Project Baseline Summary Report

Data Source: **EM CDB**
Report Number: **GEN-01b**
Operations/Field Office: **Savannah River**
Print Date: **3/9/2000**
Site Summary Level: **Savannah River Site**
HQ ID: **0513**
Project **SR-FA16 / F-Area Monitoring**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Definition of Scope: During and upon completion of facility deactivation, facilities require long-term surveillance and maintenance (S&M) per DOE Order 430.1A and the Implementation Guides. Surveillance and maintenance activities include the base activities required to monitor and maintain the safety envelope of the Area for the protection of Site personnel, the public, and the environment. These activities include: · Management of the facilities with a standard of care consistent with the hazard classification of the facility, and implementation of the guidelines of DOE Order 5480.19; · Surveillance and maintenance of facility infrastructure to guard against building deterioration; · Operation and maintenance of systems required to monitor and control contamination; · Operation and maintenance of systems necessary to alert personnel of hazards; · Control of access to hazards (high energy, radiation, chemicals, etc.); · Performance of environmental monitoring to ensure integrity of S&M plan; · Personnel training and qualifications for all required processes, systems, and functions are maintained in support of the facility S&M plan; · Completion of waste certification process; · Low Level and other waste processing, characterization, packaging, and shipment; · Maintenance of a work control system as required by DOE Order 4330.B; · Preventive and corrective maintenance of fire, safety, security, and life support systems necessary for the safe entry into facilities, or provide method for safe entry into facilities; · Oversight and maintenance of facility support services systems (steam, plant air, electricity, domestic and process water, etc.); · Work package and maintenance procedures development; · Field procurement and spare parts management; · Execution of limited scope stabilization and deactivation activities to prevent the spread of contamination or the release of any residual materials; and, · Performance of drills, maintenance of emergency response plans for affected facilities, and maintenance of associated emergency response equipment. During the deactivation period, some elements of pre-deactivation surveillance and maintenance may become unnecessary due to minimization or elimination of associated risks. As these may vary from facility to facility, pre-deactivation and deactivation period surveillance and maintenance scope and costs are assumed, for the purposes of this plan, to be the same. Post-deactivation scope and costs will be substantially reduced, although the specifics will again vary from facility to facility.

Surveillance & Maintenance (S&M) includes the base activities required to monitor and maintain the safety envelope of the 247-F Building for the protection of Site personnel, the public, and the environment. Specific S&M activities include:
- Management of the facilities with a standard of care consistent with the hazard classification of the facility, and implementation of the guidelines of DOE Order 5480.19;
- Surveillance of facility condition on a quarterly basis;
- Operation and maintenance of temporary systems required to monitor and control contamination;
- Personnel training and qualifications are maintained in support of the facility S&M plan;
- Completion of the waste certification process;
- Low level and other waste processing, characterization, packaging, and shipment;
- Providing a method for safe entry into facilities;
- Maintenance of facilities to ensure structural integrity;
- Work package and maintenance procedures development; and,

Technical Approach: Surveillance and maintenance of F Area requires no new technologies or capabilities that are not already available at SRS.

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Project Description Narratives

Project Status in FY 2006:

Except for the 247-F facilities, current funding guidance indicates that the F Area facilities deactivation scope outlined in separate PBS will be completed after FY06. Until such time, F Area facilities surveillance and maintenance costs will be captured in the SR-NM01 PBS; these costs are commensurate with the risk posed by the operating facilities.

This does not preclude, however, the planning and implementation of smaller scale disposition actions. These actions would be initiated under this ACP project to reduce a specific risk, thereby lowering surveillance and maintenance costs associated with that particular risk. In some cases, excess site assets may be used to fund disposition actions. These excess assets may be used in a barter arrangement with a subcontractor in exchange for the demolition and removal of excess facilities (known as an "assets for services" subcontract). Any proceeds from this type of activity will be used to fund additional disposition activities at SRS. Other funding for disposition projects would be incremental to the surveillance and maintenance budget. As funding for these small-scale disposition actions is speculative, no consideration is given to them in this PBS.

Post-2006 Project Scope:

The F Area chemical separations facilities will complete the processing of identified at-risk materials prior to FY06; however a number of building support systems are required for other F Area operations and critical to the site infrastructure. For these reasons, several of the F Area facilities will initiate a phased deactivation program starting in FY04 with a scheduled completion for FY10. S&M costs for these deactivated facilities are captured in this PBS starting in FY11.

Upon completion of facility deactivation, routine periodical surveillances will be established. These surveillances will verify the structural integrity of the F Area facilities, and verify the operational integrity of any remote monitoring equipment, sump-pumping equipment, and environmental monitoring equipment required by the surveillance and maintenance plan for F Area. This quarterly monitoring will continue until final disposition of the facilities.

Project End State

This project only provides for surveillance and maintenance during the deactivation, and post-deactivation phases of the F Area facilities life cycle (i.e., this project end state). Additional projects will be required to complete future decommissioning and /or meet the EM site end-state; the F Area facilities end states have not been defined. No plans have been made at this time to reuse F Area facilities after deactivation.
No nuclear materials, spent fuel, or high level waste will be stored in F Area, aside from APSF, following deactivation, nor will any be generated by this project. Wastes generated by this project will be primarily job control wastes from incidental decontamination, surveillance, and maintenance activities. These wastes will be disposed via other solid waste treatment facilities at SRS. Life cycle waste costs are reflected in the operating costs of those facilities.

Cost Baseline Comments:

Costs identified in this PBS are rough order of magnitude engineering estimates only. Deactivation surveillance and maintenance costs are based on historical data. It is assumed that there is a marginal decrease in expenditures during the first 3 years of post-operational S&M, however this will remain level until deactivation has been completed. Post-deactivation surveillance and maintenance costs are dependent on the deactivation end points, which in turn depend on the characterization of facility hazards. Although no facility characterization or end points determination has been

Project Description Narratives

made for any of the F Area facilities except for the 247-F facilities, it has been assumed that post deactivation costs are only a fraction (10%) of the historic operational S&M costs.

This estimate should be used for pre-conceptual planning, and should be considered as preliminary funding guidance only. Detailed work scopes and cost estimates will be developed as part of the Deactivation Plan development and will be a product of that work when funded.

Safety & Health Hazards:

The 247-F Naval Fuels facility was designed to fabricate fuel for the Naval Nuclear Propulsion program and has since been deactivated. The facility consists primarily of two parts: (1) an administrative wing (2) and the fabrication facility itself. In addition, there are a few small ancillary support buildings located nearby. The fabrication facility contains a vault, a two story processing core area, change rooms, maintenance shops, a small laboratory, and warehouse storage. Some residual uranium holdup remains in the process core and HEPA filtration system ductwork.

The deactivation-planning projects will be funded in FY02. To-date a deactivation specific safety and hazard analysis has not been performed except for 247-F (in S-HAD-F-00005, Rev. 3, "247-F Facility Hazards Assessment", Section 7.0, "Hazards Assessment". Such analyses will be performed for the remaining facilities in accordance with Site standards. The criteria for determining the radiological hazard categories are provided in DOE-STD-1027-92, and the criteria for determining the chemical hazard categorization are provided in WSRC-MS-92-206. Until modified by deactivation activities, the operational safety basis will be maintained as the controlling Auditable Safety Analysis (ASA).

Safety & Health Work Performance:

Activities and checkpoints 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 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. A documented safety basis will be maintained through completion of the deactivation project.

PBS Comments:

The fundamental concept of deactivation is to reduce risks associated with surplus facilities, thereby reducing the S&M cost while maintaining safety for site employees, the public and the environment. The methodology is to use all technology available to de inventory, stabilize residual hazardous materials to the lowest manageable hazard level possible, shutdown of unnecessary systems and reduction of discretionary S&M. Upon completion of deactivation, the facility would be locked with only quarterly entry for inspection and monitoring, while awaiting a turnover to EM for a final decision on disposition (D&D, entombment, ...). The F Area Monitoring Project is established to ensure surplus F Area facilities are safely maintained while awaiting disposition decisions.

Baseline Validation Narrative:

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Project Description Narratives

Not Applicable.

General PBS Information

Project Validated?

Date Validated:

Has Headquarters reviewed and approved project? No

Date Project was Added: 12/1/1997

Baseline Submission Date: 7/3/1999

FEDPLAN Project? Yes

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

Project Identification Information

DOE Project Manager: G. M. Nichols, Jr.

DOE Project Manager Phone Number: 803-952-2021

DOE Project Manager Fax Number: 803-952-2019

DOE Project Manager e-mail address: gnichols@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)	6,280	5,101,792	5,108,072	2,651	2,651	180	180	738	772	302	310	319	327	336	345
PBS Baseline (constant 1999 dollars)	6,001	1,568,291	1,574,292	2,651	2,651	180	180	738	745	281	281	282	281	281	281

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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 EM Baseline (current year dollars)	6,280	5,101,792	5,108,072	2,651	2,651	180	180	738	772	302	310	319	327	336	345
PBS EM Baseline (constant 1999 dollars)	6,001	1,568,291	1,574,292	2,651	2,651	180	180	738	745	281	281	282	281	281	281

	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)	354	364	374	79,700	177,900	204,400	344,500	278,500	318,100	363,400	388,200	443,500	506,700	578,900	661,400	755,500
PBS Baseline (constant 1999 dollars)	281	281	282	58,426	120,481	121,164	178,743	126,477	126,444	126,435	118,219	118,214	118,214	118,216	118,219	118,195
PBS EM Baseline (current year dollars)	354	364	374	79,700	177,900	204,400	344,500	278,500	318,100	363,400	388,200	443,500	506,700	578,900	661,400	755,500
PBS EM Baseline (constant 1999 dollars)	281	281	282	58,426	120,481	121,164	178,743	126,477	126,444	126,435	118,219	118,214	118,214	118,216	118,219	118,195

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

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Project **SR-FA16 / F-Area Monitoring**

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project: 9/1/2070

Current Projected End Date of Project: 9/1/2070

Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	1,734,271	**Actual 1997 Cost:**	2,651	**Actual 1998 Cost:**	180
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	1,731,440	**Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):**			46,749
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	1,778,189				

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):	338,573	Pre deactivation S&M is now included in SR-NM01; last year this was included in this project.
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:	1,439,616	
Additional Amount to Reconcile (+):	131,845	
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	**1,571,461**	

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Complete disposition of potentially contaminated 6M	SR-FA16-001		6/30/1999								

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Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
drums.											
Project Mission Complete	SR-FA16-002		9/1/2070								
Project Start	SR-FA16-004		10/1/1998			10/1/1998					
Submit draft MOA for the transferral of 247-F from EM-60 to EM-40	SR-FA16-009		1/31/1999								
Submit to DOE-SR a preliminary deactivation completion package.	SR-FA16-030		7/31/1999								

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Complete disposition of potentially contaminated 6M drums.	SR-FA16-001										
Project Mission Complete	SR-FA16-002				Y						
Project Start	SR-FA16-004			Y							
Submit draft MOA for the transferral of 247-F from EM-60 to EM-40	SR-FA16-009										
Submit to DOE-SR a preliminary deactivation completion package.	SR-FA16-030									Y	

Technology Needs

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Technology Needs

Site Need Code: SR99-4001

Site Need Name: Dismantlement of Large and/or Complex Equipment and Structures

Focus Area Work Package ID: DD-10 **Focus Area Work Package:** Production Reactor D&D

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Laser Cutting and Size Reduction		
Laser Cutting and Size Reduction		
Laser Cutting and Size Reduction		
Dual Arm Work Platform Teleoperated Robotics System		
Dual Arm Work Platform Teleoperated Robotics System		
Dual Arm Work Platform Teleoperated Robotics System		
Mobile Robot Worksystem (ROSIE)		
Mobile Robot Worksystem (ROSIE)		
Mobile Robot Worksystem (ROSIE)		
High Speed Clamshell Pipe Cutter		
High Speed Clamshell Pipe Cutter		
High Speed Clamshell Pipe Cutter		
Swing-Reduced Crane Control		
Swing-Reduced Crane Control		
Swing-Reduced Crane Control		
Oxy-Gasoline Torch		
Oxy-Gasoline Torch		

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Technology Needs

Oxy-Gasoline Torch
Self Contained Pipe Cutting Shear
Self Contained Pipe Cutting Shear
Self Contained Pipe Cutting Shear
Remote Control Concrete Demolition System
Remote Control Concrete Demolition System
Remote Control Concrete Demolition System
Concrete Spaller
Concrete Spaller
Concrete Spaller
Track Mounted Shear/Crusher
Track Mounted Shear/Crusher
Track Mounted Shear/Crusher

Related CCP Milestones

Related Waste Streams	Agree?	Change?
00576: TAN - TRU Waste Segregated and Repackaged for WIPP Disposal	Y	N
00522: LAC - Low Activity Bulk Waste	Y	N
00528: LAE - Incinerable Low Activity Job Control Waste	Y	N
00574: TAL - TRU Waste Segregated and Repackaged for WIPP Disposal	Y	N
00531: LAG - Contaminated Large Equip for Survey/Decon	Y	N
00530: LAF - Bulk Metal for Survey/Decon	Y	N

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Project **SR-FA16 / F-Area Monitoring**

Technology Needs

Site Need Code: SR99-4002

Site Need Name: Characterization of Contaminated Surfaces

Focus Area Work Package ID: DD-03 **Focus Area Work Package:** Canyon Disposition Initiative

Focus Area: DDFA **Agree with Technology Link:** N

Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Rapid Surface Sampling and Archive Record (RSSAR) System		
Rapid Surface Sampling and Archive Record (RSSAR) System		
Rapid Surface Sampling and Archive Record (RSSAR) System		
Rapid Surface Sampling and Archive Record (RSSAR) System		
Portable X-Ray, K-Edge Heavy Metal Detector		
Portable X-Ray, K-Edge Heavy Metal Detector		
Portable X-Ray, K-Edge Heavy Metal Detector		
Portable X-Ray, K-Edge Heavy Metal Detector		
Portable X-Ray Fluorescence Spectrometer		
Portable X-Ray Fluorescence Spectrometer		
Portable X-Ray Fluorescence Spectrometer		
Portable X-Ray Fluorescence Spectrometer		
Gamma Ray Imaging System		
Gamma Ray Imaging System		
Gamma Ray Imaging System		
Gamma Ray Imaging System		
Mobile Automated Characterization System		

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Technology Needs

Mobile Automated Characterization System
Mobile Automated Characterization System
Mobile Automated Characterization System
Gamma Cam (TM) Radiation Imaging System
Gamma Cam (TM) Radiation Imaging System
Gamma Cam (TM) Radiation Imaging System
Gamma Cam (TM) Radiation Imaging System
Field Transportable Beta Spectrometer
Field Transportable Beta Spectrometer
Field Transportable Beta Spectrometer
Field Transportable Beta Spectrometer
Surface Contamination Monitor and Survey Information Management System (SCM/SIMS)
Surface Contamination Monitor and Survey Information Management System (SCM/SIMS)
Surface Contamination Monitor and Survey Information Management System (SCM/SIMS)
Surface Contamination Monitor and Survey Information Management System (SCM/SIMS)
Indoor Radiation Mapping Using Laser Assisted Ranging and Data System
Indoor Radiation Mapping Using Laser Assisted Ranging and Data System
Indoor Radiation Mapping Using Laser Assisted Ranging and Data System
Indoor Radiation Mapping Using Laser Assisted Ranging and Data System
Ground Based Laser Induced Fluorescence Imaging
Ground Based Laser Induced Fluorescence Imaging
Ground Based Laser Induced Fluorescence Imaging
Ground Based Laser Induced Fluorescence Imaging
In Situ Object Counting System

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Technology Needs

In Situ Object Counting System

In Situ Object Counting System

In Situ Object Counting System

Site Need Code: SR99-4003

Site Need Name: Material Recycle (Process Equipment, Metal, Steel, and Concrete)

Focus Area Work Package ID: DD-05 **Focus Area Work Package:** Material Recycle and Release

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Stainless Steel Beneficial Reuse		
Stainless Steel Beneficial Reuse		
Stainless Steel Beneficial Reuse		
Stainless Steel Beneficial Reuse		
Laser Decontamination and Recycle of Metals		
Laser Decontamination and Recycle of Metals		
Laser Decontamination and Recycle of Metals		
Laser Decontamination and Recycle of Metals		
Biodegradation of Concrete		
Biodegradation of Concrete		
Biodegradation of Concrete		
Biodegradation of Concrete		
Removal of Contaminants from Equipment and Debris, and Waste Minimization Using TECHXTRACT		
Removal of Contaminants from Equipment and Debris, and Waste Minimization Using TECHXTRACT		

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Technology Needs

Removal of Contaminants from Equipment and Debris, and Waste Minimization Using TECHXTRACT
Removal of Contaminants from Equipment and Debris, and Waste Minimization Using TECHXTRACT
SEG Recycle and Reuse of Radioactively Contaminated Scrap Metal
SEG Recycle and Reuse of Radioactively Contaminated Scrap Metal
SEG Recycle and Reuse of Radioactively Contaminated Scrap Metal
SEG Recycle and Reuse of Radioactively Contaminated Scrap Metal
Steam Vacuum Cleaning
Steam Vacuum Cleaning
Steam Vacuum Cleaning
Steam Vacuum Cleaning
Centrifugal Shot Blast System
Centrifugal Shot Blast System
Centrifugal Shot Blast System
Centrifugal Shot Blast System
Soft Media Blast Cleaning
Soft Media Blast Cleaning
Soft Media Blast Cleaning
Soft Media Blast Cleaning

Related CCP Milestones

Related Waste Streams	Agree?	Change?
00522: LAC - Low Activity Bulk Waste	Y	N
02184: AA - LLW Soil, Rubble, Debris	Y	N
00528: LAE - Incinerable Low Activity Job Control Waste	Y	N
00574: TAL - TRU Waste Segregated and Repackaged for WIPP Disposal	Y	N

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Technology Needs

Site Need Code: SR99-4004
Site Need Name: Decontamination of Contaminated Concrete
Focus Area Work Package ID: DD-11
Focus Area Work Package: Deactivation of 321-M Fuel Fabrication Facility
Focus Area: DDFA
Agree with Technology Link: N
Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Laser Surface Cleaning		
Laser Surface Cleaning		
Laser Surface Cleaning		
Laser Surface Cleaning		
Laser Surface Cleaning		
Biodegradation of Concrete		
Biodegradation of Concrete		
Biodegradation of Concrete		
Biodegradation of Concrete		
Biodegradation of Concrete		
2-D Linear Motion System		
2-D Linear Motion System		
2-D Linear Motion System		
2-D Linear Motion System		
2-D Linear Motion System		
Rotary Peening with Captive Shot		
Rotary Peening with Captive Shot		

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Technology Needs

Rotary Peening with Captive Shot
Rotary Peening with Captive Shot
Rotary Peening with Captive Shot
Centrifugal Shot Blast System
Centrifugal Shot Blast System
Centrifugal Shot Blast System
Centrifugal Shot Blast System
Centrifugal Shot Blast System
Soft Media Blast Cleaning
Soft Media Blast Cleaning
Soft Media Blast Cleaning
Soft Media Blast Cleaning
Soft Media Blast Cleaning
ROTO PEEN Scaler and VAC PAC System
ROTO PEEN Scaler and VAC PAC System
ROTO PEEN Scaler and VAC PAC System
ROTO PEEN Scaler and VAC PAC System
ROTO PEEN Scaler and VAC PAC System
Concrete Shaver
Concrete Shaver
Concrete Shaver
Concrete Shaver
Concrete Shaver
Remotely Operated Scabbling

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Technology Needs

Remotely Operated Scabbling
Remotely Operated Scabbling
Remotely Operated Scabbling
Remotely Operated Scabbling
Concrete Grinder
Concrete Grinder
Concrete Grinder
Concrete Grinder
Concrete Grinder
Concrete Spaller
Concrete Spaller
Concrete Spaller
Concrete Spaller
Concrete Spaller

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	00522: LAC - Low Activity Bulk Waste	Y	N
	00528: LAE - Incinerable Low Activity Job Control Waste	Y	N

Site Need Code: SR99-4005
Site Need Name: Characterization of Inaccessible Areas
Focus Area Work Package ID: DD-11
Focus Area Work Package: Deactivation of 321-M Fuel Fabrication Facility
Focus Area: DDFA
Agree with Technology Link: N
Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate

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Technology Needs

Internal Duct Characterization System
Internal Duct Characterization System
Internal Duct Characterization System
Internal Duct Characterization System
Small Pipe Characterization System (SPCS)
Small Pipe Characterization System (SPCS)
Small Pipe Characterization System (SPCS)
Small Pipe Characterization System (SPCS)
Pipe Explorer (TM) System
Pipe Explorer (TM) System
Pipe Explorer (TM) System
Pipe Explorer (TM) System
Portable X-Ray, K-Edge Heavy Metal Detector
Portable X-Ray, K-Edge Heavy Metal Detector
Portable X-Ray, K-Edge Heavy Metal Detector
Portable X-Ray, K-Edge Heavy Metal Detector
Associated Particle Imaging Development
Associated Particle Imaging Development
Associated Particle Imaging Development
Associated Particle Imaging Development
Pipe Crawler Internal Piping Characterization System
Pipe Crawler Internal Piping Characterization System
Pipe Crawler Internal Piping Characterization System
Pipe Crawler Internal Piping Characterization System

Project Baseline Summary Report

Data Source: **EM CDB**
Report Number: **GEN-01b**
Operations/Field Office: **Savannah River**
Print Date: **3/9/2000**
Site Summary Level: **Savannah River Site**
HQ ID: **0513**
Project **SR-FA16 / F-Area Monitoring**

Technology Needs

Site Need Code: SR99-4006
Site Need Name: Asbestos Treatment to Allow Reuse
Focus Area Work Package ID: DD-10
Focus Area Work Package: Production Reactor D&D
Focus Area: DDFA
Agree with Technology Link: N
Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
In Situ Chemical Treatment of Asbestos		
In Situ Chemical Treatment of Asbestos		
In Situ Chemical Treatment of Asbestos		
In Situ Chemical Treatment of Asbestos		
Thermal Conversion of Asbestos		
Thermal Conversion of Asbestos		
Thermal Conversion of Asbestos		
Thermal Conversion of Asbestos		
Strippable Coatings and Fixatives		
Strippable Coatings and Fixatives		
Strippable Coatings and Fixatives		
Strippable Coatings and Fixatives		

Technology Needs

Site Need Code: SR99-4007

Site Need Name: Characterization of Volumetrically Contaminated Surfaces

Focus Area Work Package ID: DD-01 **Focus Area Work Package:** D&D of Tritium Contaminated Facilities

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Portable X-Ray, K-Edge Heavy Metal Detector		
Portable X-Ray, K-Edge Heavy Metal Detector		
Portable X-Ray, K-Edge Heavy Metal Detector		
Portable X-Ray, K-Edge Heavy Metal Detector		
Remote Concrete Coring		
Remote Concrete Coring		
Remote Concrete Coring		
Remote Concrete Coring		

Site Need Code: SR99-4008

Site Need Name: Dismantlement of Concrete-Encased Piping

Focus Area Work Package ID: DD-11 **Focus Area Work Package:** Deactivation of 321-M Fuel Fabrication Facility

Focus Area: DDFA **Agree with Technology Link:** N

Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Oxy-Gasoline Torch		
Oxy-Gasoline Torch		

Project Baseline Summary Report

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Site Summary Level: **Savannah River Site** HQ ID: **0513**

Project **SR-FA16 / F-Area Monitoring**

Technology Needs

Oxy-Gasoline Torch

Remote Control Concrete Demolition System

Remote Control Concrete Demolition System

Remote Control Concrete Demolition System

Liquid-Nitrogen Cooled Diamond-Wire Concrete Cutting

Liquid-Nitrogen Cooled Diamond-Wire Concrete Cutting

Liquid-Nitrogen Cooled Diamond-Wire Concrete Cutting

Track Mounted Shear/Crusher

Track Mounted Shear/Crusher

Track Mounted Shear/Crusher

Related CCP Milestones

Related Waste Streams	Agree?	Change?
00522: LAC - Low Activity Bulk Waste	Y	N
02184: AA - LLW Soil, Rubble, Debris	Y	N
00528: LAE - Incinerable Low Activity Job Control Waste	Y	N
00574: TAL - TRU Waste Segregated and Repackaged for WIPP Disposal	Y	N

Site Need Code: SR99-4009

Site Need Name: Improved Exhaust Treatment Systems

Focus Area Work Package ID: DD-11

Focus Area Work Package: Deactivation of 321-M Fuel Fabrication Facility

Focus Area: DDFA

Agree with Technology Link: N

Benefits (Cost, Risk Reduction, Both): Cost

Technologies **Cost Savings (in thousands of dollars)** **Range of Estimate**

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Technology Needs

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	00528: LAE - Incinerable Low Activity Job Control Waste	Y	N
	00578: TAP - Drums Segregated and Repackaged for WIPP Disposal	Y	N

Site Need Code: SR99-4010
Site Need Name: Characterization Data Management
Focus Area Work Package ID: DD-10
Focus Area Work Package: Production Reactor D&D
Focus Area: DDFA
Agree with Technology Link: Y
Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Rapid Surface Sampling and Archive Record (RSSAR) System		
Rapid Surface Sampling and Archive Record (RSSAR) System		
Rapid Surface Sampling and Archive Record (RSSAR) System		
Three Dimensional, Integrated Characterization and Archiving System (3D-ICAS)		
Three Dimensional, Integrated Characterization and Archiving System (3D-ICAS)		
Three Dimensional, Integrated Characterization and Archiving System (3D-ICAS)		
Mobile Automated Characterization System		
Mobile Automated Characterization System		
Mobile Automated Characterization System		
Gamma Cam (TM) Radiation Imaging System		
Gamma Cam (TM) Radiation Imaging System		
Gamma Cam (TM) Radiation Imaging System		
Surface Contamination Monitor and Survey Information Management System (SCM/SIMS)		

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Project **SR-FA16 / F-Area Monitoring**

Technology Needs

Surface Contamination Monitor and Survey Information Management System (SCM/SIMS)

Surface Contamination Monitor and Survey Information Management System (SCM/SIMS)

Indoor Radiation Mapping Using Laser Assisted Ranging and Data System

Indoor Radiation Mapping Using Laser Assisted Ranging and Data System

Indoor Radiation Mapping Using Laser Assisted Ranging and Data System

System for Tracking Remediation, Exposure, Activities and Materials (STREAM)

System for Tracking Remediation, Exposure, Activities and Materials (STREAM)

System for Tracking Remediation, Exposure, Activities and Materials (STREAM)

Site Need Code: SR99-4011

Site Need Name: Waste Characterization

Focus Area Work Package ID: DD-03

Focus Area Work Package: Canyon Disposition Initiative

Focus Area: DDFA

Agree with Technology Link: N

Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Portable X-Ray, K-Edge Heavy Metal Detector		
Portable X-Ray, K-Edge Heavy Metal Detector		
Portable X-Ray, K-Edge Heavy Metal Detector		
Waste Inspection Tomography (WIT)		
Waste Inspection Tomography (WIT)		
Waste Inspection Tomography (WIT)		
Characterization Development		
Characterization Development		
Characterization Development		

Project Baseline Summary Report

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Technology Needs

Associated Particle Imaging Development
Associated Particle Imaging Development
Associated Particle Imaging Development
WIPP Certifiable TRU Standard Waste Box Counter
WIPP Certifiable TRU Standard Waste Box Counter
WIPP Certifiable TRU Standard Waste Box Counter

Site Need Code: SR99-4012
Site Need Name: Stabilization of Contaminated Equipment / Components/ Surfaces
Focus Area Work Package ID: DD-10
Focus Area Work Package: Production Reactor D&D
Focus Area: DDFA
Agree with Technology Link: Y
Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Reactor Surface Contamination Stabilization		
Reactor Surface Contamination Stabilization		
Reactor Surface Contamination Stabilization		
Strippable Coatings and Fixatives		
Strippable Coatings and Fixatives		
Strippable Coatings and Fixatives		

Project Baseline Summary Report

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Site Summary Level: **Savannah River Site** HQ ID: **0513**

Project **SR-FA16 / F-Area Monitoring**

Technology Needs

Site Need Code: SR99-4013

Site Need Name: Containment / Confinement Technologies

Focus Area Work Package ID: DD-03 **Focus Area Work Package:** Canyon Disposition Initiative

Focus Area: DDFA **Agree with Technology Link:** N

Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate

Site Need Code: SR99-4015

Site Need Name: Decontamination of Small Components

Focus Area Work Package ID: DD-11 **Focus Area Work Package:** Deactivation of 321-M Fuel Fabrication Facility

Focus Area: DDFA **Agree with Technology Link:** N

Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
CORPEX Nuclear Decontamination Process		
CORPEX Nuclear Decontamination Process		
CORPEX Nuclear Decontamination Process		
Removal of Contaminants from Equipment and Debris, and Waste Minimization Using TECHXTRACT		
Removal of Contaminants from Equipment and Debris, and Waste Minimization Using TECHXTRACT		
Removal of Contaminants from Equipment and Debris, and Waste Minimization Using TECHXTRACT		
Steam Vacuum Cleaning		

Project Baseline Summary Report

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Site Summary Level: **Savannah River Site** | HQ ID: **0513**

Project **SR-FA16 / F-Area Monitoring**

Technology Needs

Steam Vacuum Cleaning

Steam Vacuum Cleaning

Soft Media Blast Cleaning

Soft Media Blast Cleaning

Soft Media Blast Cleaning

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	00583: -	Y	N
	00528: LAE - Incinerable Low Activity Job Control Waste	Y	N
	00574: TAL - TRU Waste Segregated and Repackaged for WIPP Disposal	Y	N
	00530: LAF - Bulk Metal for Survey/Decon	Y	N

Site Need Code: SR99-4016

Site Need Name: Health and Safety Technologies

Focus Area Work Package ID: DD-10

Focus Area Work Package: Production Reactor D&D

Focus Area: DDFA

Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Cost

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Advanced Worker Protection System		
Advanced Worker Protection System		
Advanced Worker Protection System		
Personal Ice Cooling System (PICS)		
Personal Ice Cooling System (PICS)		
Personal Ice Cooling System (PICS)		
Heat Stress Monitoring System		

Project Baseline Summary Report

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Operations/Field Office: **Savannah River**

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

Site Summary Level: **Savannah River Site**

HQ ID: **0513**

Project **SR-FA16 / F-Area Monitoring**

Technology Needs

Heat Stress Monitoring System

Heat Stress Monitoring System

Wireless Remote Monitoring System

Wireless Remote Monitoring System

Wireless Remote Monitoring System

Heat Stress Mitigation

Heat Stress Mitigation

Heat Stress Mitigation