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**ACTION DESCRIPTION MEMORANDUM FOR
THE OPERABLE UNIT 3 INTERIM REMEDIAL
ACTION AT THE FERNALD ENVIRONMENTAL
MANAGEMENT PROJECT**

04/01/93

DOE-HQ/DOE-FN

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NEPA

OU3

United States Government

Department of Energy

memorandum

DATE: APR 01 1993

REPLY TO
ATTN OF: EM-424 (D. Yockman, 301-903-7632)

SUBJECT: Action Description Memorandum for the Operable Unit 3 Interim Remedial
Action at the Fernald Environmental Management Project

TO: Acting Manager, DOE Fernald Field Office

This is to notify you that based on review of the Action Description Memorandum (ADM) for the Operable Unit 3 Interim Remedial Action, an Environmental Assessment (EA) will be required to analyze the potential environmental consequences of the subject action. The State of Ohio has been notified of the Department's intent to integrate the requirements of the National Environmental Policy Act and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) by using the Proposed Plan required by CERCLA to serve as an EA.

If you or your staff have any concerns, please contact David Yockman of my staff at (301) 903-7632.



Paul G. Grimm
Acting Assistant Secretary for Environmental
Restoration and Waste Management

CC:
C. Borgstrom, EH-25 (w/copy of ADM)
R. Janke, FN
E. Skintik, FN

Attachment

**ACTION DESCRIPTION MEMORANDUM
FOR THE OPERABLE UNIT 3 INTERIM REMEDIAL ACTION
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT**

1.0 Description of Proposed Action

1.1 Purpose and Need

The Department of Energy (DOE) proposes interim remedial action to decontaminate and dismantle (D&D) all above-grade and below-grade structures and related components at the Fernald Environmental Management Project (FEMP). Where possible, materials will be recycled, and materials that cannot be recycled will be disposed of in accordance with the existing waste management program or staged in interim on-site storage facilities. The scope of this interim remedial action does not specifically address final waste disposition; however, waste disposition issues will be addressed in the final Record of Decision (ROD) for Operable Unit 3 (OU3). In order to initiate this interim remedial action, DOE proposes to develop a Proposed Plan/Environmental Assessment (PP/EA).

FEMP is located near Fernald, Ohio, 18 miles northwest of downtown Cincinnati, Ohio. The PP/EA will evaluate the potential impacts associated with the implementation of the interim remedial action for both on-site and off-site populations and the environment.

The proposed action will occur within OU3 at FEMP. As defined under the terms of the Amended Consent Agreement, OU3 consists of the former Production Area and production-associated facilities and equipment. The contaminated structures and related components present a potential threat to human health and the environment at FEMP. In addition, the potential exists for uncontrollable release of contaminants from numerous sources within the structures. Furthermore, most of the structures and related components are beyond their design life. Therefore, to minimize the potential risks and to accelerate site cleanup, DOE plans to implement an interim remedial action for OU3 prior to the implementation of final remedial action for OU3.

The primary requirements driving this interim remedial action are the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and DOE Order 5820.2A, "Radioactive Waste Management." DOE Order 5820.2A establishes the policies and guidelines for the management (including the D&D) of radioactively contaminated structures.

1.2 Background

The FEMP site, formerly called the Feed Materials Production Center, produced uranium for the Federal Government from 1953 to 1989. A variety of chemical and metallurgical processes were used at FEMP to manufacture uranium products. The principal products produced by FEMP included a variety of highly purified uranium metal forms of various sizes in assorted isotopic assays. The isotopic values ranged up to 1.4 percent uranium-235 by weight of the total uranium content of the product. However, most of the metal produced was depleted uranium.

The PP/EA addresses all above-grade and below-grade structures and related components at FEMP. None of the structures or related components are anticipated to be used in the future for supporting the remediation of FEMP. The action is expected to generate approximately 7.7 million cubic feet of contaminated material which will be managed in controlled storage areas on site.

1.3 Schedule

The proposed interim remedial action is anticipated to result in the D&D of between one and three structures per year until the final OU3 ROD is made. At this point, D&D activities will be accelerated. A draft PP/EA for this interim remedial action is scheduled to be submitted to the Environmental Protection Agency (EPA) on May 1, 1993. Depending on the length of the comment period, a draft Interim ROD may be submitted to EPA by October 1993.

1.4 Proposed Action

The scope of the proposed interim remedial action is to D&D all above-grade and below-grade structures and related components at FEMP. Where possible, materials will be recycled and materials that cannot be recycled will be staged in interim storage facilities. The scope of this interim remedial action does not specifically address final waste disposition; however, waste disposition issues will be addressed in the final ROD for OU3. The primary purposes of this action are to accelerate the cleanup process and to limit potential contaminant releases into the environment from the contaminated structures. This will reduce the potential risks at the site. The specific objectives of the proposed action are listed as follows:

- Reduce the potential health and environmental hazards of radiation and chemical exposure associated with structures, including equipment, asbestos-containing material, dust, slabs and roofing, insulation and wrapping;

- Facilitate subsequent response actions at FEMP by allowing for additional characterization of the contamination associated with OU3, thereby removing physical impediments to comprehensive site cleanup;
- Minimize the potential health and safety hazards to on-site personnel from deteriorating contaminated structures; and
- Minimize the potential health and environmental hazards associated with releases from related structures;

The proposed actions to be taken to meet the objectives stated above would include:

- The disassembly as necessary and removal of equipment in a structure and the packaging of bulk materials present;
- Surface decontamination measures as necessary to clean contaminants from surfaces, i.e., floors, walls, ceilings, and structural members;
- The removal of the structure and/or related components; and
- The proper disposition and/or interim storage of materials and wastes consistent with prevailing regulations and transportation to approved disposition and/or storage locations.

A Remedial Design/Remedial Action (RD/RA) work plan will be developed to implement this interim action.

2.0 Location of the Action

FEMP is located on a 1,050-acre site near Fernald, Ohio, and is about 18 miles northwest of downtown Cincinnati, Ohio (see Figure 2). Most of the site is located within Hamilton County; however, approximately 20 percent of the area is in Butler County, Ohio. The villages of Fernald, New Baltimore, Ross, and Shandon are located within a few miles of the plant.

3.0 Potential Environmental Issues

The proposed action will take place within the fenced boundaries of the FEMP process area and is expected to reduce or eliminate any further releases from the facilities to the environment.

The interim remedial action for OU3 was selected as the preferred alternative because it was shown to be the most effective in meeting the overall objectives of reducing environmental risk and providing opportunity for environmental restoration and enhancement. Coupled with the proposed mitigation efforts, activities are expected to be

met without environmental disturbance during implementation. The proposed actions to implement this interim remedial action will use proven technologies with built-in environmental control and protection measures which respond to all prevailing human health and safety requirements. Also imbedded in the implementation of this action is the philosophy of maximizing the reuse of dismantled materials and minimization of wastes which is consistent with the broader national objectives for environmental protection and enhancement.

Sections within the PP/EA will detail potential impacts to air, soil, ground water, surface water, vegetation and wildlife, threatened and endangered wildlife, and socioeconomic status of the surrounding area. Preliminary studies indicate the proposed action would have only minor environmental impacts (e.g., temporary elevations in noise levels; increased traffic, and minor air emissions). These would be of short duration and would only influence the immediate area of the activities and would be mitigated with positive engineering measures.

Biological/ecological resources are known to be limited in the process area where the proposed action will take place. No archeological, historic, or cultural resources are known to exist or believed to be present within the site boundary. No threatened or endangered species nor critical habitats are known to exist within the site boundary. The proposed action will neither involve floodplain development, construction in a wetland area nor affect the sole source aquifer that underlies FEMP. In addition, no significant cumulative impacts to the general public, site workers, or the environment are expected to result from implementing the proposed action with other planned activities at FEMP.

The PP/EA will present a risk assessment which assesses the impacts on the environment and human health from various potential hazards, accidents, and failures during implementation of this proposed remedial action. The risks to both the general public and on-site workers will be further minimized by using the appropriate radiation control technologies, access controls, site radiation monitors, and the site and area-wide alarm systems.

Isolation barriers will be utilized around equipment wherever practical and the use of portable, High Efficiency Particulate Air filters on emission sources. The radiological risks presented by the proposed action will be minimized using the appropriate radiological control technologies and administrative controls.

All activities will take place within the previously disturbed FEMP process area. The action is limited to OU3 and would not affect off-site areas.

4.0 National Environmental Policy Act Documentation

This Action Description Memorandum has been prepared to facilitate a determination of the appropriate level of the National Environmental Policy Act documentation required for the proposed action. The RD/RA work plan implementing this action will be prepared and transmitted to EPA for their review and approval. The work plan developed for the structures and related components will provide the necessary detail to implement the proposed action.

The proposed action is not expected to have a significant impact on human health or the environment. Therefore, the Fernald Field Office recommends that an EA be prepared to determine the significance of the potential impacts of the proposed action. The EA will then be used to determine whether the preparation of an Environmental Impact Statement is necessary or whether a Finding of No Significant Impact can be issued.