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

FERNALD
LOG L-2004
AUG 5 10 55 AM '98
FILE: 5712
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: Integrated Site Environmental Report Comments

AUG 04 1998

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) integrated site environmental report. The 1997 annual report, dated May 1998, provides the results of the environmental monitoring program for calendar year 1997 as required by the Integrated Environmental Monitoring Plan (IEMP).

Overall, the annual report is acceptable and meets the requirements of the IEMP. However there are a few areas where the report can be improved. U.S. EPA has enclosed its comments on the report.

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
Bill Murphie, U.S. DOE-HDQ
John Bradburne, FERMCO
Terry Hagen, FERMCO
Tom Walsh, FERMCO

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TECHNICAL REVIEW COMMENTS ON "1997 INTEGRATED SITE ENVIRONMENTAL REPORT"

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

GENERAL COMMENTS

Commenting Organization: U.S. EPA Commentor: Saric
Section #: Not Applicable (NA) Page #: NA Line #: NA
Original General Comment #: 1
Comment: Several sections of the 1997 annual report include information that is not current. That is, the report refers to events that were to have taken place before the May 1998 report publication date but does not describe the outcome of these events. For example, the first bullet on Page 86 states that "Onsite monitors ... are expected to be removed from service during the first two weeks of 1998." Future annual reports could be improved by making sure that all information presented is up to date before publication.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3 Page #: 53 Line #: NA
Original General Comment #: 2
Comment: The aquifer's response to restoration activities is discussed in general terms, and the discussion suggests that aquifer restoration is proceeding as it was planned and modeled. This interpretation of the data is not completely accurate. For example, the modeled 10-year restoration footprint referred to in the text and shown in Figure 3-6 does not accurately depict actual field conditions. Figure 3-6 indicates that the entire uranium plume is within the modeled footprint; however, 1997 groundwater elevation data indicates that the actual 10-year restoration footprint is smaller and the entire uranium plume may not be captured. In addition, Figure 3-6 presents the observed capture zone only for the south portion of the uranium plume and no mention is made of the potential lack of capture in the northeast portion of the plume. Future annual reports should discuss these issues.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 5 Page #: 88 Line #: NA
Original General Comment #: 3
Comment: The annual report briefly describes project-specific air monitoring that occurred during 1997, but the report does not include actual data or data summaries for project-specific air monitoring. The first quarterly report for 1998 takes a similar approach, in that it describes project-specific air monitoring results without presenting any data. Without actual data, it is difficult to interpret project-

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specific monitoring results. Section 6 of the "Integrated Environmental Monitoring Plan" (IEMP) is somewhat vague regarding how project-specific data will be presented in quarterly and annual monitoring reports. This issue should be addressed in the biannual revision of the IEMP, which is currently scheduled for fall 1998.

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 5 Page #: 87 Line #: NA
Original Specific Comment #: 1
Comment: The text includes a summary of results for the annual composite samples obtained from radiological air particulate samples collected throughout the year. The annual composite samples are analyzed for uranium isotopes and several other radionuclides. The text states that on average, uranium isotopes accounted for 94 percent of the dose in the annual composite samples. However, this statement cannot be verified based on the annual composite data presented in Appendix C of the annual report. Table C.1-4 presents the concentrations of individual radionuclides found in composite samples in units of picocuries per cubic meter, but the table does not convert these concentrations to dose equivalents. Future annual reports should present both the measured concentrations and the dose equivalents for the annual composite samples.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 5 Page #: 95 Line #: NA
Original Specific Comment #: 2
Comment: The discussion of monitoring for direct radiation could be improved by briefly describing the frequency (quarterly) and purpose (to assess the direct radiation component of the air pathway dose) of the measurements as is done for other components of the air monitoring program. This approach should be considered for future annual reports.

Commenting Organization: U.S. EPA Commentor: Saric
Table #: 5-7 Page #: 101 Line #: NA
Original Specific Comment #: 3
Comment: Some of the information in Table 5-7 is not clearly presented. Based on information in Table C.4-1 of Appendix C, the "number of samples" column in Table 5-7 includes both background and nonbackground samples. Because this column does not distinguish between background and nonbackground samples, the number of samples of each type cannot be determined, even when the reader refers to the text. Such information should be more clearly presented when biota sampling data is next included in an annual report.

Commenting Organization: U.S. EPA Commentor: Saric
Attachment #: A.1 Page #: A.1-2 and A.1-3 Line #: NA
Original Specific Comment #: 4
Comment: The text on these pages discusses the occasions when extraction wells were out of service. Future annual reports should briefly discuss how an extended out-of-service period for a well, such as the 81 days for extraction well 3925, impacts extraction system performance.

Commenting Organization: U.S. EPA Commentor: Saric
Attachment #: A.2 Page #: NA Line #: NA
Original Specific Comment #: 5
Comment: The text in this attachment describes the total uranium concentrations in some monitoring wells. Future annual reports should briefly discuss monitoring wells such as 2624 and 3062, which exhibited concentrations greater than the final remediation level before 1997 but for which no 1997 data is presented.

Commenting Organization: U.S. EPA Commentor: Saric
Attachment #: B.1 Page #: B.1-5 Line #: NA
Original Specific Comment #: 6
Comment: The text refers to treatment system bypass events that occurred during 1997. The U.S. Department of Energy notifies the regulatory agencies of bypass events and identifies the duration (in hours) and quantity of storm water associated with each bypass event. Future annual reports should include a table in Attachment B.1 summarizing this information.