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RE: BASELINE REMEDIAL STRATEGY REPORT - (THIS LETTER WAS RECEIVED UNDATED, COMMENTS ARE FOR THE BASELINE REMEDIAL STRATEGY REPORT FOR AQUIFER RESTORATION)

USEPA DOE-FEMP
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COMMENTS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

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REPLY TO THE ATTENTION OF: _____

Mr. Johnny W. Reising
United States Department of Energy
Feed Materials Production Center
P.O. Box 398705
Cincinnati, Ohio 45239-8705

SRF-5J

RE: Baseline Remedial
Strategy Report

Dear Mr. Reising:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the United States Department of Energy's (U.S. DOE) baseline remedial strategy report for aquifer restoration.

The report is intended to serve as the technical basis for the detailed design of the groundwater remedy, and summarizes the results of enhancement modeling simulations presented in the Operable Unit 5 feasibility study report.

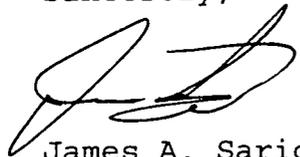
U.S. EPA has several comments on the report that must be addressed and/or require further clarification.

Therefore, U.S. EPA disapproves the baseline remedial strategy report pending incorporation of adequate responses to the attached comments. U.S. DOE must submit a revised report and responses to comments within thirty (30) days receipt of this letter.

*(Janke (rj)
partial
action response
to doe-1424-96
(10057)*

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

Sincerely,



James A. Saric
Remedial Project Manager
Federal Facilities Section
SFD Remedial Response Branch #2

Enclosure

- cc: Tom Schneider, OEPA-SWDO
- Jack Baublitz, U.S. DOE-HDQ
- John Bradburne, FERMCO
- Charles Little, FERMCO
- Terry Hagen, FERMCO
- Tom Walsh, FERMCO

Commenting Organization: U.S. EPA Commentor: Saric
 Section #: 3.1.4 Page #: 3-4 Line #: 10
 Original Specific Comment #:2

Comment: The report states that South Plume Removal Action wells will be handled as a single unit and that the extracted groundwater would be treated or discharged depending on the combined concentration occurring in the South Plume force main. Because only two of the five South Plume Removal Action wells are extracting contaminated water, the resultant concentration in the force main will be diluted; therefore, this approach does not meet the intent of the ROD. The treatment or discharge decision should be based on wellhead concentrations for each well. This approach was agreed upon in the "Project Specific Plan for the Installation of the South Field Extraction System."

Commenting Organization: U.S. EPA Commentor: Saric
 Section #: 3.2 Page #: 3-6 Line #: 5
 Original Specific Comment #:3

Comment: The report states that monitoring data will be evaluated frequently to determine the effectiveness of the system or identify potential problems. The schedule in the Integrated Environmental Monitoring Program (IEMP) does not describe a schedule of sufficient frequency to conduct evaluations. A specific monitoring schedule should be added.

Commenting Organization: U.S. EPA Commentor: Saric
 Section #: 3.4.3 Page #: 3-10 Line #: 23
 Original Specific Comment #:4

Comment: The report states that any cleanup scenario that requires incremental treatment capacity extends beyond the commitment for extended treatment capacity in the ROD. No language in the ROD precludes additional treatment capacity. This sentence and all other sentences that imply that additional treatment is going beyond ROD requirements should be deleted.

Commenting Organization: U.S. EPA Commentor: Saric
 Section #: 3.4.4 Page #: 3-11 Lines #: 2 through 4
 Original Specific Comment #: 5

Comment: The report refers to several studies that indicate that adsorption is not a reversible phenomenon as time increases. Most of the studies referred to were conducted with organic compounds such as polychlorinated biphenyls and polycyclic aromatic hydrocarbons. The report refers to isotherm studies it has conducted with GMA solids in Lines 29 and 30. It is not clear whether these studies indicate different characteristics for adsorption and desorption for uranium. If so, these studies should be referenced in the discussion. If the studies did not indicate different coefficient values

viable option and is preferred to increasing aquifer restoration times.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 4.3.2.2 Page #: 4-30 Line #: 3
Original Specific Comment #:10

Comment: The report states that the chance of additional treatment capacity resulting from the addition of mobile treatment modules is very low. No language in the ROD precludes additional treatment. The report should include a discussion explaining why the chance of additional treatment capacity is very low.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 5.2.1.2 Page #: 5-10 Line #: 10
Original Specific Comment #:11

Comment: The report states that wells 1 and 3N may be tied into the existing South Plume Removal Action pipeline. This approach is acceptable as long as extracted groundwater from each individual well can be sent for either treatment or discharge and is monitored at the well head. The report should clarify this matter.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 5.4.2 Page #: 5-32 Line #: 6
Original Specific Comment #:12

Comment: The report states that the combined uranium concentration in the extracted South Plume groundwater is less than 20 parts per billion (ppb) and that this groundwater does not require treatment. However, the ROD requires that an evaluation be made at each well to determine whether extracted groundwater should be treated or discharged. The report should propose a course of action that satisfies the intent of the ROD.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 6.2.1 Page #: 6-3 Line #: 1
Original Specific Comment #:13

Comment: The report states that a fundamental objective is to use a "learn as you go" principal. Although this approach is evident in the sequencing of the modules of the 10-year scenario, adequate learning of aquifer response and of contaminant response to injection and extraction until about year six, which does not allow sufficient time to for DOE to make adjustments to meet the 10-year predicted restoration timeframe.

