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PROGRESS REPORT OPERABLE UNIT 1 WASTE PIT AREA FEBRUARY 1994

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FACT SHEET

Remedial Investigation/ Feasibility Study

FERNALD
Environmental Management Project

PROGRESS REPORT

FEBRUARY 1994

Operable Unit 1
WASTE PIT AREA

Dave Lojek
DOE Manager,
Operable Unit 1
648-3127

Introduction

The Remedial Investigation/Feasibility Study (RI/FS) is the blueprint for cleanup at the U.S. Department of Energy's Fernald Environmental Management Project. The objective of the Remedial Investigation is developing a comprehensive understanding of the nature of the stored waste materials, the extent to which they have impacted the surrounding environment, and the potential threat that the materials and impacted media pose to human health and the environment.

The Feasibility Study will utilize the data provided in the Remedial Investigation report to develop and evaluate alternatives for reducing risk to human health and the environment to an acceptable level.

To promote a more structured and expeditious cleanup of the Fernald site, the facility and the environmental issues associated with it have been segmented into five operable units. An operable unit is a term used to identify a logical grouping of environmental issues at a cleanup site. Separate RI/FS documentation, including RI and FS reports and Records of Decision, will be issued for each of Fernald's five operable units.

Records of Decision are issued by the U.S. EPA announcing preferred cleanup alternatives and reasons for their selection.

Following is a progress report on Operable Unit 1 including its history, the current status of RI/FS activities, and cleanup alternatives under consideration.

Background

Operable Unit 1 consists of Waste Pits 1, 2, 3, 4, 5, and 6; the Burn Pit (used for the disposal and burning of waste); the Clearwell (a settling basin for surface water runoff); miscellaneous structures and facilities such as berms, liners, concrete pads, underground piping, utilities, railroad tracks, fencing; and soil within the Operable Unit 1 boundary.

Operable Unit 1 is located in the northwest quadrant of the Fernald site (west of the former production area) and covers approximately 37 acres. Paddy's Run, an intermittent tributary of the Great Miami River, runs along the west side of Fernald property between Operable Unit 1 and the site boundary. Two types of disposal methods were generally used in placing wastes into the pits: (1) a "wet" system for slurries where the wastes were pumped to the pit, and (2) "dry" backfill-type operations.

The six waste pits, built between 1952 and 1979, were used for storing low-level radioactive wastes generated by the various chemical and metallurgical processes used at the facility for uranium production operations. No waste has been placed in any of the pits since the mid-1980s.

Waste Pits 1, 2, and 3 are covered with soil. Waste Pit 4 is covered with bentonite clay and a synthetic cover. Waste Pits 5 and 6 are lined with synthetic membranes and have a water cover. The pits range in size from that of a baseball diamond to a football field and vary in depth from 13 to 30 feet. It is estimated that the six pits contain approximately 473,000 cubic yards of waste.

RI/FS Activities

The Remedial Investigation (RI) report for Operable Unit 1 was submitted to U.S. EPA on October 4, 1993. The RI Report provides details about the nature and extent of contamination in Operable Unit 1 and establishes remedial action

objectives. The report also includes a Baseline Risk Assessment for Operable Unit 1. This Baseline Risk Assessment evaluates the pathways of exposure for existing conditions prior to any remedial activities in Operable Unit 1.

DOE received the initial submittal of comments from the U.S. EPA and Ohio EPA on December 6, 1993. The U.S. EPA disapproved the Operable Unit 1 RI report with comments. Final U.S. EPA comments on the Operable Unit 1 RI-Risk Assessment were received December 20, 1993. On January 4, 1994, DOE requested a 20-day extension on the re-submittal of the RI document, consistent with the terms of the 1991 Amended Consent Agreement between DOE and the U.S. EPA. With this extension, the due date for re-submittal of the RI document to the U.S. EPA was February 8, 1994. The Draft Final RI Report for Operable Unit 1, addressing EPA comments, was submitted to the U.S. EPA and Ohio EPA on February 4, 1994, for approval.

The Feasibility Study/Proposed Plan (FS/PP) report for Operable Unit 1 is on schedule to be submitted to the U.S. EPA by March 7, 1994. Data obtained from the Remedial Investigation is used during the Feasibility Study to identify potential treatment and remedial technology options, screen those options, and assemble the information into a cleanup alternative for the waste pit area.

Cleanup Alternatives

Various alternatives -- along with the no action option -- will be carried forward for detailed analysis in the FS. Operational scenarios for the alternatives are being developed to support cost estimates and evaluation. The operational scenarios examine all aspects of the remedial action, including excavation, dewatering, material handling, various types of waste pre-treatment and treatments, waste disposal and transportation.

In general, the options being developed for Operable Unit 1 call for waste excavation, some type of treatment or combination of treatment, and either on- or off-site disposal.

Shortly after the submittal of the FS to the U.S. EPA, DOE will hold a public workshop discussing how the remedial action alternatives for Operable Unit 1 were developed and evaluated.

For More Information

Additional information about Operable Unit 1 is available in the Public Environmental Information Center (PEIC), where Fernald Project cleanup documents are kept in the Administrative Record. The PEIC is located in the JAMTEK building, 10845 Hamilton-Cleves Highway, Harrison, Ohio, 45030. The telephone number is (513) 738-0164. The hours are 9 a.m. to 8 p.m. Monday and Thursday; 9 a.m. to 4:30 p.m. Tuesday, Wednesday, and Friday, and 9 a.m. to 1 p.m. Saturday.