



State of Ohio Environmental Protection Agency

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October 19, 2007

Ms Jane Powell
Fernald Site Mger
DOE-LM-20.1
10995 Hamilton Cleves Hwy
Harrison, Ohio 45030

RE: COMMENTS - 2006 FERNALD SITE ENVIRONMENTAL REPORT

Ms Powell:

Ohio EPA has received DOE's "2006 Fernald Site Environmental Report," dated May 2007. Ohio EPA has reviewed the report and our comments are enclosed.

If there are any questions, please contact me.

Sincerely,

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

Cc: Tim Fischer, US EPA
Michelle Cullerton, Tetra Tech Inc.
Mark Shupe, Geo Trans Inc

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OHIO EPA COMMENTS ON THE 2006 FERNALD SITE ENVIRONMENTAL REPORT

General Comments:

1. Commenting Organization: Ohio EPA Commentor: OFFO

Section: General Page: Line: Code: C

Comment: Several sections of the SER do not discuss the surface water issues that exist in the Waste Pit 3 Swale area. This information needs to be included in this document for a couple of reasons. One for documentation and second, to keep the public informed. The SER was developed for these two main purposes, especially for the public.

In addition, the SER points out that there haven't been any sample results that exceed the FRL for Total Uranium in 2006. Looking at the surface water sample results collected by DOE and Ohio EPA from 2006 & 2007 from the WP3 Swale area, there have been several exceedances above the surface water FRL. Due to the elevated levels, and the necessary response action and public concern it must be included in the 2006 SER as well as the 2007 SER.

2. Commenting Organization: Ohio EPA Commentor: OFFO

Section: General Page: Line: Code: C

Comment: The 2006 SER and its Summary do not discuss any of the issues concerning Cell 8 and 7. This document would be the appropriate place to discuss the monitoring of the Cell cap and the ongoing issues that are occurring. In addition, explain what is being done to take care of these issues and provide this information to the public.

3. Commenting Organization: Ohio EPA Commentor: OFFO

Section #: General Pg #: Line #: Code: E

Comment: When referencing a figure within the document also include the page number on which the figure can be found.

Specific Comments:

4. Commenting Organization: Ohio EPA Commentor: OFFO

Section #: Exec. Summary Pg #: xvi Line #: na Code: C

Comment: The last paragraph on this page "Estimated Dose for 2006" is confusing. The sentence, "The contributions from this all-pathway dose for 2006 was 0.17 from air inhalation and 2.8 mrem from direct radiation," is inconsistent with the earlier statement that the maximally exposed individual received a maximum dose of 2.8 mrem. $2.8 + 0.17 = 2.97$ or approximately 3 mrem. Please change the sentence to reflect that the 0.17 mrem from air inhalation was from a different location than the maximally exposed individual for direct radiation.

5. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Exec. Summary Pg #: xvii Line #: na Code: C
Comment: Another bullet should be added to the Natural Resources section to reflect the challenges associated with trash, debris (contaminated and otherwise), and invasive plant species.

6. Commenting Organization: Ohio EPA Commentor: OFFO
Section: 1.2 Page: 1-8 Line: third bullet Code: C
Comment: This paragraph (third bullet) should provide a sentence in regards to where the IEMP is housed, especially so anyone from the public wanting to look up information in the IEMP will know that it is contained in the LMICP. Include this information in the SER.

7. Commenting Organization: Ohio EPA Commentor: OFFO
Section: 2.1 & 2.1.2 Page: 2-2 & 2-9 Line: Code: C
Comment: References made to the statements regarding the IRA Rpt for OU5 and the soil certification reports submittal dates, will need to be revised in the next revision of the SER.

8. Commenting Organization: Ohio EPA Commentor: OFFO
Section: 2.1.2 Page: 2-7 Line: Figure 2-1 Code: C
Comment: Figure 2-1 is incorrectly presented. Even at the end of 2006, there were numerous areas that were still uncertified at Fernald and this figure does not reflect that fact. Revise this figure to show all uncertified areas at the end of 2006 and include the date and time the figure demonstrates. In addition, the text on following page is correct in describing Figure 2-1 (page 2-8, third paragraph, and first sentence).

9. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.2.1 Pg #: 2-15 Line #: na Code: E
Comment: The punctuation for OAC is incorrect. Correct in future editions of the SER.

10. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 2-2 Pg #: 2-20 Line #: na Code: C
Comment: The section of the table under, "Natural Resource Requirements Under CERCLA and Executive Order 12580," "2006 Compliance Activities" is incomplete and does not accurately reflect the status of Natural Resource Requirements.

11. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.1.4 Pg #: 2-12 Line #: Code: E
Comment: Please include the complete name for the acronym WCS.

12. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.3 Pg #: 2-22 Line #: first paragraph, last sent Code: C
Comment: The last sentence in the first paragraph needs to be removed. Ohio EPA has not written an Annual Report for several years.

13. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.3.1.5 Pg #: 3-17 Line #: na Code: E
Comment: The second to last sentence on this page has misspelled "map" as "man", correct in future editions of the SER.

14. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.3.1.5 Pg #: 3-18 Line #: na Code: C
Comment: The paragraph dedicated to "South Field and South Plume Areas" is confusing. Earlier in this section the SER reports that treatment caused a decrease in the uranium plume by approximately 7 acres. This section implies that the sampling allowed for better mapping of the plume, which reduced its size by 7 acres. Was it treatment, better mapping, or a combination of both?

15. Commenting Organization: Ohio EPA Commentor: OFFO
Section: 4.3.1, Page 4-9 Line: Code: C
Comment: STRM 4004 at Paddys Run is below the level of glacial overburden and in contact with the aquifer. This should be included in cross media impacts.

16. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.1 Pg #: 5-2 Line #: na Code: C
Comment: Add a bullet to the list of primary emission sources that were active in 2006:

- The D&D of remediation facilities

17. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.3 Pg #: 5-3 Line #: na Code: E
Comment: The first bullet incorrectly states that NESHAP Subpart H includes radon. Correct wording to indicate that radon is NOT included in the 10 mrem EDE for air emissions.

18. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.3 Pg #: 5-8 Line #: na Code: C
Comment: The statement that, "The nine percent increase in the thorium isotopes emission relative to 2005 is an artifact of lower thorium background..." and also stated again in the last paragraph of the section is misleading and is not supported by the data presented in this report. Background should be present at approximately equal concentrations fence-line and at the background location. After subtracting the background from the fence-line locations, the net emissions are calculated. The concentration present at background should not effect the emissions calculated at fence-line, unless the background site had been influenced by other factors.

19. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.2 Pg #: 6-3 Line #: na Code: C
Comment: The second paragraph states that a calculation was made to nearest resident of Fernald lowering the direct radiation dose from 5 mrem/yr to 2.8 mrem/yr. This adjustment to the dose is inappropriate for the Fernald site due to the fact that for a portion of the year the site was not fenced or secured. Additionally, this is inconsistent with the method used to determine the dose from air inhalation.

20. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.1.1 Pg #: 7-3 Line #: last paragraph Code: C
Comment: This section discusses the Sloan's crayfish habitat and the reasoning for keeping the trestle in place. However, there's nothing mentioned utilizing the trestle for the Indiana Bat's habitat. This information should be included.

2006 SER Summary (Appendices A – D)

Attachment A.2

21. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
Section #: Attach. A.2 Pg #: A.2-3 Line #: 6 Code: C
Comment: As an apparent result of document reproduction and the small type face used, large portions of Figures A.2-2A and A.2-3A are illegible.

22. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
Section #: Attach. A.2 Pg #: A.2-3 Line #: 24 Code: C
Comment: The footnotes in Table A.2-2 should be revised to summarize the statistical distinction between the terms "marginal" and "significant" in the trend results column.

23. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
Section #: Attach. A.2 Pg #: A.2-3 Line #: 27 Code: C
Comment: In order to more completely depict site wide trends in total uranium concentrations, Figure A.2-4 should be revised to include the up-marginal and down-marginal wells. To avoid defining additional symbols on the map, these wells could possibly be included with the no significant trend points. Alternatively, they could be included as up- or down- significant points as appropriate.

24. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
Section #: Attach. A.2 Pg #: A.2-4 Line #: 24 Code: C
Comment: Well 83341 appears to be mislabeled on Figure A.2-3A.

25. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
Section #: Attach. A.2 Pg #: A.2-5 Line #: 22 Code: C
Comment: DOE suspects that biofouling conditions exist at Well 2010 and that biofouling has caused the observed elevated manganese concentrations. The sampling needed to confirm this suspicion has never been conducted. The text should note that manganese was historically used as a process chemical at the site.

26. Commenting Organization: OEPA Commenter: GeoTrans, Inc.
Section #: Attach. A.2 Pg #: A.2-5 Line #: 27 Code: C
Comment: The text should include an explanation of why biofouling in the well would impact the unfiltered total uranium concentration.

27. Commenting Organization: OEPA Commenter: GeoTrans, Inc.
Section #: Attach. A.2 Pg #: A.2-7 Line #: 1 Code: C
Comment: As stated in DOE's response to Ohio EPA Original Comment #3 on the 2005 Site Environmental Report, an objective of direct push sampling in 2006 would be the delineation of the southern extent of the elevated total uranium concentration observed at Geoprobe 12196a in 2005. Please provide the results from this sampling or indicate when it will (or has) occurred.

28. Commenting Organization: OEPA Commenter: GeoTrans, Inc.
Section #: Attach. A.2 Pg #: A.2-8 Line #: 2 Code: C
Comment: A potentially complicating factor in the evaluation of recent Geoprobe sampling results at Direct-Push Location 12373L is that, although the samples were collected at the same location horizontally, they were collected at different positions relative to the water table. The 2005 sample was apparently collected at the water table surface (515.3 feet – the text does not indicate the water table elevation at this time but states that the top of the plume is at this level). The 2006 sample, however, was collected 4.5 feet below the water table. A comparability issue, therefore, may exist regarding the text discussion since at many locations at the site, the highest concentrations are at the water table, regardless of season.

Attachment A.3

29. Commenting Organization: OEPA Commenter: GeoTrans, Inc.
Section #: Attach. A.3 Pg #: A.3-1 Line #: 1 Code: C
Original Comment#
Comment: As an apparent result of document reproduction and the small type face used, large portions of Figures A.3-1 through A.3-4 are illegible. A separate contour line type should be used for groundwater level contours as opposed to the 30 ug/L total uranium isopleth.

Attachment A.4

30. Commenting Organization: OEPA Commenter: GeoTrans, Inc.
Section #: Attach. A.4 Pg #: A.4-6 Line #: 24 Code: C
Comment: The text notes that the manganese exceedance for Monitoring Well 22210 was persistent in 2005 but was determined to be not persistent in 2006. Manganese also exceeded in 2005 for nearby well 22205 and the manganese exceedance in adjacent well 22204 was declared persistent in 2006 for the first time. The "continued monitoring" response to these observances is inappropriate given that monitoring has already shown that a pattern of manganese exceedance exists along this approximately 1000 foot segment of the eastern property boundary where the three wells are located. DOE should investigate whether or not the observed manganese exceedances are possibly related to a localized plume since manganese was used as a process chemical

