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**Release Stamp: SEP 01 1999 HANFORD RELEASE**
## ENGINEERING CHANGE NOTICE

**16. Design Verification Required**
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**18. Schedule Impact (days)**
- Improvement: N/A
- Delay: N/A

**19. Change Impact Review:** Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 13. Enter the affected document number in Block 20.

- SDD/DD
- Functional Design Criteria
- Operating Specification
- Criticality Specification
- Conceptual Design Report
- Equipment Spec.
- Const. Spec.
- Procurement Spec.
- Vendor Information
- OM Manual
- FSAR/SAR
- Safety Equipment List
- Radiation Work Permit
- Environmental Impact Statement
- Environmental Report
- Environmental Permit
- Tank Calibration Manual
- Health Physics Procedure
- Spares Multiple Unit Listing
- Test Procedures/Specification
- Component Index
- ASME Coded Item
- Human Factor Consideration
- Computer Software
- Electric Circuit Schedule
- ICRS Procedure
- Process Flow Chart
- Purchase Requisition
- Tickler File

**20. Other Affected Documents:** (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

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**DEPARTMENT OF ENERGY**

Signature or a Control Number that tracks the Approval Signature

**ADDITIONAL**

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PROJECT MANAGEMENT PLAN FOR MATERIAL STABILIZATION

D. R. SPEER

B&W Hanford Company
Post Office Box 1200
Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-96RL13200

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Key Words:
Project Management Plan, Stabilization, Plutonium, Uranium

Abstract:
Project Management Plan for the stabilization of plutonium metals, plutonium oxides and other materials with at least 30 weight percent plutonium or plutonium/uranium.

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Approved For Public Release

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Material Stabilization Project Management Plan
# TABLE OF CONTENTS

1. Introduction .................................................................................................................. 1  
2. Work Scope .................................................................................................................. 3  
3. Work Breakdown Structure .......................................................................................... 7  
4. Project Strategy ............................................................................................................ 8  
5. Management Team Roles and Responsibilities ........................................................... 8  
6. Schedules (Baseline) .................................................................................................... 10  
7. Cost Estimate ............................................................................................................. 10  
8. Quality Assurance ...................................................................................................... 10  
9. Systems Engineering Plan ........................................................................................... 10  
10. Security ...................................................................................................................... 11  
11. Project Management Plan Controls .......................................................................... 11  

## APPENDICES

Materials Stabilization Process Logic Diagrams ............................................................... Appendix A  
Materials Stabilization Work Breakdown Structure (WBS) ............................................ Appendix B  
Materials Stabilization Process Schedule ....................................................................... Appendix C  
Materials Stabilization Process Cost Summary ............................................................... Appendix D
Project Management Plan
Materials Stabilization
Plutonium Finishing Plant

1. Introduction

1.1 Project Plan Purpose

This plan presents the overall objectives, description, justification and planning for the plutonium Finishing Plant (PFP) Materials Stabilization project. The intent of this plan is to describe how this project will be managed and integrated with other facility stabilization and deactivation activities. This plan supplements the overall integrated plan presented in the Plutonium Finishing Plant Integrated Project Management Plan (IPMP), HNF-3617, Rev. 0.

This is the top-level definitive project management document that specifies the technical (work scope), schedule, and cost baselines to manager the execution of this project. It describes the organizational approach and roles/responsibilities to be implemented to execute the project. This plan is under configuration management and any deviations must be authorized by appropriate change control action.

1.2 Project Description

Materials stabilization is designated the responsibility to open and stabilize containers of plutonium metal, oxides, alloys, compounds, and sources. Each of these items is at least 30 weight percent plutonium/uranium. The output of this project will be containers of materials in a safe and stable form suitable for storage pending final packaging and/or transportation offsite. The corrosion products along with oxides and compounds will be stabilized via muffle furnaces to reduce the materials to high fired oxides.

1.3 Project Mission

The mission of this project is to place unstable or potentially unstable materials in inventory at PFP into a stable form suitable for interim storage in PFP. Ultimately, all of the plutonium bearing materials at PFP will be shipped offsite allowing the deactivation and decommissioning of PFP.
1.4 Project Background

The material stabilization category includes the current PFP inventory of Pu metals, alloys, compounds, oxides and sources containing more than 30 wt % plutonium and uranium. Additional descriptive background material is given in the sections below.

1.4.1 Metal Stabilization (unalloyed plutonium metals)

PFP has stored unalloyed plutonium metal in its current configuration (storage cans) for approximately 15 to 20 years. It is assumed that most of this metal has some corrosion products on its surface. It is expected that the open USQ on metal handling will soon be resolved and will not require opening the metal in an inert environment. The positive USQ screen arose after a can opened at PFP several years ago that apparently had some hydride in it and gave off a flash upon opening. A workshop on Pu metal corrosion was held in Denver late last year and included several plutonium experts from across the complex. The resolution of the USQ will be based upon the results from this workshop.

1.4.2 Alloy Stabilization

PFP has plutonium-uranium alloys, plutonium-aluminum alloys as well as miscellaneous alloys in storage.

1.4.3 Compound Stabilization

There are several types of plutonium compounds in storage at PFP. These include Pu-F3 and F4 compounds, beryllium, zirconium, and thorium compounds as well as on PuF3-UF6 item.

1.4.4 Oxide Stabilization - Plutonium Oxides and Mixed Oxides (>30 wt % Pu + U)

The primary hazard associated with oxides is the potential container pressurization from off gassing, which could result in container breaching and the spread of contamination. Since these oxides have been stabilized in the past and are routinely monitored for signs of container pressurization, the risk of this accident occurring is low.

1.4.5 Source Stabilization

PFP manages many sources and standards, the hazard of which are similar to those of oxides and compounds described above.
1.5 Project Relationship to the Total Stabilization Program

This project is one of several identified to complete stabilization of Special Nuclear Material (SNM) at PFP, safely store it onsite, ship it offsite for storage or disposal, and transition the facility to a condition suitable for long term minimum cost surveillance and maintenance or Decontamination and Decommissioning (D&D). The Materials Stabilization Project Management Plan is one of several plans that make up the Stabilization portion of the PFP IPMP. The IPMP also includes cost, scope and schedule for "Min-Safe," Disposition, Transition and other PFP support activities. Changes to this Project Management Plan will roll up and be reflected in the PFP IPMP. The frequency of this roll up will be dependent upon the significance of the changes made to the PMPs.

2. Work Scope

2.1 Work Scope

Process Flow Description - Metals:
The inventory of unalloyed plutonium metal will be brushed to remove any corrosion products (oxide). The corrosion products will be thermally stabilized, placed in a convenience can and, either directly or after a short storage period, be placed into a welded container. The brushed metal will be placed into a convenience can and then into a welded container. Processing of metal will await completion of the installation of the Bagless Transfer Unit so it can immediately be packaged into a welded container which is the final packaging configuration. The Bagless Transfer Unit is being installed as part of the W-460 Project.

Previous plans had assumed that all of the metal would be oxidized in the muffle furnaces. As a result of the workshops with the plutonium experts in Denver last year and the resolution of the USQ, it was determined that brushing the metal would be satisfactory to provide stabilization of the material.

Process Flow Description - Alloys:

Alloys will be stabilized in the same manner as the unalloyed plutonium metal. Consideration will be given to discarding alloys that have less than 30 wt % Pu + U and/or that are not acceptable to the DOE Materials Stabilization (MD) Program or the Savannah River Site (SRS) process.

PFP currently stores items of 7% plutonium-aluminum alloys. These plutonium-aluminum alloys are considered stable. Since these alloys are
not acceptable to the MD Program, they will be shipped directly to SRS for processing (see the Shipping Project Management Plan).

Process Flow Description - Compounds:

The compounds will be evaluated to determine their acceptability to the Material Stabilization Program, suitability for processing at Savannah River, and compatibility with thermal stabilization. Based on that evaluation, the materials will either be packaged for shipment to the Savannah River Site, managed under the Residues Project Plan or stabilized and packaged into a welded container at PFP.

Process Flow Description - Oxides:

The oxide will be thermally stabilized in muffle furnaces, put into a convenience can and then into a welded container. It is anticipated that as much as five percent of the oxides will not be acceptable to the Materials Stabilization Program and therefore will require development of separate disposition strategies. The number of mixed oxide (MOX) items that are less than 30 wt % Pu + U is not defined at this time. Items less than 30 wt % Pu + U will be managed under the Residues Project Management Plan.

Stabilization of oxides is currently underway in PFP using two furnaces. Three additional furnaces will be started up in FY 2000. The W-460 Project will install two additional furnaces with the capacity to handle three boats each.
Process Flow Description - Sources:

Pu-Be sources will be shipped to the Los Alamos National Laboratory for dispositioning (see the Project Plan for Shipping). All other sources and standards will be stabilized similarly to oxides and compounds.

2.2 Requirements Baseline

2.2.1 Driving Requirements:

Driving requirements are those requirements that define the project mission. The source of the requirements are from the implementation plan for the Remediation of Nuclear Materials in the Defense Nuclear Facilities Complex (Revision 1), dated December 22, 1998. The commitments for material stabilization are to have the metal stabilized by May 2002 and to complete stabilization of oxides by December 2004.

Assumptions:

- The Material Stabilization Project will stabilize metals, sources, and alloys with a plutonium and uranium content greater than or equal to 30 wt % by brushing.
- Oxidation has been started in the two existing muffle furnaces in glovebox HC-21A. Three additional furnaces will be installed in FY 2000 in PFP. Two new furnaces, with the capability to handle three boats at a time, will be installed in 2736-Z. The resultant oxides will be packaged to comply with the Interim Storage Criteria and stored in the PFP vaults until repackaged into a welded can.
- Approximately ten percent of metal and alloy items will be sufficiently corroded to require thermal stabilization. Remaining items will be brushed to remove corrosion prior to packaging.
- Thermal Gravimetric Analysis (TGA) is sufficient for proof of stability for interim storage of mixed oxides.
- Material characterization for the purpose of determining the proper and safe handling for passivation and stabilization can be done without major equipment or process development.
- Canning for interim storage will be done in either food pack cans or Hanford Convenience Cans. Canning will start in food pack cans and move to convenience cans as the equipment and procedures to support that packaging are developed. Canning will be performed in ambient air.
No co-mingling of items under IAEA safeguards with other items in storage at PFP will take place without prior IAEA approval.

No additional material will be offered for IAEA safeguards at PFP until the material has been stabilized and repackaged to 3013 criteria.

2.2.2 Key Interfaces:

This project interfaces with material transfer, vault storage and shipping activities. Due to the possibility of several related processes going on at the same time, the Material Stabilization Project will have interfaces with the other PFP projects. These interfaces include material flow (input/output from the process), laboratory analyses, 234-5Z vault transfers, and availability of the muffle furnaces. During periods of high demand for muffle furnace capacity (during solution precipitation activities), oxide processing will be used as filler work to fully utilize the unused capacity. Evaluation, prioritization and integration of these interactions will be done through the PFP IPMP management efforts.

Two key interfaces that have been identified are the relationships between solutions processing and the availability of the welded can packaging system. Plant resources will continue to be assigned to the thermal stabilization of oxides and mixed oxides until the hardware and systems are available to process solutions. At that time, processing of solutions will begin and the processing of oxides and MOX will be performed only as resources are available. Solutions stabilization will continue until completed by the availability of funding. At this time, that isn't planned to resume until January 2002.

Processing of metals will not begin until the welded seam can packaging system is available for use in November 2000. This will allow direct placement of brushed metal items into a welded can in an inert atmosphere therefore completely eliminating the possibility of further corrosion of the metals.
2.2.3 Key Milestones:

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<td>IP - 110</td>
<td>Complete brushing and repackaging of metal inventory</td>
<td>05/2002</td>
</tr>
<tr>
<td>IP - 111</td>
<td>Complete stabilizing and packaging of oxides &gt;50 wt %</td>
<td>12/2004</td>
</tr>
<tr>
<td>IP - 114</td>
<td>Ship aluminum and other selected alloys to SRS</td>
<td>06/2001</td>
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<tr>
<td></td>
<td><strong>DOE MILESTONES</strong></td>
<td></td>
</tr>
<tr>
<td>TRP-99-402</td>
<td>Start restabilizing high-assay oxides at PFP</td>
<td>07/31/99</td>
</tr>
<tr>
<td>TRP-99-417</td>
<td>Restart thermal stabilization and complete stabilization of higher risk plutonium-bearing materials</td>
<td>09/30/99</td>
</tr>
</tbody>
</table>

2.3 Programmatic Risks:

Several programmatic risks have been identified and must be managed. Those risks and the proposed method for resolving the uncertainties are as follows:

- **Risk A**: The methods for initial characterization prior to processing and characterization following characterization aren't established. A potential exists for the characterization to require significant effort including methods development.
  How will this risk be resolved? A characterization plan will be developed and issued.

- **Risk B**: There is a risk that material will be found during characterization that would be considered incompatible with either the processing or packaging planned.
  How will this risk be resolved? The continued management of that material will be evaluated and if needed alternative processes or packages established. In that event, proper change management will be used to document the revisions to the plan.

3. Work Breakdown Structure

The project Work Breakdown Structure (WBS) is shown in Appendix B. The WBS is a product-oriented hierarchy based upon the process flow sheet and includes necessary support activities. These WBS elements directly correlate to PFP IPMP WBS elements.
4. Project Strategy

This project requires the processing of several thousand separate packages of plutonium metal oxides, alloys, compounds, and sources. Many of these materials are approximately 30 years old and haven't been characterized. The strategy is to evaluate the material using existing data and determine the need for additional characterization data. Based on the results of that effort, and any required additional characterization, the material will be managed per the process logic diagrams in Appendix A. Processed materials will be packaged in accordance with the criteria for interim storage of plutonium-bearing materials (DOE-October 1995) awaiting final processing into a 3013 container and shipment to Savannah River.

5. Management Team Roles and Responsibilities

This materials stabilization project is under the direction of PFP Senior Director. Support for the project activities is provided by various support groups within the PFP organization.

5.1 Program Manager

The Program Manager is responsible for:

- Maintenance of the IPMP, PMPs, and the Multi-Year Work Plan to establish the technical schedule and cost baseline for all projects within the PFP.
- Selecting, directing, and monitoring performance of project managers.
- Establishing overall objectives, scope, and direction for each project and the working interfaces between the projects.
- Providing monthly project status reports for technical, schedule, and cost performance.
- Approves changes to the PMPs involving schedule delays and funding shifts.
- Ensure that the project meets applicable safety, health, and environmental requirements.
5.2 Project Manager

The Project Manager is responsible for completing the project as planned. Specific responsibilities include:

- Selecting and directing Cost Account Managers responsible for delivering discrete products and services defined by assigned WBS elements.
- Providing monthly project status of performance to the Program Manager.
- Planning, managing, and maintaining the technical, schedule, and cost baselines for the project.
- Approve changes to the PMP which do not involve schedule delays or funding shifts.
- Control the configuration of the PMP.

5.3 Cost Account Managers

Cost Account Managers identified for each WBS element are responsible for the following:

- Planning and completing the applicable cost account work scope in accordance with the technical, schedule, and cost baselines established in this plan.
- Performing work in a manner that meets the project's data quality objectives.
- Evaluating and reporting monthly cost account status to the project manager.
- Directing and working with work package managers to complete the work packages as planned.

5.4 Operations and Support Group Managers

Operations and Support Group Managers are responsible for:

- Achieving operational safety and compliance with permit requirements.
- Maintaining required operational efficiencies to achieve project objectives.
- Performing work in a manner that meets the project's cost, schedule, and quality objectives.
6. Schedules (Baseline)

The currently approved baseline for the PFP Stabilization Project is contained in the PFP Stabilization and Deactivation Project IPMP. The schedule for Materials Stabilization is attached as Appendix C.

7. Cost Estimate

An Activity based cost (ABC) estimating technique was used to develop the costs provided in the Materials Stabilization Project Baseline Plan and Estimate. That ABC estimate was independently validated. The cost summary for stabilization of Materials Stabilization is attached as Appendix D.

8. Quality Assurance

PFP is subject to the requirements of Title 10, Code of Federal Regulations, Part 830-120, "Quality Assurance Requirements," and complies with the applicable requirements described in the Project Hanford QAPD, HNF-MP-599. Appendix A, "QAPD Requirements Applicability Matrix," of the PFP QAPP (FSP-PFP-5-8, Section 15.1) identifies QAPD requirements that apply to each PFP organization.

9. Systems Engineering Plan

Systems Engineering techniques that have been and will be utilized for this project include:

A) Logic diagrams will be developed for the project steps and material processes related to the material stabilization and disposition subprojects. The logic elements will be linked with information related to requirements, information needs, reporting, and other key attributes.

B) Simulations, performance measurement, and other analytical methods will provide optimization as the project proceeds. The targets of the optimization are: 1) decisions related to scheduling and management of resources for materials stabilization and disposition, and 2) tuning of the materials stabilization processes for improved performance.

C) A material database will be established and maintained to manage information related to material processing and disposition.
10. Security

The PFP security program addresses the following security aspects: physical protection of special nuclear material (SNM), nuclear material accountability and control, access control requirements, human reliability program protection, shipments and movement of SNM and storage of SNM.

11. Project Management Plan Controls

The Materials Stabilization Project Manager will be responsible for insuring the Materials Stabilization Project Management Plan and its supporting schedules and estimates are kept current. A system to control changes will be implemented as part of the PFP IPMP controls. The Project Manager and the Program Manager will review and approve all changes to the Materials Stabilization PMP. For changes that do not involve moving funding or changing funding or changing schedule, the Project Manager will have authority to approve changes. Operations, Engineering, ESH&Q, and the Director will be asked to provide input on changes being considered. The electronic version of the PMP and IPMP will be maintained current. Hardcopy versions will be printed as required using a graded approach based upon the impact of the changes made. Issues will be tracked using the Issues Management List. Project reviews on the project commitments will be held monthly. Configuration Control of the Project Management Plan will comply with HNF-PRO-522, Change Control.
Stabilize and Disposition Pu Bearing
Solid Residues > 30 wt %
Pu Metal Upper Level
1.04.05.01.13.01.01
Stabilize and Disposition Pu Bearing

Solid Residues > 30 wt %

Alloys, Upper Level

1.04.05.01.03.02

Through Project Completion

Perfect Project Management

Provide Process Support

Transfer Alloys to ACR

Transfer Alloys from Waste Storage Area

Characterize Alloys

Transfer Packaged Pu Bearing Alloys to Storage YFR-U
Stabilize and Disposition Pu Bearing
Solid Residues > 30 wt %
Pu-Oxides/MOX (234-5Z) Upper Level
1.04.05.01.13.01.03
Appendix B

Materials Stabilization
Work Breakdown Structure
(WBS)
Plutonium Finishing Plant Program
1.04.05.01

Stabilize Nuclear Materials
1.04.05.01.13

Stabilize Pu-Bearing Solid Residues with >30 wt% Pu
1.04.05.01.13.01

Stabilize Pu Metal
1.04.05.01.13.01.01

Characterize Pu Metal
1.04.05.01.13.01.01.01

Transfer & Process Metal
1.04.05.01.13.01.01.02

Transfer Feed from Vault Storage to Process Area
1.04.05.01.13.01.01.02.01

Stabilize Metal
1.04.05.01.13.01.01.02.02

Transfer Metal Item to HC-21A
1.04.05.01.13.01.01.02.02.01

Prepare Metal for Repackaging
1.04.05.01.13.01.01.02.02.02

Package Metal
1.04.05.01.13.01.01.02.02.03

Stabilize Corrosion Products
1.04.05.01.13.01.01.02.02.04

Solid Waste Handling
1.04.05.01.13.01.01.02.02.05

Provide Process Specific Support
1.04.05.01.13.01.01.04

Provide Project Specific Management
1.04.05.01.13.01.01.05
Plutonium Finishing Plant Program

- Stabilize Nuclear Materials
  1.04.05.01.13
- Stabilize Pu-Bearing Solid Residues with >30 wt% Pu
  1.04.05.01.13.01
- Stabilize Pu/U & Other
  (Zr, Mb, Th, Al, etc.)
  Alloys
  1.04.05.01.13.01.02

  Characterize Pu Alloys
  1.04.05.01.13.01.02.01

  Transfer & Process Pu Alloys
  1.04.05.01.13.01.02.02

  Transfer Feed from Vault
  Storage to Process Area
  1.04.05.01.13.01.02.02.01

  Stabilize Alloys
  1.04.05.01.13.01.02.02.02

  Transfer Alloy Item to
  HC-21A
  1.04.05.01.13.01.02.02.02.01

  Prepare Alloy for
  Repackaging
  1.04.05.01.13.01.02.02.02.02

  Package Alloy
  1.04.05.01.13.01.02.02.02.03

  Stabilize Corrosion
  Products
  1.04.05.01.13.01.02.02.02.04

  Solid Waste Handling
  1.04.05.01.13.01.02.02.02.05

  Provide Process Specific
  Support
  1.04.05.01.13.01.02.04

  Provide Project Specific
  Management
  1.04.05.01.13.01.02.05
Residues with >30 wt% Pu:
- Characterize Pu Oxides
- Transfer & Process Oxides
- Transfer Feed from Vault Storage to Process Area
- Stabilize Oxides
- Transfer Oxide/MOX Item to HC-21A
- Prepare Feed for Stabilization
- Transfer Charge from HC-21A to Muffle Furnace
- Thermally Stabilize Feed
- Remove Product from Muffle Furnace
- Perform Product Handling
- Package Product
- Solid Waste Handling
- Provide Process Specific Support
- Provide Project Specific Management
Plutonium Finishing Plant Program
1.04.05.01

Stabilize Nuclear Materials
1.04.05.01.13

Stabilize Pu-Bearing Solid Residues with >30 wt% Pu
1.04.05.01.13.01

Provide Process Support
1.04.05.01.13.01.07

Provide Safety Systems
1.04.05.01.13.01.07.01

Provide HVAC
1.04.05.01.13.01.07.02

Provide Security System
1.04.05.01.13.01.07.03

Provide Utilities
1.04.05.01.13.01.07.04

Provide Structures
1.04.05.01.13.01.07.05

Provide Containment Systems
1.04.05.01.13.01.07.06

Provide Thermal Stabilization Process Equipment
1.04.05.01.13.01.07.07

Maintain Systems
1.04.05.01.13.01.07.08

Provide Laboratory Support
1.04.05.01.13.01.07.09
Appendix C

Materials Stabilization Process Schedule
### Install Bagless Transfer System
- **Activity ID**: FABD10
- **Activity Description**: NEPA Evaluation *
- **Current Start**: 01DEC99
- **Current Finish**: 30SEP99
- **Duration**: 100 %

- **Activity ID**: FAIGE46
- **Activity Description**: Perform ALARA/Dose Assessment *
- **Current Start**: 01OCT99
- **Current Finish**: 28OCT99
- **Progress**: 54 %

- **Activity ID**: FAIG5.5
- **Activity Description**: Install Bagless Transfer System *
- **Current Start**: 02FEB99
- **Current Finish**: 28APR99

- **Activity ID**: FAIG
- **Activity Description**: Provide Packaging System *
- **Current Start**: 02FEB99
- **Current Finish**: 02AUG99

- **Activity ID**: FAACE10
- **Activity Description**: Perform BTS Start Up Review *
- **Current Start**: 03AUG99
- **Current Finish**: 05OCT99

### Stabilize Pu Metal
- **Activity ID**: EAAK2.2
- **Activity Description**: Perform Task Specific Criticality Analysis Metal
- **Current Start**: 11JAN00
- **Current Finish**: 23JUN00

- **Activity ID**: EAAE5060
- **Activity Description**: Prepare Activity Specific Procedures Mitc
- **Current Start**: 11JAN00
- **Current Finish**: 07FEB00

- **Activity ID**: EAAE9241
- **Activity Description**: Metal Processing Startup Review
- **Current Start**: 24JUN00
- **Current Finish**: 15AUG00

- **Activity ID**: EAAEF14
- **Activity Description**: Prepare Metal for Repackaging
- **Current Start**: 31OCT99
- **Current Finish**: 23MAR01

### Disposition Fluoride Compounds
- **Activity ID**: FIDFF14
- **Activity Description**: Repackage Pu Fluoride Compounds for Shipping *
- **Current Start**: 19OCT99
- **Current Finish**: 02NOV99

### Disposition Aluminum Alloys
- **Activity ID**: FIDFFI0
- **Activity Description**: Repackage & Ship Al Alloys to SNF *
- **Current Start**: 06NOV99
- **Current Finish**: 25JAN01

### Stabilize Pu Alloys
- **Activity ID**: EABR3.2
- **Activity Description**: Air Permitting Regulatory Activities
- **Current Start**: 01OCT99
- **Current Finish**: 27NOV99

- **Activity ID**: EABR2.2
- **Activity Description**: Stabilize Alloys
- **Current Start**: 26MAR01
- **Current Finish**: 11MAY01

### Stabilize Pu Oxides/MOX
- **Activity ID**: EACCH50
- **Activity Description**: Furnace Prep Checks/Stabilize Mat'l & Monitor
- **Current Start**: 01OCT99
- **Current Finish**: 30JUN00

- **Activity ID**: EACCI572
- **Activity Description**: Conduct USQ Evaluation 3 new Furnaces
- **Current Start**: 05OCT99
- **Current Finish**: 01NOV99

- **Activity ID**: EACE620
- **Activity Description**: Perform Task Specific Criticality Analysis
- **Current Start**: 06OCT99
- **Current Finish**: 20JAN00

- **Activity ID**: EACGC12
- **Activity Description**: Start Up Review 3 New Furnaces
- **Current Start**: 08MAY99
- **Current Finish**: 05JUN00

- **Activity ID**: EACMD50
- **Activity Description**: Furnace Prep. Checks/Stabilize Mat'l & Monitor
- **Current Start**: 21JAN02
- **Current Finish**: 02MAR04

- **Activity ID**: EABD
- **Activity Description**: Transfer & Process Pu Oxides/MOX
- **Current Start**: 14MAY02
- **Current Finish**: 11OCT04

### Disposition Stabilized Product
- **Activity ID**: FIDBL14
- **Activity Description**: Transport 3013 Containers to SNF *
- **Current Start**: 06SEP99
- **Current Finish**: 19DEC99

---

* Included for clarity. Not within the scope of this project management plan.
Appendix D

Materials Stabilization Process
Cost Summary
## Materials Stabilization

<table>
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<tr>
<th>Materials Stabilization</th>
<th>Data</th>
<th>Total</th>
</tr>
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<td><strong>Total</strong></td>
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<td>$519,714</td>
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<tr>
<td>Provide Process Support</td>
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<td>Transfer &amp; Process Pu Metal</td>
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<td>Transfer &amp; Process Pu Metal</td>
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<td>Perform Project Specific Management</td>
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### Notes
- D-2