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*CATEGORICAL EXCLUSION DETERMINATION
REMOVAL ACTION-CONTAMINATED SOILS AT THE
SEWAGE TREATMENT PLANT NEPA DOC. NO. 348*

07/23/92

DOE/DOE

NEPA DOC. 348

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NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

CATEGORICAL EXCLUSION (CX) DETERMINATION

Removal Action - Contaminated Soils at the Sewage Treatment Plant
NEPA Document No. 348
Fernald Environmental Management Project (FEMP), Fernald, Ohio

Proposed Action

The United States Department of Energy (DOE) proposes to excavate and dispose of contaminated soils adjacent to the Solid Waste Incinerator at the Fernald Environmental Management Project (FEMP) Sewage Treatment Plant.

Location of Action

The proposed action will occur adjacent to the Solid Waste Incinerator at the FEMP Sewage Treatment Plant on the eastern boundary of the FEMP site. It is in an area that has been previously disturbed and is not environmentally sensitive. FEMP is located 18 miles northwest of downtown Cincinnati, Ohio.

Background

The FEMP Sewage Treatment Plant treats sanitary wastewater from FEMP before discharging it to the Great Miami River. In addition to the wastewater treatment facilities, a solid waste incinerator was also used near the Sewage Treatment Plant for the disposal of contaminated, combustible materials generated at FEMP. Due to the operation of the solid waste incinerator, soils adjacent to the Sewage Treatment Plant have become contaminated with various levels of radionuclides. Twenty-four soil samples were collected for laboratory analysis as part of the ongoing remedial investigation activities from this area. The results indicate that the primary radionuclide present in the soil samples is U-238 with levels ranging from 10 pCi/g to 25,000 pCi/g.

Description of the Proposed Action

The proposed removal action is described as Removal Action No. 14 in the Amended Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Consent Agreement. The removal action will not threaten a violation of applicable statutory, regulatory, or permit requirements including requirements of DOE Orders. The action will involve the excavation of soil adjacent to the solid waste incinerator where it exceeds the following action levels:

100 pCi/g total uranium for on-property soils,

35 pCi/g total uranium for off-property soils.

No standards currently exist for radiological contamination levels in soil (other than radium). Radiological contamination levels used as action levels for soil in uncontrolled areas of FEMP are consistent with levels set by the Nuclear

Regulatory Commission and published in the Federal Register on October 23, 1981. The levels are consistent with what is used throughout the DOE complex and are below the levels used for residual contamination in surface-soil for most unrestricted locations in the United States. The levels are documented in FEMP site policy and procedures, which have been provided to the Environmental Protection Agency (EPA). Amendments to the Remedial Investigation/Feasibility Study (RI/FS) Work Plan that have been submitted to EPA include references to these FEMP site policies and procedures and discuss soil radiological contamination relative to risk. The RI/FS process will be the vehicle for determination of final cleanup levels, including radiological levels in soil.

Walkover survey and sampling results will be used to determine the amount of soil to be removed. Soils exceeding the 100 pCi/g action level will be excavated, removed from the work area, and stored in a temporary storage area at the FEMP per existing site procedures pending a hazardous waste determination. Upon completion of the hazardous waste determination, the soil will be managed in accordance with Improved Storage of Soil and Debris - Removal Action #17. Evaluation of the preliminary data from the RI/FS sampling resulted in an estimated range of a few cubic yards to a maximum of 100 cubic yards of soil that may require removal. All excavated soil will be placed in storage boxes immediately following excavation.

Since the on-property soils are subject to the 100 pCi/g action level, it is possible for technicians to obtain the needed data for hot spot identification using hand-held survey meters. During the preliminary stages of the removal action, technicians will conduct a walk over of on-property soils, and then obtain correlation samples from a range of in-situ concentrations to determine the relationship between the rate meter reading of the hand-held survey meter and the corresponding measured uranium soil concentration. Once the correlation data has been obtained and the survey meters have been calibrated, on-property Phase I activities will commence. Phase I activities on-property will involve the location of hot spots (>100 pCi/g total uranium) using the calibrated survey meter and immediate excavation and subsequent storage in boxes until final disposition.

The action level for off-property soils is 35 pCi/g which cannot be accurately detected using hand-held survey meters. Therefore, preliminary activities off-property will involve taking soil samples in a grid pattern for laboratory analysis. Phase I activities for off-property soils will then involve a walk-over survey using hand-held survey meters to identify hot spots that exceed 100 pCi/g. In the event that off-property soils exceed the action levels for total uranium (either the 35 pCi/g level identified through the laboratory analysis method or the 100 pCi/g level identified through the hand-held survey meter method), access rights will be pursued immediately to expedite the off-property excavations to the action level.

The following engineering control measures will be taken during excavation activities:

1. Monitoring for organic and radiological contamination.
2. Surface runoff and sediment migration control, including temporary dikes or other applicable measures as necessary.
3. Excavation dewatering as necessary.
4. Use of plywood, tarps, or plastic to prevent wind or rain erosion of excavated material.
5. Wetting, in moderation, to control dust generation.
6. Restoring excavated areas to a condition that will minimize erosion by wind or rain.
7. Rigid housekeeping will be implemented to ensure a neat and orderly excavation site.

Several soil treatment methods are presently under consideration for use at FEMP. The results of the soil treatability testing (being carried out as part of the RI/FS process at FEMP) will be used to determine the final disposition of the remaining boxed (or stockpiled) materials from this removal action, and no construction, siting or expansion of treatment facilities will be undertaken for this removal action.

The construction period for the proposed removal action is approximately 9 months, and the cost has been estimated at between \$1.45 million and \$2.5 million, depending on the extent of the contamination. This response action is required to prevent the continued migration of contamination at the site and is appropriate and consistent with the final remedial actions to be taken.

Categorical Exclusion to be Applied

The revisions to DOE's NEPA Regulations, published in the Federal Register on April 24, 1992, add classes of actions generally applicable to all DOE that normally do not require Environmental Assessments or Environmental Impact Statements.

The Amendments (10 CFR 1021, Appendix B to Subpart D) specifically list the following as types of actions that are included:

"B6.1 - Removal actions under CERCLA (including those taken as final response actions and those taken before remedial action) and actions similar in scope under RCRA (including those taken as partial closure actions and those taken before corrective action)..."

Removal Action - Contaminated Soils at the Sewage Treatment Plant

These activities include the following: Excavation or consolidation of contaminated soils or materials from drainage channels, retention basins, ponds, and spill areas that are not receiving contaminated surface or waste water, where surface or groundwater would not collect, and where such actions would reduce the spread of or direct contact with, the contamination.

The categorical exclusion (CX) is appropriate since the proposed action, as described above, is to conduct a removal action under CERCLA, will not threaten a violation of applicable statutory, regulatory, or permit requirements, will not require siting and construction or major expansion of waste disposal, recovery or treatment facilities, and will not adversely affect environmentally sensitive areas.

Compliance Action

I have determined that the proposed action meets the requirements for the CX referenced above. Therefore, the proposed action is categorically excluded from further NEPA review and documentation.

Approval: R.E. Tiller
R. E. Tiller, Manager
U.S. Department of Energy, Fernald Office

Date: 7/23/92

EH-25 has reviewed this determination and has no objection.

Signature: _____
Carol Borgstrom, Director
Office of NEPA Oversight, EH-25

Date: _____

United States Government

Department of Energy

Fernald Office

memorandum

DATE: JUL 23 1992
DOE-2187-92

REPLY TO:
ATTN OF: FN:Skintik

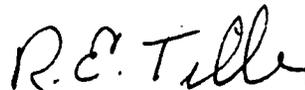
SUBJECT: CATEGORICAL EXCLUSION DETERMINATION (CX 348) - REMOVAL ACTION - CONTAMINATED SOILS AT THE SEWAGE TREATMENT PLANT - FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP), FERNALD, OHIO

TO: Carol Borgstrom, EH-25, FORS

The subject categorical exclusion (attachment) under Subpart D of 10 CFR Part 1021 of the Department of Energy's National Environmental Policy Act Implementing Procedures has been approved and is being forwarded for your review.

The Department of Energy, Fernald Field Office (DOE-FN) requests that you notify us within two (2) weeks, in accordance with the Interim Procedural Guidelines for implementation of SEN-15-90, whether you have any objection to this determination.

If you have any questions, please contact Ed Skintik at FTS/Commercial (513) 738-6660.



R. E. Tiller
Manager

Attachment: As Stated

cc w/att.:

- R. S. Scott, EM-20, FORS
- K. A. Hayes, EM-424, TREV
- R. Langum, EM-431, TREV (2)
- C. J. Brown, WEMCO