

**CONDITIONAL APPROVAL OF DRAFT FINAL OU 5 FEASIBILITY
STUDY/PROPOSED PLAN REPORTS**

04/20/95

USEPA DOE-FN

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COMMENTS



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

6851

I-2207

FEB 24 11 37 AM '95

REPLY TO THE ATTENTION OF:

APR 20 1995

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

HRE-8J

RE: Conditional Approval of Draft Final
OU 5 Feasibility Study/Proposed
Plan Reports

Dear Mr. Craig:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the United States Department of Energy's (U.S. DOE) Draft Final Operable Unit (OU) 5 Feasibility Study (FS)/Proposed Plan (PP) Reports. There have been several meetings, teleconferences and discussions between representatives of U.S. DOE, U.S. EPA and the Ohio Environmental Protection Agency concerning these documents. U.S. DOE has adequately addressed the majority of U.S. EPA's comments. However, a few minor issues remain where responses were not incorporated into the text, or references were incorrectly cited.

U.S. EPA has also attached comments on section F.8 which was added to the draft final FS report. Although many of these issues may be more appropriately addressed in the remedial design phase of the OU 5 investigation, it is important that U.S. DOE begin addressing them as soon as possible.

It remains U.S. EPA's position that U.S. DOE has incorrectly used statistical methodologies in the OU 5 Comprehensive Response Action Risk Evaluation (CRARE). This deviation from U.S. EPA's preferred statistical methodologies does not significantly impact the risk assessment or the proposed remedial decision. Future CRARE documents must correctly utilize this statistical procedure before the report can be approved.

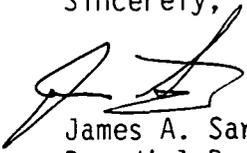
Therefore, U.S. EPA hereby approves the draft final OU 5 FS and PP reports pending incorporation of adequate responses to the attached comments. A final copy of the documents should be submitted incorporating the responses to U.S. EPA within thirty (30) days receipt of this letter.

(Signature)
Action, 4/20/95
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(8775)

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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

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

This increase of \$23.82 for the addition of 500 gpm of treatment capacity appears disproportional. The text should provide all assumptions and cost information used to support all the cost estimates in Table F.8-1.

Commenting Organization: U.S. EPA Commentor: Saric
 Section #: F.8.3.1 Page #: F-8-6 Line #: 15
 Original General Comment #: 3a

Comment: This section of the FS report presents information regarding the results of groundwater extraction optimization modeling. Section F.8.3.1.1 presents the revised baseline extraction system capacity as 6,300 gpm. The optimization scenarios in Section F.8.3.1.2 maintain a constant pumping rate of 6,300 gpm, and the optimization scenarios in Section F.8.3.1.3 maintain a constant pumping rate of 4,000 gpm; however, it does not appear that a true groundwater extraction optimization study has been conducted in either Section F.7 or F.8. The groundwater extraction options in Section F.7 consider only three well configurations. The optimization modeling in both Sections F.8.1.2 and F.8.1.3 are constrained with a fixed extraction rate of either 6,300 or 4,000 gpm. DOE should conduct a groundwater optimization study that evaluates each of the four contaminant plumes independently to determine the optimum number of wells pumping the least amount of groundwater to (1) capture the contaminant plume, (2) remove the greatest mass of contaminants from the aquifer, and (3) occur in the least amount of time. This type of optimization study should be conducted for each of the four groundwater contamination areas. The results of this optimization study should then be combined and used as input into potential treatment options and then undergo the same performance evaluation as presented in Section F.8.4 and the cost compared to the selected alternative.

Commenting Organization: U.S. EPA Commentor: Saric
 Section #: F.8.4.5 Page #: F-8-15 Line #: 1
 Original General Comment #: 4a

Comment: This section of the FS report presents the cost analysis for the screened groundwater extraction and treatment systems. Only a very cursory and qualitative evaluation is presented, preventing decisionmaking based on a quantitative assessment. The text should provide actual cost estimates for the five groundwater extraction and treatment strategies referenced in this section. In addition, the text should also present cost information for the resultant groundwater extraction and treatment scenario (if warranted) derived from the optimization study suggested in comment 3a.

Commenting Organization: U.S. EPA Commentor: Saric
 Section #: H Page #: NA Line #: NA
 DOE Response #: 139 (Original General Comment #: 26)
 Comment: The original comment states that the text should provide a reference for the source of the background levels

Commenting Organization: U.S. EPA Commentor: Saric
 Section #: F.7.3.2 Page #: F-7-11 Line #: NA
 DOE Response #: 112 (Original Specific Comment #: 81)

Comment: The original comment states that remediation scenario effects on other COCs should be included in the text. In response to this comment, DOE added Table F.7-7 which includes requested information; however, the table does not show when the concentrations of the other COCs are below screening levels. This information should be provided in the table to help determine if COC concentrations will be below screening levels before 400 years, which is the proposed time to discontinue the groundwater extraction system (see Section 7, Page F-7-3, first bullet).

Commenting Organization: U.S. EPA Commentor: Saric
 Section #: F.7.4.6 Page #: F-7-19 Line #: 36 to 38
 DOE Response #: 116 (Original Specific Comment #: 85)

Comment: The original comment requests information concerning the time required to reduce trichloroethene (TCE) concentrations to 5 micrograms per liter ($\mu\text{g/L}$). In response to this comment, DOE references Table F.7-11, which the response states shows that "the maximum total volatile organic compound (VOC) concentration at 30 years for the Restore to 20 parts per billion (ppb) Design is 0.26 ppb." Table F.7-11, however, actually shows concentrations for uranium, not VOCs. Table F.7-11 should either be revised or a reference to the correct table or text should be made.

In addition, the text also references Table F.8-9 for information showing the time it takes to reduce TCE levels to below 5 ppb. This table shows that the mass of TCE that is treated is less than the mass of TCE that is discharged. It is not apparent how the mass of TCE discharged could be greater than the mass of TCE treated. The table should be revised to address this discrepancy.

Finally, reduction of TCE concentrations are used as the indicator to determine when total VOCs would be reduced to levels of less than 5 ppb because TCE is the dominant VOC detected; however, some VOCs such as vinyl chloride have maximum contaminant levels (MCL) below 5 ppb. For example, the MCL for vinyl chloride is 2 ppb. DOE should determine when VOC concentrations are below MCLs for contaminants with MCLs below 5 ppb.

Commenting Organization: U.S. EPA Commentor: Saric
 Section #: G.3.2.1 Page #: G-3-9 Line #: NA
 DOE Response #: 133 (Original Specific Comment #: 99)

Comment: The original comment notes that some of the values in Table G.3-1, which presents exposure point concentrations in soil, are presented as "0.00." Insufficient data was collected to definitively determine if any of the contaminants are not present at the FEMP site. The original comment states that the use of "0.00" should be eliminated

