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PROPOSED PHASE IV REMOVAL ACTIONS

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**DOE-FN/EPA
DOE-0854-93**

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LETTER



Department of Energy
Fernald Environmental Management Project
P.O. Box 398705
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(513) 738-6357

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JAN 14 1993
DOE-0854-93

Mr. James A. Saric, Remedial Project Director
U.S. Environmental Protection Agency
Region V - 5HRE-8J
77 W. Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. Graham E. Mitchell, Project Manager
Ohio Environmental Protection Agency
40 South Main Street
Dayton, Ohio 45402-2086

Dear Mr. Saric and Mr. Mitchell:

PROPOSED PHASE IV REMOVAL ACTIONS

As required by the 1991 Amended Consent Agreement, Section IX.F.3, below are descriptions and schedules for the submission of work plans for proposed Phase IV Removal Actions (RA). Concurrently with the submittal of these proposed Phase IV RAs, the Department of Energy (DOE) is initiating the development of Removal Site Evaluations (RSE) to address the conditions at the Temporary Nitrate Storage Tanks and the Sewage Treatment Plant Incinerator. The third proposed removal action, the Fire Training Facility, already has an RSE completed. The RSE will document the basis for the RA and will assist in determining the scope of the RA. Based upon your approval of these removal actions and the results and determination from the subsequent RSEs, DOE will initiate these projects by submitting the Removal Action Work Plans (RAWP) according to the schedules outlined below:

- Temporary Nitrate Storage Tanks, RAWP to EPA by July 15, 1993.
- Sewage Treatment Plant Incinerator, RAWP to EPA by July 30, 1993.
- Fire Training Facility, RAWP to EPA by June 30, 1993.

Descriptions of these proposed removal actions are provided as an enclosure. If you or your staff have any questions, please contact Robert Janke at FTS/Commercial 513-738-6883.

Sincerely,

Robert Janke
for Jack R. Craig
Fernald Remedial Action
Project Manager

FN:RJJanke

Enclosures: As stated

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cc w/enc.:

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**FACT SHEET
TEMPORARY NITRATE TANKS REMOVAL ACTION**

1. HISTORY AND LOCATION

The temporary nitrate tanks (2) were installed to serve as temporary treatment units for nitrate wastewaters while the biodenitrification surge lagoon was being built. The wastewaters were treated by mixing waters from the low nitrate tank with those from the high nitrate tank. These tanks were constructed of a polymer liner with temporary steel sides approximately 4 feet high.

These tanks are located on the north and south sides of the pit area access road between the Bio- Surge lagoon and the process area of the facility. They are no longer in service, and may contain several inches of rainwater and sludges contaminated with uranium and possibly 1,1,1 trichloroethane.

2. THREAT

In accordance with 40 CFR 300.415 (b)(2), the following factors for determining the appropriateness of a removal action would apply:

(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk containers, that may pose a threat of release;

3. SCOPE OF WORKPLAN**a. Sampling**

Based on process knowledge, potential contaminants are uranium, nitrates, and 1,1,1 trichloroethane. Sampling will be conducted in accordance with the FEMP SCQ.

b. Removal Action

The removal action would involve the field actions to empty and thoroughly cleanse the interior of the tank followed by disposition of the materials. The water will be characterized, transferred and treated through the existing water treatment facilities. The sludges will be characterized, drummed, and dispositioned appropriately. The liners will be cleaned and containerized, and the support walls will be monitored, decontaminated as required, and free released.

4. SCHEDULE

Removal Action Work Plan will be submitted to the USEPA on or before July 15, 1993.

**FACT SHEET
SEWAGE TREATMENT PLANT INCINERATOR REMOVAL ACTION**

1. HISTORY AND LOCATION

This is an outdoor incinerator situated on a 16ft x 20ft pad. It was in operation from 1954-1979, during which time it was used to incinerate a variety of site wastes. These wastes included motor oils, hydraulic oils, and possibly 1,1,1-trichloroethane or other spent solvents or oils including uranium contaminated materials.

This unit is located on the northwest corner of the sewage treatment plant area which is on the eastern edge of the FEMP.

2. THREAT

In accordance with 40 CFR 300.415 (b) (2), the following factors for determining the appropriateness of a removal action apply:

- (i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;
- (iii) Other situations or factors that may pose threats to public health or welfare or the environment;

3. SCOPE OF WORK PLAN**a. Sampling**

Potential contaminants are uranium, hydraulic and lubricating oils, spent solvent by-products, heavy metals, and residues typical of incineration processes such as furans and dioxin. Sampling activities will be conducted in accordance with the FEMP SCQ.

b. Removal Action

Removal action will involve field activities to decontaminate and dismantle the incinerator and associated equipment. This work includes characterization and disposition of the wastes, containerization of equipment for shipment to NTS, removal and packaging of the transite for on-site storage, dismantling and monitoring of steel for free release, decontamination of removable contamination from the remaining slab, and containment of the work area.

4. SCHEDULE

Removal Action Work Plan will be submitted to the USEPA on or before July 30, 1993.

**FACT SHEET
FIRE TRAINING FACILITY REMOVAL ACTION**

1. HISTORY AND LOCATION

The Fire Training Facility is located north of the FEMP Production Area (just outside the fenced perimeter) on the old North Access Road. This area has historically been used to simulate fire and emergency response conditions for training purposes. The Fire Training Facility presently consists of the following components:

- a. An abandoned two story concrete block structure (bunker) surrounded by an asphalt pad.
- b. An eight foot diameter stainless steel tank with elliptical ends. One end of the vessel has been removed and forms a "bowl" on the east end of the vessel.
- c. An unbermed 500 gallon skid mounted steel tank (above ground).
- d. An open top partially submerged rectangular tank constructed of salt bath tank from Plant 6.
- e. An underground sump with valve to gravity drain water and oil from the pond around the above ground skid tank.

The windows and door of the concrete block structure (bunker) are boarded up to prevent entry into the structure. There are visible cracks in the asphalt pad around the block structure. The pad and the stainless steel tank are located on the west side of the old North Access Road and access is uncontrolled. The 500 gallon skid tank contains visible holes and is severely corroded. The tank is located in the center of a very shallow circular pond containing brownish liquid. Black stains are evident around the perimeter of the pond. The open top rectangular tank contains approximately 8 inches of brownish liquid. The skid tank and the rectangular tank are enclosed by a 4 foot livestock fence on the east side of the old North Access Road to control access to this area and the area is marked off with plastic chain and signs restricting access.

From the best available information it was determined that the following list of materials were burned or stored in the Fire Training Facility:

<u>Material</u>	<u>Source of Material</u>	<u>Comments</u>
Waste Oil	FEMP	Primarily from Garage (Bldg. 31)
Kerosene	FEMP	
Gasoline	FEMP	
Waste Wood Pallets	FEMP	Possibly contaminated
Straw	NON-FEMP	Primarily from Ross, Ohio
Vehicle	FEMP	
Office Furniture	FEMP	
Household Furniture	Unknown	
Rubber Tires	FEMP	
Metallic Sodium	FEMP	
Magnesium	FEMP	
Waste Solvents	NON-FEMP	Usually floor sweeping or broken bags (possibly contaminated) Brought in by other fire departments for training (possibly containing paint thinners)

The Fire Training Facility equipment, tanks, buildings and structures are in Operable Unit 3, residual soils and groundwater are in Operable Unit 5. The Fire Training Facility has been determined to be a Hazardous Waste Management Unit (HWMU) under the requirements of the Resource Conservation Recovery Act (RCRA). Boundaries for HWMU are the old North Access Road, North Construction Gravel Road, and the North Boundary fence.

2. THREAT

In accordance with determining appropriateness of a removal action, 40 CFR 300.415 (b) (2) the following factor applies:

- (iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.

3. SCOPE OF WORK

- a. Specifically address removal, decontamination, and disposal, treatment or storage of the following:
 - (1) All structures within the unit including the fire training building.
 - (2) All tanks, both above and below grade.
 - (3) Any equipment within the unit or within the structures.
 - (4) The under ground sump and oil/water separator.
- b. Actions to eliminate the threat of contaminant migration as deemed practical from the following:
 - (1) Radionuclide "hot spots" should be characterized and removed as necessary.
 - (2) Surface soil staining.
 - (3) Other surface soil and perched water contamination
- c. Soil and Debris should be managed to the maximum extent possible under the proposed Improved Storage of Soil and Debris Removal Action Number 17.
- d. Removals at other Federally owned facilities which operated fire training areas should be reviewed as possible models for this plan.

4. SCHEDULE

A Removal Action Work Plan will be submitted to the U. S. EPA on or before June 30, 1993.