

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Ohio**

Site Summary Level: **Miamisburg Environmental Management Project**

Project **OH-MB-01 / Tritium Operations Transition**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0573**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Definition of Scope: The completion of Tritium Operations involved:

1. Complete shipment of bulk accountable tritium from Mound.
 - a. Complete processing of 122 Miscellaneous Development Units (MDU'S) including W87 unloading.
 - b. Load and ship 185 tritium transport vessels (HTVs) to Savannah River Site.
2. Complete shipment of R&D units known as "Specials" and "Special Specials"
 - c. Repackage and ship 32 storage vessels containing "Special" units.
 - d. Repackage and ship 28 storage vessels containing "Special Special" units.
3. Complete the shipment of miscellaneous excess nuclear materials.
 - a. Complete repackaging and shipment of excess plutonium, uranium, and americium to designated receiver sites for reuse or disposal. Specifically; 123-U; Pu238; Am241; AM-BE; and UF6.
 - b. Complete repackaging and shipment of excess miscellaneous isotopes as waste. Specifically; U-233 residue; Cs-137 sources; Co-60 sources; Ra-226 sources; Cf-252 sources; Ac-227; Th-230; Pa-231; Uranium Plates; contaminated iridium; platinum, and gold.
4. Complete solidification of 1400 liters of tritiated water and 700 liters of tritiated oil.

Technical Approach: Tritium will be unloaded from MDU's using Bell Jar apparatuses at Mound. Carcasses will be further processed and oxidized to stabilize for disposal. Carcasses will be declassified and disposed of as LLW to Nevada Test Site. Bulk tritium from unloading will be purified. The purified tritium will be shipped as a gas or stored as a tritide to Savannah River Site (SRS) for recycling and disposal of protium and deuterium.

Excess Nuclear Materials will be characterized to the extent necessary to repackage and ship material to the most cost-effective and schedule effective receiver site. Materials that are determined to be infeasible for reuse will be shipped to Nevada Test Site (NTS) as waste.

Project Status in FY 2006:

The Tritium Operations work was completed in 1998.

Post-2006 Project Scope:

None

Project End State

This project (OH-MB-01 Tritium Operations) will be followed by (OH-MB-02 Main Hill Tritium) to decontaminate the facilities from which the

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Project Description Narratives

nuclear legacy materials have been removed. Buildings T, SW, and R and HH will be decommissioned with an end date projected at end of FY 2004. SW and R buildings will be transferred to OH-MB-04 Main Hill Rad for demolition following safe shutdown.

Cost Baseline Comments:

The Tritium Operations work was completed in 1998.

Safety & Health Hazards:

The new contractor, Babcock & Wilcox of Ohio, Inc. is conducting an integrated safety review of all projects and work activities to identify and evaluate environmental, safety and health hazards. Typical hazards at the Mound site are chemical, biological, physical, radiological and electrical. Hazard analyses are performed for all new projects and work activities. The analyses are documented utilizing several different formats such as job safety and health analysis (JSHA), health and safety plans (HASPs), and other traditional DOE documents such as the Safety Analysis Report (SAR) and Auditable Safety Analysis (ASA). Additionally, hazard abatement inspections, self assessment audits, and project manager surveillances are conducted to identify hazardous conditions or hazardous acts as well as procedure non-compliance. Identified deficiencies are entered into a site wide database and tracked to closure. In the case of facility deficiencies such as exposed wiring a risk assessment code is assigned which requires the contractor to correct the hazard immediately or within a specified period of time.

Safety & Health Work Performance:

The resources necessary to accomplish the work safely are provided through the approved authorization basis for the project or work activities. Safety documentation that is part of the authorization basis will include the written ES&H program requirements and procedures, health and safety plans, safety analysis reports, technical safety requirements, limiting conditions of operations documents and other as appropriate. Additionally, each project has a designated matrixed safety and health professional who will ensure the incorporation of requirements which address the following areas: industrial and construction safety, industrial hygiene, transportation safety, emergency management, fire protection, radiological protection, and occupational medicine. The cost for the matrixed safety and health professional will be applied to the project or projects in which the person is assigned to. Core groups of subject matter experts such as the fire department, occupational medicine, emergency management and training will be available to address specific or unique concerns. This cost for the core group of subject matter experts will be spread across each project.

PBS Comments:

This project is a High Visibility Project for this site. Removal of the nuclear materials in FY 1998 is on the critical path for completion and exit from the site on schedule.

Baseline Validation Narrative:

Operations are conducted under a validated baseline for cost, scope and schedule. Validation was conducted by the Department of Energy and Army Corps of Engineers and documented in 21 volumes entitled Exit Plan.

General PBS Information

Project Validated?	Yes	Date Validated:	12/18/1998
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General PBS Information

Has Headquarters reviewed and approved project? Yes
 Date Project was Added: 12/1/1997
 Baseline Submission Date: 7/8/1999
 FEDPLAN Project? Yes

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

Project Identification Information

DOE Project Manager: Tim A. Frazier
 DOE Project Manager Phone Number: 937-865-3748
 DOE Project Manager Fax Number: 937-865-4489
 DOE Project Manager e-mail address: Tim.Frazier.@OHIO.DOE.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)	32,815	0	32,815	16,495	16,495	16,320	16,320		0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	32,815	0	32,815	16,495	16,495	16,320	16,320		0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	32,815	0	32,815	16,495	16,495	16,320	16,320		0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	32,815	0	32,815	16,495	16,495	16,320	16,320		0	0	0	0	0	0	0

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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 Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Baseline Escalation Rates

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	0.00%	0.00%		2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
	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: 9/30/1998

Current Projected End Date of Project: 9/30/1998

Explanation of Project Completion Date Difference (if applicable):

Project completed on schedule.

Project Cost Estimates (in thousands of dollars)

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Project Reconciliation

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	20,198	Actual 1997 Cost:	16,495	Actual 1998 Cost:	16,320
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	-12,617	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):			-341
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	-12,958				

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):	13,415	\$13,415k due to rebaseline in Dec. 1998 and allocated costs previously in MB-10.
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	457	
Additional Amount to Reconcile (+):	-457	(\$457K) due to FY 1997 Actual Costs escalation error on the IDMS reconciliation tab.
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	0	

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			10/1/1996								
Project Start			10/1/1996								
Project Complete			9/30/1998								
Project Start			10/1/1996								
Project Complete			9/30/2004								

Milestones - Part II

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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							This milestone reflects the start date of the project.
Project Start				Y						Y	This milestone reflects the start date of the project.
Project Complete					Y	Y					Reflects work completion
Project Start				Y						Y	Reflects date project work was initiated.
Project Complete					Y	Y				Y	

Performance Measure Metrics

Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planned 2004
LLW														
Storage	M3													
Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035	Planned 2036 - 2040
LLW														
Storage	M3					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total				
LLW														
Storage	M3	0.00	0.00	0.00	0.00	0.00	0.00	0.00						