

2933


— G-000-1006.24 —

**PROGRESS REPORT OPERABLE UNIT 2 OTHER
WASTE UNITS FEBRUARY 1992**

XX/XX/XX

**2
FACT SHEET**



Operable Unit 2 OTHER WASTE UNITS

Johnny Reising
DOE Manager,
Operable Unit 2
738-9083

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 (FEMP). The nature and extent of contamination at the FEMP and surrounding areas is being thoroughly investigated so that appropriate remedial actions can be formulated and implemented.

The FEMP has been divided into five sections, known as Operable Units, for environmental investigation and cleanup. The Operable Units were defined based on their location or the potential for similar technologies to be used in the ultimate cleanup.

During the course of the RI/FS effort, certain conditions are occasionally identified which call for more immediate action. These actions are called "Removal Actions" and are initiated when there is a need to accelerate cleanup activities to address releases or potential releases of hazardous substances. Removal Actions are coordinated with the U.S. EPA and the Ohio EPA.

Following is a progress report on Operable Unit 2 including its history, the current status of RI/FS activities, cleanup alternatives under consideration, and work being done to alleviate near-term concerns.

Background

Operable Unit 2 includes the sanitary landfill, lime sludge ponds, inactive flyash disposal area, active flyash pile and the southfield area. These areas were used to dispose of flyash, spent lime, sanitary waste and construction rubble from past operations at the FEMP. Operable Unit 2 contains large volumes of waste materials with relatively low concentrations of radioactive and chemical contaminants. While uranium is the primary contaminant, investigations are in progress to confirm that elevated concentrations of other hazardous constituents are not present within Operable Unit 2 facilities.

RI/FS Activities

Sampling: Samples to support the Operable Unit 2 RI/FS have been obtained from all of the waste facilities. These samples were collected to supplement existing characterization data available for these facilities. The samples have been analyzed for radiological and chemical constituents. Data results will be used to support waste treatment studies and ongoing modeling efforts.

Analytical data from the off-site laboratory is presently undergoing validation prior to use in RI/FS documents. Data validation is expected to be completed in February 1992.

An investigation is in progress to determine the extent of lead in soils at the Firing Range, an isolated area formerly used by site armed security personnel for weapons qualifications. Soil sampling at the Firing Range was initiated on January 29, 1992. Results from sampling analyses will be used to support the RI/FS and determine whether a Removal Action is required at the Firing Range.

Reports: The U.S. EPA approved the Operable Unit 2 Treatability Study Work Plan on November 25, 1991. Treatability studies are performed during the RI/FS to establish whether identified waste treatment technologies are effective when applied to FEMP waste material. Data generated by the study will be used to support Operable Unit 2 treatment technology selection and remedy implementation.

Operable Unit 2 treatability investigations are focused on the application of cement-based solidification to Operable Unit 2 waste material. A three-stage treatability study is in progress at the IT Environmental Technology Development Center. The final stage of treatability has been initiated, and samples are undergoing leachate analysis and permeability testing.

The compilation of other Operable Unit 2 RI/FS reports, including the Remedial Investigation Report and Feasibility Study Report, are proceeding consistent with the schedules set forth in the 1991

Amended Consent Agreement.

Remedial Design: In order to provide for the prompt implementation of remedial action following issuance of the Record of Decision for Operable Unit 2, conceptual design engineering has been initiated to examine remedial candidates for each Operable Unit 2 waste unit. Conceptual engineering was initiated for purposes of establishing preliminary design parameters and cost estimates.

Removal Actions

Inactive Flyash Pile Control (Removal No. 8): This Removal Action focuses on radiological surface contamination in the Inactive Flyash Pile/Other South Field Disposal Areas. The objective of this Removal Action is to limit access to the area. U.S. EPA approved the work plan for this Removal Action on November 19, 1991. As part of this Removal Action, warning signs have been erected around the area, and the installation of a chain-link barrier around the perimeter of the Inactive Flyash Pile/Other South Field Disposal Areas was completed on December 23, 1991, to restrict access.

Active Flyash Pile Controls (Removal No. 10): The objective of this Removal Action is to mitigate potential wind and water erosion at the Active Flyash Pile. As an intermediate step, water is being applied to the Active Flyash Pile as needed during dry weather to reduce fugitive emissions. A report summarizing the results of a technical review of

current utility industry practices for disposing of flyash was submitted to the U.S. EPA. The report was completed consistent with the terms of the 1991 Amended Consent Agreement to examine viable technologies for possible application to the Active Flyash Pile Control Removal Action. Preparation of the work plan for this Removal Action is on schedule for submittal to the U.S. EPA on or before March 2, 1992.

Cleanup Alternatives

Several cleanup options have been evaluated for Operable Unit 2. One method would entail placing a cover over the wastes to cap them in place and prevent stormwater runoff from carrying contaminants to groundwater and surface waterways.

Under a second alternative, contaminated water located beneath the waste units would be isolated, removed, and treated before being discharged to the Great Miami River. Then a cover would be placed over the waste units as a final step.

Other options include removing the waste, treating it, and either disposing of it in an engineered structure at the FEMP or transporting it to an approved off-site waste disposal facility.

More information about Operable Unit 2 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.