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*CATEGORICAL EXCLUSION DETERMINATION  
REMOVAL ACTION-EXPOSED MATERIAL AT WASTE  
PIT 5 NEPA DOC. NO. 378*

*04/20/92*

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*NEPA DOC. 378*

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NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

CATEGORICAL EXCLUSION (CX) DETERMINATION

Removal Action - Exposed Material At Waste Pit 5  
NEPA Document No. 378

Fernald Environmental Management Project (FEMP), Fernald, Ohio

Proposed Action

The United States Department of Energy (DOE) proposes a Removal Action to redistribute the exposed contents of Waste Pit 5 below the water line to minimize the potential for airborne emissions at the FEMP.

Location

Waste Pit 5 is located within the FEMP Waste Storage Area. The FEMP Waste Storage Area includes six low-level radioactive and/or mixed waste storage pits, a burn pit and a Clearwell. The Waste Storage Area is located west of the FEMP Process Area. The FEMP Process Area consists of 136 acres near the center of the 1050-acre FEMP site. The FEMP site is located 18 miles northwest of downtown Cincinnati, Ohio.

Background

Waste Pit 5 was constructed in 1968 and lined with a 60-mil-thick Royal Seal ethylene-propylene-diene monomer (EPDM) elastomeric membrane. Waste Pit 5, which is 30-feet deep, covers about 161,100 square feet of area, and contains approximately 98,000 cubic yards of waste. From 1968 until 1983, Waste Pit 5 operated as a surface impoundment receiving high solids-bearing (slurry) waste streams from all of the production plants but primarily from the refinery and the recovery plant, including neutralized raffinate settled solids-bearing wastewater from the general sump, filtrate from the recovery plant, and nonradioactive slurries. This material contains an estimated 111,700 pounds of uranium and 37,450 pounds of thorium. Waste Pit 5 was taken out of service in February 1987, but remains uncovered.

Waste Pit 5 also contains surface water ranging in depth from three feet in the west end to zero feet at the east end. The surface elevation of the water varies depending on precipitation and evaporation rates. At normal water levels (elevation 588.5 feet Mean Sea Level [MSL]), only waste in the eastern third of the pit is not covered by water and is subject to dispersal from wind erosion. The proposed Removal Action is mandated by the Amended Consent Agreement as Removal Action #18 to eliminate the potential for airborne emissions from the exposed material.

## Removal Action - Exposed Material at Waste Pit 5

### Description of the Proposed Action

The proposed action is to mitigate the threat of airborne emissions and radon flux from the exposed material contained in Waste Pit 5. During normal conditions, approximately two-thirds of the surface of Waste Pit 5 is covered with water, preventing airborne emissions. The remaining one-third of the surface of the residues are exposed to the atmosphere and subject to wind erosion.

The desired Removal Action alternative, as determined in "Waste Pit 5 Exposed Material Alternative Evaluation," Revision 0, January 1992, Parsons, is to maintain the waste pit water level at its normal elevation of approximately 588.5 ft. (MSL) and redistribute the residues in the eastern portion of the waste pit to the deeper western portion of the pit.

The exact method of pit material redistribution is currently under evaluation. The proposed method will include some form of dredging and/or use of a crane and clamshell. Because the waste pit materials will be wet during redistribution operations, the potential for generation of airborne emissions will be significantly reduced. Upon completion of the Removal Action, the redistribution equipment will be decontaminated and stored on-site for future use.

### CX to be Applied

The Amendments to Section D of DOE's NEPA Guidelines, published in the Federal Register on September 7, 1990, add classes of actions generally applicable to all DOE actions that normally do not require Environmental Assessments (EA) or Environmental Impact Statements (EIS).

The Amendments specifically list the following as types of actions that are included:

Removal Actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (including those taken as final response action and those taken before remedial action) and actions similar in scope under the Resource Conservation and Recovery Act (RCRA) and other authorities (including those taken as partial closures actions and those taken before corrective action).

The proposed action is to conduct a removal action under CERCLA. It will not violate applicable statutory, regulatory, or permit requirements; it will not require siting and construction or major expansion of waste disposal, recovery or treatment facilities; and it will not impact any environmentally sensitive areas (e.g., wetlands, floodplains, or the sole-source aquifer underlying the site).

**Removal Action - Exposed Material at Waste Pit 5**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:

R. E. Tiller  
R. E. Tiller, Manager  
U.S. Department of Energy, Fernald Office

Date:

4/20/92

EH-25 has reviewed this determination and has no objection.

Signature:

Carol Borgstrom, Director  
Office on NEPA Oversight, EH-25

Date:

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United States Government

Department of Energy

Fernald Office

# memorandum

DATE: APR 2 1992

DOE-1418-92

REPLY TO

ATTN OF: FN:Skintik

SUBJECT: CATEGORICAL EXCLUSION DETERMINATION (CX 378) - REMOVAL ACTION - EXPOSED MATERIAL AT WASTE PIT 5 - FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP), FERNALD, OHIO

TO: Carol Borgstrom, EH-25, FORS

The subject categorical exclusion (attachment) under Section D of the Department of Energy's National Environmental Policy Act Guidelines has been approved and is being forwarded for your review.

The Department of Energy, Fernald Field Office (DOE-FN) requests that you notify us within two (2) weeks, in accordance with the Interim Procedural Guidelines for implementation of SEN-15-90, whether you have any objection to this determination.

If you have any questions, please contact Ed Skintik at FTS 774-6660 or (513) 738-6660.

R. E. Tiller  
Manager

Attachment: As Stated

cc w/att.:

- R. S. Scott, EM-20, FORS
- K. A. Hayes, EM-424, TREV
- L. Lawson, EM-431, TREV (2)
- C. J. Brown, WEMCO

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