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**ADDENDUM TO THE RI/FS COMMUNITY RELATIONS PLAN FOR
REMOVAL ACTION NO. 14 - CONTAMINATED SOILS ADJACENT TO
THE SEWAGE TREATMENT PLANT INCINERATOR**

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ADDENDUM

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TO THE
RI/FS COMMUNITY RELATIONS PLAN
FOR REMOVAL ACTION No. 14
CONTAMINATED SOILS ADJACENT TO THE SEWAGE
TREATMENT PLANT INCINERATOR

Fernald Environmental Management Project
Fernald, Ohio

U.S. Department of Energy
Fernald Field Office

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TABLE OF CONTENTS

SECTION	PAGE
List of Acronyms	ii
Introduction	1
Objectives	2
Background	3
Overview of Community Concerns	5
Highlights of Community Relations Activities	5
Timetable	6
References	7

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
EMP:	environmental monitoring program
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
RSE:	removal site evaluation
SARA:	Superfund Amendments and Reauthorization Act [of 1986]

Introduction

This document was prepared as an addendum to the Fernald Environmental Management Project (FEMP) Remedial Investigation and Feasibility Study (RI/FS) Community Relations Plan (CRP), dated August 1990. This addendum addresses Removal Action No. 14, Contaminated Soils Adjacent to the Sewage Treatment Plant Incinerator.

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 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 objectives of Removal Action No. 14, Contaminated Soils Adjacent to the Sewage Treatment Plant Incinerator, a non-time-critical removal action, are to reduce the potential for contaminant migration to previously uncontaminated areas and minimize the potential for exposure to human health or the environment until final remedial actions can be implemented. The schedule provides 26 months for completion after the start of field activities. The following factors apply specifically to the above-background concentrations of contaminants occurring in the soils adjacent to the sewage treatment plant area: (1) actual or potential exposure to nearby human populations, animals, or the food chain from

hazardous substances or pollutants or contaminants; specifically, this applies to the nearby resident farmer and nearby grazing cattle; (2) high levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface; specifically, this is appropriate based on radiological concentrations found in surface soil samples taken adjacent to the solid waste incinerator at the sewage treatment plant; and (3) weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released; specifically, this is appropriate based on radiological concentrations found in surface soil samples taken adjacent to the solid waste incinerator at the sewage treatment plant and the possibility of significant weather events carrying the contaminants out of the study area in surface runoff.

The Contaminated Soils Adjacent to the Sewage Treatment Plant Incinerator Removal Action will consist of three phases:

- Phase 1: Layout survey grid to define the study area; conduct off-property surface soil sampling along the sampling grid; perform a radiological walkover survey to highlight areas where soils have uranium concentrations in excess of 100 pCi/g; and excavate the highlighted area.
- Phase 2: Collect post-excavation surface soil samples from 40 on-site locations, at depths of zero to six inches; take post-excavation validation samples from the excavated areas; and issue an interim report outlining excavation and sampling activities and analytical results from Phases 1 and 2.
- Phase 3: Revise the removal site evaluation (RSE) by incorporating all sampling results and issue a final report outlining any further actions warranted in the study area. A RSE is an evaluation of the present conditions at an area of the site, performed to determine whether a removal action is needed, and whether it is time critical or non-time critical. Usually, this determination is made by the complexity of the problem or the severity of the threat. If the evaluation determines that a removal action is appropriate, a work plan for the removal action is prepared and is submitted to the U.S. EPA and the Ohio EPA. For a non-time critical removal action, an EE/CA is done. It is similar to the RSE, but is a more detailed evaluation of the alternatives.

Background

The solid waste incinerator at the sewage treatment plant has been identified as a suspect facility to be addressed under the RI/FS for Operable Unit 3, which addresses the production area and associated facilities. The air and soil will be addressed under Operable Unit 5.

The sewage treatment plant area is located on the eastern edge of the FEMP property. The sewage treatment plant, associated facilities, and the abandoned incinerator are contained within a six-foot chain-link-fenced area on FEMP property where access is restricted by security officers. The sewage treatment plant became operational in 1952 for the treatment of FEMP sanitary wastewater. The system was later transitioned to receive both sanitary and process-related wastewaters. The practice of treating process-related wastewater flows was discontinued recently with the installation and start-up of the biodenitrification effluent treatment system. Surface radiological measurements and limited soil samples collected in the vicinity of these facilities indicate the presence of localized elevated concentrations of radionuclides.

The solid waste incinerator is located in the northwest corner of the sewage treatment plant area. The incinerator was operated from November 1954 through December 1979, at which time a new solid waste incinerator at Building 39 was put into service. The incinerator at the sewage treatment plant was used to burn contaminated and uncontaminated combustible trash during its period of operation. Soil sampling results from the RI/FS indicate that radiological concentrations in the soils adjacent to the solid waste incinerator exceed those observed in prior routine environmental sampling conducted in 1984 and 1985 as part of the FEMP's environmental monitoring program (EMP). The solid waste incinerator is located within the fenced area of the sewage treatment plant, but the majority of the area with contaminated soils is located outside the boundary. Access to the sewage treatment plant is controlled by WEMCO personnel; however, access to the areas adjacent to the incinerator is relatively uncontrolled.

The area outside the fence has primarily been used for grazing cattle under a lease agreement with the DOE and a neighboring farmer. Livestock fencing was installed in April 1991 to prevent access to areas adjacent to the incinerator. Based on RI/FS data, the new fence was installed approximately 665 feet north of the incinerator.

Both the routine EMP and the RI/FS have shown evidence of localized radiological contamination in the vicinity of the sewage treatment plant area. Air sampling data for 1989 from Air Monitoring Station 3, approximately 350 feet downwind (northeast) of the incinerator, show average radiological concentrations of less than one millirem per year.

The RI/FS surface soil and sub-surface soil samples collected in the vicinity of the solid waste incinerator showed considerably higher radiological concentrations than previously observed under the EMP. The two highest surface soil radiological concentrations, closest to the incinerator, measured 25,670 pCi/g and 2,376 pCi/g of uranium-238. In addition to surface soil samples, there were a limited number of RI/FS soil samples collected from depth of up to 20 feet. The results from these samples are listed in Table 4 of the RSE for this removal action. Only one subsurface sample of 224.4 pCi/g of uranium-238 at a depth

of 1.5 - 3.0 feet, exceeded the 100 pCi/g-field-action level. All of these sampling points are within the sewage treatment plant compound.

There has been extensive subgrade disturbance within the sewage treatment plant compound due to plant upgrades and the placing of fill to improve drainage. Since there has been little-to-no known disturbance of the soils outside the fenced area at the Sewage Treatment Plant, contamination is likely to be limited to surface soils as a result of air deposition from incinerator operations. Radiological walkover surveys performed as part of the RI/FS indicate some areas with higher than background concentrations of gamma-emitting radionuclides. All of the areas of high concentrations are on FEMP property with the exception of a localized area adjacent to the FEMP property-line fence bordering a field used for grazing. Based on the available walkover data, however, it is not anticipated that concentrations in the off-property soil will exceed the 100 pCi/g-action level.

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, and February 25, 1992 were reviewed. Also reviewed were transcripts from the RI/FS Environmental Impact Statement scoping meetings held on June 12 and 13, 1990. The Contaminated Soils Adjacent to the Sewage Plant Incinerator Removal Action was described briefly at the October 29, 1991 and the February 25, 1992 community meetings as one of the removal actions to be completed per the 1991 Amended Consent Agreement.

A 45-day public comment period for Removal Action No. 14, Contaminated Soils Adjacent to the Sewage Treatment Plant Incinerator, was held from May 27 - July 11, 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 Contaminated Soils Adjacent to the Sewage Treatment Plant Incinerator 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 Contaminated Soils Adjacent to the Sewage Treatment Plant Incinerator 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, answering key concerns about the contaminated soils adjacent to the sewage treatment plant incinerator and distribute them at the quarterly public meetings.
2. Devote some portion of future community meetings to this issue; and update the 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 Contaminated Soil Adjacent to the Sewage Treatment Plant Incinerator Removal Action in the Fernald Project Cleanup Report as needed during the removal action.
4. Offer a roundtable presentation on the removal action.
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 schedule which provides 26 months for completion after start of field activities. For a complete list of schedule dates and activities, please see the Contaminated Soils Adjacent to the Sewage Treatment Plant Incinerator Work Plan, which is in the Administrative Record, located at the PEIC. The activities will be scheduled to provide the maximum flexibility and information to the public. The work plan for this removal action was approved by EPA in May 1992.

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 Office, Fernald, Ohio, "Contaminated Soils Adjacent To The Sewage Treatment Plant Incinerator Removal Action Number 14 Work Plan," March 1992.