

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Ohio**

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

Project **OH-FN-07 / Silos**

Report Number: **GEN-01b**

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

HQ ID: **0526**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

The Silos Projects consists of the remedial activities associated with Operable Unit 4 (OU4). OU4 is comprised of the following systems and structures: Silos 1, 2, 3, and 4 (empty); the berm around Silos 1 and 2 (designated as K-65 Silos); the K-65 Silos Radon Treatment System (RTS); the K-65 Silos Decant Sump Tank and Piping; the Vitrification Pilot Plant (VitPP); and associated trailers. Silos 1, 2, and 3 are nonreactor nuclear facilities that contain radioactive wastes generated from processing uranium ores.

Definition of Scope: As a result of the Dispute Resolution with the U.S. EPA, the Silos Project has a new path forward which consists of the following four regulatory, enforceable milestones: 1) Submit Draft Explanation of Significant Differences (ESD) for Silo 3 to U.S. EPA for review, comment, and approval (completed September 15, 1997); 2) Award Multi-Tech Proof of Principle Contract Silos 1 and 2 (completed August 10, 1998); 3) Submit Draft Supplemental Feasibility Study/Proposed Plan (FS/PP) to U.S. EPA for review, comment, and approval (due February 1, 2000); and 4) Submit Draft Record of Decision (ROD) Amendment for Silos 1 and 2 to U.S. EPA for review, comment, and approval (due December 29, 2000).

The original Feasibility Studies and Proposed Plan are being revised and updated to reflect the most current information, including the Lessons Learned from the Vitrification Pilot Plant. A ROD Amendment will be made for the final remediation selection for the Silos 1 and 2. An Explanation of Significant Differences (ESD) is being used as a regulatory mechanism to document the changes in the final remedial selection for the Silo 3 treatment alternatives.

The design basis and the statement of work have been developed for the Silos 1 and 2 Waste Retrieval/Transfer Tanks/Radon Control System project, and a contract has been let. The objective of this project is to address the most uncertain areas of the program early on to reduce risks and uncertainties for the final remediation phase of the program. This project will address the Silo integrity issues, Radon headspace concentration elevation issues, and issues dealing with the need for further characterization/understanding of the material. Approximate time for this project is from FY 1998 to FY 2002.

The final remediation phase after completion of the ROD amendment is planned to be a Turnkey contracting approach where the vendor will be responsible for full-scale remediation facility design, construction, and integrated system testing. After the final remediation technology is selected through the ROD Amendment process, the RFP will be developed to reflect the Turnkey approach. The Turnkey approach is viewed as the optimum approach to final remediation of Silos 1 and 2 material because it allows a single contractor to be financially and technically responsible for the design, construction, and testing of all integrated systems and remediations operations. Future major activities are aligned more in series rather than in parallel (lessons learned from the Vitrification Pilot Plant) to reduce up-front risks and bottlenecks and increase operational efficiencies for potential schedule recovery.

Technical Approach: On July 22, 1997, DOE and U.S. EPA agreed to settle the informal dispute with a path forward establishing four new regulatory enforcement milestones. The Silos Project rebaselined to reflect the major scope and schedule changes in FY 1998. Re-evaluation of treatment technologies for treatment of Silos 1 and 2 material is being conducted through multiple technology, multiple vendor proof-of-principles contracts and updating the current Feasibility Studies/Proposed Plan and ROD Amendment.

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Technology Needs: The following prioritized needs will be addressed: (OH-F002) Real-time personal alpha monitor to provide a rapid personnel monitoring device for alpha contamination from radon. LANL completed initial development. FEMP is funding some follow-on development through the University of Cincinnati. FEMP may require OST support of follow-on work at LANL. Waste retrieval and treatment technologies are addressed by issuing Request for Proposals to potential vendors who have the technical expertise and proven technologies to implement on site. There is a need for a method to stabilize the K-65 material, from Silos 1 and 2. This need (OH-F044) is being addressed by a program which includes support from the Mixed Waste Focus Area. Information from this program will be provided to potential bidders of Silos 1 and 2 remediation contract for consideration. There is a health and safety related need (OH-F043) for telemetric monitoring of heat stress for personnel.

Project Status in FY 2006:

Stabilization processing of Silos 1 and 2 material will be ongoing.

Post-2006 Project Scope:

Follow up activities for FY 2006 through FY 2008 include finalization of treatment and disposal of Silos 1 and 2 wastes per the Amended Operable Unit 4 Record of Decision, as consistent with the existing baseline.

Project End State

Access to the OSDF will remain restricted and monitored and under institutional controls in perpetuity. The remainder of the site is expected to achieve final cleanup levels which could support various land uses. However, the decision to limit use to ecological restoration and recreational use was made based on DOE's Natural Resource Damages Act obligations and stakeholder input. Residential and agricultural uses will not be considered for any portion of the site consistent with the recommendations of the Fernald Citizens Advisory Board. Industrial uses may be considered for the 23 acres of potential economic development land. DOE, or a successor agency, will maintain stewardship responsibility for the site.

Cost Baseline Comments:

Assumptions are that priorities for the Silo Project remain the same; the present level of RCRA, CERCLA, and NEPA integration will be maintained or improved; potential incremental funding of remediation contracts; and no contingency exists. Estimates to support the baseline for this PBS were completed using a bottoms-up approach.

The Ohio Field Office has an aggressive cost savings program in place to contain or reduce the Total Estimated Cost of the project; however, there is potential for cost growth at the Fernald Environmental Management Project (FEMP) because the baseline estimates do not include contingency, and Operable Unit 4 (Silos Project) is in the process of amending the Record of Decision with the EPAs.

Safety & Health Hazards:

Based on a comparison of inventory of radioactive material to the threshold limits in DOE-STD-1027-92, the hazard categorization for Silos 1, 2, and 3 is determined to be Hazard Category 3 (HC-3). An unmitigated release methodology was used to evaluate the chemical hazards which were determined to be "low." The other existing silo support facilities (RTS and decant sump system) pose radiological hazards to workers. Physical hazards include injury from heavy equipment operations and hoisting and rigging. In addition, workers can be expected to encounter normal

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Project Description Narratives

occupational hazards such as lifting, tripping, or falling. Weather extremes expose personnel to heat and cold stress conditions.

Future activities for OU4 include the following:

1) placing the VitPP in a long-term shutdown configuration; 2) continued storage of material in Silos 1, 2, and 3; 3) continued maintenance of OU4 facilities, 4) development of a Large Scale Retrieval System for Silo 3 Oxides; 5) development of a Stabilization Facility for Silo 3 Oxides; 6) development of a Large Scale Retrieval System for K-65 Silos Residues; 7) development of a Superstructure over each of the K-65 Silos in support of item 6; 8) development of a Transfer Tank Area (TTA) facility for K-65 Silos Residues; 9) development of a Stabilization Facility for K-65 Silos Residues; and 10) development of a Radon Control System (RCS) in several phases in support of items 6, 7, 8, and 9. In addition to the hazards previously listed, construction hazards such as those associated with heavy equipment operation, excavation and trenching, high voltage, and elevated work will be experienced by OU4 workers during the performance of items 4 through 10 above. Radiological, chemical, and standard industrial hazards are expected to be encountered during the operations of items 4 through 10 above.

Safety & Health Work Performance:

The resources necessary to accomplish the work safely are provided through the Authorization basis, OU4 HAR, FEMP's Safety Performance Requirements manual, Radiation Protection Program, and resources allocated to the site's safety management system in the following functional categories: radiological safety, industrial hygiene, criticality safety, occupational safety and health, emergency management, fire safety, and occupational medicine. Project specific resource allocation is addressed in 40700-PEP-0001, Project Execution Plan for Silos 1 and 2 and 40400-PEP-0001, Project Execution Plan for Silo 3. Safety and Health resources are planned and allocated into these categories by cost centers through the work breakdown structure. There are no unfunded Safety and Health categories.

PBS Comments:

The technical uncertainties to the project have resulted in extending the schedule, missed regulatory milestones, and the USEPA and DOE completion of informal dispute resolution.

The FEMP project has already undergone strategic planning to accelerate the cleanup from 25 years to 10 years. This has resulted in a significant amount of savings. To further reduce mortgage costs and allocate additional funds to the cleanup activities requires: a) the removal of the nuclear materials from the site; b) completion of safe shutdown activities; c) utility reduction projects, and d) improved technology for waste excavation and transport. A factor that allowed the FEMP to pursue accelerated cleanup is the agreement and recommendations made by the Citizens Task Force on cleanup levels and disposition of the waste (amount and waste acceptance criteria levels for onsite disposal facility and disposition off-site for wastes above the waste acceptance criteria). Major efforts at recycling materials from the site have been initiated to help reduce/minimize the size of the disposal cell.

Fernald developed and implemented an accelerated schedule in FY 1995. This baseline was validated and granted Level 1 approval on August 21, 1996. Impacts to the baseline due to the current funding targets will cause a three year schedule extension. Fernald has committed to implementing cost savings, productivity improvements, and incremental funding to complete the project within the FY 2006 timeframe.

Baseline Validation Narrative:

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Project Description Narratives

On October 29, 1998, DOE-FEMP received DOE-HQ approval on the Fiscal Year 1999 Replan Baseline Change Proposal to the current FEMP Baseline. The FEMP Baseline had been previously validated after DOE-HQ completed their review and provided their approval on August 21, 1996. Many internal and external reviews have been performed on the FEMP Baseline. In March 1998, the U.S. Corps of Engineers performed an external cost review on the OSDF project with results showing the disposal cell estimates consistent with industry standards. In August 1997 and January 1996, external cost reviews were performed on Operable Unit 4, one by the U.S. Corps of Engineers and one by the U.S. Department of Interior (DOI) and the U.S. Department of Energy (DOE). In June 1996, LMI, Janson Associates, and Burns & Roe performed an external cost review on support costs showing the cost estimates were reasonable. In July 1995, DOI and DOE performed an external cost review on Operable Unit 1 and made formal recommendations to generate technical and/or economic advantages. In September 1993, MTC, Booz-Allen, and Burns & Roe performed an external cost review on the FEMP site and had no significant findings. In addition to external cost reviews, since 1991 almost fifteen internal reviews have been performed.

General PBS Information

Project Validated? Yes **Date Validated:** 10/29/1998
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 | N | N | Y |

Project Identification Information

DOE Project Manager: Nina Akgunduz
DOE Project Manager Phone Number: 513-648-3110
DOE Project Manager Fax Number: 513-648-3076
DOE Project Manager e-mail address: nina.ahgunduz@fernald.gov
Is this a High Visibility Project (Y/N): Y

Planning Section

Baseline Costs (in thousands of dollars)

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| | 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) | 403,096 | 27,884 | 430,980 | 14,441 | 14,441 | 12,577 | 10,944 | 19,674 | 35,704 | 25,293 | 36,884 | 24,549 | 83,995 | 133,265 | 16,714 | |
| PBS Baseline (constant 1999 dollars) | 362,523 | 22,253 | 384,776 | 14,441 | 14,441 | 12,577 | 10,944 | 19,674 | 34,765 | 23,981 | 34,051 | 22,067 | 73,519 | 113,578 | 13,870 | |
| PBS EM Baseline (current year dollars) | 403,096 | 27,884 | 430,980 | 14,441 | 14,441 | 12,577 | 10,944 | 19,674 | 35,704 | 25,293 | 36,884 | 24,549 | 83,995 | 133,265 | 16,714 | |
| PBS EM Baseline (constant 1999 dollars) | 362,523 | 22,253 | 384,776 | 14,441 | 14,441 | 12,577 | 10,944 | 19,674 | 34,765 | 23,981 | 34,051 | 22,067 | 73,519 | 113,578 | 13,870 | |
| | 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) | 14,772 | 13,112 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PBS Baseline (constant 1999 dollars) | 11,936 | 10,317 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PBS EM Baseline (current year dollars) | 14,772 | 13,112 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PBS EM Baseline (constant 1999 dollars) | 11,936 | 10,317 | 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% | 2.70% | 2.70% | 2.70% | 2.70% | 2.70% | 2.70% | 2.70% | 2.70% | 2.70% | 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 |

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| 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: 9/30/2008
 Current Projected End Date of Project: 9/30/2008
 Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

| | | | | | |
|---|---------|--|--------|-------------------|--------|
| Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars): | 405,938 | Actual 1997 Cost: | 14,441 | Actual 1998 Cost: | 10,944 |
| Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars): | 380,553 | Inflation Adjustment (2.7% to convert 1998 to 1999 dollars): | | | 10,275 |
| Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): | 390,828 | | | | |

Project Cost Changes

| | Cost Adjustments | Reconciliation Narratives |
|--|------------------|---|
| Cost Change Due to Scope Deletions (-): | 30,992 | (\$30,992K) due to reprogramming of requirements for remediation of Silos 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: | 359,836 | |
| Additional Amount to Reconcile (+): | -2,078 | (\$1,677K) due to FY97/FY98 Uncosted Balances. (\$400K) from FY97 escalation error in IDMS. |
| Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): | 357,758 | |

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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 |
|---|----------------------|---------------|---------------|------------|---------------|-------------|----|-------|---------------|--------------|-----------|
| Submit Draft Record of Decision Amendment for Silos 1 & 2 to USEPA for review, comment, approval. | 4A2N0059 | | 12/29/2000 | 12/29/2000 | | | Y | | | | |
| Submit Draft Supplemental FS/PP to USEPA for review, comment, and approval. | 4A2N019 | | 2/1/2000 | 2/1/2000 | | | Y | | | | |
| Award OU4 Silo 3 Remediation Contract. | | | 6/24/1999 | | | | | | Y | | |
| Award OU#4- Silo 3 Remediation Contract. | | | 6/24/1999 | | | | | | Y | | |
| Complete remediation of Silos 1 and 2. | | | 9/30/2008 | | | | | | | | |
| Begin remediation of Silos. | | | 10/1/1992 | | | | | | | | |
| Submit Draft Silo 3 Remedial Design Package to EPAs. | | | 6/1/2000 | 6/1/2000 | | | Y | | | | |
| Submit Draft Silo 3 Remedial Action Work Plan to EPAs. | | | 5/1/2001 | 5/1/2001 | | | Y | | | | |

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 |
|---|----------------------|-------------------|-----------------------|---------------|-------------|------------------|-----------|-----------------|----------------|-----------|---|
| Submit Draft Record of Decision Amendment for Silos 1 & 2 to USEPA for review, comment, approval. | 4A2N0059 | | | | | | | | | | A replacement Remedial Design/Remedial Action Work Plan will be developed for Silos 1 and 2 within 60 days of finalization of the Record of Decision (ROD) amendment. |
| Submit Draft Supplemental FS/PP to USEPA for review, comment, and approval. | 4A2N019 | | | | | | | | | | Submit Draft Supplemental Feasibility Study/Proposed Plan (FS/PP) to USEPA for review, comment, and approval. |
| Award OU4 Silo 3 Remediation Contract. | | | Y | | | | 1 | 1 | 1 | | Awarded subcontract to Rocky Mountain Remediation Services. RMRS is now responsible for design, construction, operation, retrieval, |

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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 |
|--|----------------------|-------------------|-----------------------|---------------|-------------|------------------|-----------|-----------------|----------------|-----------|--|
| Award OU#4- Silo 3 Remediation Contract. | | | | | | | | | | Y | treatment, shutdown, and dismantlement of the treatment facilities. Subcontract value is \$16.7 million. |
| Complete remediation of Silos 1 and 2. | | | | | Y | Y | | | | | Completion of operations for Silos 1 and 2. |
| Begin remediation of Silos. | | | | Y | | | | | | | Initiate remediation for Silos 1, 2, and 3. |
| Submit Draft Silo 3 Remedial Design Package to EPAs. | | | | | | | | | | | Milestone date was to be specified in Silo 3 Remedial Design deliverables schedule. This was submitted to DOE 3/9/99 and to the agencies on 3/16/99. |
| Submit Draft Silo 3 Remedial Action Work Plan to EPAs. | | | | | | | | | | | This milestone date was to be specified in the Silo 3 Remedial Design deliverables schedule. This was submitted to DOE on 3/3/99 and to the agencies on 3/16/99. |

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 |
|----------------------|-------|-----------------|-----------------|-----------------|-----------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| RS | | | | | | | | | | | | | | |
| Assess. | NR | 0.00 | 0.00 | 0.00 | 2.00 | | | | | | | | | |
| RS | | | | | | | | | | | | | | |
| Cleanup | NR | 1.00 | 1.00 | 2.00 | | | | | | | | | 1.00 | |

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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 | | | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LLW | | | | | | | | | | | | | | |
| Ship to DOE Disp. | M3 | 7,649.00 | 10,894.00 | 18,543.00 | 0.00 | | 0.00 | | | | 0.00 | 0.00 | 3,919.00 | 2,613.00 |
| Tech. | | | | | | | | | | | | | | |
| Deployed | Ntd | 1.00 | 0.00 | 1.00 | | | | | | 1.00 | | | | |
| 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 | |
| RS | | | | | | | | | | | | | | |
| Assess. | NR | | | | | | | | | | | | | |
| RS | | | | | | | | | | | | | | |
| Cleanup | NR | | | | | 1.00 | | | | | | | | |
| LLW | | | | | | | | | | | | | | |
| Storage | M3 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | |
| LLW | | | | | | | | | | | | | | |
| Ship to DOE Disp. | M3 | 2,613.00 | 0.00 | 1,117.00 | 10,894.00 | | | | | | | | | |
| Tech. | | | | | | | | | | | | | | |
| Deployed | Ntd | | | | | | | | | | | | | |
| Category/Subcategory | Units | Planned 2036 - 2040 | Planned 2041 - 2045 | Planned 2046 - 2050 | Planned 2051 - 2055 | Planned 2056 - 2060 | Planned 2061 - 2065 | Planned 2066 - 2070 | Exceptions | Lifecycle Total | | | | |
| RS | | | | | | | | | | | | | | |
| Assess. | NR | | | | | | | | | 2.00 | | | | |

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| 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 |
|--------------------------------------|-------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|------------|--------------------|
| RS | | | | | | | | | | |
| Cleanup | NR | | | | | | | | | 2.00 |
| LLW | | | | | | | | | | |
| Storage | M3 | | | | | | | | | |
| LLW | | | | | | | | | | |
| Ship to DOE Disp. Tech. | M3 | | | | | | | | | 18,543.00 |
| Deployed | Ntd | | | | | | | | | 1.00 |

Release Sites

| Site Code | RSF ID | Change Flag | Description | Class/Subclass Name | Planned Assess. Year | Forecast Assess. Year | Actual Assess. Date | Planned Comp. Year | Forecast Comp. Year | Actual Comp. Date | Acc. Year | No Action | Comp. Status | RAD |
|-----------|--------|-------------|----------------------|--|----------------------|-----------------------|---------------------|--------------------|---------------------|-------------------|-----------|-----------|--------------|-----|
| FEMP | 0246 | | 34A \ Silos #1 and 2 | Above Ground Material / Waste/Muck Piles | 1994 | 1994 | 7/6/1994 | 2008 | 2008 | | | N | | N |
| FEMP | 0248 | | 35B \ Silo #3 | Above Ground Material / Waste/Muck Piles | 1994 | 1994 | 7/6/1994 | 2003 | 2003 | | | N | | N |

Technology Needs

Site Need Code: OH-F002

Site Need Name: Real-Time Personnel Monitor for Alpha Contamination

Focus Area Work Package ID: MW-08

Focus Area Work Package: Facilitating Deployment for Unique Wastes

Focus Area: MWFA

Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies

Cost Savings (in thousands of dollars)

Range of Estimate

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Technology Needs

Related CCP Milestones

Site Need Code: OH-F042
Site Need Name: Telemetric Monitoring of Heat Stress
Focus Area Work Package ID: DD-12
Focus Area: DDFA
Benefits (Cost, Risk Reduction, Both): Risk Reduction

Technologies

Heat Stress Monitoring System

Related CCP Milestones

Site Need Code: OH-F044
Site Need Name: K-65 Residue Stabilization for Final Remediation
Focus Area Work Package ID: MW-04
Focus Area: MWFA
Benefits (Cost, Risk Reduction, Both): Both

Technologies

Stabilization - Treatability Studies on OU4 Fernald SILO Waste

Related Waste Streams

00079: LLW-10B - Treated Silo 3 Residues
 00081: LLW-11B - Treated Silo 1 & 2 Residues
 00071: LLW-10A - LLW Silos 3 Residues
 00080: LLW-11A - LLW Silo 1& 2 Residues

Focus Area Work Package: D&D of Weapons Components Fabrication Facilities
Agree with Technology Link: Y

Related Waste Streams

00071: LLW-10A - LLW Silos 3 Residues
 00080: LLW-11A - LLW Silo 1& 2 Residues

Focus Area Work Package: Efficient Stabilization of High Metal Content Salts and Ash Waste
Agree with Technology Link: Y

Agree?

Y N
 Y N
 Y N
 Y N

Range of Estimate

Agree?

Y N
 Y N

Cost Savings (in thousands of dollars)

Cost Savings (in thousands of dollars)

Project Baseline Summary Report

Data Source: **EM CDB**
 Operations/Field Office: **Ohio**
 Site Summary Level: **Fernald Environmental Management Project**
 Project **OH-FN-07 / Silos**

Report Number: **GEN-01b**
 Print Date: **3/9/2000**
 HQ ID: **0526**

Technology Needs

Related CCP Milestones

Related Waste Streams

Agree?

Change?

00080: LLW-11A - LLW Silo 1& 2 Residues

Y

N

Technology Deployments

| Deployment Year |
|-----------------|
|-----------------|

Deployment Status

Planned

Forecast

Actual Date

Technology Name: LRAD Based

Potential Deployment

2000

2000