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**CATEGORICAL EXCLUSION DETERMINATION
PUBLIC WATER SUPPLY PROJECT NEPA DOC
382**

07/16/93

DOE-FN/DOE-HG

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NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

CATEGORICAL EXCLUSION (CX) DETERMINATION

PUBLIC WATER SUPPLY PROJECT

NEPA Document No. 382

Fernald Environmental Management Project (FEMP)

Fernald, Ohio

Proposed Action

The United States Department of Energy (DOE) is partially funding (\$4,501,516) the installation of a public water supply to be utilized by FEMP area residents whose groundwater supply has been affected by, or has the potential to be affected by, the South Groundwater Contamination Plume (South Plume). The South Plume is a uranium contaminated groundwater zone, which was created by past operations at the FEMP. The FEMP is a federal facility located on a 1050 acre site near Fernald, Ohio and is about 18 miles northwest of downtown Cincinnati, Ohio. The project will be implemented by the Hamilton County Department of Public Works (HCDPW).

Location

Approximately 14 miles of jointly-funded pipeline will be installed to address the South Plume area. The pipeline will be located within existing state and county road easements in Hamilton and Butler Counties, Ohio. The pipeline will be installed along: E. Miami River Road from the Cincinnati Water Works' (CWW) Bolton Plant to and across the bridge at Cincinnati Brookville Road [State Route (S.R. 126)]; along S.R. 126 to its intersection with S.R. 128; and south along S.R. 128 running approximately 8800 linear feet south of its intersection with New Haven Road. The remainder of the South Plume pipeline will be installed within existing roadway easements along Willey, New Haven and Paddy's Run Roads. The project will also include the installation of a large (estimated 1.0 million gallon) water reservoir located on the Miami Whitewater Forest County Park approximately 4,800 feet east of New Haven.

Background

The Great Miami Aquifer has been designated by the U.S. Environmental Protection Agency (EPA) as a sole source aquifer. Sampling has indicated that a uranium plume (the South Plume) is present in the Great Miami Aquifer outside the FEMP property boundary. The South Plume, appears to originate along Paddy's Run and a drainage ditch located on FEMP property referred to as the Storm Sewer Outfall ditch, (due to historic releases) and extends south of the FEMP property. The South Plume is the subject of a removal action entitled "South Groundwater Contamination Plume."

Uranium contamination above background levels have also been found along the reach of Paddy's Run, between the FEMP and the Great Miami River (GMR). Above background levels of uranium have also been found to exist in several homeowner wells along the east side of S.R. 128, south of Paddy's Run crossing.

Public Water Supply Project

The primary objective of the public water supply is to provide a permanent, reliable and safe water supply to local residents who are potentially affected by the South Plume.

Description of the Proposed Action

The HCDPW is responsible for coordinating all design, construction and related engineering services, as well as permits. Installations of the water mains are expected to occur along existing roadways and within existing easements. Pipes will also be installed from the water mains to the residents' homes for hook-up, and from the distribution network to the reservoir. Therefore, most construction will be within previously disturbed areas and any impacts to cultural resources (e.g. archeological sites) should be insignificant.

Preconstruction test borings may be conducted to identify existing soil conditions along pipe alignment. Contractors will establish lay down areas alongside the road for storing piping and other materials for easy access. The installation of pipeline begins with the excavation of ditches (six feet deep and three feet wide) approximately three feet off the Northern or Eastern edge of the roadways. Water mains 16 inches and smaller will receive a minimum ground cover of 42 inches. Water mains over 16 inches will receive a minimum cover of 48 inches. All ductile iron pipe will be polyethylene encased to reduce the potential for galvanic corrosion.

The soil that is excavated will be stored by the side of the excavation until needed for backfill, and the excess will be hauled away. Standard practices to control erosion during construction activities will be employed.

During installation, gravel bedding will be laid in the ditches, upon which the pipeline will rest. The pipeline will then be covered by a layer of gravel, followed by a layer of the original backfill soil, regraded to the preexisting elevation and seeded to prevent erosion. Depending upon the equipment used and the type of soil encountered during excavation, contractors can place 300-700 feet of pipe per day.

A water reservoir (approximately 1.0 million gallon) will be installed in the Northeast portion of the Miami Whitewater Forest Park. The water main to the water reservoir will run south from New Haven Road about 50 yards into the Park. This site was chosen because its elevation was adequate for the reservoir and to reduce the impact of forest fragmentation, being as close to cleared farmland as possible. The Cave salamander, Eurycea lucifuga, a state listed endangered species, has been found in the Miami Whitewater Forest, however the reservoir will be situated at least 2500 feet from the known location of the Cave salamander and is not expected to disturb the salamander's habitat.

Where the water main traverses the Great Miami River, the pipe will be suspended from the bridge at the Cincinnati Brookville Road. This is a fairly new bridge capable of supporting the weight. Water mains will also traverse other water ways along the route. The bridges crossing these waterways are old and possibly cannot support the additional weight. Therefore, the pipelines will be buried below these waterways.

Public Water Supply Project

3

There will be some minor traffic disturbances encountered during the installation of the lines due to the operation of equipment along existing roadways. All other socioeconomic impacts will be insignificant.

There will be no known impact to the sole-source aquifer as a result of the proposed construction action. The excavations required for the installation of the pipelines will be too shallow to disturb the aquifer.

Categorical Exclusion to be Applied

The authority for finding this project to be subject to a NEPA Categorical Exclusion is contained in Subpart D of the revision to 10 CFR 1021, entitled "National Environmental Policy Act Implementing Procedures and Guidelines." The Final Rule and Notice, effective May 26, 1992, includes a revised and expanded list of categorical exclusions that are classes of actions that normally do not require the preparation of either an Environmental Impact Statement or an Environmental Assessment.

The Final Rule and Notice specifically lists in Part 1021, Appendix B to Subpart D, Sec. 1021.410, B6.1 (o), the following as types of actions that are Categorical Exclusions applicable to Specific Agency Actions:

Removal actions under CERCLA (including those taken as final response actions and those taken before remedial action) and removal-type actions similar in scope under RCRA and other authorities (including those taken as partial closure actions and those taken before corrective action), including treatment (e.g., incineration), recovery, storage, or disposal of wastes at existing facilities currently handling the type of waste involved in the removal action. These actions will meet the CERCLA regulatory cost and time limits or satisfy either of the two regulatory exemptions from those cost and time limits (National Contingency Plan, 40 CFR part 300). These actions include, but are not limited to:

(o) Provision of an alternative water supply that would not create new water sources if necessary immediately to reduce exposure to contaminated household or industrial use water and continuing until such time as local authorities can satisfy the need for a permanent remedy.

The Public Water Supply Project meets the requirements for the Categorical Exclusion listed above. Furthermore, the proposed action will not violate applicable statutory, regulatory, or permit requirements; it will not require siting and construction or major expansion of waste disposal, recovery or treatment facilities; and it will not permanently impact any environmentally sensitive areas (e.g., wetlands, floodplains, or the sole-source aquifer).

Public Water Supply Project

4

A wetlands delineation and floodplain assessment were conducted in the areas involved. Any impact upon floodplains will be temporary because ditches will be refilled with the original soils, regraded to the original elevations and seeded to prevent erosion. No significant impact to wetlands is expected and all activities will be permitted. A wetlands and floodplains assessment and a floodplain statement of findings will be submitted in accordance with 10 CFR 1022.

A Biological Assessment (in accordance with 16 U.S.C. 1531 et seq.) was conducted and found that no federally endangered or threatened species or critical habitats will be impacted by the pipeline and reservoir. This Assessment did suggest a potential impact to the state-listed Sloan's crawfish, Orconectes sloanii, and Big Eye Shiner, Notropis boons, at the stream crossings at Paddy's Run, Banklick Creek, and several small streams, as well as a potential impact to the Slender finger grass, Digitaria filiformis. The habitats of these species will not be significantly altered because they will be returned to preexisting conditions following construction. To eliminate the potential for destruction of individual species, a trained biologist in cooperation with the Ohio Department of Natural Resources, will use seines to clear the streambed areas of all species prior to construction and specific roadside areas will be surveyed for the Slender finger grass.

Also an archeological survey (in accordance with 36 CFR 800.11) was conducted. Historically significant sites have been flagged to avoid disturbance by construction and this information has been formally transmitted to HCDPW for use during detailed engineering.

Compliance Action

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

Approval:


Raymond J. Hansen, Acting Manager
U.S. Department of Energy, Fernald Office

Date:

7-16-93

United States Government

Department of Energy

Fernald Field Office

memorandum

DATE: JUL 16 1993
REPLY TO: DOE-1848-93
ATTN OF: FN:Skintik
SUBJECT: (CX 382) - PUBLIC WATER SUPPLY PROJECT

TO: Carol Borgstrom, EH-25, FORS

The subject categorical exclusion (attachment) under Section D of the Department of Energy's National Environmental Policy Act Guidelines 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 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 513 648-3151.


Raymond J. Hansen
Acting Manager

Attachment: As Stated

cc w/att:

R. S. Scott, EM-20, FORS
K. A. Hayes, EM-424, TREV
L. Harris, EM-431, TREV
C. J. Brown, FERMCO/51-7

Administrative Record, FERMCO