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**CATEGORICAL EXCLUSION DETERMINATION
RCRA CLOSURE OF THE NITRIC ACID
RECOVERY SYSTEM COMPONENTS NEPA DOC.
NO. 436**

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NATIONAL ENVIRONMENTAL POLICY ACT
CATEGORICAL EXCLUSION DETERMINATION

RCRA Closure of the Nitric Acid Recovery System Components
NEPA Document No. 436
Fernald Environmental Management Project
Fernald, Ohio

Proposed Action

The United States Department of Energy (DOE) at the Fernald Environmental Management Project (FEMP) proposes to implement a Resource Conservation and Recovery Act (RCRA) closure of the Nitric Acid Recovery (NAR) System, which has been designated Hazardous Waste Management Unit (HWMU) No. 10.

Location

The proposed action will occur at Plant 2/3, which is located in the western portion of the former Production Area of the FEMP site. The 1050 acre FEMP site is located in a rural area of southwest Ohio, within Butler and Hamilton Counties, approximately 18 miles northwest of downtown Cincinnati, Ohio.

Background

The NAR System was used to collect nitric acid and nitrogen oxides (NOx) generated from the acid extraction of uranium from ores and residues in Plant 2/3. The recovered nitric acid was reused in the Plant 2/3 production process, and the NOx emissions were controlled.

Recovered nitric acid was stored for more than 90 days after production ceased in July 1989, and it became subject to RCRA solid waste regulations. Because the recovered nitric acid exhibits the RCRA characteristic of corrosivity, it has been declared a hazardous waste. In June 1991, the NAR System Components used to store recovered nitric acid were designated as HWMU No. 10.

Nine tanks and vessels constitute the NAR System Components. Of the nine components, one is located outside Plant 2/3 within a secondary containment area. The rest of the components are located inside Plant 2/3. An estimated 28,893 gallons of 6N (normal) nitric acid are stored in the various tanks and associated equipment.

A closure plan was submitted to the Ohio EPA in June, 1993. This plan outlined the closure methodology as described below. The plan included a request for an extension of the time allowed for closure (normally 180 days) since the closure is tethered to the CERCLA UNH removal action.

Description of Proposed Action

Closure of the NAR System Components will entail the following steps: removal of nitric acid wastes and decontamination of the system; treatment of the nitric acid wastes; and dismantling the system components. These steps will be accomplished through the implementation of several CERCLA removal and remedial actions, including Removal Action (RA) No. 20, "Stabilization of Uranyl Nitrate Inventories"; RA No. 12, "Safe Shutdown"; RA No. 17, "Improved Storage of Soil

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and Debris"; the Interim and Final Record of Decision (ROD) for Operable Unit (OU) 3; and the Final ROD for OU5. Since final closure may not be completed until after the Final OU3 ROD, the NAR System Components will continue to be managed as a HWMU until closure certification is submitted to Ohio EPA.

Removal of the nitric acid wastes will be conducted as part of RA No. 12, "Safe Shutdown." Under RA No. 12, the nitric acid wastes will be transferred to the uranyl nitrate storage tanks to provide an acid rinse for completion of RA No. 20, "Stabilization of Uranyl Nitrate Inventories." To decontaminate the NAR system components following nitric acid transfer to the uranyl nitrate system, a series of water rinses will be performed to dissolve solid residues and flush remaining acid residues from the interior surfaces of the system components. Samples will be taken to evaluate and verify decontamination. If certain components cannot be decontaminated through rinsing, those components will be isolated and dismantled under the Interim ROD for OU3 or otherwise dispositioned under the Final ROD for OU3.

The wastes and rinseate from the NAR System, along with any residues flushed from the uranyl nitrate tanks, will be processed through the uranyl nitrate treatment system for acid neutralization, precipitation, and filtration of solids as part of RA No. 20.

The dismantling of the NAR System Components will be conducted after rinsing activities are completed. All piping, tanks, pumps, and ancillary equipment will be dismantled as part of the Interim ROD for OU3. These items will be dismantled and placed in interim storage pending evaluation for disposition under the Final ROD for OU3.

Removal and remediation of Plant 2/3 will be conducted under the Interim and Final RODs for OU3. Remediation of any contaminated soil will be defined by the ROD for OU5.

All equipment used for decontamination of the NAR System Components will be clean prior to use. After use, the equipment will be decontaminated in accordance with FEMP site procedures as part of RA No. 12. Decontamination wash will be collected and used as part of the acid and water rinse to flush the uranyl nitrate tanks under RA No. 20.

Wastes generated by this closure will be evaluated in accordance with the approved FEMP Waste Analysis and Waste Determination Plans. Wastes determined RCRA hazardous wastes will be stored onsite until an acceptable treatment or disposal option is identified. RCRA storage locations were identified in the Part B Permit Application submitted in March 1993. Non-hazardous radioactive wastes will be managed in accordance with applicable DOE orders. Non-hazardous, non-radiological waste will be sent to permitted solid waste disposal, recycling, or treatment facilities.

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Categorical Exclusion to be Applied

The authority for finding this project to be subject to NEPA Categorical Exclusion is contained in Subpart D of 10 CFR Part 1021, entitled "National Environmental Policy Act Implementing Procedures and Guidelines." The Final Rule and Notice, effective May 26, 1992, includes a 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, the following as a type of action that is a Categorical Exclusion 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:

- (b) Removal of bulk containers (for example, drums, 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 food chain.

Removal of the NAR System Components meets the requirements for the Categorical Exclusion listed above and accomplishes the closure of an identified HWMU. 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, 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: 
J. Phil Hamric, Manager
U.S. Department of Energy, Fernald Field Office

Date: 1/21/94