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*CATEGORICAL EXCLUSION (CX) DETERMINATION  
SOUTH PLUME REMOVAL ACTION PART 2 -  
GROUNDWATER CONTAMINATION PUMP AND  
DISCHARGE NEPA DOC. NO. 372*

*03/16/92*

*DOE-FN/DOE-HQ  
NEPA DOC 372*

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CATEGORICAL EXCLUSION DETERMINATION  
South Plume Removal Action  
Part 2 - Groundwater Contamination Pump and Discharge  
(FEMP NEPA Document No. 372)  
Fernald Environmental Management Project  
Fernald, Ohio

Proposed Action

The U.S. Department of Energy proposes to install a series of extraction and monitoring wells, a transfer pump station, an underground discharge pipeline, and an underground outfall pipeline on and adjacent to the Fernald Environmental Management Project (FEMP) near Cincinnati, Ohio.

Location

The FEMP site is located 18 miles northwest of downtown Cincinnati, Ohio. The proposed action would take place both within the 1050-acre FEMP site boundary and in areas immediately south and east of the site. The extraction wells will be installed approximately 1500 feet directly south of the FEMP site boundary and east of Paddy's Run Road. Monitoring wells will be installed around the well field to monitor extraction effectiveness. The transfer pump station, if required, will be installed adjacent to the extraction well field. The underground discharge pipeline will run north from the extraction well field to a point in the FEMP site and then east to Manhole 176B on the eastern edge of the FEMP site. The new outfall pipeline would then run from Manhole 176B, east 2,633 feet to the Great Miami River (GMR).

Background

The proposed action is Part 2 of the five-part South Plume Groundwater Contamination Removal Action that is being implemented at the FEMP pursuant to the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Amended Consent Agreement with the U.S. EPA. The primary objective of the Removal Action is to protect public health by limiting access to and use of groundwater with uranium concentration exceeding 30  $\mu\text{g}/\text{l}$ . Additionally, secondary objectives are (1) to protect the groundwater environment which is a sole source aquifer and (2) to control plume migration toward additional receptors further south.

An Engineering Evaluation/Cost Analysis (EE/CA) was prepared for the South Plume Removal Action to meet the requirements of CERCLA. The proposed action will involve activities within the 100-year floodplain of the GMR. A Floodplain Assessment was prepared to assess the impacts of the proposed action during and after its implementation. Based on the Floodplain Assessment, the proposed action will not cause any adverse direct or indirect effect on the 100-year floodplain. The Statement of Findings on Floodplain Assessment was published in the Federal Register on January 24, 1992.

A Memorandum-To-File was approved for Part 1 (Alternate Water Supply), and Part 4 (Groundwater Monitoring and Institutional Controls) of the South Plume Removal Action on September 27, 1990, to satisfy the requirements of the National Environmental Policy Act (NEPA). A NEPA Categorical Exclusion (CX) was approved for Part 5 (Groundwater Modeling and a Geochemical Investigation) on November 7, 1991. In addition, the Waste Pit Area Stormwater Runoff Control (WPARC) Removal Action was modified to include the Interim Advanced Wastewater Treatment Facility (Part 3 of the South Plume Removal Action). The WPARC EE/CA and its addendum were approved as an Environmental Assessment on December 11, 1991, and a Finding of No Significant Impact was issued. This CX will satisfy the requirements of NEPA for Part 2 of the South Plume Removal Action.

### Description of the Proposed Action

The proposed action involves the installation of an extraction well field consisting of at least four extraction wells, a series of monitoring wells, a transfer pump station, an underground discharge pipeline, and an underground outfall pipeline. The well field will pump contaminated groundwater from the aquifer back to the FEMP for monitoring and subsequent discharge to the GMR. Some of the extraction and monitoring wells will be located in the 100-year floodplain. The total area disturbed during the drilling of an extraction or monitoring well will be approximately 30 ft. by 30 ft., which includes the drilling rig placement and personnel work area. This will result in the temporary disturbance of approximately 1.2 acres of the 100-year floodplain.

The construction of the transfer pump station, adjacent service road, and parking lot will require stockpiling activities, equipment operation, and some increased traffic in the area. These construction activities will temporarily disturb approximately 1 acre of the floodplain. In addition, the transfer pump station, adjacent service road, and parking lot will result in the permanent elevation of less than 1 acre of the floodplain. Culverts will be installed under the service road to mitigate downstream flooding impacts by providing for continuation of the existing drainage pattern.

The underground discharge pipeline will be about 9000 feet long, of which approximately 730 feet will be in the 100-year floodplain, and would result in the temporary disturbance of approximately 0.8 acre of the floodplain. The outfall pipeline is approximately 4400 feet long, of which approximately 2633 feet would be in the 100-year floodplain, and would result in the temporary disturbance of approximately 3.0 acres of the floodplain. The construction of a cofferdam to protect the outfall pipe would result in a minor intrusion to the 100-year floodplain; the riprap installed for erosion control would not change the flood elevation.

### Categorical Exclusion (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 or Environmental Impact Statements.

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 threaten a violation of 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 adversely affect any other environmentally sensitive areas (e.g. wetlands).

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: 3/16/92

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

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

Date: \_\_\_\_\_

United States Government

Department of Energy

Fernald Office

# memorandum

DATE: MAR 13 1992

DOE-1025-92

REPLY TO

ATTN OF: FN:Skintik

SUBJECT: CATEGORICAL EXCLUSION DETERMINATION (CX 372) - SOUTH PLUME, PART 2,  
GROUNDWATER CONTAMINATION PUMP AND DISCHARGE - 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 Fernald Field Office 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.

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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