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George V. Voinovich
Governor

June 5, 1998

RE: DOE FEMP
COMMENTS: SITEWIDE
EXCAVATION PLAN

Mr. Johnny Reising
U.S. Department of Energy, Fernald Area Office
P.O. Box 538705
Cincinnati, OH 45253-8705

Dear Mr. Reising:

This letter provides as an attachment Ohio EPAs comments on DOE's April 17, 1998 submittal "Transmittal of the Draft-Final Sitewide Excavation Plan". Ohio EPA recommends DOE submitted detailed responses and changes so that conditional approval may be granted.

If you have any questions, please contact Tom Ontko or me.

Sincerely,

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

cc: Jim Saric, U.S. EPA
Terry Hagen, FDF
Ruth Vandergrift, ODH
Mark Shupe, HSI GeoTrans
Francie Barker, Tetra Tech EM Inc.
Manager, TPSS/DERR,CO

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OHIO EPA COMMENTS ON THE SITE-WIDE EXCAVATION PLAN

1) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Pg #: Line #: Code: G
Original Comment #
Though the document has been substantially revised and is stated to be in draft final status, many grammatical and typographic errors were detected during this review.

2) Commenting Organization: OEPA Commenter: OFFO
Section #:1.0 Pg. #:1-1 Line #: 26 Code: E
Original Comment #:
Comment: The sentence references nine remediation areas, whereas the rest of the document refers to ten remediation areas. Please revise to improve consistency.

3) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.3.2.6 Pg #: Line #: Code: C
Original Comment #:
Comment: Ohio EPA does not concur with DOE's inserted text. Ohio EPA support of the CAMU was specifically aimed a management of listed wastes in the OSDF. Specifically, Ohio EPA is opposed to any storage of RCRA characteristic waste in a manner other than containerized storage in an approved RCRA storage facility.

4) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 1-5 Pg #: Line #: Code: C
Original Comment #:
Comment: The table should have had all the dates which changed from the previous version redlined. In future submittals, DOE must ensure that all changed text is redlined.

5) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.1.2.2 Pg #: 2-8 Line #: 31-32 Code: C
Original Comment #:
Comment: Pre-excavation sampling must be aimed at ascertaining both the vertical and horizontal extent of contamination at depth. Revise the document to include the horizontal component of contamination.

6) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.2.4 Pg #: 2-21 Line #: 26-29 Code: C
Original Comment #:
Comment: Ohio EPA does not concur with the proposal to use bulk storage for RCRA wastes. Ohio EPA believes the appropriate storage is in containers on the Plant 1 Pad or similarly approved RCRA storage facility.

7) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.1.1.2 Pg #: 3-5 Line #: 1-27 Code: C
Original Comment #:
Comment: Ohio EPA does not agree with DOE's proposal to use SP 5 or 7 for storage of RCRA wastes. All above-WAC, RCRA wastes should be containerized and stored on at an approved RCRA storage facility. The document should be revised to remove all references to use of SP 5 or 7 for storage of RCRA wastes.

8) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.3.1.2 Pg #: 3-13 Line #: 5-8 Code: C
Original Comment #:
Comment: Ohio EPA does not agree with DOE's proposal to use SP 5 or 7 for storage of RCRA wastes. All above-WAC, RCRA wastes should be containerized and stored on at an approved RCRA storage facility. The document should be revised to remove all references to use of SP 5 or 7 for storage of RCRA wastes.

9) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.4.2.4 Pg #: 3-24 Line #: Code: C
Original Comment #:
Comment: Some confusion remains regarding which of the remediation areas encompasses the length of the old outfall line going to the GMR. This section references the outfall area at the GMR but not the length of the pipe. Please clarify within the document which area will include the length of the outfall line.

10) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.4.4 Pg #: 3-26 Line #: 28 Code: c
Comment: The text states that a 90% UCL of the mean will be compared to the respective FRL to make the certification decisions. Ohio EPA Division of Hazardous Waste Management closure guidance recommends using a 95% UCL of the mean as the statistical criteria. In order to achieve closure consistent with Ohio EPA guidance a 95% UCL of the mean must be used.

2) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.4.5 Pg #: 3-27 Line #: 1-24 Code: C
Original Comment #:
Comment: There appears to be some disagreement regarding the description of Condition 2. Line 4 refers to "widespread contamination" whereas line 14 refers to "widespread variability". Regardless of the description, Ohio EPA believes CUs failing this condition require re-excavation prior to sampling.

11) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.

Section #: 3 Pg #: 3-28 Line #: 13 Code: C
Original Comment #
Comment: A strategy to address secondary COC hotspots should be developed and detailed in the SEP. The strategy should be based on 2x and 3x exceedances of the FRL and should be analogous to that discussed for the primary COCs following certification sampling.

12) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Figure 3-11 Pg #: Line #: Code: c
Comment: This flow chart outlines the hot spot implementation strategy. The first two action boxes call for an RTRAK scan to look for primary rad COC's at three times the FRL in areas of 10 square meters or greater. According to Table 4-12 of the RTRAK Applicability Study, the Minimum Detectable Concentration for uranium-238 is never smaller than 47 pCi/g (roughly 141 ppm total uranium). We conclude from this that the RTRAK is capable of detecting 3X FRL hot spots only in areas where the FRL for total uranium is 80 ppm. In the production area (FRL is 20 ppm) and in the Southern Waste Units (FRL is 3.22 pCi/g), the RTRAK will not be able to perform as required by the flow chart.

13) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Figure 3-11 Pg #: Line #: Code:
Comment: The second activity box of the flow chart states "Calculate <u>two</u> point (10 square meter) averages" (underlining added). Figure 4.2-1 of the Users Manual shows that at a 1.0 mph operating speed and a 4 second acquisition time the field of view is 8.8 square meters. From this we infer that only one RTRAK read corresponds to the desired field of view (10 square meter hot spot). This appears to contradict the flow chart which calls for a two point average, which corresponds to a 17.6 square meter area.

14) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 4 Pg #: 4-18 Line #: 7 Code: E
Original Comment #
Comment: The figure reference in the text should be changed from Figure 4-5 to Figure 4-4.

15) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 4 Pg #: 4-18 Line #: 13 Code: E
Original Comment #
Comment: The sentence that begins on this line is not complete. The preceding sentence and the sentence beginning on this line lines should be combined as follows: "There are two potential RCRA areas (i.e., potential for soil to exhibit the toxicity characteristic) in areas covered by Excavation Approach B: in Remediation Area 7...."

16) Commenting Organization: OEPA Commentor: OFFO

Section #: 5.1.2.2 Pg #: 5-7 Line #: 17-19 Code: C
Original Comment #
Comment: As stated in Ohio EPA March, 1998 comments on DOE's SEP Response Package, Ohio EPA does not concur with the definition of an unpaved road. This specific topic received much discussion through the BAT determination during which it was agreed that unpaved roads would be field defined by Ohio EPA and DOE. Ohio EPA does not expect that unpaved roads will require "improvements" as part of their definition.

17) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 5 Pg #: 5-16 Line #: 15 Code: E
Original Comment #
Comment: The figure reference (Figure 2-1) on this line appears incorrect. The appropriate reference is probably to Figure 5-3.

18) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix B Pg #: B-8 Line #: 3 Code: C
Original Comment #
Comment: The sentence beginning on this line is inconsistent with Figure B-10. According to this figure, surface water drainage from Area 4A is directed to Area 4B. The text, however, states that surface water drainage will be directed to the storm drain in the active area (Area 4A).

19) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix C Pg #: C-21 Line #: 1-9 Code: C
Original Comment #:
Comment: Ohio EPA believes the lead soil in the trap range should be excavated to the BTV of 200 ppm and has made this comment on the A1P2 IRDP. Additionally, this section discusses taking BTV samples after the borrow activities. The appropriate time for evaluating BTVs is during certification which will immediately follow treatment/excavation of the lead soils and precede borrow activities. The text should be revised to state BTVs will be evaluated during the certification process for the trap range.

20) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix D Pg #: Table D-3 Line #: Code: C
Original Comment #:
Comment: The table references validation pending for the data. Given the document has been in revision for approximately half a year, Ohio EPA would expect that validation is complete. Please revise the table to include validation information. Additionally, this relates to Ohio EPA comments on the previous document regard Tc-99 concentrations in trees. If the data represent non-detect values as referenced in DOE's responses the table should be revised to reflect these as non-detects.

21) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix E Pg #: E-9 Line #: 19 Code: C
Original Comment #:
Comment: Please include OEPA in the sentence requiring approvals for changes to the SEP.

22) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix F Pg #: F-7 Line #: 24-25 Code: C
Original Comment #:
Comment: This is probably an appropriate location to state that wood chips from clearing will only be used on-site.

23) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix F, F.7.1 Pg #: F-28-31 Line #: Code: C
Original Comment #:
Comment: The section should be revised to be consistent with Ohio EPA's May 13, 1998 comments on the A2P1 IRDP (comment #'s 26-35) and DOE's June 4, 1998 Responses.

24) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix F Pg #: Figure F-1 Line #: Code: C
Original Comment #:
Comment: Ohio EPA does not concur with the proposal to use bulk storage for RCRA wastes. Ohio EPA believes the appropriate storage is in containers on the Plant 1 Pad or similarly approved RCRA storage facility.

25) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix G Pg #: Line #: Code: C
Original Comment #:
Comment: A strategy to address secondary COC hotspots should be developed and detailed in the SEP. The strategy should be based on 2x and 3x exceedances of the FRL and should be analogous to that discussed for the primary COCs following certification sampling.

26) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix G Pg #: Line #: Code: C
Original Comment #:
Comment: Consistent with Ohio EPA's comments on the A1P2 certification report, the section should be revised to state that when duplicate samples are collected the higher of the two will be used in the statistical evaluation.

27) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix G Pg #: Line #: Code: C

Original Comment #:
Comment: As discussed during review of the A1P2 Certification Report, the text should be revised to include a statement that the resulting statistic (p) from the normality test will be reported in the data tables of the Certification Report.

28) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-i Line #: Code: E
Original Comment #
Comment: The table of contents for this appendix should be revised to include the heading "G.2.4 Determination of Number of Samples for Certification."

29) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: Line #: 3 Code: G
Original Comment #
Comment: This appendix should be revised to include a list of figures.

30) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-5 Line #: 17 Code: E
Original Comment #
Comment: Revise the text from "The actual certification sample size for proposed for each CU" to "The actual certification sample size proposed for each CU."

31) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-8 Line #: 9 Code: C
Original Comment #
Comment: Based on the precalculation of the value p discussed later in this section, the definition of p as provided in the referenced text appears to be incorrect. It appears that p represents the proportion of samples that are *less than* the FRL and hence is calculated as the number of below-FRL samples divided by the total number of samples.

32) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-8 Line #: 12 Code: C
Original Comment #
Comment: The equation shown resembles the large sample approximation for the sign test and as such is applicable for sample sizes of 20 and greater. The application of the test statistic equation to the relevant sample sizes (n = 12 and 16) should be justified.

33) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-8 Line #: 22 Code: E
Original Comment #

Comment: The text should be revised from "greater than or equal to the FRL, *p*, the value of *p*..." to "greater than or equal to the FRL, the value of *p*..."

34) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-12 Line #: 17 - 28 Code: E
Original Comment #
Comment: The referenced text appears to be a discussion related to the test of proportions and does not appear to be germane to the topic of this paragraph (e.g., Step 1 dealing with the proportion of non-detects). The text should either be deleted or re-written such that its relevance is justified.

35) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-12 Line #: 21 Code: C
Original Comment #
Comment: If there are not a significant proportion of non-detects, the next step that is appropriate is Step 2, checking for normality of the data set.

36) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-15 Line #: 16 Code: E
Original Comment #
Comment: Table G-12 is referenced out of sequence.

37) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-20 Line #: 12 Code: E
Original Comment #
Comment: Revise "Primary COCs average observed standard deviation was actual down..." to "Primary COCs observed standard deviation was actually down..."

38) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-21 Line #: 24 Code: E
Original Comment #
Comment: It is unclear what is meant by the word "information" in this sentence.

39) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-22 Line #: 9 Code: E
Original Comment #
Comment: Revise "the uranium FRL at were..." to "the uranium FRL were..."

40) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-22 Line #: 15 Code: E

Original Comment #
Comment: The text "by varying the area of the contaminated soil" is redundant and should be deleted.

41) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-22 Line #: 18 - 20 Code: C
Original Comment #
Comment: The sentence included in the referenced text is unclear and requires revision. It appears that the ratio of the risk associated with a given area (e.g., a CU) to the risk (not dose) associated with the same concentration applied over some smaller area is what is intended.

42) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-22 Line #: 22 Code: E
Original Comment #
Comment: Figure G-2 is missing.

43) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-22 Line #: 25 Code: E
Original Comment #
Comment: Revise "both sets of areas factors" to both sets of area factors."

44) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-23 Line #: 11 Code: E
Original Comment #
Comment: Revise "for states that:" to "states that:"

45) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix G Pg #: G-23 Line #: 14 Code: E
Original Comment #
Comment: Figure G-1 does not contain the information described by the text (it's a flow chart).