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**ADDENDUM TO THE RI/FS COMMUNITY RELATIONS PLAN FOR
REMOVAL ACTION NO. 29 - EROSION CONTROL AT THE INACTIVE
FLYASH PILE**

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ADDENDUM

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TO THE
RI/FS COMMUNITY RELATIONS PLAN
FOR REMOVAL ACTION No. 29
Erosion Control at the Inactive Flyash Pile

Fernald Environmental Management Project
Fernald, Ohio

U.S. Department of Energy
Fernald Field Office

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TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
List of Acronyms	ii
Introduction	1
Objectives	2
Background	3
Overview of Community Concerns	4
Highlights of Community Relations Activities	4
Timetable	5
References	6

LIST OF ACRONYMS

CERCLA:	Comprehensive Environmental Response, Compensation, and Liability Act [of 1980] (also known as Superfund)
CRP:	Community Relations Plan
DOE:	U.S. Department of Energy
EPA:	U.S. Environmental Protection Agency
EE/CA:	engineering evaluation/cost analysis
FEMP:	Fernald Environmental Management Project (formerly the Feed Materials Production Center)
FFCA:	Federal Facility Compliance Agreement
NCP:	National Oil and Hazardous Substances Pollution Contingency Plan [of 1990]
RI/FS:	remedial investigation and feasibility study
SARA:	Superfund Amendments and Reauthorization Act [of 1986]

Introduction

This document is prepared as an addendum to the Fernald Environmental Management Project (FEMP) Remedial Investigation and Feasibility Study (RI/FS) Community Relations Plan (CRP), dated August 1992. This addendum addresses the Erosion Control at the Inactive Flyash Pile Removal Action.

This removal action is being conducted pursuant to the laws, regulations and agreements listed below, and will comply with the provisions of each:

- The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), also known as Superfund, that provides for the investigation and cleanup of uncontrolled hazardous waste sites
 - The Superfund Amendments and Reauthorization Act of 1986 (SARA) that renewed and updated CERCLA
 - The National Oil and Hazardous Substances Pollution Contingency Plan of 1990 (NCP) that spells out how CERCLA and SARA will be implemented
 - The Federal Facility Compliance Agreement of 1986 (FFCA) between the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA) that provides for the investigation and cleanup of environmental impacts from past and present activities at the FEMP
 - The Consent Agreement of 1990 that amended the FFCA and fostered consistency among the operable unit concept and the current commitments of the RI/FS program without modifying the underlying objectives
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- The Amended Consent Agreement of 1991 that establishes definitions and schedules for completion of RI/FS documents for the five operable units and identifies additional specific removal actions at the FEMP

The 1990 Consent Agreement specified four removal actions and provided for the identification of three more; these seven are now referred to as the Phase I Removal Actions. The Amended Consent Agreement for the FEMP, signed on September 20 and effective on December 19, 1991, specified 11 additional removal actions, referred to as Phase II Removal Actions.

On January 14, 1992 six more removal actions, known as Phase III Removal Actions, were approved by EPA and three emergency removal actions were initiated. On January 14, 1993 three more removal actions, known as Phase IV Removal Actions, were approved by EPA; however, in May 1993 DOE requested that two of the original Phase IV Removal Actions be eliminated and one removal action recently initiated, be added. EPA approved this recommendation and the four phases now total 29 separate, sequentially numbered removal actions. DOE may identify additional removal actions each year by January 15, if needed.

Objectives

The objective of removal actions under CERCLA and the NCP is to "... take appropriate action to abate, stabilize, mitigate, or eliminate the release or threat of release..." of hazardous materials or waste in a manner that reduces or eliminates the threat to public health, welfare or the environment. Removal actions are emergency or short-term response to immediate threats.

Removal Actions can be divided into three general categories: emergency, time critical, and non-time critical. They are as follows:

- Emergency removal actions call for an immediate response. These actions generally last less than 30 days. An Administrative Record file must be established and affected citizens notified of the Administrative Record.
- Time critical removal actions have a planning period of less than six months. An Administrative Record is established and affected citizens are notified of the Administrative Record. If on-site actions expand beyond 120 days, an addendum to the FEMP CRP is required.
- Non-time critical removal actions have a planning period of at least six months. An engineering evaluation/cost analysis (EE/CA) is required. An Administrative Record is established. The public is notified of the Administrative Record and a public comment on the proposed action is held. A responsiveness summary and the addendum to the CRP are completed prior to the EE/CA Approval Memorandum.

The specific objective of the Removal Action for Erosion Control at the Inactive Flyash Pile was to protect human health and the environment by providing bank stabilization at Paddys Run, adjacent to the Inactive Flyash Pile. Observed erosion in this area, if allowed to continue, would have resulted in the release of waste into Paddys Run. A Removal Site Evaluation (RSE) was performed and indicated that a time critical removal action was appropriate to control the erosion of the stream bank. A RSE is an

evaluation of present conditions of an area suspected of posing an immediate threat to human health or the environment. The removal action was accomplished through a phased approach consisting of an interim bank stabilization, geotechnical field investigation and analysis and a final bank stabilization.

The interim action consisted of the construction of a new access roadway to the IAFAP and the installation of a rock berm at the left descending bank of Paddys Run, adjacent to the IAFAP. This activity stabilized the bank until the geotechnical investigation and analyses could be performed. The rock berm was installed by placing limestone in the stream bed along approximately 220 feet of bank. The dimensions of the berm upon completion of this interim phase was approximately 220 feet long x 10 feet wide(top) x 7 feet high.

An alternatives assessment was performed based on the results of geotechnical borings and a comparison of the various alternative stability factors. The results of this assessment indicated that up to three additional feet in berm height and additional toe protection of the berm would be required to provide long term protection.

Background

Flyash and bottom ash from the FEMP's coal-fired boiler plant and other material were deposited in the IAFAP area from 1952 to approximately 1968. The total quantity of ash (30% flyash and 70% bottom ash) disposed in this area has been estimated at 78,500 cubic yards. Although the area has been covered with soil and natural vegetation has developed, materials such as concrete, steel drum lids and transite are visible at the surface. These materials are particularly evident along the IAFAP and Paddys Run border where geomorphological processes (e.g. erosion due to intermittent stream flow) have impacted the eastern stream bank. In this area, the nearly vertical side walls of the stream bank extend from the stream bed up approximately 15 feet to the vegetated bank near the toe of the IAFAP.

During recent months, above average stream flow has caused an accelerated rate of stream bank erosion. In some locations adjacent to the IAFAP, the sand and gravel side walls of the stream bank have been undercut to form an overhang of soil above it. Portions of the stream bank have slumped into the stream channel in at least three locations.

Although the IAFAP is currently intact, continuation of the erosion process at the current rate (i.e. small and slow displacement of soil) could eventually undermine the pile's western slope, resulting in the discharge of ash and potentially contaminated material into Paddys Run. This particular stretch of Paddys Run represents one of the stream's most prominent meanders. In the outside bend of this meander, the

stream velocities are greatest and turbulent currents are generated. These currents are impacting toe support and render a portion of the IAFAP's western slope susceptible to a slope failure.

A comprehensive radiological survey of the IAFAP was completed by DOE-FN on April 30, 1992. The survey identified surface areas having gross beta/gamma readings of greater than 1,000 DPM/100cm² and gamma radiation levels exceeding 20 uR/hr. Site background levels were established for soils at 60 DPM/100 cm² and 10 uR/hr, respectively. Based on these criteria, eight "contaminated areas" were identified as having fixed or removable contamination exceeding 1,000 DPM/100 cm² or 20 uR/hr. In addition, analytical data for the underlying soil/fill obtained during the OU2 Remedial Investigation show levels of radionuclide contamination above background levels.

A Removal Site Evaluation conducted for the IAFAP indicated uncertainty in predicting when a slope failure might occur at the IAFAP. Circular or wedge failures are believed to be the most likely failure modes to occur. Both modes are extremely rapid with little advance warning. Therefore, an interim bank stabilization action was proposed to control the immediate threat of release. A evaluation was made to determine whether an additional action would be required to provide a long term solution to the IAFAP erosion problem. This evaluation showed that minor additions to the rock berm would provide long term stability.

Overview of Community Concerns

In preparing this addendum, transcripts of community meetings held on: January 31, 1989; May 15, 1989; October 24, 1989; February 20, 1990; May 22, 1990; September 25, 1990; December 11, 1990; March 19, 1991; July 16, 1991; October 29, 1991; February 25, 1992; July 21, 1992; November 9, 1992; February 23, 1993; and June 22, 1993 were reviewed. Also reviewed were transcripts from the RI/FS Environmental Impact Statement scoping meetings held on June 12 and 13, 1990.

A 30-day public comment period for the Erosion Control at the Inactive Flyash Pile Removal Action was held from June 23, 1993 to July 23, 1993. The announcement ran in three local newspapers. There were no oral or written comments submitted.

Highlights of Community Relations Activities

Community concerns regarding the Erosion Control at the Inactive Flyash Pile Removal Action suggest an active FEMP community relations effort with the following objective:

- Maintain an active effort to keep interested community members informed throughout the implementation of the Erosion Control at the Inactive Flyash Pile Removal Action.

The following specific activities have been identified to support the community relations objective for this removal action:

1. Prepare one or more fact sheets or updates for the purpose of providing information about the removal action and answering key concerns about the erosion control at the Inactive Flyash Pile at the FEMP and distribute them at the public meetings.
2. Devote some portion of future community meetings to this issue; update the RI/FS exhibit to include new information as it becomes available. (Community meetings are held at regular intervals on dates selected by DOE.)
3. Include coverage about the Erosion Control at the Inactive Flyash Pile Removal Action in the Fernald Project Cleanup Report as needed during the removal action.
4. Offer a roundtable presentation on the erosion control at the Inactive Flyash Pile.
5. Provide a 24-hour phone line at the FEMP so concerned citizens can contact a FEMP representative during a time of alarm. The number is 513-738-6295, which is FEMP Security.
6. Make appropriate additions to the Administrative Record and publicize their availability at the Public Environmental Information Center, JAMTEK Building, 10845 Hamilton-Cleves Highway, Harrison, Ohio, 45030.

Timetable

The preparation of materials for all community relations activities will be tied to the removal action schedules. For a complete list of schedule dates and activities, please see the Erosion Control at the Inactive Flyash Pile Work Plan, which is in the Administrative Record, located at the Public Environmental Information Center. The activities will be scheduled to provide the maximum flexibility and information to the public. The work plan for this removal action has been approved by EPA. Discussions and updates on the status of the removal action will be given at future public meetings.

REFERENCES

1. (the work plan and any other documents used for information)