

# *Project Baseline Summary Report*

Data Source: **EM CDB**

Operations/Field Office: **Oakland**

Site Summary Level: **Lawrence Livermore National Laboratory**

Project **OK-026 / LLNL General Plant Projects**

Report Number: **GEN-01b**

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

HQ ID: **0463**

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## **General Project Information**

### **Project Description Narratives**

#### **Purpose, Scope, and Technical Approach:**

Purpose and Scope: The Hazardous Waste Management (HWM) General Plant Projects (GPP) activity will provide the upgrading and construction of the Laboratory's waste handling, storage, and associated facilities. This activity is essential for HWM to continue functioning within the guidelines of both State and Federal regulations for the treatment, storage, and disposal of hazardous, mixed and radioactive wastes.

GPP performs capital improvements to property, and generally purchase new or improved technology equipment, perform code compliance updates, or upgrade existing buildings and utilities to meet new demands. GPP are implemented as needed to maintain compliance a regulations and waste streams change, and to reduce or avoid WM costs and risks.

Technical Approach: Initial project scoping and definition is done with HWM Operations, LLNL permits organization and Plant Engineering. Depending on the nature, location and scope of the effort, design and construction may be accomplished by any combination of methods. The methods range from LLNL level of effort design and construction to outside Design-build fixed price contracts. The approach is tailored to the project to provide the optimum mix of cost, schedule and risk. Design and construction follow LLNL standards to ensure reliability and maintainability of systems and facilities.

One large project is building a large item decontamination booth (LCPU) to size-reduce legacy containers that are too large to open in existing facilities, transport to other sites, or dispose of at WIPP.

Waste streams that will be supported are accounted under the LLNL Base Program (OK-021) PBS. This PBS includes scope previously under AWT (OK-041) PBS.

#### **Project Status in FY 2006:**

All currently known GPP projects will be complete. As operations transfer to the new DWTF facilities and new ES&H requirements are generated, new GPP requirements will be identified and pursued. A new set of planned GPP project will exist and be in process at the end of FY 2006

#### **Post-2006 Project Scope:**

Continued generation of new GPP projects for emerging needs.

#### **Project End State**

All currently known GPP projects will be complete.

The Project will have provided all necessary support to the Laboratory's waste handling and storage.

#### **Cost Baseline Comments:**

Recent trends with GPPs at the current HWM facilities results in a stable GPP base of about \$400K of projects per year, with a large exception for a \$5M three-year waste treatment facility. Surplus funds will be transferred to the LLNL Waste Mgmt Base Program, and high priority projects in excess of the available funds will be funded by special transfers from the same Base Program. GPP management may merge into the base program at

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## Project Description Narratives

some unknown future date.

### Safety & Health Hazards:

The work will be normal construction hazards, e.g. welding torches, cutters, scaffolding, heavy equipment, energized equipment.

### Safety & Health Work Performance:

All activities are done by procedures that requires LLNL Hazards Control's concurrence. HC Teams are funded by overhead, are staffed with specialists to cover most all hazards (e.g., rad, haz, industrial, lasers), and assist all Lab activities.

The GPP: New WAAs will be a construction activity, and the subcontractors will be contractually required to submit a safety plan to LLNL Hazards Control that is consistent with the Lab's Health & Safety Manual.

### PBS Comments:

The LLNL Waste Mgmt GPP activity supports the main Waste Mgmt Operations by providing small capital improvements to the HWM facilities.

This will be necessary for any physical plant to continue operations through the years.

Current budgetary policy allows funds to be readily transferred between OE and GP accounts, so this activity will probably be absorbed into the HWM Base Program PBS OAK21/0462 at some point.

However, if the GPP ceiling is raised to \$5M per project, GPPs will continue to be managed as an activity separate from the Base Program for at least until the Base Program moves fully into the new waste management yard (DWTf) now under construction.

### Baseline Validation Narrative:

Projects are individually much less than \$1M, and are validated by the Lab's Program Managers and DOE Staff based on similar projects. The LCPU's design is still being finalized (LLNL is weighing the trade-offs in hands-on decon {more personnel exposure} vs. remote handling {larger initial cost}; MAR99), and so has not been validated.

## General PBS Information

Project Validated?

Date Validated:

Has Headquarters reviewed and approved project?

No

Date Project was Added: 12/1/1997

Baseline Submission Date: 7/13/1999

FEDPLAN Project? No

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

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## General PBS Information

### Project Identification Information

**DOE Project Manager:** John Wood  
**DOE Project Manager Phone Number:** 925-422-0683  
**DOE Project Manager Fax Number:** 925-422-0832  
**DOE Project Manager e-mail address:** john.wood@oak.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)	6,770	25,600	32,370	393	493	301	465	376	2,000	1,700	400	400	400	400	400	
PBS Baseline (constant 1999 dollars)	6,431	12,045	18,476	393	493	301	465	376	1,947	1,621	374	366	358	351	344	
PBS EM Baseline (current year dollars)	5,570	0	5,570	393	493	301	465	376	2,000	1,700	400	400	0	0	0	
PBS EM Baseline (constant 1999 dollars)	5,378	0	5,378	393	493	301	465	376	1,947	1,621	374	366	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)	400	400	400	400	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
PBS Baseline (constant 1999 dollars)	337	330	323	316	1,487	1,340	1,209	1,089	980	885	797	720	647	584	526	475

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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 (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

## Non-EM Costs included in the Cost Baseline

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Non-EM Category: Other													
Defense Programs								100	100	100	100	100	100

  

	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
Non-EM Category: Other													
Defense Programs	100	100	100	100	100	100	100	100	100	100	100	100	100

## Baseline Escalation Rates

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	0.00%	0.00%	0.00%	2.70%	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:

Current Projected End Date of Project: 9/30/2003

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## Project Reconciliation

Explanation of Project Completion Date Difference (if applicable):

### Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	1,241	Actual 1997 Cost:	493	Actual 1998 Cost:	465
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	283	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):			8
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	291				

### Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):	4,900	OK-026 GPPs picked up \$4900K LCPU construction FY99-01 from OK-041 AWT
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
<b>Subtotal:</b>	<b>5,191</b>	
<b>Additional Amount to Reconcile (+):</b>	<b>-507</b>	
<b>Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):</b>	<b>4,684</b>	

### Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
COMPLETE 169 CWAA FIRE PROTECTION PROJECT CONSTRUCTION	OK026-03		4/30/1999		1/31/1999						
COMPLETE SITE 300 EXPLOSIVES WASTE TREATMENT FACILITY CONSTRN	OK026-01		1/30/1998		5/30/1998	6/5/1998					
COMPLETE T1613 FIELD TECH FACILITY	OK026-02		12/30/1998		1/30/1999						

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Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
ADDITION											
COMPLETE T6178/T6179 FIRE PROTECTION CONSTRUCTION	OK026-04		4/30/1999		12/31/1998						
Project Start			10/1/1996								
Project End			9/30/2003								

## 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 169 CWA FIRE PROTECTION PROJECT CONSTRUCTION	OK026-03										
COMPLETE SITE 300 EXPLOSIVES WASTE TREATMENT FACILITY CONSTRN	OK026-01										
COMPLETE T1613 FIELD TECH FACILITY ADDITION	OK026-02										
COMPLETE T6178/T6179 FIRE PROTECTION CONSTRUCTION	OK026-04										
Project Start				Y							
Project End					Y	Y					

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