



State of Ohio Environmental Protection Agency

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George V. Voinovich
Governor

August 7, 1998

RE: DOE-FEMP
MSL #531-0297
COMMENTS-1997 INTEGRATED SITE
ENVIRONMENTAL REPORT

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

Dear Mr. Reising:

Ohio EPA has reviewed the *1997 Integrated Site Environmental Monitoring Report* submitted by DOE in May 1998. This letter provides as an attachment Ohio EPA's comments on the report.

If you should have any questions, please contact me at (513) 285-6466 or Donna Bohannon at (513) 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
- Ruth Vandegrift, ODH
- Francie Barker, Tetra Tech EM Inc.
- Mark Shupe, HSI Geo Trans
Manager TPSS, DERR
- Bill Lohner, OEPA
- Joe Bartoszek, OEPA
- Mike Proffitt, OEPA

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1997 IEMP
 August 7, 1998
 Page 3

COMMENTS

- 5) Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Executive Summary Pg #: ES-2 Line #: Code: C
 Original Comment #:
 Comment: The statement made on this page says that "This information provides the basis for ensuring that the cumulative environmental effects associated with remediation activities at the FEMP remain below established thresholds." This statement, as well as the emphasis made throughout the IEMP, has been to keep within regulatory requirements regarding discharges from the FEMP. It is Ohio EPA's conviction that releases, not limited to radiological contaminants from the FEMP be as low as reasonably achievable, even if those values are significantly below any regulatory threshold. The report addresses the concept of ALARA in Chapter 2 on page 42, but the approach is one of the regulatory requirements of ALARA with respect to radiation dose. The concept of keeping any releases from the FEMP as low as reasonably achievable can extend beyond the regulatory framework of radiation dose.
 Response:
 Action:
- 6) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Executive Summary/Radon Monitoring Pg #: ES-5 Line #: Code: C
 Original Comment #:
 Comment: The text states that the radon concentrations in the headspace of Silos 1 and 2 have increased but that the concentrations remain 60% lower than the values measured prior to the addition of bentonite. The word "remain" misleads the reader into thinking that silo headspace concentration is no longer increasing. It would be appropriate to show the concentration pre-bentonite, and subsequent concentrations indicating the upward trend in headspace concentration.
 Response:
 Action:
- 7) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Executive Summary/Direct Radiation Monitoring Pg #: ES-5 Line #: Code: C
 Original Comment #:
 Comment: Again the use of the word "remain" misleads the reader into thinking that the dose from the silos is not increasing. Rather than stating that doses remain 67% lower than pre-bentonite, add text that states the pre-bentonite dose and show subsequent dose rates to present.
 Response:
 Action:

1997 IEMP
August 7, 1998
Page 5

- 12) Commenting Organization: Ohio EPA Commentor: DSW
Section #: Chapter 1 Pg #: 18 Line #: figures 1-7 & 1-8 Code: E
Original Comment #:
Comment: The percentage bar on the wind roses are difficult to discern. It appears as though they may have been drawn in color originally and did not transfer well to black and white.
Response:
Action:
- 13) Commenting Organization: Ohio EPA Commentor: DSW
Section #: Chapter 1 Pg #: between 19 and 20 Line #: Code: E
Original Comment #:
Comment: A blank page exists between page 19 and 20.
Response:
Action:
- 14) Commenting Organization: Ohio EPA Commentor: DSW
Section #: Chapter 3 Pg #: 52-53 Line #: Code: C
Original Comment #:
Comment: The statement is made that "...southward movement of the total uranium plume, beyond the extraction wells, has not been detected." The total uranium plume, however, has been shown to extend beyond the Great Miami River. We routinely get above background concentrations of total uranium in a ground water fed pool at Paddys Run and the State Route 128 bridge. If the reference is to the above ground water FRL total uranium plume, then that should be stated.
Response:
Action:
- 15) Commenting Organization: Ohio EPA Commentor: DSW
Section #: Chapter 4 Pg #: 78 Line #: Figure 4-9 Code: C
Original Comment #:
Comment: The map shows the sediment sampling locations at G7 and G4 as described in the IEMP. Note that during the sediment sampling this year, sediment samples were actually taken at G8, the downstream side of Paddys Run at the confluence. The sample downstream of the effluent was taken on the west side of the river (the same side of the river as Strickers Grove) rather than across the river as described in the IEMP. During 1997, the sample at G4 may also have been taken at this location, however the sample taken at the confluence of Paddys Run was taken at G7 as described. Please verify the actual location of the G4 sample for 1997.
Response:
Action:

1997 IEMP
 August 7, 1998
 Page 6

- 16) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Chapter 5/Rad Air Part. Results Pg #: General Comment Code: C
 Original Comment #:
 Comment: OEPA believes that air monitoring results should be compared to background locations, as well as, historical value. Also, ALARA goals should be set, and a comparison to these values should also be conducted.
 Response:
 Action:
- 17) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Chapter 5/IEMP Rad Air Particulate Monitoring Design Pg #: 83 Code: C
 Original Comment #:
 Comment: A comparison between modeled dose at the current fence line monitors and the dose from measured concentrations at these monitors would be beneficial with the upcoming change in compliance methodology.
 Response:
 Action:
- 18) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Chapter 5/Rad Air Part. Results Pg #: 85 Line #: Code: C
 Original Comment #:
 Comment: OEPA conducts high volume air sampling at location AMS-17A as part of its oversight role, and will continue to sample at this location throughout the remediation of the wastepits.
 Response:
 Action:
- 19) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Chapter 5/Radon Monitoring Pg #: 89 Line #: Code: C
 Original Comment #:
 Comment: The text should be revised. Projects do not produce radon, radium produces radon. Projects release radon as consequence of remedial action.
 Response:
 Action:
- 20) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Chapter 5/Figure 5-7 Pg #: 99 Line #: Code: C
 Original Comment #:
 Comment: This figure is unclear in depicting where the stacks are located. Possibly the outline of some of the prominent buildings within the former production area could be used to clarify the

1997 IEMP
 August 7, 1998
 Page 7

picture.
 Response:
 Action:

- 21) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Chapter 6/Direct Radiation Dose Pg #: 105-106 Code: C
 Original Comment #:
 Comment: The conclusion of this section contradicts the conservative nature of your dose estimate. Two methods should be employed to make better conclusions from this data: 1) A rigorous statistical comparison of the means between background locations and fence line locations should be conducted; 2) The conservative method for comparing the two data sets would compare the maximum fence line measurement with the minimum background measurement. Lastly, OEPA believes that the direct radiation dose should be stated as a range from 0 to the maximum possible, described in "2" above.
 Response:
 Action:
- 22) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Chapter 6/Total of Doses to a MEI Pg #:106 Code: C
 Original Comment #:
 Comment: The dose from radon is missing in this table. Previous environmental reports included a dose estimate from radon. Radon is possibly the largest contributor of dose from the site and should be included in any total dose from the FEMP.
 Response:
 Action:

APPENDIX B

- 23) Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Attachment B.1 Pg #: B.1-2 Line #: 18-19 Code: C
 Original Comment #:
 Comment: In order to determine the flow weighted average outside the mixing zone, the 7Q10 of 583 cubic feet per second is used. Generally this should yield a conservative estimate, however examining the actual flow for the year for use in the annual IEMP report may be more useful. There may be days during the year that flow was lower than the 7Q10. For example, during 1997 the end of September had four consecutive days of flows less than 583 cfs. This may have continued into October (pages B.1-3 and B.1-4 of this section state that minimal rainfall fell during October), however the source I was using did not include dates beyond September 30, 1997. Were any FRLs or BTVs exceeded during these flows?
 Response:

1997 IEMP
August 7, 1998
Page 9

APPENDIX D

27) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table D-1 Pg #: D-2 Line #: Sediment Code: C
Original Comment #:

Comment: Table D-1 shows the comparison of split sediment locations for 1997. One location is designated as G7. However, G4 is described in the IEMP. And during the sediment sampling this year, sediment samples were actually taken at G8, the downstream side of Paddys Run at the confluence. Please correct these inconsistencies.

Response:

Action: