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OPERABLE UNIT 3 - FACILITIES CLOSURE AND DEMOLITION PROJECT
FACT SHEET - SEPTEMBER 1996

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FACT SHEET

Operable Unit 3

Facilities Closure and Demolition Project

September 1996

Introduction

When Fernald was producing high-purity uranium metal for U.S. defense programs and processing thorium to support other DOE programs, large quantities of radioactive materials and some hazardous chemicals were used in various facilities.

Operable Unit 3 includes the 200 former uranium processing facilities and equipment within the 136-acre former production area at the Fernald site, as well as other site man-made facilities. Operable Unit 3's cleanup mission is to remove legacy nuclear materials currently stored in the Fernald's buildings, clean out the buildings and equipment, and decontaminate and dismantle these facilities.

Building removal is planned to coincide with soil excavation in adjacent areas of the site to minimize the staging duration of materials prior to disposal.

Removal of the buildings is a vital component of Fernald's accelerated cleanup schedule because the soil under buildings is needed for construction of the On-Site Disposal Facility.

Operable Units

To facilitate cleanup, the Fernald Environmental Management Project (FEMP) was divided into five sections, known as operable units, based on their locations or the potential for similar technologies to be used in the ultimate cleanup.

In October 1995, DOE's cleanup contractor at the FEMP, the Fernald Environmental Restoration Management Corp. – now known as Fluor Daniel Fernald – changed the organization of how the operable units were divided among technical teams to permit more efficient performance of remedial design and remedial action activities. All regulatory agreements and documentation requirements for the operable units remain in effect.

The Facilities Closure and Demolition Project team addresses above-grade D&D activities, while at- and below-grade D&D activities are managed by the Soils Remediation Project Team.

Interim Remedial Action

Record of Decision for Interim Action

Due to concerns of potential human health and environmental risks from deteriorating buildings and structures in the former production area, Fernald pursued an interim remedial cleanup action in 1993-94 to accelerate D&D by several years and save taxpayers millions of dollars.

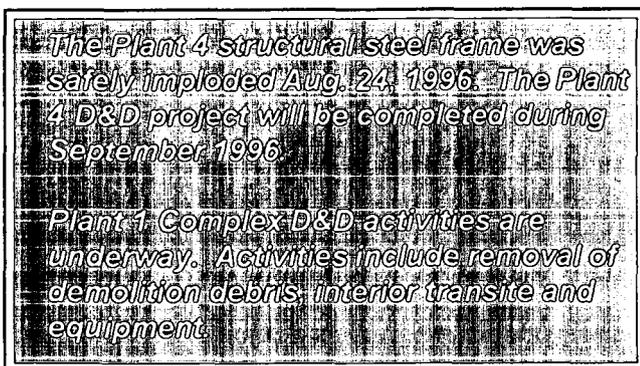
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Following extensive public involvement, the U.S. Environmental Protection Agency (EPA) approved the fast-track cleanup plan and signed the *Operable Unit 3 Record of Decision for Interim Remedial Action and Responsiveness Summary* in July 1994.

The interim remedial action also provides for temporary on-site storage of bulk rubble and debris from dismantlement activities, as well as final off-site disposition of a limited portion of the debris. A determination of final disposition of rubble and debris from the interim remedial action is included in Operable Unit 3's record of decision for final remedial action.

Remedial Design/Remedial Action

In February 1995, U.S. EPA approved the *Operable Unit 3 Remedial Design/Remedial Action Work Plan for Interim Remedial Action* and the first design implementation plan for



dismantling Plant 4.

In June 1995, EPA approved the *Operable Unit 3 Prioritization and Sequencing Report*, which presented the framework used to determine the priority and sequence of remediating Fernald structures. Dates for submitting implementation plans for future D&D projects were revised, based on Fernald's accelerated remediation schedule. In June 1996, U.S. EPA approved these dates.

U.S. EPA also approved the *Plant 1 Complex Phase I Implementation Plan* in February 1996.

In October 1995, the DOE Morgantown Energy Technology Center D&D Focus Area selected Fernald's proposal for a large-scale D&D demonstration project as one of four proposals to receive funding for technology demonstrations.

Under the proposal, DOE, Fluor Daniel Fernald and contractors will partner with DOE's Office of Science and Technology to demonstrate innovative technologies for removing structures associated with the Plant 1 Complex. This activity will be coordinated with the existing D&D contract to provide a realistic test for innovative technologies alongside technologies currently in use.

After reviewing 38 candidate technologies, DOE approved the following three technologies for the Plant 1 Demonstration Project: a vacuum technology, which will be used to remove material wool located in transite-sided buildings; a sponge cleaning technology; and a steam cleaning technology, which will be used to clean contaminated equipment. DOE is currently considering additional technologies for the project.

Final Remedial Action

Remedial Investigation/Feasibility Study
Operable Unit 3 remedial investigation/feasibility study (RI/FS) activities included a planning phase (RI/FS work plan addendum), a field investigation phase, a treatability study and technology evaluation phase and an option evaluation phase (RI/FS report). These activities have already been completed for the Operable Unit 3 project. As described in the resulting *Operable Unit 3 Operable Unit 3 Proposed Plan for Final Remedial Action*, the ongoing activities in Operable Unit 3 were coordinated with the final disposition proposals for Operable Unit 3 materials.

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The 30-day public comment period for the Operable Unit 3 proposed plan was conducted April 3 through May 2, 1996, and a public meeting to receive comments on the document was held April 23.

The draft *Record of Decision For Final Remedial Action*, which addressed public comments received, was submitted to U.S. EPA on June 27, 1996. Following U.S. EPA's conditional approval of the record of decision, the document was submitted for final approval and signature on Aug. 23, 1996. Signature approval of the final document is anticipated in September 1996.

Ongoing Removal Action Activities

During the RI/FS, certain conditions which required early action to address releases or potential releases of hazardous substances to the environment were identified. These actions are called removal actions.

As a result of using removal actions to address immediate threats and dividing the Operable Unit 3 remedy process into two phases, the decision process has been accelerated by more than three years. Operable Unit 3 removal actions are virtually complete.

Removal of Waste Inventories (9): This removal action involves the characterization, overpacking, and disposition of low-level radioactive waste materials. The DOE Nevada Field Office approved disposal of Fernald's general waste streams at the Nevada Test Site (NTS). The waste streams include: process area scrap wastes (scrap metal and wood); construction and removal action wastes (demolition debris); uranium production residues; baled trash; processed metal waste; and thorium wastes.

After completing its fiscal year 1995 (October 1994 to September 1995) waste shipping goal early, Fernald temporarily suspended fiscal year 1996 waste shipments to NTS in September 1995, until final resolution of Fernald's fiscal year 1996 budget was achieved. Fernald resumed waste shipments to NTS in December. The fiscal year 1996 goal is to ship 309,000 cubic feet of waste to NTS.

As of September 1996, 75 percent of the Uranyl Nitrate Hexahydrate (UNH) Project has been shipped to NTS.

Proposed disposition decisions for Operable Unit 3 materials were based on the "balanced approach." The approach involves balancing the off-site disposal of smaller quantities of contaminated materials with on-site disposal of larger quantities of lower-contaminated materials.

Safe Shutdown (12): This removal action was initiated to ensure the safe, permanent shutdown of former production area facilities, as well as the removal of uranium and other process/raw materials and waste materials from equipment, lines and duct work. On June 14, 1996, Safe Shutdown activities were completed in the Pilot Plant. Plant 5 Safe Shutdown activities are underway; advance planning for Plant 2/3 is scheduled for completion on Sept. 30, 1996.

Scrap Metal Piles (15): Field work was completed in 1994; however, several activities regarding potential beneficial reuse of the scrap copper, remain. Field work involved containerization of 1,400 tons of scrap copper and about 2,270 tons of recoverable stockpiled ferrous and nonferrous scrap metal to eliminate potential environmental threats.

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The normal uranium shipments, expected to be completed by the end of fiscal year 1996, will mark the removal of essentially all of the normal uranium portion of the FEMP's total nuclear material inventory.

In early September 1996, two of 103 boxes of copper wire covered with asbestos insulation were shipped to Manufacturing Science Corp. in Pennsylvania. The amount of copper sent was approximately 30,000 pounds. The copper will be used by Manufacturing Science Corp. to perform a pilot study to test the economic feasibility of recycling the remaining copper currently stored in boxes at the FEMP. Pending the outcome of the study, an informed decision will be made regarding the disposition of the copper.

Improved Storage of Soil and Debris (17): This removal action addresses contaminated soil and debris resulting from continued construction and maintenance projects, removal actions, and remedial actions at the site. Fernald is revising the removal action work plan to develop an interim sitewide soil and debris management program. This program will facilitate integrated implementation of Fernald's records of decision, as well as individual remedial action plans, prior to disposition of remedial-action-generated waste at the On-Site Disposal Facility or to an approved off-site treatment/disposal facility.

Upon approval by U.S. EPA, the revised work plan will be effective until the disposal facility is operational and appropriate remedial action is implemented.

Asbestos Removals (26): This removal action documents Fernald's ongoing activities to manage asbestos in place and to mitigate the potential for asbestos fiber release. Fluor Daniel Fernald has encapsulated broken transite on various buildings and wet-wrapped pipeline open ends to mitigate immediate hazards.

Hazardous Waste Management Units (HWMU) Information

Under Ohio EPA regulation, Fernald has completed field work for closure for all 13 HWMUs to be closed under RCRA. Of the 13, two HWMUs are pending Ohio EPA certification report approval; 11 HWMUs have received Ohio EPA closure certification approval.

For More Information

Contact the Public Environmental Information Center (PEIC) - 10845 Hamilton-Cleves Highway, Harrison, Ohio 45030 (phone: 513-738-0164)

For specific questions regarding Operable Unit 3, contact DOE-FEMP Operable Unit 3 Team Leader John Trygler, 513-648-3154.