



State of Ohio Environmental Protection Agency

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May 15, 2007.

Mr. Johnny Reising
Fernald Project Director
EMCBC
250 East 5th St. Suite 500
Cincinnati, Ohio 45202

Mr. Reising:

**RE: COMMENTS - INTERIM RESIDUAL RISK ASSESSMENT REPORT FOR
OPERABLE UNIT 5**

Ohio EPA has received DOE's "Transmittal Of The Interim Residual Risk Assessment Report For Operable Unit 5," dated February 7, 2007. Ohio EPA has reviewed the report and our comments are enclosed. We look forward to receipt of the revised document as part of the next formal submittal of the Interim Residual Risk Assessment Report For Operable Unit 5.

If there are any questions, please contact me.

Sincerely,

Thomas A. Schneider
Fernald Project Manager
Office of Federal Facilities OversightCc: Jim Saric, US EPA
Michelle Cullerton, Tetra Tech Inc.
Mark Shupe, Geo Trans Inc

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the quotient of the 2005 average background radon concentration divided by the 95th percentile of the background soil concentration.

Justify the use of the 95th percentile of background instead of the average background. What other methods to estimate the incremental radon concentrations were considered? The uncertainty in the radon risk should be addressed in the uncertainty analysis.

last one reviewed

7. Commenting Organization: Ohio EPA Commentor: RCRA
Section #: 4.4 Pg #: 4-3 Line #: last sent secd pargph Code: C
Comment: The text compares the risk due to background concentrations of radon-222 with the acceptable risks as allowed under CERCLA guidance. The point is made that the risk from background levels of radon-222 is of the same order of magnitude as an acceptable risk under CERCLA. This is an acceptable explanation of the risks but it leaves the mistaken impression that background must somehow comply with the CERCLA guidance.
Re-write the text to remove the discussion of the range of risks acceptable under CERCLA.

8. Commenting Organization: Ohio EPA Commentor: RCRA
Section #: 4.8 Pg #: 4-6 Line #: last line on page Code: C
Comment: The text states, "Therefore, by default, risk from the groundwater pathway is acceptable." This sentence needs to be removed.

9. Commenting Organization: Ohio EPA Commentor: RCRA
Section #: 5.0 Pg #: 5-3 Line #: last sentence Code: C
Comment: The text states that manganese is a COC in exposure Zones 3 and 5 only. However, manganese is a naturally-occurring element in all background soils in all zones, regardless of our designating it as a COC. The text should include a discussion (perhaps in the uncertainty analysis section) of why it is justifiable to ignore the contribution to the risk in some zones but not in others. The discussion should address how much the calculated risk is changed by ignoring the background manganese in some zones.

10. Commenting Organization: Ohio EPA Commentor: RCRA
Section #: 5.2 Pg #: 5-5 Line #: last 2 sent., last pargph cont'd to next pg Code: C
Comment: The text refers to Table 5.2 and compares the total ILCR to the background ILCR for Zones 6 and 7. The discussion states that the total risk is less than the background risk and explains this by implying that this result is expected because residual soil contamination was cleaned to below background. The discussion is counter-intuitive as most readers will not understand how a naturally-occurring substance can be remediated to below background. Re-write the discussion to explain how the total risk can be less than the background risk. Also, explain how it is possible to remediate soils to below background level. If necessary, the discussion should include how we determined background at Fernald.

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11. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 6.0 Page: 6-3 Line: Code: C

Original Comment#:

Comment: Additional discussion is needed in the text in regards to the elevated uranium concentrations in the pond west of former WP3. This issue is still on-going between the Agency's and DOE. Since this issue is not resolved, these specific pools (the text doesn't point out that there is more than one) containing elevated uranium concentrations will not only need to be monitored but possibly remediated. Further discussion is warranted here.

12. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: Appendix A Page: 1 of 1 Line: Code: E

Original Comment#:

Comment: Please make the appropriate updates to the "Chronology of Soil Certification Reports" at the next revision of this document.

13. Commenting Organization: Ohio EPA Commentor: RCRA
 Section #: Appendix B Page: B-1 Line #: 2nd paragraph Code: C

Comment: The paragraph is not clear. It should be split into two paragraphs dealing with the HWMU exposure zones and the other dealing with exposure zones 1 through 8. It should be obvious to the reader exactly which method was used to determine the concentrations input into the risk calculations.

14. Commenting Organization: Ohio EPA Commentor: RCRA
 Section #: Tables B-1 Pg #: Line #: Code:

Comment: These tables lack sufficient headings to be clear. What are the values in the tables? Are they maximums, averages, 95% UCL on the mean? The last row of these tables is titled 'max value' but does not explain maximum of what?

The upper left hand corner of the table is headed HWMUs. Should this be CU?

For the HWMU data, a summary table should be created that ties together the HWMU name, the data from the CUs and the COCs used to assess risk. The reader should be able to determine exactly which COCs were used to evaluate the risk for each HWMU.

15. Organization: Ohio EPA Commentor: RCRA
 Section #: Table B-1 Pg #: Line #: Code:

Comment: The last row is titled 'max value'. The reader has to go through multiple pages to glean the values used in the risk calculations. New tables should be created for each exposure zone showing exactly which values were used in the risk calculation for that zone.

16. Commenting Organization: Ohio EPA Commentor: RCRA
 Section #: Table B-2 Pg #: Line #: Code: e

Comment: The first column heading is "soil background for excavated areas". Why isn't the heading merely "soil background"? There was no study for soil background in excavated areas.

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17. Commenting Organization: Ohio EPA Commentor: RCRA
Section #: Table B-1 Pg #: Line #: Code: E
Comment: The use of exponential notation is annoying in those cases where the value is actually an integer. For example, the last page of Table B-1 (B-1.198 of 198) has 'number of inserted values' as the heading of the last row. The table lists for xylenes '5.60E+01'. Why not just '56'?

18. Commenting Organization: Ohio EPA Commentor: RCRA
Section #: Appendix C Pg #: C-3 Line #: 1st sent, 1st complete pargrph Code: C
Comment: The text states in part, "...the surface water list was modified to make it match the soil list." The sentence is not clear; it never states explicitly how the surface water list was modified.

19. Commenting Organization: Ohio EPA Commentor: RCRA
Section #: Appendix C Pg #: C-3 Line #: 2nd sentence, 1st para Code: C
Comment: The text states, "When a contaminant is present in the surface water but not in the soil, it is dropped from the surface water pathway". Justify why a detected constituent does not contribute to the risk. The paragraph later explains that default values were used to evaluate the surface water risk for those constituents for which no data is available. It is not clear how those default values were determined.

20. Commenting Organization: Ohio EPA Commentor: RCRA
Section #: Appendix C Pg #: Table C-2 Line #: Code:
Comment: We are looking for a table that gives the surface water concentrations chosen to represent the risk to the receptor in the HWMU exposure zone. Please provide.

21. Commenting Organization: Ohio EPA Commentor: RCRA
Section #: Appendix E Pg #: E-3 Line #: mid sent, last pargrph Code: E
Comment: We think that the word 'risk' was omitted and we believe the sentence should be re-written as follows; "Because of the new exposure parameters used, it was necessary to recalculate the background risk for the affected receptors."