6050

U-004-305 .50

REVISIONS TO OU #2 REMEDIAL INVESTIGATION REPORT

10/05/94

USEPA DOE-FN
3
COMMENTS

6050

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

FERNALD
LOG I-0026
OCT 7 10 41 AM '94

FILE:
LIBRARY
REPLY TO THE ATTENTION OF:

OCT 0 5 1994

Mr. Jack R. Craig
United States Department of Energy
Feed Materials Production Center
P.O. Box 398705
Cincinnati, Ohio 45239-8705

HRE-8J

RE: Revisions to OU #2 Remedial Investigation Report

Dear Mr. Craig:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the revised Operable Unit (OU) 2 Remedial Investigation (RI) Report and associated Responses to Comments (RTC).

The majority of U.S. EPA's comments have been adequately addressed. However, some further text revisions are necessary. Therefore, U.S. EPA hereby approves the revised RI report and RTC pending incorporation of appropriate responses to the attached comments. U.S. DOE must submit responses to comments and highlighted change pages within thirty (30) days receipt of this letter.

Please contact me at (312) 886-0992 if you have any questions.

Sincerely,

James A. Saric, Remedial Project Manager
Technical Enforcement Section #1
RCRA Enforcement Branch

Enclosure

Internal action response to R-3151 (8301)

cc: Tom Schneider, OEPA-SWDO
Jack Baublitz, U.S. DOE-HDQ
Don Ofte, FERMCO
Jim Thiesing, FERMCO
Paul Clay, FERMCO

Printed on Recycled Paper

TECHNICAL REVIEW COMMENTS ON THE REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNIT 2, REVISION 2

GENERAL COMMENTS

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 4.0 Page #: NA Line #: NA
DOE Comment #: 8 (Original General Comment #5)
Comment: The original comment requests that additional information be provided in each subunit summary section. Additional revision or clarification is required for the following three subunits:

Lime Sludge Ponds: The summary should also mention that channelized drainage exists at the northern edge of the lime sludge ponds as noted on Page 4-128, Line 38, of the June 1994 operable unit (OU) 2 remedial investigation (RI) report.

Inactive Flyash Pile: Page 4-249, Line 29, should be deleted from the summary text of the June 1994 OU2 RI report.

Active Flyash Pile: The conclusion regarding the detection of metals and organic contamination in shallow groundwater was deleted from the revised text. The revised text should include this conclusion.

Also, the text should be revised to state that thorium, a radionuclide, was detected above background in perched groundwater.

Finally, the conclusion regarding the conceptual model should be moved from Section 4.0 to Section 6.0.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: A.2 Page #: NA Line #: NA
DOE Comment #: 9 (Original General Comment #12)
Comment: The original comment requested that the U.S. Department of Energy (U.S. DOE) compare modeled groundwater concentrations with actual measured concentrations in the Great Miami Aquifer (GMA) so that an evaluation of the model calibration could be performed. U.S. DOE performed the comparison on a single well, adjusted the desorption coefficient (K_d) value, and modeled a groundwater concentration deviating (on the low side) from observed concentrations by a factor of five. The issue of groundwater model calibration has not been fully addressed. It appears that the groundwater model calibration is not complete both in terms of the number of cells calibrated and the calibration targets used. These issues need to be further addressed.

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 4.2.4 Page #: 4-71 Line #: 22 and 23
DOE Comment #: 14 (Original Specific Comment #4)
Comment: According to Table 4-1A of the June 1994 OU2 RI report, the total uranium background concentration for the GMA is 2.0 micrograms per liter (μg/L). Well 2027 is upgradient of the solid waste landfill, and Wells 2951, 2037, and 2947 are downgradient. According to Table 4-13, Well 2037 has a total uranium concentration of 4.5 μg/L. These facts support the conclusion that the upper GMA has been impacted by total uranium from the solid waste landfill within the OU limits. U.S. DOE should therefore revise its conclusion that the upper GMA has not been impacted by the solid waste landfill.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: A.2.8.2.1 Page #: A-2-135 Line #: NA
DOE Comment #: 20 (Original Specific Comment #82)
Comment: The original comment requests a discussion and justification of why lead, radium-226, and radium-228 are not included in the groundwater fate and transport modeling. This comment has not been addressed. U.S. DOE should address this issue.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 4.3.2 Page #: 4-127 Line #: 23 and 24
DOE Comment #: 31 (New Specific Comment #11)
Comment: U.S. DOE's discussion of the lime sludge ponds still does not include lime sludge as a potential source of subsurface contamination and instead identifies other sources. U.S. DOE should clearly state that the lime sludge is also a potential source of subsurface contamination.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 6.2.1 Page #: 6-5 Line #: NA
DOE Comment #: 49 (New Specific Comment #1)
Comment: The original comment requests that the off-property farmer be added to Table 6-1. Table 6-1 still omits the off-property farmer. The off-property farmer should be added to Table 6-1.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: B.3.2.4.3 Page #: B-3-134 Line #: NA
DOE Comment #: 62 (New Specific Comment #14)
Comment: The revised text erroneously cites thorium-228 instead of thorium-232, as stated in the original comment. The text should be corrected to cite thorium-232.