UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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REPLY TO THE ATTENTION OF

FEB 11 1999

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

SRF-5J

RE: IEMP 3RD QTR 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 environmental monitoring report for the third quarter of 1998. 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 discovered several discrepancies that need to be included in future quarterly reports. U.S. EPA has attached 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
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2011

TECHNICAL REVIEW COMMENTS ON "INTEGRATED ENVIRONMENTAL MONITORING STATUS REPORT FOR THIRD QUARTER 1998"

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA Commentor: Saric
Section #:1.2 Page #: 1-2 Line #:42
Original Specific Comment #:1
Comment: The text refers to Figure 1-28 for a presentation of the total groundwater volume pumped versus the total groundwater volume treated. The draft Integrated Environmental Monitoring Plan (IEMP) dated October 1998 requires that the U.S. Department of Energy report the maximum, minimum, and average uranium concentration of groundwater sent for treatment during the previous quarter. This information should be provided in future quarterly reports. In addition, although not specifically required by the IEMP, future quarterly reports should also specify which extraction wells send groundwater to the treatment system and which wells directly discharge groundwater. This information should also include the maximum, minimum, and average uranium concentrations of groundwater sent for treatment or discharge from each extraction well.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.2 Page #: 3-1 Lines #: 28 through 30
Original Specific Comment #: 2
Comment: The report states that "an increase in the quarterly average total uranium concentration was observed at nine of the 16 fenceline air particulate monitoring locations during the third quarter of 1998." However, data in Table 3-1 also show that year-to-date average uranium concentrations at the end of the third quarter increased at 13 of the 16 sampling locations, compared to year-to-date averages at the end of the second quarter. This comparison is a more meaningful indicator of uranium concentration trends because it considers all data collected in 1998 and not just data from the second and third quarters. Subsequent quarterly reports should include comparisons of year-to-date averages as well as quarterly averages of uranium concentrations.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.2 Page #: 3-2 Lines #: 34 through 40
Original Specific Comment #: 3
Comment: The text states that a high radium-226 dose equivalent was observed at background monitoring location AMS-16 during the third quarter. However, Table 3-3 shows a year-to-date value of "0.0E+000" for radium-226 at location AMS-16. Either subsequent quarterly reports should be reviewed to eliminate discrepancies of this type or a footnote should be

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added to Table 3-3 to explain why measured radium-226 values are presented as zero.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.2 Page #: 3-3 Lines #: 11 through 19
Original Specific Comment #: 4
Comment: Discussion of project-specific air monitoring results in the quarterly reports continues to be inadequate. This paragraph, which discusses air monitoring results from the decontamination and dismantlement of the Thorium/Plant 9 Complex, states that results at one project-specific air monitoring point exceeded "the established criteria" and that "additional engineering controls were implemented which extend beyond the project boundary." The language in the paragraph is nearly identical to language in the second quarter monitoring report, when a similar exceedance was observed and engineering controls were implemented. It appears that controls implemented during the second quarter were not completely effective because established criteria were again exceeded during the third quarter. This raises questions concerning the types of controls implemented during the second quarter and whether controls implemented in the third quarter are likely to be more effective. Subsequent quarterly monitoring reports should present a more complete discussion of project-specific air monitoring results and activities.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.2 Page #: 3-3 Lines #: 21 through 33
Original Specific Comment #: 5
Comment: This paragraph, which discusses air monitoring of the Sewage Treatment Plant (STP) Complex Decontamination and Dismantlement project, is another example of the need to expand the discussion of project-specific air monitoring results in the quarterly monitoring reports. The paragraph refers to a project-specific air monitor located between AMS-3 and AMS-29 along the eastern site fenceline. The paragraph also states that results for this monitor were "comparable to uranium concentrations measured at AMS-3." The location of the project-specific air monitor along the fenceline suggests that the STP project has the potential to cause an air impact at or beyond the fenceline that is not adequately monitored by either AMS-3 or AMS-29. Further, during the third quarter, the highest calculated dose equivalent occurred at location AMS-3. If results for the project-specific air monitor were similar to AMS-3 results as stated, data for this monitor should have been presented and additional discussion should have been included in the quarterly monitoring report. Subsequent quarterly monitoring reports should more completely discuss and present project-specific air monitoring results, especially

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when there is a potential impact at or beyond the site fenceline.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.2 Page #: 3-5 Line #: 3
Original Specific Comment #: 6
Comment: Based on data presented in Table 3-5, the text should be revised to state that silo headspace radon concentrations are summarized "monthly" rather than "quarterly."

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.2 Page #: 3-5 Lines #: 9 through 12
Original Specific Comment #: 7
Comment: The text states incorrectly that Silo 2 headspace radon concentrations during the third quarter of 1998 increased by 33 percent compared to the same period in 1997. However, data presented in Table 3-5 indicate that minimum daily averages increased by no more than 24 percent, maximum daily averages increased by no more than 14 percent, and monthly averages increased by no more than 22 percent. The text and table should be made consistent in future quarterly reports.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.2 Page #: 3-5 Lines #: 30 through 33
Original Specific Comment #: 8
Comment: The text states that direct radiation measurements show a slight positive trend at the site fenceline near the K-65 silos and that Figure 3-13 shows the trend for location AMS-6. However, Figure 3-13 shows that concentrations at location AMS-6 have remained nearly constant and nearly identical to background concentrations between 1992 and 1998. Subsequent quarterly monitoring reports should either include revised text or present a revised figure that more clearly illustrates the slight positive trend at location AMS-6.

Commenting Organization: U.S. EPA Commentor: Saric
Table #: 3-7 Page #: 3-14 Line #: NA
Original Specific Comment #: 9
Comment: This table contains two apparent discrepancies between total particulate and individual radionuclide results. First, a thorium-230 result is included for the Building 71 Stack, but footnote c to the table states that total particulate concentrations for the Building 71 Stack "could not be determined due to a damaged filter." Second, individual radionuclide concentrations are presented for the T-Hopper Stack, but the total particulate concentration for this stack is listed as "0.0E+00." It should be noted that similar discrepancies have appeared in previous quarterly monitoring reports. Subsequent reports should more clearly

state how radionuclide concentrations were determined when particulate matter either was not detected or could not be measured.