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**REMOVAL SITE EVALUATION PUBLIC WATER SUPPLY TAP-IN PHASE
APRIL 4, 1994**

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REMOVAL SITE EVALUATION

PUBLIC WATER SUPPLY TIE-IN, PHASE I

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

U.S. DEPARTMENT OF ENERGY

04/04/94

REMOVAL SITE EVALUATION**PUBLIC WATER SUPPLY TAP-IN, PHASE I****INTRODUCTION**

The FEMP PUBLIC WATER SUPPLY TAP-IN project will provide the avenue for the future source of potable and non-potable water supply to satisfy all FEMP water needs. This course of action was the recommendation of the Addendum (C:OP:94-0356, D. Ofte to J. P. Hamric, dated March 29, 1994) to the WATER NEEDS ASSESSMENT REPORT dated April 1, 1993, and prepared by FERMCO CRU5 Engineering.

The recommendation supports discontinuing the use of the existing lime softening treatment process at the Water Plant along with assisting the implementation of the Hamilton County Department of Public Works' (HCDPW) proposed Public Water Supply System (PWS).

The Project has been divided into two (2) construction phases described as follows. Phase I consists of a six (6) inch diameter pipeline to be tapped into the proposed HCDPW's eight (8) inch diameter water main to be located on the north side of Willey Road. The tap-in will be approximately 1800 feet west of the FEMP's south access road. From there the line will proceed in a northerly direction to a new meter house then continue north past the Stormwater Retention Basin (SWRB). From the SWRB the line will turn northwesterly towards Building 51 then north again between Building 51 and the Pilot Plant to an overhead pipe rack. It will then follow the existing pipe rack into the controlled area where it will terminate to south of Building 45.

Phase II consists of the excavation and tie-in to the existing underground Production Well transmission pipeline located south of Building 45 at the point of Phase I termination. Additionally, miscellaneous aboveground piping modifications within the former Production Area, will eliminate potential future cross-connections. These miscellaneous modifications include piping disconnections at each of the three (3) production wells and at the Water Plant. Once the disconnections are made, the PWS water will be directed to the FEMP users, from the Water Plant.

This Removal Site Evaluation (RSE) is for Phase I only and has been completed by the DOE under authorities delegated by Executive Order Number 12580 under Section 104 of CERCLA and is consistent with Section 300.410 of the National Oil and Hazardous Substance Pollution Contingency Plan (NCP). Also, this RSE has been completed to support the decision as to whether the Public Water System Tap-In project warrants a Removal Action.

SOURCE TERM

The installation of the six (6) inch diameter pipeline in Phase I predominantly disturbs soils in the uncontrolled area of the site. Waste Characterization determined that sampling would not be necessary for Phase I construction because of process history, classification, and the fact that information exists from previous sampling done in the area, i.e. South Plume Force Main and Advanced Wastewater Treatment projects. From this information it was determined that any excess soil generated on this project will be classed as RCRA non-hazardous (a.k.a. non-RCRA).

The classification of excess soil generated in Phase II will be addressed by Waste Characterization for use in preparing a separate RSE for this Phase. This excess soil will be the result of the excavation of a small area within the controlled area at the tie-in to the Production Well transmission pipeline south of Building 45.

EVALUATION OF THE MAGNITUDE OF THE POTENTIAL THREAT

The Public Water Supply Tap-In Project Phase I involves the excavation of RCRA non-hazardous soil (RCRA Determination dated December 30, 1993) for the routing of the six (6) inch potable water main, from tap-in to the overhead pipe rack at Building 51. The soil will be returned to the excavation with any excess soil being handled according to Removal Action #17 and SSOP-0044. All excess soil and other waste streams will be monitored by the Radiological Safety Group for proper disposition. The potential threat of exposure as a result of suspension of the soil in the atmosphere and potential migration of the contaminants through wind and water erosion is minimal.

ASSESSMENT OF THE NEED FOR REMOVAL ACTION

Consistent with Section 40 CFR 300.410 of the NCP, the Department of Energy shall determine the appropriateness of a Removal Action. Eight (8) factors to be considered in this Determination are listed in Section 40 CFR 300.415(g)(2).

Based on process history and previous sampling, none of the eight (8) factors listed in the NCP are applicable.

If it is determined that a response action is appropriate due to the known levels of contaminants, a Removal Action may be required to address the existing situation.

If a planning period of less than six (6) months exists prior to initiation of response action, DOE will issue an Action Memorandum. The Action Memorandum will describe the selected response and provide supporting documentation for the decision.

If it is determined that there is a planning period greater than six (6) months before a response is initiated, DOE will issue an Engineering Evaluation/Cost Analysis (EE/CA) Approval Memorandum. This memorandum is to be used to document the threat to public health and the environment and to evaluate viable alternate response actions. It will also serve as a Decision Document to be included in the Administration Record.

Site characterization activities completed to support the Public Water Supply Tap-In Project Phase I indicate that very low if any hazardous substances are present in the environment at the proposed project. Site Policy and Procedure SSOP-0044 and IH&S-IH-03, will adequately eliminate potential releases associated with the implementation of this project.

Administrative controls will be instituted to prevent wind erosion, dust generation, and stormwater run/off.