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State of Ohio Environmental Protection Agency

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George V. Voinovich
Governor

July 24, 2000

Mr. Johnny Reising
U.S. DOE FEMP
P.O. Box 398705
Cincinnati, OH 45329-8705

RE: COMMENTS ON THE INTEGRATED ENVIRONMENTAL MONITORING STATUS REPORT FOR FIRST QUARTER 2000, 51350-RP-0011 REV.0 Final.

Dear Mr. Reising:

Ohio EPA has reviewed the Integrated Environmental Monitoring Status Report for the First Quarter 2000 submitted by DOE. Ohio EPA's comments are attached.

If there are any questions, please contact me at (937) 285-6466 or Donna Bohannon at (937) 285-6543.

Sincerely,

Thomas A. Schneider
Fernald Project Manager
Office of Federal Facilities Oversight

cc: Jim Saric U.S. EPA
Terry Hagen, Fluor Daniel Fernald
Francis Hodge, Tetrach
Ruth Vandegrift, ODH
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**INTEGRATED ENVIRONMENTAL MONITORING
STATUS REPORT FOR FIRST QUARTER 2000
51350-RP-0011 Rev.0 Final, June 2000**

Comments:

1. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.2.1 Pg #: Line #: Code: c
- Comment: Interpretations of the significance of the liquid volumes in the Leak Detection System (LDS) of OSDF Cell 2 are complicated by several factors.
- No reliable records were kept of liquid volumes prior to May of 1999.
 - Leachate "backups" from the Leachate Transmission System into the LDS of Cell 2 in the December 1999-January 2000 time period. The backup occurred despite the presence of a check valve. The slow flow of the backup from the LDS drainage layer can not be distinguished from a leak in the Leachate Collection System (LCS).
- The downward trend of total flows during the months of July (882 gallons), August (474 gallons) and September (102 gallons) are indicative of residual drainage from the backup. It is not reasonable to use the average flow during the third quarter of 1999 (3.8 gallons per acre per day, gpad) as a benchmark to compare the reduced flows during the fourth quarter. This rationalization was used in the last two Quarterly Reports. The Ohio EPA considers the reduced flow during the fourth quarter of 1999 to be the result of two factors
1. The backup has by then been nearly completely drained
 2. Rainfall during the fourth quarter was low. Rainfall during October (2.46 inches total) and November (2.05 inches total) was quite low. December was wetter (3.44 inches total) but was distributed over six days of rain. We speculate that this rain was spread out enough to contribute more to hydrating the contents of Cell 2 rather than infiltrating to the LDS drainage layer.
- Over 4 inches fell over the period of January 2 and 3, 2000. During the next monitoring period (January 4 through January 12, 2000), 0.264 gpad was found in the LDS. It is nearly impossible to escape the conclusion that rainfall correlates with LDS flow. The LDS flows have continued to increase to date. Future discussions of the Cell 2 LDS flows should include quantifiable parameters such as:
1. Analytical data for the LCS and LDS liquid
 2. Correlations between LCS and LDS flows
 3. The saturated volume of the LCS layer should be estimated as a function of total LCS flows. Assuming that flow only occurs through holes that lie within the saturated area, an attempt should be made to estimate the number of pinholes, the area of the holes, etc.
 4. Please refrain from comparing the current conditions to third quarter 1999 flows and from rationalizing measured flows as only being a small

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percentage of the action leakage rate.

2. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 5.0 Pg #: NA Line #: NA Code: C
 Original Comment #:
 Comment: The investigation into the turbid conditions in the north drainage ditch is discussed in this section. Although pertinent to the Sloan's Crayfish population, and important to mention in this section, additional information should be included in the surface water monitoring section (Section 3). The issue relates to monitoring of storm water controls, was reflected in total uranium results in the IEMP program, and in OEPA's monitoring program, in addition to observations made by the Sloan's Crayfish monitoring program. Please include information on the continuing investigation into the causes of the turbidity in Section 3.
3. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 5.0 Pg #: NA Line #: NA Code: C
 Original Comment #:
 Comment: This section lists water quality parameters that were sampled for in the Area I, Phase I Mitigation Wetlands, however no data is included in the report or on the disk. Please include the results of all samples, preferably on the data disk. Please send OEPA the results from the first quarter of 2000.
4. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: SW600.txt Pg #: data disk Line #: SWR-01 Code: C
 Original Comment #:
 Comment: The parameters for SWR-01 do not match those reported previously. Metals only are listed for this location on the data disk. No explanation is given.
5. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: SW600.txt Pg #: data disk Line #: SWR-01 Code: C
 Original Comment #:
 Comment: There are results given for SWR-01 from samples that were taken on March 22, 2000. In previous reports we had to wait until August to receive data from the first quarter sampling (eg. samples taken on March 15, 1999 were not reported to Ohio EPA until August 1999). We have repeatedly asked for a more timely reporting of results and were repeatedly told that results were reported to us as soon as they were available. Timely reporting of results has been one of our biggest frustrations. Based on the results reported on this data disk, it appears as though some results could have been reported earlier. Please explain.

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6. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.3 Pg #: NA Line #: NA Code: C
Original Comment #:
Comment: This section states that two total uranium samples were missed during January at SWD-02 and S3WD-03. Samples from SWD-03 had been missed previously as well. This states that "This issue was communicated to the project and corrected during the subsequent months." It is our understanding that the sampling of these locations is the responsibility of the IEMP and not projects. During development of the IEMP we understood that the sampling locations listed in the IEMP were the responsibility of the Integrated Environmental Monitoring Program and that project specific sampling would not fall under the IEMP, but under the specific project. This statement seems to indicate that the sampling of these locations is now done under a project. Please explain. Also please give more details on the cause for continuing to miss sampling and what is being done to correct this.
7. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.1 Pg #: NA Line #: NA Code: C
Original Comment #:
Comment: This section states that "Wastewater and storm water discharges from the Fernald site were in compliance 100 percent of the time during January and February 2000 (under the old permit)." However Ohio EPA records indicate January 2000 noncompliance with the discharge limitations specified in the FEMP NPDES Permit (reference Letter No. C:SWP.(ARWWP): 2000-0003). Please explain this omission.
8. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.1 Pg #: NA Line #: NA Code: C
Original Comment #:
Comment: The 1999 IEMP Annual Report, referring to TSS exceedances at the sewage treatment plant, states that "Due to improvements made in operating and controlling the sewage treatment plant, noncompliances were not experienced after April 1999". This would lead the reader to believe that no more exceedance are likely to occur. However, this report states that additional TSS exceedances were experienced at the sewage treatment plant during the first quarter of 2000 and refers the reader to the noncompliance report filed with the Ohio EPA in April 2000. That letter proposed potential causes and states that exceedances would likely be temporary (although they occurred in April as well). As it appears that further exceedances were not anticipated after April 1999, and they continued to occur in at least March and April of 2000, and this report was issued in late June, two full months after the noncompliance report

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referred to in this quarterly report, a more timely update with further explanation of the issues involved in these noncompliances would seem warranted in this report.

9. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.0 Pg #: General Comment Line #: NA Code: C
Original Comment #:
Comment: The assumptions and explanations about the increased dose contribution from Th-230 appear to be somewhat inconsistent. The text explains that the MEI is at AMS-3 along the east fence line and is elevated due to increased Th-230 emissions from the WPRAP project. According to the wind rose and WPTH-01 monitoring results one might expect AMS-28 to have a higher dose associated with it. The primary source near AMS-3 is now the OSDF. Previous elevated concentrations at AMS-3 were attributed to the STP. Offer some explanation as to why AMS-3 has the highest Th-230 ratio, and if any of the newer sampling changes the previous explanation for elevated concentrations at AMS-3.