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**ADDENDUM TO THE RI/FS COMMUNITY RELATIONS PLAN FOR
REMOVAL ACTION NO. 25 - NITRIC ACID TANK CAR AND AREA**

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ADDENDUM

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TO THE
RI/FS COMMUNITY RELATIONS PLAN
FOR REMOVAL ACTION No. 25
NITRIC ACID TANK CAR AND AREA

Fernald Environmental Management Project
Fernald, Ohio

U.S. Department of Energy
Fernald Field Office

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LIST OF ACRONYMS

CERCLA:	Comprehensive Environmental Response, Compensation, and Liability Act [of 1980] (also known as Superfund)
CRP:	Community Relations Plan
DOE:	U.S. Department of Energy
EPA:	U.S. Environmental Protection Agency
EE/CA:	engineering evaluation/cost analysis
FEMP:	Fernald Environmental Management Project (formerly the Feed Materials Production Center)
FFCA:	Federal Facility Compliance Agreement
NCP:	National Oil and Hazardous Substances Pollution Contingency Plan [of 1990]
RI/FS:	remedial investigation and feasibility study
SARA:	Superfund Amendments and Reauthorization Act [of 1986]

Introduction

This document is prepared as an addendum to the Fernald Environmental Management Project (FEMP) Remedial Investigation and Feasibility Study (RI/FS) Community Relations Plan (CRP), dated August 1992. This addendum addresses Removal Action No. 25, Nitric Acid Tank Car and Area.

This removal action is being conducted pursuant to the laws, regulations and agreements listed below, and will comply with the provisions of each:

- The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), also known as Superfund, that provides for the investigation and cleanup of uncontrolled hazardous waste sites
- The Superfund Amendments and Reauthorization Act of 1986 (SARA) that renewed and updated CERCLA
- The National Oil and Hazardous Substances Pollution Contingency Plan of 1990 (NCP) that spells out how CERCLA and SARA will be implemented
- The Federal Facility Compliance Agreement of 1986 (FFCA) between the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA) that provides for the investigation and cleanup of environmental impacts from past and present activities at the FEMP
- The Consent Agreement of 1990 that amended the FFCA and fostered consistency among the operable unit concept and the current commitments of the RI/FS program without modifying the underlying objectives
- The Amended Consent Agreement of 1991 that establishes definitions and schedules for completion of RI/FS documents for the five operable units and identifies additional specific removal actions at the FEMP

The 1990 Consent Agreement specified four removal actions and provided for the identification of three more; these seven are now referred to as the Phase One Removal Actions. The Amended Consent Agreement for the FEMP, signed on September 20 and effective on December 19, 1991, specified 11 additional removal actions, referred to as Phase Two Removal Actions.

On January 14, 1992 six more removal actions, known as Phase Three Removal Actions, were approved by EPA and three emergency removal actions were initiated. In all, the three phases total 27 separate, sequentially numbered removal actions. DOE may identify additional removal actions each year by January 15, if needed.

Objectives

The objective of removal actions under CERCLA and the NCP is to "...take appropriate action to abate, stabilize, mitigate, or eliminate the release or threat of release..." of hazardous materials or waste in a manner that reduces or eliminates the threat to public health, welfare, or the environment. Removal actions are emergency or short-term responses to immediate threats. They differ from remedial actions in that they are generally more limited in scope and cost.

Removal actions can be divided into three general categories: emergency, time critical, and non-time-critical. They are as follows:

- Emergency removal actions call for an immediate response. An Administrative Record file must be established and affected citizens must be notified.
- Time-critical removal actions have a planning period of less than six months. If on-site removal actions are expected to extend beyond 120 days, then an addendum to the CRP is required based on interviews with community residents and/or public interest groups to identify their concerns and determine ways in which residents would like to become involved.
- Non-time-critical removal actions usually have a planning period of at least six months and dictate the same community relations activities as discussed above. An added requirement is the preparation of an engineering evaluation/cost analysis (EE/CA). In this case, the addendum to the CRP must be completed before the EE/CA approval memorandum is signed.

The specific objective of Removal Action No. 25, Nitric Acid Tank Car and Area, an emergency removal action, is to protect human health and the environment by eliminating the potential threat of release of contaminants from the Nitric Acid Tank Car and Area. The volume of liquid estimated to be contained in the Tank Car is too small to pose a threat to either groundwater or surface water. Although nitric acid (HNO₃) reacts aggressively with certain materials, under current storage conditions this is unlikely to occur.

However, a loss of tank integrity would result in contamination of the immediate environment inside the FEMP site. This release would pose a potential threat to unprotected workers, as well as members of the hazardous material cleanup crews and various flora and fauna exposed to the corrosive liquid.

Under this removal action, the following steps will be taken: 1) survey and mark the boundaries of the area to be addressed, 2) transport the Tank Car, 3) remove its contents, 4) decontaminate and dispose of the Tank Car, and 5) collect and analyze soil samples. Contamination that may exist beyond the boundary of the Tank Car area is not included in this removal action. The management of any contaminated soils beyond the boundary will be addressed in the final remediation of Operable Unit 5.

The Nitric Acid Tank Car and its contents will be managed as mixed low-level waste. Analysis of the Tank Car's contents has revealed that the contents are a hazardous waste because of the characteristic of corrosivity and a radioactive waste because of low levels of uranium. Since chromium has been found in the nitric acid in the tank car, it will be processed along with the current volumes of contaminated acid being processed as part of another removal action, Removal Action No. 20, Stabilization of Uranyl Nitrate Inventories.

To the extent practicable, the Nitric Acid Tank Car removal action will utilize existing procedures to maximize technical and cost effectiveness. These procedures and protocols have been developed for related actions, including Removal Action No. 12, Safe Shutdown Procedures and Protocols; Removal Action No. 17, Improved Storage of Soil and Debris, and Removal Action No. 9, Removal of Waste Inventories.

It is anticipated that Safe Shutdown personnel will perform all activities necessary to complete the closure and removal of the Tank Car. The specific procedures that are applicable to the closure and removal of the Tank Car include:

- Movement of hazardous waste
- Establishment and control of satellite accumulation areas
- Hazardous material spill cleanup
- Preparation and transfer of uncharacterized waste to the controlled holding area

In addition, the management of soil and debris that may be generated by the Nitric Acid Tank Car and Area Removal Action is detailed in the work plan for Removal Action No. 17. The activity concentrations for radiological elements are specified in the Removal Action No. 17 Work Plan. Removal Action No. 9 addresses the procedures required for packaging, shipping and disposing of low-level radioactive wastes generated by production, maintenance and construction activities at the FEMP.

The disposal of the Nitric Acid Tank Car may be governed by Removal Action No. 9 if decontamination efforts cannot remove this equipment from the low-level radioactive waste category.

Background

When the FEMP was producing uranium metal, nitric acid was an important process chemical. It was a primary chemical used in the formation of uranyl nitrate hexahydrate (UNH) solution and subsequently was chemically transformed into uranium tetrafluoride. Nitric acid also was used throughout the production area for acid cleaning and metal pickling operations. From 1975 until 1981, more than 56 million pounds of concentrated nitric acid had been purchased.

During peak production, the Tank Car (designated as DODX17135) was used as an efficient means of temporary storage of nitric acid. The tank car provided 100,000 pounds of mobile storage capacity, and was normally kept on a rail siding until either its contents or storage capacity were needed elsewhere on site. Following acid transfers, the car was returned to the siding. The Tank Car has been in its present location, unused, for approximately 6 years.

The Nitric Acid Tank Car is located on a railway siding in the northeast corner of Operable Unit 3.

Overview of Community Concerns

In preparing this addendum, transcripts of community meetings held on: January 31, 1989; May 15, 1989; October 24, 1989; February 20, 1990; May 22, 1990; September 25, 1990; December 11, 1990; March 19, 1991; July 16, 1991; and October 29, 1991; February 25, 1992; July 21, 1992, and November 9, 1992 were reviewed. Also reviewed were transcripts from the RI/FS Environmental Impact Statement scoping meetings held on June 12 and 13, 1990.

A 45-day public comment period for the Nitric Acid Tank Car and Area Removal Action was held from November 4 - December 18, 1992. The announcement ran in three local newspapers. There were no oral or written comments submitted.

Highlights of Community Relations Activities

Community concerns regarding the Nitric Acid Tank Car and Area Removal Action suggest an active FEMP community relations effort with the following objective:

- Maintain an active effort to keep interested community members informed throughout the implementation of the Nitric Acid Tank Car and Area Removal Action.

The following specific activities have been identified to support the community relations objective for this removal action:

1. Prepare one or more fact sheets or updates for the purpose of providing information about the removal action and answering key concerns about the Nitric Acid Tank Car and Area at the FEMP and distribute them at the quarterly public meetings.
2. Devote some portion of future community meetings to this issue; update the RI/FS exhibit to include new information as it becomes available. (Community meetings are held at regular intervals on dates selected by DOE.)
3. Include coverage about the Nitric Acid Tank Car and Area Removal Action in the Fernald Project Cleanup Report as needed during the removal action.
4. Offer a roundtable presentation on the Nitric Acid Tank Car and Area.
5. Provide a 24-hour phone line at the FEMP so concerned citizens can contact a FEMP representative during a time of alarm. The number is 513-738-6295, which is FEMP Security.
6. Make appropriate additions to the Administrative Record and publicize their availability at the Public Environmental Information Center, JAMTEK Building, 10845 Hamilton-Cleves Highway, Harrison, Ohio, 45030.

Timetable

The preparation of materials for all community relations activities will be tied to the removal action schedules. For a complete list of schedule dates and activities, please see the Nitric Acid Tank Car and Area Work Plan, which is in the Administrative Record, located at the Public Environmental Information Center. The activities will be scheduled to provide the maximum flexibility and information to the public. The work plan for this removal action has been approved by EPA. Discussions and updates on the status of the removal action will be given at future public meetings.

REFERENCES

1. U.S. Department of Energy, "Fernald Environmental Management Project Nitric Acid Tank Car and Area Removal Action Work Plan and Closure Plan Information and Data Package," October 1992.