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**CATEGORICAL EXCLUSION DETERMINATION -  
PLANT 7 DISMANTLING, REMOVAL ACTION 19  
NEPA DOC. NO. 421**

**08/23/1993**

**NEPA DOC. 421  
DOE-FN/DOE-HQ**

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

**Plant 7 Dismantling, Removal Action 19  
NEPA Document No. 421  
Fernald Environmental Management Project (FEMP)  
Fernald, Ohio**

**Proposed Action**

The United States Department of Energy (DOE) proposes the dismantling and disposition of Plant 7 at the Fernald Environmental Management Project (FEMP).

**Location**

The proposed action will take place at Plant 7. Plant 7 is located in the southeast quadrant of the FEMP, approximately 40 feet west of the Plant 4 warehouse and 15 feet south of the Plant 4 Maintenance Shop. The FEMP site is located 18 miles northwest of downtown Cincinnati, Ohio.

**Background**

Plant 7 was constructed in 1954 to house the processes involved in the reduction of uranium hexafluoride ( $UF_6$ ) to uranium tetrafluoride ( $UF_4$ ). Plant 7 has remained inoperative since 1956 when production processes were halted.

Plant 7's dimensions are approximately 80 feet x 110 feet x 110 feet high (7 stories). The interior and exterior walls are constructed of transite {an asbestos containing material (ACM)}, with a layer of non-asbestos containing insulation between them. The roof is constructed with a double layer of transite panels. Interior walls are composed of flat transite. The first through fifth floors contain several offices and labs. The walls of these rooms are transite. There is an opening near the center of the building in a shaft configuration from the grade to the fifth floor. The sixth and seventh floors have removable floor plates covering the shaft opening. The floors of levels two through seven are composed of steel plates supported by structural steel.

In 1967 the  $UF_6$  reduction process was declared obsolete, and the majority of the equipment and process piping were dismantled and removed. The ammonia separation process, two 75,000 cfm blower units and associated ducting, and several motor control centers were abandoned in place. In 1975, all utilities were disconnected at the exterior wall of the building and capped. The electrical substation has been retained and currently provides service to two adjacent buildings.

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Plant 7 is now used to store drums of intermediate product ( $UF_4$ ) on the first and second floors, and empty 5 gallon containers on the third, fourth, and sixth floors. Plant 7 dismantling activities will include the relocation of the drums and debris to other existing storage areas. The use of this building to store low-level radioactive materials, as well the previous process operations, have resulted in the presence of low levels of radiological contamination. The presence of ACM, lead based paints, and bird droppings (a biological hazard) are additional factors which deemed this removal action as appropriate pursuant to 40 CFR 300.410.

**Description of the Proposed Action**

The proposed action will involve the removal of all aboveground surface structures and equipment down to the existing concrete slab at grade level. Three primary contaminants that will be encountered are asbestos, uranium contaminated surfaces, and bird droppings. Friable ACM are found in the plant. Uranium contamination is widespread throughout the building. The majority of the radiological contamination is below the allowable surface residual limits (per DOE Order 5400.5) for uranium materials. Several areas in the building contain significant accumulations of bird droppings. *Histoplasma capsulatum* is a fungus found in bird droppings capable of causing the airborne disease histoplasmosis.

Work will include decontamination (surface cleaning to remove radiological contamination and bird droppings), removing of ACM, dismantling the structure, size reduction of debris, segregating, packaging, certification, placing materials in interim storage, and off-site disposal of low-level radioactive waste. A temporary curb will be constructed outside the building for water containment during decontamination. After decontamination, "Lock Down" agents will be applied to all interior surfaces to prevent the release of any remaining contamination. The grade level slab and foundation will be sealed after having the gross contamination removed, cracks repaired, and protrusions removed.

All activities will be controlled to prevent the spread of contamination. The work areas will be isolated with physical barriers and a ventilated containment system, using directed air flow and High Efficiency Particulate Air (HEPA) filters. Each active decontamination or dismantling task performed during interior work that is not protected with a special enclosure (i.e. glove bag) will be under directed air flow. Personnel will wear proper personal protective equipment and follow a task specific health and safety plan. Periodic radiation surveys will be performed in the work areas.

Several material streams and debris are expected to be generated as a result of this removal action. Those materials include, but are not limited to: lead paint chips, ACM (including fire bricks, floor tile and mastic, thermal system insulation, and transite), steel and metals (approximately 2 million square feet), duct work (11,400 square feet), miscellaneous equipment, concrete (approximately 2500 square feet), debris, and transite. Approximately 5% of the materials that are generated during dismantling will be used for

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demonstration of Decontamination and Decommissioning (D&D) methodologies (support of the OU3 Treatability Study). The material removed will be grossly decontaminated, and packaged for shipment to an off-site facility or moved to an on-site interim storage facility. Material for which adequate treatment/disposal capacity is currently not available will be temporarily stored on site. Radiological surveys, sampling, and analysis will be conducted as required, to ensure that the waste materials are properly characterized. Materials pending analytical characterization will also be placed into on-site interim storage. All wash/waste water used in the dismantlement will be contained and routed through the Plant 8 Treatment Facility in accordance with appropriate regulations.

**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 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.

The Final Rule and Notice specifically lists in Part 1021, Appendix B to Subpart D, Sec. 1021.410, B6.1(b), the following as 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).

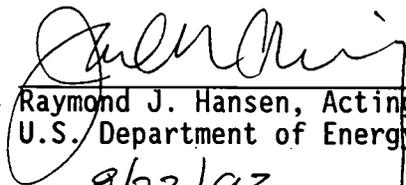
B6.1(b) Removal of bulk contaminants (for example, drums and barrels) that contain or may contain hazardous substances, pollutants, contaminants, CERCLA-excluded petroleum or natural gas products, or hazardous wastes (designated in 40 CFR Part 261), if such actions would reduce the likelihood of spillage, leakage, fire, explosion, or exposure to humans, animals or the food chain.

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This Categorical Exclusion is appropriate since the proposed removal action # 19 is intended to improve safety at the FEMP by eliminating the potential for release of contaminants from Plant 7 and will contribute to the long-term remedial actions proposed for the FEMP site. The proposed action will not violate applicable statutory, regulatory, or permit requirements; it will not require siting and construction nor 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).

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:   
for Raymond J. Hansen, Acting Manager  
U.S. Department of Energy, Fernald Office

Date: 8/23/93

United States Government

Department of Energy

Fernald Field Office

# memorandum

**AUG 23 1993**

DATE: DOE-2811-93

REPLY TO: FN:Skintik  
ATTN OF:

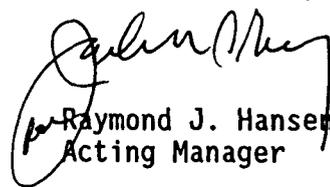
SUBJECT: **CATEGORICAL EXCLUSION DETERMINATION (CX 421) - PLANT 7 DISMANTLING, REMOVAL ACTION 19**

TO: Carol Borgstrom, EH-25, FORS:

The subject categorical exclusion (attachment) under Subpart D of the Department of Energy's National Environmental Policy Act Procedures and Guidelines, 10 CFR 1021, effective May 26, 1992, 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 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 regarding this matter, please contact Ed Skintik at (513) 648-3151.

  
Raymond J. Hansen  
Acting Manager

Attachment: As Stated

cc w/att:

- R. S. Scott, EM-20, FORS
- K. A. Chaney, EM-424, TREV II
- L. Harris, EM-431, TREV II
- C. J. Brown, FERMCO/51-7

Admin Record Coordinator, FERMCO

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