

4563

*CATEGORICAL EXCLUSION (CX) DETERMINATION
PLANT 1 ORE SILOS REMOVAL ACTION NEPA DOC.
NO. 363*

01/22/92

*DOE-FN/DOE-HQ
NEPA DOC. 363*

5

CAT EX

CATEGORICAL EXCLUSION DETERMINATION**Plant 1 Ore Silos Removal Action
(FEMP NEPA Document No. 363)
Fernald Environmental Management Project, Fernald, Ohio**Proposed Action

The U.S. Department of Energy (DOE) proposes to mitigate the potential release of contaminants from the Plant 1 Ore Silos.

Location

The fourteen silos are located south of Building 1A at the Plant 1 Pad. The Plant 1 Pad is in the northwest corner of the FEMP Process Area. The FEMP is located 20 miles northwest of downtown Cincinnati, Ohio.

Background

The Plant 1 Silos were constructed in 1953 for the purpose of blending ore concentrates for feed into the refinery (Plant 2/3). The last operational use was from 1955-1958 when the silos were utilized as overflow storage for the cold metal oxides stream which is a by-product of ore processing. The silos have not been used to store material since 1962 when the majority of the contents were removed and shipped offsite. The fourteen silos were abandoned-in-place in 1969.

The Plant 1 Silos consist of two steel frame support structures with spread footing foundations. The westerly structure supports eight clay tile silos. The easterly structure supports six concrete silos. In the 1970s, spalling of the tile shells on the eight westerly silos was first observed. This deterioration has continued to the present time. A Removal Site Evaluation of the Plant 1 Silos was issued on September 10, 1991, and recommended that corrective action be taken to assure the structural safety of the westerly eight tile silo facility. DOE determined that a Time Critical Removal Action under CERCLA should be implemented. An Action Memorandum has been issued and a Work Plan is being developed.

On February 6, 1991, a spill was observed under Silo Number 2 during routine inspections by plant personnel. Further inspections indicated the collection of residues under Silos 1, 2, and 5 on the mezzanine of the silo structure. It was estimated that approximately 2600 pounds of residues were released from the three silos. The residues were cleaned up, placed into drums and stored on the Plant 1 Pad pending further evaluation.

Tile silo #1 and concrete silo #9 are both empty. The remaining 12 silos have estimated residue volumes from 0-29.7 cubic feet. Sample results indicate that the residues are not radioactive mixed wastes. The silos have been sealed since the samples were taken.

PLANT 1 ORE SILOS
REMOVAL ACTION - FEMP

2

Description of the Proposed Action

The proposed Removal Action involves the removal of the contents of the silos and the demolition of the eight westerly clay tile silos, the six easterly concrete silos, their associated structural steel supports and support piers down to the concrete bases. The work will include dispositioning of remaining silo contents, dismantling, size reducing, segregating, packaging, and disposing of waste. The Removal Action will be accomplished using state-of-the-art equipment and structure removal methods.

The first action will be to remove the remaining residues from the twelve silos. The material will be containerized, characterized, and disposed of, pending sampling results, to an approved disposal site. The demolition area will then be isolated by installing appropriate signs and barriers. Some radioactive materials will be removed from the surrounding facilities and storage areas including the drums from Building 72 and possibly the thorium storage drums from Building 6. Any relocated drums will be placed in existing storage facilities on the second floor of Plant 5. Protective barriers will be installed as necessary around surrounding facilities and storage areas. The removal of the contents of the uranyl nitrate hexahydrate (UNH) storage tanks adjacent to the silos will be done prior to the proposed action under a separate removal action, the UNH Removal Action.

Containment areas equipped with High Efficiency Particulate Air (HEPA) filters will be erected for use during dismantling and waste packaging activities. Self-supporting scaffolding or wood frame walls will be wrapped in plastic or Herculite and provided with three 4000 CFM HEPA units for ventilation purposes. This negative air containment will be similar to that which is used for asbestos abatement.

Self-supporting scaffolding will be erected to aid in the dismantlement process. The concrete silos will be removed as complete units with size reduction done at the ground level. The tile silos will be removed one tile at a time to minimize dust and airborne contamination. All structural steel will be removed and size reduced, as necessary. The debris from both structures will be segregated by material type and contamination limit and packaged for offsite disposal. Some materials will be decontaminated at Building 69 to surface contamination limits as listed in the U.S. NRC Regulatory Guide. These materials will be released for unrestricted use.

This action is expected to cost approximately 10 million dollars and will be conducted over a period of less than 9 months. This action is consistent with the remedial action to be taken for the site, and will eliminate the threat of a release which could be harmful to human health and/or the environment. The removal action will not threaten a violation of applicable statutory, regulatory, or permit requirements; will not require siting and construction or major expansion of waste disposal, recovery or treatment facilities; and will not adversely affect environmentally sensitive areas.

PLANT 1 ORE SILOS
REMOVAL ACTION - FEMP

3

All Removal Action activities will be completed in accordance with the requirements defined in the National Contingency Plan, Comprehensive Environmental Response, Compensation, and Liability Act, DOE Orders, the FEMP Health and Safety Plan, and the FEMP Quality Assurance Plan.

This Removal Action will take place within the process area; therefore, the removal action will not involve wetlands, floodplains, or the sole source aquifer underlying the FEMP site.

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 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 CERCLA (including those taken as final response actions and those taken before remedial action), and actions similar in scope under RCRA (including those taken as partial closure actions and those taken before corrective action). These activities include the following: Removal of drums, barrels, tanks, or other bulk containers that contain or may contain substances identified within the definition of hazardous substances under section 101(14) of CERCLA or pollutants or contaminants as defined by section 101(33) of CERCLA, or hazardous wastes under 40 CFR 261, where such actions would reduce the likelihood of spillage, leakage, fire, explosion, or exposure to humans, animals, or the food chain.

The CX is appropriate since the proposed action as described, is to conduct a removal action under CERCLA that satisfies the statutory exemption from the cost and time limit by being otherwise appropriate and consistent with the remedial action to be taken, will not threaten a violation of applicable statutory, regulatory, or permit requirements; will not require siting and construction or major expansion of waste disposal, recovery or treatment facilities; and will not adversely affect environmentally sensitive areas.

PLANT 1 ORE SILOS
REMOVAL ACTION - FEMP

Compliance Action:

I have determined that the proposed action meets the requirements for the CX referenced above. 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: 11/22/92

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

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

Date: _____

United States Government

Department of Energy

Fernald Office

memorandum

DATE: **JAN 23 1992**

DOE-679-92

REPLY TO

ATTN OF: FO:Skintik

SUBJECT: **CATEGORICAL EXCLUSION DETERMINATION (CX 363) - PLANT 1 ORE SILOS REMOVAL ACTION - 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 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

005

