



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

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AUG 16 1999

2446

SRF-5J

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

RE: IEMP 1st Quarter
1999 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) integrated environmental monitoring report for the first quarter of 1999. This document is designed to meet the site-wide environmental monitoring reporting requirements, pursuant to the Integrated Environmental Monitoring Plan (IEMP).

U.S. EPA has attached its comments on the quarterly 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

TECHNICAL REVIEW COMMENTS ON
"INTEGRATED ENVIRONMENTAL MONITORING STATUS REPORT
FOR FIRST QUARTER 1999"

2446

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA
Section #: 1.2
Original Specific Comment #: 1

Commentor: Saric

Page #: 1-4

Lines #: 34 through 38

Comment: The text states that if the northeast lobe of the plume was not being captured, the total uranium concentration should be increasing in groundwater samples from monitoring well 21063. This would be a reasonable statement if monitoring well 21063 were screened at the correct depth to be impacted by the plume. However, monitoring well 21063 is screened across the water table. In the "1998 Integrated Site Environmental Report", Figure A.2-6 shows that the highest total uranium concentrations occur about 40 feet below the water table. Also, no "series 3000" monitoring wells are present southeast of the plume's northeast lobe that could be used to monitor the groundwater 40 feet below the water table. DOE should conduct an additional Geoprobe investigation in the area southeast of the northeast lobe to evaluate the usefulness of monitoring well 21063 in defining plume migration.

Commenting Organization: U.S. EPA
Section #: 1.2
Original Specific Comment #: 2

Commentor: Saric

Page #: 1-5

Line #: 25

Comment: The text states that malfunctions of the leachate collection system pipeline occurred during the first quarter of 1999 and that repairs to the pipeline were not completed until the second quarter. The pipeline malfunctions involved the containment pipe as well as the primary pipe and resulted in significant spills of contaminated liquid. The impact of the spilled contaminated liquid on the surrounding soil and perched groundwater and the potential impact on the Miami River Aquifer are not discussed in the report. The next quarterly report should discuss the impacts of the pipeline malfunction in terms of the nature and extent of the resulting soil and groundwater contamination.

Commenting Organization: U.S. EPA

2446 Commentor: Saric

Section #: 2.2

Page #: 2-3

Line #: 34

Original Specific Comment #: 3

Comment: The text states that there were two maintenance bypass days in March 1999, but Table 2-1 states that there were three bypass days during that month. This discrepancy should be reconciled.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 3.2

Page #: 3-2

Line #: 13 through 15

Original Specific Comment #: 4

Comment: The text states that during the first quarter of 1999, air monitors at locations AMS-7 and AMS-27 were temporarily out of service and operated less than 95 percent of the time. If similar situations occur in the future, the U.S. Department of Energy (DOE) should provide the specific percentage of air monitoring operating time in the quarterly report.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 3.2

Page #: 3-2 and 3-3

Line #: 41 through 47 and 1 through 4

Original Specific Comment #: 5

Comment: According to the text, significant problems were encountered during analysis of first-quarter 1999 composite samples for thorium. These problems resulted in rejection of thorium data for three fence line monitoring locations and both background monitoring locations. DOE reported similar problems with thorium analytical results in the report for the fourth quarter of 1998. DOE should evaluate the off-site laboratory that conducts the thorium analyses to determine whether a systematic problem exists and whether corrective action is warranted.

The text further states that DOE replaced the rejected thorium background data with background data from the first quarter of 1998. As shown by the data in Table 3-3, using the first-quarter 1998 background data causes the thorium results for eight fence line locations to be reported as "0.0E+00," or less than the background level. Consequently, the doses reported for these locations in Table 3-3 and the discussion of thorium contributions to total measured doses are questionable. DOE should provide a technical discussion to (1) support the use of first-quarter 1998 background data in place of first quarter 1999 data and (2) describe how this procedure may have affected the doses reported.

Commenting Organization: U.S. EPA

2446 Commentor: Saric

Section #: 3.2

Tables #: 3-1 and 3-2

Line #: Not applicable

Original Specific Comment #: 6

Comment: The data in Tables 3-1 and 3-2 shows that fence line location AMS-22 is the only monitoring point where the first-quarter 1999 average results for both total particulates and total uranium particulates exceed the 1998 average results. Monitoring point AMS-22 is located along the fence line in the middle of the northern boundary. Monitoring point AMS-23, which showed no increase in average results, is located between AMS-22 and the construction activity for the wetland mitigation project, which according to the text is a source of particulates. Therefore, DOE should explain the increase in average particulate results at location AMS-22.