumulated from 2012 to 2020) and calcine into low-activity waste (LAW) and high-activity waste (HAW) fractions. These waste fractions are both immobilized for final disposal: the HAW to a glass and the LAW to a grout (by Project ID-HLW-103). Project ID-HLW-104 will provide interim, on-site storage for the HAW glass from the time treatment is complete (2037) until final disposal(2070).

Technical Approach: The HAW glass storage facility will be a safe, simple, easily maintained, and easily monitored facility. The facility will basically consist of a below grade concrete structure with an above ground roof. The concrete part of the facility will contain pipe wells to store the glass canisters. Ventilation will be provided by convection cooling from a natural flow-through system; back-up forced-air cooling will be available. The technical approach will be to simply monitor the storage facility.

Project Status in FY 2006:

This project does not begin until FY-2037.

Post-2006 Project Scope:

Safely store the HAW glass until it is transferred to a national geologic repository.

Project End State

When this project is complete, all HAW glass will be disposed to the national geologic repository and the storage facility will be ready for closure.

Cost Baseline Comments:

The costs were escalated using an escalation factor of 2.1% per year. The cost estimates were originally developed as part of the E M Integration activity performed at the INEEL during February and March 1996. The costs were then updated in February 1997 to reflect program changes during the intervening 12 months and again in November 1997 for the same reason. The costs have not been changed since November 1997 except to reduce the escalation rate from 2.7% to 2.1% per year. The costs are compliance driven; the primary drivers are the INEEL Site Treatment Plan and the Settlement Agreement with the State of Idaho.

Safety & Health Hazards:

This project is currently in the planning phase until 2037 when it is a follow on to ID-HLW-103. Starting in 2037, direct safety and health assistance will be used to maintain safe, compliant and operable facilities in compliance with surveillances, compensatory measures, and maintenance and calibration of vital systems. The principal hazard in the project will be the large quantities of highly radioactive waste glass, but the waste will be contained in shielded facilities as an immobilized form awaiting shipment to a repository. The risk from the stored materials will be low. There will be the normal safety concerns associated with occupational hazards such as lifting, tripping, and falling.

Safety & Health Work Performance:

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Project Baseline Summary Report

Data Source: EM CDB

Operations/Field Office: Idaho

Site Summary Level: Idaho National Engineering and Environmental Laboratory

Project ID-HLW-104 / Vitrified HLW Storage

Report Number: GEN-01b

Print Date: 3/10/2000

HQ ID: 0196

Project Description Narratives

The resources necessary to accomplish the work safely are provided through the site health and safety program and through the resources allocated to the site's integrated safety management system in the following functional categories: radiological safety, emergency management, fire safety, industrial hygiene, nuclear safety, occupational safety, safeguards and security, safety integration, performance oversight, and standards management. Safety and Health resources are planned and allocated into these categories by cost centers through the work breakdown structure and resource loaded into the project for each fiscal year.

PBS Comments:

Although storage of the glass entails minimum risk, it will still be of concern to the State of Idaho and other stakeholders because it is an inventory of radioactive material stored over the Snake River Plain aquifer. It is this issue which prompted the legal action that resulted in the Settlement Agreement with the state of Idaho.

Baseline Validation Narrative:

General PBS Information

Project Validated?

Date Validated:

Has Headquarters reviewed and approved project?

No

Date Project was Added: 12/1/1997

Baseline Submission Date:

FEDPLAN Project? Yes

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

Project Identification Information

DOE Project Manager: T L Wichmann

DOE Project Manager Phone Number: 208-526-0535

DOE Project Manager Fax Number: 208-526-5678

DOE Project Manager e-mail address: wichmatl@inel.gov

Is this a High Visibility Project (Y/N):

Dataset Name: FY 1999 Planning Data

Date of Dataset: 9/20/1999

Page 2 of 5

Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Idaho**

Print Date: **3/10/2000**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory**

HQ ID: **0196**

Project **ID-HLW-104 / Vitrified HLW Storage**

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	67,696	67,696						0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	21,359	21,359						0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	67,696	67,696						0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	21,359	21,359						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	0	0	0	0	0	6,240	7,776	8,628	9,573	10,621	11,784	13,074
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	2,759	3,100	3,100	3,100	3,100	3,100	3,100
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	6,240	7,776	8,628	9,573	10,621	11,784	13,074
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	2,759	3,100	3,100	3,100	3,100	3,100	3,100

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
			2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Dataset Name: **FY 1999 Planning Data**

Page 3 of 5

Date of Dataset: **9/20/1999**

Project Baseline Summary Report

Data Source: **EM CDB**
 Operations/Field Office: **Idaho**
 Site Summary Level: **Idaho National Engineering and Environmental Laboratory**
 Project **ID-HLW-104 / Vitrified HLW Storage**

Report Number: **GEN-01b**
 Print Date: **3/10/2000**
 HQ ID: **0196**

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
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project: 9/1/1970

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

Explanation of Project Completion Date Difference (if applicable):

The 09/01/1970 was an error. The previous entry was simply made as SEP-70 and the spreadsheet interpreted it as September 1, 1970. The formal PBS end date has always been fiscal year end 2070.

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	21,497	Actual 1997 Cost:		Actual 1998 Cost:	
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	21,497	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):			580
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	22,077				

Project Cost Changes

Cost Adjustments Reconciliation Narratives

Cost Change Due to Scope Deletions (-):

Cost Reductions Due to Efficiencies (-):

Cost Associated with New Scope (+):

Cost Growth Associated with Scope Previously Reported (+):

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

Subtotal: 22,077

Additional Amount to Reconcile (+): -718 The difference is due to rounding error in escalating/de-escalating the numbers.

Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): 21,359

Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Idaho**

Print Date: **3/10/2000**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory**

HQ ID: **0196**

Project **ID-HLW-104 / Vitrified HLW Storage**

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Project Start			10/1/2036								
Project End			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
Project Start				Y							Commence project and begin turnover of storage facilities and vitrified high level waste from PBS ID-HLW-103.
Project End					Y						