

# *Project Baseline Summary Report*

Data Source: **EM CDB**

Operations/Field Office: **Savannah River**

Site Summary Level: **Savannah River Site**

Project **SR-IN10 / Regulatory Monitoring and Bioassay Laboratory**

Report Number: **GEN-01b**

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

HQ ID: **0109**

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## **General Project Information**

### **Project Description Narratives**

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

Definition of Scope: The project is broken down into four major categories of work activities: 1) Design, 2) Procurement, 3) Construction, 4) Project Support

#### **DESIGN:**

A competitively bid fixed price Architect/Engineering firm has been contracted to perform Title I, II and III Design functions, which includes as-built drawings. All environmental permitting is prepared during definitive design.

#### **PROCUREMENT:**

Fixed price construction contractor bids are solicited after the completion of Title II Design.

#### **CONSTRUCTION:**

A competitively bid fixed price general contractor will be contracted to perform all related construction activities. The construction includes: site preparation, a fire water line, electrical power and transformers, sanitary sewer, telecommunications utilities, facility construction, fume hoods, analytical equipment, paving of parking areas, entrance roadways, sidewalks and minimal landscaping at the laboratory site.

#### **PROJECT SUPPORT:**

This includes management by the Project Manager (Total Project Cost), Project Controls, Design Engineering (utility design tie-ins) and Construction Management (for the fixed price contractor). Other supporting functions include: Estimating (review of the Title I/II Estimate and support for change orders) and Design Engineering functional performance review during Title I, II Design.

Technical Approach: Since this project is being combined with line item 97-D-473, the A/E contract was terminated in August, 1997. A new competitively bid fixed price Architect/Engineering firm performed/will perform Title I, II and III design activities for the combined project. The A/E will be responsible for preparation of facility drawings and specifications, environmental permits, construction support and completion of as-built documents after construction is complete.

Site engineering personnel will prepare the construction drawings and specifications for extension of site utilities to the facility. This includes: fire water, domestic water, sanitary sewer, electrical power and telecommunications.

The Health Protection program is designed to perform bioassay (urine and fecal) analyses. This is accomplished by receiving urine and/or fecal samples and mixing with large quantities of various acids. The acids and sample mixtures are heated over several days (4 to 7) and reduced to a small volume for proper analyses. All work is performed within fume hoods. The building supports this process by providing instrument quality electricity, laboratory gases and a heating/ventilation/air conditioning system (HVAC) system capable of maintaining accurate temperature and humidity control. The facility and interior layout are designed to support a maximum of flexibility in meeting DOE mission requirements. The facility design is based upon a technical approach using well proven design, materials and construction methodologies.

The facility will have a wastewater neutralization system.

A competitively bid fixed price general contractor will perform all related construction activities. Fixed equipment will be purchased under a separate

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subcontract. The project includes: site preparation, a fire water line, electrical power and transformers, sanitary sewer, telecommunications utilities, facility construction, fume hoods, analytical equipment, paving of parking areas, entrance roadways, sidewalks and minimal landscaping at the laboratory site. All startup activities will be performed when construction is completed.

### Project Status in FY 2006:

This project will be complete and financially closed during FY 2001.

### Post-2006 Project Scope:

None

### Project End State

RMBL is completed and turned over to Operations.

### Cost Baseline Comments:

The current baseline cost reflects the integration of line item 97-D-473 into line item 97-D-470. Contingency for the project is \$2,104K. The facility will be designed to be as small as possible, but still meet the performance needs of the Sponsor. After an award is made to a general contractor in FY 99, any cost savings will be returned to the DOE at that time.

The change in funding and schedule are reflected in the FY99 Field Budget Request.

### Safety & Health Hazards:

The Infrastructure Program facilitates use of Site general areas and provides for maintenance of common shared services such as roads, bridges, utility facilities, central sanitary facilities and etc. Infrastructure supports facilities that have chemical and radiological hazards, but does not generally participate in their control and monitoring. For Infrastructure, typically only those hazards associated with work at an industrial facility are present. ESH&QA provides infrastructure support in the following categories: Medical, Environmental Protection, Industrial Hygiene, Radiological Control & Health Protection and Environmental Monitoring. This support directly impacts operating facilities by ensuring that personnel and facility processes are operating safely with minimal health and environmental risks. The RMBL project will house Industrial Hygiene, Health Protection and Environmental Monitoring programs.

A Hazards Assessment was completed September 1998. The facility classification precludes the need to perform a Safety Analysis Report. The project will prepare a self assessment in lieu of a Operational Readiness Review (ORR) in FY 1999. The classification of the facility does not require an ORR.

### Safety & Health Work Performance:

Activities and check points are described by the Integrated Management System Description. The conditions and requirements are clearly established and agreed upon prior to the starting of any project and those requirements are contractually binding upon WSRC. The key elements of the WSRC Integrated Safety Program are to define the scope of work, identify and analyze hazards associated with the work, develop and implement hazard

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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 Safety Management System. This system establishes Company-Level, Division-level, and Program-specific procedures consistent with organizational roles, and ensures a consistent, discipline site-wide approach to safety while performing work. The resource description, costs and skill mix are defined in the following Sections: Costs D.2.2 and D.3, FTEs D. 2.5 and 2.7 of this document.

### PBS Comments:

FY97 scope and funding has been authorized by Congress and has been received at the project level. The Architect/Engineering Title I, II & III design contract was awarded January 1997 but terminated in August 1997 in order to proceed with the combining of line item 97-D-473, HPSSF. FY1997 operating funded scope has been approved.

Lack of full FY 1998 funding for RMBL will have serious impacts on critical SRS missions. The canyons, reactors, burial grounds, DWPF, CIF cannot operate without effective and timely effluent monitoring to address requirements for quick and accurate notification of emergency releases nor can these facilities operate without monitored radiological personnel. The EML and HPSSF operate in a facility that is over 40 years old and is at risk of no longer performing or supporting SRS mission objectives. Further delays in the project will require interim modifications to be made through GP and CE projects. The deficiencies, however, are well in excess of any single GPP and this approach, which will require a number of these short term fixes, is neither technically desirable nor cost effective.

Due to funding restrictions, the following general plan has been proposed for this facility. The line items 97-D-473 and 97-D-470 will be combined under a single line item (97-D-470). A redesign will be initiated in 2Qtr98 and be complete in 4Qtr98. Construction will begin 2Qtr99 and complete in 2Qtr01.

The existing health physics facility is over 40 years old and the heating and ventilation systems are rapidly deteriorating due to the high volumes of extremely concentrated acids used during the bioassay analyses. Performing a sequence of major GPPs to make critical repairs is neither a cost effective nor technically desirable alternative to the proposed replacement of the facility. Piecemealing the repair of the facility will cause significant disruption to the critical support of ongoing environment initiatives. Historically, many of the DOE sites have had similarly poor service from offsite bioassay laboratories which has resulted in the canceling of contracts and development of onsite capabilities. Problems at Hanford and Sandia within the past decade have resulted in Federal criminal investigations for fraud and mismanagement. Recently, DOE Headquarters issued a communiqué describing problems that resulted from the Mound Facility using an off-site contract laboratory to perform their bioassay analyses.

### Baseline Validation Narrative:

The Regulatory Monitoring and Bioassay Laboratory (revised scope based on the addition of the Health Physics Site Support Facility) was validated in FY 1998 and will be validated again in May 1999.

## General PBS Information

Project Validated?	Yes	Date Validated:	3/25/1998
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## General PBS Information

Has Headquarters reviewed and approved project? Yes

Date Project was Added: 12/1/1997

Baseline Submission Date: 7/3/1999

FEDPLAN Project? Yes

<b>Drivers:</b>	<b>CERCLA</b>	<b>RCRA</b>	<b>DNFSB</b>	<b>AEA</b>	<b>UMTRCA</b>	<b>State</b>	<b>DOE Orders</b>	<b>Other</b>
	Y	Y	N	N	N	N	Y	Y

## Project Identification Information

DOE Project Manager: Lisa McGuire

DOE Project Manager Phone Number: 803-725-9889

DOE Project Manager Fax Number: 803-725-7548

DOE Project Manager e-mail address: lisa.mcguire@srs.gov

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

## Planning Section

### Baseline Costs (in thousands of dollars)

	<b>1997-2006 Total</b>	<b>2007-2070 Total</b>	<b>1997-2070 Total</b>	<b>1997</b>	<b>Actual 1997</b>	<b>1998</b>	<b>Actual 1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
PBS Baseline (current year dollars)	33,400	0	33,400	2,474	2,474	1,903	1,903	1,836	15,566	11,621	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	32,065	0	32,065	2,474	2,474	1,903	1,903	1,836	15,025	10,827	0	0	0	0	0
PBS EM Baseline (current year dollars)	33,400	0	33,400	2,474	2,474	1,903	1,903	1,836	15,566	11,621	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	32,065	0	32,065	2,474	2,474	1,903	1,903	1,836	15,025	10,827	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%	0.00%	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: 3/31/2001

Current Projected End Date of Project: 9/30/2001

Explanation of Project Completion Date Difference (if applicable):

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

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## Project Reconciliation

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	32,356	Actual 1997 Cost:	2,474	Actual 1998 Cost:	1,903
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	27,979	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):			755
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	28,734				

## 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 (+):	-1,046	Changes due to recording actuals for FY 1998 and 1997 versus estimates as was done last year.
Cost Reductions Due to Science & Technology Efficiencies (-):		
<b>Subtotal:</b>	<b>27,688</b>	
<b>Additional Amount to Reconcile (+):</b>	<b>0</b>	
<b>Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):</b>	<b>27,688</b>	

## Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Achieve Critical Decision 3	SR-IN10-001		9/30/1999		2/28/1999					Y	
Complete Turnover for Start-up Testing	SR-IN10-002		6/30/2001							Y	
Achieve Critical Decision 4	SR-IN10-003		9/30/2001							Y	
Project Start	SR-IN10-004		10/1/1996								

## 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
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## 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
Achieve Critical Decision 3	SR-IN10-001						1	1	1		FY 1999 AOP number is LIC08.
Complete Turnover for Start-up Testing	SR-IN10-002						1	1	1		Complete turnover for start up testing by 06/30/01
Achieve Critical Decision 4	SR-IN10-003				Y		1	1	1		Critical Decision 4 by 09/30/01.
Project Start	SR-IN10-004			Y							