



State of Ohio Environmental Protection Agency

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June 8, 2005

U. S. Department of Energy
Ohio Field Office
Fernald Closure Project
175 Tri-County Parkway
Springdale, Ohio 45246

RE: Disapproval - Excavation Plan for A6 Waste Pits and General Area

Dear Mr. Taylor:

Ohio EPA has reviewed DOE's April 26, 2005 submittal on the "Excavation Plan for Area 6 Waste Pits and General Area". Attached are Ohio EPA's comments.

Should you have any questions, please contact Michelle Waller or me.

Sincerely,

Michelle Waller
for

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

cc: Jim Saric, U.S. EPA
Mark Shupe, GeoTrans, Inc.
Michelle Cullerton, Tetra Tech EM Inc.

5. Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.5.3 Pg.#: 1-10 Line #: 15-18 Code: C
 Original Comment #
 Comment: It is acceptable and common practice to use real-time surveys to minimize the excavation volume of above-WAC soils, but it not acceptable to use real-time to reduce below-FRL soil volumes for excavation. FRL excavations should be bound by physical sampling results.
6. Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.5.3 Pg.#: 1-10 Line #: 27 Code: C
 Original Comment #
 Comment: Permanent seeding is not to take place until after certification. Please correct.
7. Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.3 Pg.#: 2-3 Line #: 25-29 Code: C
 Original Comment #
 Comment: See comment number 3.
8. Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.3.1 Pg.#: 2-6 Line #: 5-8 Code: C
 Original Comment #
 Comment: Lines 4-5 state that this Above-WAC result was not bound vertically, and yet line 8 states an excavation depth. Please explain how the excavation depth was decided with no bounding information.
9. Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.3.1 Pg.#: 2-6 Line #: AWAC Area #5 Code: C
 Original Comment #
 Comment: Why was no attempt made to bound A6-SA4-26? Also, this area is only bound on three sides by sampling. How was the fourth (southeast) excavation boundary delineated (especially since several AWAC samples lie near this boundary)?
10. Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.3.1 Pg.#: 2-7 Line #: AWAC Area #9 Code: C
 Original Comment #
 Comment: No additional sampling under the SP-7 footprint is mentioned. Characterization beyond the additional 6 inches below the bottom of the pile is necessary. The agencies will need to concur on this sampling as well, as mentioned above.

11. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.1 Pg.#: 2-8 Line #: AWAC Area #10 Code: C
Original Comment #
Comment: Line 3 stated that it is believed that the top liner maintained its integrity, yet in a TIE meeting held with the agencies on May 24 it was stated that there are known holes in the top liner. Also, it was stated that the levels of AWAC concentrations in the BSL are very high. Without any sampling results to prove that the secondary liner meets FRLs, it is unacceptable to send it to the OSDF. During the TIE meeting sampling of the sand layer to verify the FRL status was mentioned. If DOE wants to send the bottom liner to the cell as below-WAC, please provide details on sampling of the sand layer to verify this.
12. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.3.1; 3.4.11 Pg.#: 2-8; 3-10,11 Line #: 1-10; 6-15 Code: C
Comment: What measures will be taken to assure that there are no contaminated soils under the BSL? There is no evidence that any sampling has been done there. Also, we have addressed storm water storage in unlined excavations in other documents. Water should be pumped out of unlined excavations that have not been certified. Only water that is free of contaminants can be pumped into unlined excavations that are certified. Without both conditions being met, there is a potential for adding contaminants to ground water.
13. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg.#: 2-8 Line #: Waste Pit 1 Code: C
Original Comment #
Comment: This section states that there is above-FRL contamination located both in the floor and sidewalls of Waste Pit 1, which is bound vertically. It does not appear these areas are bound laterally. With no lateral bounding, this area has not been properly characterized for excavation.
14. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg.#: 2-9 Line #: 3-4 Code: C
Original Comment #
Comment: This section states that there is above-FRL contamination for radionuclides, metals, and PCBs in seven borings, but the results are only bound vertically. With no lateral bounding, this area has not been properly characterized for excavation.
15. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg.#: 2-9 Line #: 17-18 Code: C
Original Comment #
Comment: This section states that there is above-FRL contamination in the sidewall of Waste Pit 4 which is bound vertically by sampling. With no lateral bounding, this area has not been properly characterized for excavation.

16. Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.3.2 Pg.#: 2-9 Line #: Waste Pit 5 Code: C
 Original Comment #
 Comment: This section states above-FRL results were found and bound vertically on the floor, in the sidewalls and outside of Pit 5. With no lateral bounding, this area has not been properly characterized for excavation.
17. Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.3.2 Pg.#: 2-10 Line #: 10-12 Code: C
 Original Comment #
 Comment: This section states above-FRL results were found and bound vertically on the floor of Pit 6. With no lateral bounding, this area has not been properly characterized for excavation.
18. Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.3.2 Pg.#: 2-10 Line #: 27 - 32 Code: C
 Original Comment #
 Comment: This section discussed historical locations for above-FRL samples, and states that samples were taken to vertically and laterally bound this location. It is then stated that the area is bound vertically. No mention is made of the lateral bounding locations. Therefore Ohio EPA concludes that the samples taken were insufficient to laterally bound this excavation. With no lateral bounding, this area has not been properly characterized for excavation.
19. Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.3.2 Pg.#: 2-11 Line #: Clearwell Code: C
 Original Comment #
 Comment: This section states above-FRL results were found and bound vertically in the sidewall and on the berm of the Clearwell. With no lateral bounding, this area has not been properly characterized for excavation.
20. Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.3.2 Pg.#: 2-11 Line #: 33 Code: C
 Original Comment #
 Comment: What depth was the arsenic found in the historical sample location WPA15? If this depth is deeper then the newer thorium contamination, sampling will still need to be done for the arsenic.
21. Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.3.2 Pg.#: 2-12 Line #: 17-19 Code: C
 Original Comment #
 Comment: Was the area under the SWM pond characterized before the basin was put in? If not, how can DOE assume it to be below-FRL?

22. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg.#: 2-13 Line #: 10-11 Code: C
Original Comment #
Comment: Has this area north of the former SWL been bound either vertically or laterally? How was the excavation size determined?
23. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.5 Pg.#: 2-3 Line #: 32 Code: C
Original Comment #
Comment: This sentence states that 'runoff from excavation areas will be allowed to enter certified areas'. It is never acceptable for water from excavation areas to enter certified areas. Please correct.
24. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.3.1 Pg #: 3-3 Line #: 20-30 Code: C
Comment: There needs to be a contingency if you are unable to pump to the Cement Pond. This has been known to fill (and overflow) from the perimeter drain feeding it. It is possible that a rain event or series of rain events would fill this and render it unavailable to pump to. It is noted that the current version of the site OMMP states that "Several gasoline powered pumps have been temporarily staged at this sump (Cement Pond) in order to provide additional pumping capacity as needed to counter the decrease in permanently installed pumping capacity. These pumps will be used to relay pump the water to the former waste pit 1 excavation if needed. Water temporarily stored in the pit 1 excavation will be routed back to the cement pond after the storm event ceases. This mode of operation will be utilized until sufficient drainage area has been routed away from the sump." Is this part of the Area 6 storm water contingency as well?
25. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.3.4 Pg #: 3-4 Line #: 20-25 Code: C
Comment: Note that disturbance in the drainage to these ditches draining to Paddys Run will initiate checking for sediment loads from the drainage ditch into Paddys Run during rain events (as part of the Sloan's Crayfish monitoring plan). Any increase in sediment load over ambient in Paddys Run will mean corrective action must be taken upgradient to lower the sediment load.
26. Commenting Organization: OEPA Commentor: OFFO
Section #: 3.4.1 Pg.#: 3-6 Line #: 10-11 Code: C
Original Comment #
Comment: What stockpile will materials containing above-WAC organic constituents be hauled to? What would the treatment plan be?

27. Commenting Organization: OEPA Commentor: OFFO
 Section #: 3.4.1 Pg.#: 3-6 Line #: 11-19 Code: C
 Original Comment #
 Comment: All soils from an excavation area designated as excavation for AWAC should be hauled straight to SP-7. Working stockpiles should not be created for AWAC soils. Also, doing real-time scans or taking physical samples from an area after the soil has been removed (ie -below where the removed soil was) and using that data to determine the disposition location of that soil is unacceptable. Either sample before excavating, or direct haul the soil away as AWAC.
28. Commenting Organization: OEPA Commentor: OFFO
 Section #: 3.4.3.1 Pg.#: 3-8 Line #: 8-9 Code: C
 Original Comment #
 Comment: This section states that no known excavation of the sidewall is required to meet OU5 FRLs. Section 2.3.1, page 2-8, lines 23-25 state that 2 borings in the sidewalls are above-FRL for total uranium. Please clarify.
29. Commenting Organization: OEPA Commentor: OFFO
 Section #: 3.4.3.3 Pg.#: 3-8 Line #: 25-26 Code: C
 Original Comment #
 Comment: This section states that no known excavation of the sidewall is required to meet OU5 FRLs. Section 2.3.1, page 2-9, lines 8-10 state that the planned predesign boring have not been sampled on the sidewalls yet. This section should state that it is unknown if the sidewalls meet FRLs yet due to lack of sampling data.
30. Commenting Organization: OEPA Commentor: OFFO
 Section #: 3.4.3.11 Pg.#: 3-10, 3-11 Line #: 36,1-2 Code: C
 Original Comment #
 Comment: See comment number 11.
31. Commenting Organization: OEPA Commentor: OFFO
 Section #: 3.4.3.15 Pg.#: 3-12 Line #: 33-35 Code: C
 Original Comment #
 Comment: With this AWAC soil being removed after the rail line is gone, how will this soil be shipped offsite?
32. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 3.7 Pg #: 3-15 Line #: 23-28 Code: C
 Comment: Note that contrary to Section 02206, Item 305.A.2 and 3, and 3.6.E, smooth slopes and draining readily are two criteria that will not be important for restoration. Preferably the slopes will be rough and flow will be interrupted. Will backfilling be done in accordance with Section 02206, Item 3.2?