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**CATEGORICAL EXCLUSION (CX)
DETERMINATION EMERGENCY REMOVAL
ACTION FOR EROSION CONTROL AT THE
INACTIVE FLYASH PILE NEPA DOC. NO. 422**

DOE-FN/DOE-HQ

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CAT EXC**

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)**CATEGORICAL EXCLUSION (CX) DETERMINATION**

**Emergency Removal Action for Erosion Control
at the Inactive Flyash Pile
NEPA Document No. 422
Fernald Environmental Management Project (FEMP)
Fernald, Ohio**

Proposed Action

The United States Department of Energy (DOE) proposes an Emergency Removal Action to install a weighted berm to control cut bank erosion along Paddys Run Creek which is affecting the stability of the Inactive Flyash Pile (IAFAP).

Location

The IAFAP, a subunit of Operable Unit (OU) 2, is located approximately 2,000 feet southwest of the former FEMP production area and covers approximately 4 acres. Its western boundary, in part, is defined by Paddys Run which parallels the area for approximately 200 feet and eventually flows into the Great Miami River south of the FEMP site. The FEMP site is located 18 miles northwest of downtown Cincinnati, Ohio.

Background

Flyash and bottom ash from the FEMP's coal-fired boiler plant and other materials 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 asbestos containing 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 displacements of soil) could eventually undermine the pile's western slope and over time may result in discharge of ash and potentially contaminated waste and fill into Paddys Run. This particular stretch of Paddys Run represents one of the stream's most prominent meanders. In

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the outside bend of this meander, the stream velocities are greatest and turbulent currents are generated. These currents are impacting toe support and may render a portion of the IAFAP's western slope susceptible to a slope failure. A slope failure could potentially deposit large quantities of waste and fill material into the stream channel of Paddys Run.

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/100 cm² and gamma radiation levels exceeding 20 μR/hr. Site background levels were established for soils at 60 DPM/100 cm² and 10 μR/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 μR/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. However, circular arc and wedge failures are believed to be the most likely failure modes to occur. Both modes are extremely rapid with little advance warning. Therefore, an Emergency Removal Action is proposed to control the immediate threat of release. An evaluation will be made to determine whether an additional Removal Action will be required to provide a more permanent solution to the IAFAP erosion problem. Independent NEPA documentation will be completed for any additional Removal Action as appropriate.

Description of Proposed Action

The proposed action will involve the construction of a new access roadway to the IAFAP and the installation of a weighted berm on the east bank of Paddys Run, adjacent to the IAFAP. This activity will stabilize the bank until the need for Removal and/or Remedial Actions can be evaluated.

Existing access roads will be used from the southwest corner of the west parking lot, past the eastern edge of the IAFAP, down to the cinder running track. Approximately 2,000 feet of the existing access road will be reinforced (e.g., by adding stone) to support the additional construction traffic.

A new construction access road will be installed from the northwest corner of the existing cinder running track, approximately 1,200 feet north to the area where Paddys Run meets the IAFAP. The installation of the access road will involve the following: 1) spraying a biodegradable herbicide on the grassy areas of the new roadway; 2) placing a geotextile fabric on the base of the roadway; 3) placing 3 inches to 4 inches of stone on geotextile fabric (=1280 tons); 4) placing #304 gravel on top of the stone as roadway topping (=834 tons); and 5) placing and backfilling a 24-inch diameter corrugated metal culvert approximately 20 feet long in the ditch that crosses the roadway near the run bank.

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Once the roadway has been installed to the bank of Paddys Run, an area ~50 feet wide by 100 feet long will be cleared of trees and brush down the stream bed of Paddys Run. An access ramp will be installed in this clearing to allow for installation of the berm.

The weighted berm will be installed by placing 6 - 12 inch diameter limestone in the stream bed along approximately 212 feet of the bank. The dimensions of the berm upon completion will be approximately 212 feet long x 10 feet wide (top) x 7 feet high. Appropriate erosion and siltation controls must be used during construction. Upon completion of the berm, all construction debris will be cleaned up and the site will be restored to its original condition to the greatest extent possible. The roadway will be left intact to allow access for future actions.

The Army Corps of Engineers has been contacted regarding this action. In response, Nationwide Permit #13 approval has been obtained to meet the requirements of Section 404 of the Clean Water Act. A wetlands delineation conducted for the FEMP site in 1992 identified no wetlands in the area to be impacted by this Emergency Removal Action. The delineation is currently pending approval by the Army Corps of Engineers.

In addition, an archeological survey has been conducted for the areas to be affected by the Emergency Removal Action. No sites of concern were identified during the archeological survey. The appropriate report has been generated and filed in accordance with the National Historic Preservation Act. The Ohio Historic Preservation Office can review this report upon request.

This action will require installation of the berm in the 100-year floodplain. In order to meet the requirements of 10 CFR 1022, "Floodplain/Wetland Environmental Review Requirements," a formal Notice of Involvement and Floodplain Assessment will be prepared in parallel with the NEPA documentation for the more permanent Removal and/or Remedial Action. However, a Floodplain Assessment will not be prepared in parallel with this CX as this is an Emergency Removal Action.

Categorical Exclusion to be Applied

The authority for finding this project to be subject to NEPA Categorical Exclusion is contained in Subpart D of the revision to 10 CFR Part 1021, entitled "National Environmental Policy Act Implementing Procedures and Guidelines." The Final Rule and Notice, effective May 26, 1992, includes a revised and expanded list of categorical exclusions that are classes of actions that normally do not require the preparation of either an Environmental Impact Statement or an Environmental Assessment.

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The Final Rule and Notice specifically lists in Part 1021, Appendix B to Subpart D, Sec. 1021.410, B6.1(e), the following types of actions that are Categorical Exclusions applicable to Specific Agency Actions:

B6.1 Removal actions under CERCLA (including those taken as final response actions and those taken before remedial action) and removal-type actions similar in scope under RCRA and other authorities (including those taken as partial closure actions and those taken before corrective action), including treatment (e.g., incineration), recovery, storage, or disposal of wastes at existing facilities currently handling the type of waste involved in the removal action. These actions will meet the CERCLA regulatory cost and time limits or satisfy either of the two regulatory exemptions from those cost and time limits (National Contingency Plan, 40 CFR part 300). These actions include, but are not limited to:

(e) Capping or other containment of contaminated soils or sludges if the capping or containment would not affect future groundwater remediation and if needed to reduce migration of hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products into soil, groundwater, surface water, or air.

The Erosion Control Project at the IAFAP meets the requirements for the Categorical Exclusion listed above. It is appropriate since the proposed action as described entails implementing an Emergency Removal Action to minimize further erosion at the IAFAP.

Furthermore, the proposed action will not violate applicable statutory, regulatory, or permit requirements; it will not require siting and construction or major expansion of waste disposal, recover or treatment facilities; and it will not impact any other environmentally sensitive areas (e.g., wetlands, or the sole-source aquifer).

Compliance Action

I have determined that the proposed action meets the requirements for the CX referenced. Therefore, the proposed action is categorically excluded from further NEPA review and documentation.

Approval: _____

Ray Hansen for
Thomas J. Rowland, Acting Manager
U.S. Department of Energy, Fernald Office

Date: _____

4/16/93