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April 20, 2006

Mr. Johnny Reising
US Dept of Energy
Ohio Field Office
Fernald Closure Project
175 Tri County Parkway
Springdale, Ohio 45246

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LOG
2006 APR 25 A 11:51

**RE: COMMENTS - COMPREHENSIVE LEGACY MANAGEMENT AND
INSTITUTIONAL CONTROLS PLAN VOLUME I AND II**

Dear Mr. Reising:

Ohio EPA has reviewed DOE's *Comprehensive Legacy Management And Institutional Controls Plan Volume I and II (20013-PL-0001) Rev. 0, Final*, received on January 31, 2006. Ohio EPA's comments are enclosed.

If there are any questions, please contact me at (937) 285-6466 or Donna Bohannon at (937) 285-6453.

Sincerely,



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

cc: Jim Saric U.S. EPA
Mark Schupe, HSI Geotrans

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22. Commenting Organization: Ohio EPA Commentor: DSW
 Section: 1.0 Page: 2 Line: Code: C
 Original Comment#:
 Comment: Although the 2002 NRRP is referenced here as a guidance used by the Fernald site for restoration, Ohio EPA maintains that a final version of the NRRP has not yet been approved and may yet influence final restoration activities.

23. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 1.0 Page: 2 Line: second full paragraph Code: C
 Original Comment#:
 Comment: The text is not providing the current information in regards to the remaining facilities on site. If the LMIC is a "work in progress" document, then all current information should be included. However, the next rewrite should encompass any additional information at the time of revision.

24. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 1.1 Pg #: 2 Line #: NA Code: C
 Original Comment#:
 Comment: Institutional controls need to be in place for the entire site and all OUs, including OU5, regardless of whether it is completed or not.

25. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 1.2 Pg #: 6 Line #: NA Code: C
 Original Comment#:
 Comment: The IEMP should also outline and direct post-closure monitoring and sampling.

26. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
 Section #: 1.3 Pg #: 6 Line #: 24 Code: E
 Original Comment#:
 Comment: The title of the referenced EPA document should be italicized or placed in quotation marks.

27. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 1.4 Page: 7 Line: First bullet Code: C
 Original Comment#:
 Comment: The text in Section 1.4 is confusing. U.S. EPA describes institutional controls as categories (or types) and then breaks categories down by how the IC is implemented. Here, it reads as though the mechanism of implementation is interchanged with the category. In addition, DOE doesn't use US EPA's terminology "Enforcement Tools" as an IC and doesn't separate out "informational devices" as a

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separate category. Please clarify this section.

28. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 1.4 Page: 7 Line: second bullet Code: C

Original Comment#:

Comment: The last sentence mentions "continuing remedial activities" as a measure to monitor/maintain the remedy. This statement is somewhat misleading and sounds as if remediation or site clean up will continue. Please clarify this sentence so that it reads specifically that "groundwater remediation" will continue.

29. Commenting Organization: Ohio EPA Commentor: DHWM
 Section #: 2.1.1 Pg #: 9 Line #: list Code: C

Comment: Add 'mushroom gathering' to the list of prohibited activities.

30. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 2.1.1 Page: 11 Line: second full paragraph Code: C

Original Comment#:

Comment: Please correct the typo in the acronym for Legacy Management Institutional Controls Plan.

31. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
 Section #: 2.1.2 Pg #: 11 Line #: 13 Code: C

Original Comment#

Comment: The specific real estate notations and deed restrictions referred to in the text should be summarized in the text. In addition, the impact that each will have on land use should also be discussed.

32. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 2.1.2 Page: 11 Line: second full paragraph Code: C

Original Comment#:

Comment: In this paragraph, DOE discusses transferring management or leasing the Fernald property to another party. However, under the OU5 ROD DOE has federal ownership of Fernald and any property transfers of the site, other than government entities, which would require a ROD amendment.

33. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
 Section #: 2.1.2 Pg #: 11 Line #: 28 Code: C

Original Comment#

Comment: Details regarding the environmental covenant should be provided. Alternatively, a reference should be provided to refer the reader to specific information about the environmental covenant.

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39. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
 Section #: 3.0 Pg #: 19 Line #: 5 Code: C

Original Comment#:

Comment: This section discusses site controls regarding residual contaminants. In order to provide context for this discussion, the document should include a summary of the principal residual contaminants at the site and their toxicity.

40. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 3.1.1/Figure 3 Page: 19 Line: Second paragraph Code: C

Original Comment#:

Comment: In Section 3.1.1, the text discusses "Inspection of uncertified areas" and references Figure 3. However, it isn't clear as to exactly which Figure 3 the text is referring (Figure 3 in Vol. I or Vol. II). Please clarify. In addition, Figure 3 in Vol. I needs further clarification in the text as well as the figure, of the certified and uncertified areas.

41. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 3.1.1, Table 3-1 Pg #: 19, 20 Line #: Appendix D, 1 Code: C

Original Comment#:

Comment: Inspections should include checking for and noting any unauthorized digging (not limited to perimeter areas and non-certified areas), removal of soils by people, wind, and/or water, water control structures, swales and discharge points, etc.

42. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 3.1.1/ Appendix D Page: 19 Line: Second paragraph Code: C

Original Comment#: 57 & 84

Comment: This section briefly mentions the "sufficient soil coverage" over the new outfall line. In two previous Ohio EPA comments, Ohio EPA has stressed the need for detail in regards to soil cover monitoring and the amount of soil thickness for the cover that needs to be maintained. DOE did agree to this and this information is not in Section 3.1.1 nor the Table in Appendix D. Please include this information in the document.

43. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 3.2/Table 3-2 Page: 23 Line: 1. Code: C

Original Comment#:

Comment: DOE's proposal of semiannual cap inspections appears to be premature. The OSDF cap inspections must be continued on a quarterly basis for at least two years following Cells 7 and 8 completions. Quarterly inspections are warranted, since past experience has shown that it takes about two years for vegetation stability and maintenance integrity to take place. Please refer to the Ohio Municipal Solid Waste

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Rules, Post Closure Care of a Sanitary Landfill Facility OAC 3745-27-14 (A)(4)) which states that "post-closure care activities" at a sanitary landfill will be conducted for a "minimum of thirty years."

44. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 3.2/Table 3-2 Page: 23 Line: Column Frequency Code: C
 Original Comment#: 61 & 88
 Comment: DOE has left out important information in Table 3-2 in regards to mowing the OSDF cap. In April 2005 Comment/Responses on the Draft ICP, dated August 2005, Ohio EPA's Comment# 88 and DOE's response discusses the mowing issue. DOE points out, that a "spring mowing" will be considered "if weather condition's permit." However, Table 3-2 does not include this information. Stating that mowing will occur "at least once annually" only alludes to the fact that another mowing during the year is possible, but isn't clear if and when a second potential mowing would take place. DOE should include the fact that they have "given consideration" to another mowing as long as the weather allows for it. Leaving this information out now will only end up being lost and will not be the best end result for preventive maintenance of the OSDF cap.

45. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 3.2.1 Page: 25 Line: Fourth paragraph Code: C
 Original Comment#:
 Comment: See above comment in regards to mowing.

46. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 5.2.2 Page: 35 Line: First bullet Code: C
 Original Comment#:
 Comment: The first bullet on page 35 is somewhat misleading to the audience. As it's stated, the text leads the reader to believe that the MUEF is designed to only "support" IC's at the site and not actually be an IC. For clarity, rewording the sentence to something similar as in Section 2.1.3.1, paragraph 6, page 12 of Vol. II, where DOE states that the "primary goal of the MUEF is to fulfill an informational and educational function" as an institutional control within the community is much clearer to the MUEF's purpose, rather than stating that the MUEF's "design and content" are there "to support institutional controls." The MUEF is both. Please provide the necessary corrections.

47. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
 Section #: 5.2.3 Pg #: 35 Line #: 10 Code: E
 Original Comment#
 Comment: Revise "ad" to "and."

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plan, but the expectation has always been that DOE has accepted responsibility to properly manage leachate forever. Of course, all parties have conceptually agreed that at some time in the future leachate may be more efficiently managed by alternatives to the existing leachate transmission system routing to the CAWWT. The paragraph should be rewritten.

53. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 3.6.1 Pg #: Line #: Code: C
 Original Comment #:
 Comment: The use of the present tense when referring to objects no longer in existence is confusing throughout this document but it is especially bad in this section.

54. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Figure 3-2 Pg #: Line #: Code: C
 Original Comment #:
 Comment: The chart does not indicate when the leachate transmission valve houses and lift station will be demolished.

55. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 3.6.1, Fig 3-6 Pg #: 3-8 Line #: NA Code: C
 Original Comment #:
 Comment: The note in Figure 3-8 does not include NPDES monitoring locations' SWR-4902 and SWR-4801 as noted in the narrative in section 3.6.1.

56. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 3.6.3 Pg #: 3-10 Line #: NA Code: C
 Original Comment #:
 Comment: As the IEMP will continue to direct environmental monitoring post-closure, this section should read "This additional monitoring is performed as a supplement in order to monitor surface water and treated effluent for potential site impacts to various receptors during and after remediation."

57. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Figure 3-9 Pg #: NA Line #: NA Code: C
 Original Comment #:
 Comment: This figure is only relevant during active remediation. OEPA has continually stated that the IEMP needs to include a focus on post-closure monitoring, which it apparently still lacks. This figure will only apply when contaminated areas left behind are finally remediated. It is not applicable to ongoing post-closure monitoring.

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58. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 7.0 Pg #: Line #: Code: general
 Original Comment #:

Comment: This section discusses the operational roles and responsibilities for DOE-Legacy Management, the operating Contractor, and the ARWWT Project. The ARWWT Project is charged with (first bullet) "Developing and maintaining the aquifer restoration strategy."

Sometimes, it is hard to see the forest for the trees. Missing is a strongly worded mission statement (The mission of the DOE-LM at Fernald is to efficiently and quickly remediate the GMA to the standards set in the Operable Unit 5 ROD.) that drives all the activities covered by the OMMP. If it is not appropriate to place such a mission statement in the OMMP, it should be placed in a prominent place in Volume II of the LMIC.

Post-Closure Care And Inspection Plan

Attachment B

59. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 1.4 Pg #: 1-2 Line #: Code: C
 Original Comment #:

Comment: This section addresses related plans which should be used in conjunction with this plan. The Design Criteria Plan, part of the original OSDF Design Package, should be added to the list.

60. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 3.1 Pg #: 3-1 Line #: 2nd paragraph Code: C
 Original Comment #:

Comment: The text states that the design of the OSDF is located in the final Design Criteria package. The Design Criteria Plan is only a part of the Final Design Package. The text should be changed to refer to the correct document.

61. Commenting Organization: Ohio EPA Commentor: DHWM
 Section #: 4.5 Pg #: Line #: Code: C
 Original Comment #:

Comment: The text discusses deed notations and land-use restrictions. As commented elsewhere, Ohio will require that an environmental covenant be in place prior to RCRA closure.

62. Commenting Organization: Ohio EPA Commentor: OFFO
 Section: 6.2.1.1 Page: 6-1 Line: first paragraph Code: C
 Original Comment#:

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This section leads us to ask if there are stockpiles of natural construction materials such as brown clay, topsoil, leftover drainage layer stone, etc. that are being maintained for use in such repairs. Where are these stockpiles located and how will future care-takers be made aware of their uses?

67. Commenting Organization: Ohio EPA Commentor: DHWM
 Section #: 9.2 Pg #: 9-1 Line #: 3rd bullet Code: C
 Original Comment #:

Comment: The text states that future corrective/response actions would be conducted as a CERCLA action. We do not take issue with this statement as a response under CERCLA is appropriate to the situation and has proven to be effective in the past. However, because RCRA closure was performed to risk-based standards rather than clean closure, a break down of the controls which limit exposure pathways to the public would be unacceptable from an RCRA perspective. Our concerns would be moot if the corrective/remedial action were in fact satisfactory. However, should there be a disagreement over the effectiveness of the actions, Ohio would seek further actions under our Ohio hazardous waste laws and regulations.

68. Commenting Organization: Ohio EPA Commentor: DHWM
 Section #: 11.2 Pg #: 11-1 Line #: 3rd bullet Code: C
 Original Comment #:

Comment: The text lists conditions which might trigger a change to the Post Closure Care and Inspection Plan. The third bullet cites "cessation of the management of leachate" as one trigger. It is the State of Ohio's expectation that the Department of Energy will manage the leachate generated in the OSDF in perpetuity. Of course, the volume of leachate is expected to slow down significantly in the future and we have already conceptually agreed that in the future alternatives to the current method of leachate management may be desirable. Alternatives such as off-site transportation by tanker truck and a passive in-situ treatment system discharging to some constructed wetlands have been discussed.

Groundwater/Leak Detection And Leachate Monitoring Plan

Attachment C

69. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
 Section #: 1.1 Pg #: 1-2 Line #: 26 Code: C
 Original Comment#

Comment: This description of the OSDF facility (and an equivalent discussion in Section 4.1) should be revised to include a description of the Enhanced Permanent Leachate Transmission System (EPLTS).

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74. Commenting Organization: Ohio EPA Commentor: DHWM
 Section #: 4.4.2.1 Pg #: 4-17 Line #: mid-paragraph Code: C
 Original Comment #:

Comment: The text quotes the 40 CFR 264.302(a) definition of 'action leakage rate'. We have commented elsewhere that citing this ARAR is inappropriate. We note that the current flow rates in the leachate collection system in Cell 1 of the OSDF are several orders of magnitude less than the action leakage rate as defined here. Strike all references to the new use of the term action leakage rate and retain the definition as previously used.

75. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
 Section #: 4.5 Pg #:4-18 Line #: 22 Code: C
 Original Comment#

Comment: Trend testing alone is insufficient as a technique for analyzing groundwater monitoring data for leak detection purposes.

76. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
 Section #: 4.5 Pg #: 4-19 Line #: 7 Code: C
 Original Comment#

Comment: The designation of trend testing as the preferred approach for evaluating groundwater data from the facility is inappropriate as upward trends already are observed at many monitoring points. The text should indicate that once the resolution of background issues has occurred, control charts or an equivalent approach will be implemented. The text should state that the purpose of the trend analyses currently being conducted is to assist in determining when reliable background statistics can be calculated and the control chart procedure resumed.

77. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
 Section #: 4.5.2 Pg #: 4-19 Line #: 29 Code: C
 Original Comment#

Comment: The use of flow data is an important but secondary consideration in the evaluation of system concentration data. Data evaluation should focus primarily on the comparison monitoring data to a statistical limit determined from background.

78. Commenting Organization: OEPA Commentor: GeoTrans, Inc.
 Section #: 5.0 Pg #: 5-1 Line #: 18 Code: E
 Original Comment#

Comment: The EPLTS acronym should be defined.

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Integrated Environmental Monitoring Plan

Attachment D

88. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: General Pg #: NA Line #: NA Code: C
 Original Comment #:

Comment: Post-closure monitoring is not adequately addressed. One of numerous examples includes the statement in Section 6.0, Monitoring, of the Waste Pits and Paddys Run NRRDP that "After closure, the (gradient control) structures will be inspected annually and maintained as needed by the DOE Office of Legacy Management." No where in the IEMP, the vehicle to describe monitoring, is there any mention of annual monitoring of gradient control structures. There are no parameters of how they should be set or what to look for at gradient control structures. Again, this is but one example of how the IEMP as written fails to fully address post-closure monitoring.

89. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Opening Notes Pg #: 2 Line #: NA Code: C
 Original Comment#:

Comment: It is stated that "It is also acknowledged that as the site progresses to post-closure, the emphasis on the role of project-specific monitoring will decrease and be limited to monitoring covered under post-closure plans included in the LMICP (e.g., the on-site disposal facility leak detection monitoring plan)." This continues to be one of the major concerns we have of the post-closure monitoring, i.e. reference to monitoring dictated by the IEMP throughout the other sections of the document, and no specific monitoring details in the IEMP. For example, Section 5.3, page 5-1 of Attachment B states that "Monitoring under the IEMP indicates the additional media to be monitored (e.g., surface water, sediment) and includes sampling specifics (i.e., frequencies and constituents)" and the IEMP, as stated above, "monitoring will decrease and be limited to monitoring covered under post-closure plans included in the LMICP." This circular monitoring responsibility is unacceptable. Long-term, post-closure monitors indicating the media and sampling specifics, as noted in Section 5.3, page 5-1 of Attachment B, for the entire site must be included in the IEMP. The detail could also be included in the post-closure plans, but must be in the IEMP.

90. Commenting Organization: OEPA . Commentor: GeoTrans, Inc.
 Section #: 3.1 Pg #: 3-1 Line #: 21 Code: C
 Original Comment#
 Comment: Change "contaminate" to "contaminant."

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yet to be approved, Natural Resources Restoration Plan. It should also be noted that few, if any, NRRDPs were approved, mostly because of disagreement over monitoring requirements.

101. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Appendix D, D.2.4 Pg #: D-4 Line #: NA Code: C
 Original Comment#:
 Comment: Reference is made to the 2002 NRRP as the primary means of settlement of the NRDA claim, however, as many versions of the NRRP were developed, none has been finalized as of the date of these comments.

102. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Appendix D, D.2.6 Pg #: D-5 Line #: NA Code: C
 Original Comment#:
 Comment: To state that "The design documents were submitted to EPA and the Fernald Natural Resource Trustees for approval prior to the commencement of restoration activities in a given area" is a bit misleading. Although this may have been intended, in many cases a conceptual plan was approved, but the NRRDPs were often submitted after restoration activities began, and in many cases a final approval for the NRRDP was never given.

103. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Appendix D, D.4.1.1 Pg #: D-7 Line #: NA Code: C
 Original Comment#:
 Comment: "...primarily upstream of the train trestle" should read "...primarily upstream of the former location of the train trestle, located approximately at the boundary between Hamilton and Butler counties."

104. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Appendix D, D.4.1.2 Pg #: D-9 Line #: NA Code: C
 Original Comment#:
 Comment: Add information about plantings to enhance bat habitat and structures placed specifically designed as Indiana Bat roosts.

Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Appendix D, D.4.5 Pg #: D-12 Line #: NA Code: C
 Original Comment#:
 Comment: Restored area monitoring will be further defined in the final NRRP and may differ from requirements stated here and the following subsections.

