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COMMENTS: OU2 WASTE UNITS 30% DESIGN

10/08/96

OEPA DOE-FN
8
COMMENTS



State of Ohio Environmental Protection Agency

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George V. Voinovich
Governor

October 8, 1996

RE: DOE FEMP
MSL 531-0297
HAMILTON COUNTY
COMMENTS: OU2 WASTE
UNITS 30% DESIGN

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 the Preliminary Design for the OU2 Waste Units received on May 28, 1996. Also include are comments from the Ohio Department of Health, Bureau of Radiological Protection. Ohio EPA apologizes for the delay in submitting these comments but hopes they can be incorporated into the Pre-Final Design package.

If you have any questions, please contact Tim Hull.

Sincerely,

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

- cc: Jim Saric, U.S. EPA
- Terry Hagen, FERMCO
- Ruth Vandergrift, ODH
- Mike Proffitt, DD&GW
- Sharon McLellan, PRC
Manager, TPSS/DERR,CO
- Dave Ward, GeoTrans

(jaloveclj)
partial
action response
to doe-0936-96
(9855)

OU2UNITS.LTR

**Ohio EPA Comments on the Outline Specifications for the Waste Units Remediation Project
Design and Construction**

- 1.) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Pg #: Line #: Code: C
 Original Comment #:
 Comment: Please use pages with line numbers to facilitate effective review of these documents.
 Response:
 Action:
- 2.) Commenting Organization: OEPA Commentor: GeoTrans
 Section #: General Comment Code: C
 Original Comment # 1
 Comment: According to the Table of Contents, the specifications are to be divided into Sections 1 through 7. We suggest using the CI Standardized Divisions. This will be much easier for a contractor to reference.
- 3.) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2 Pg #: 2-1 Line #: Code: C
 Original Comment #:
 Comment: Please further define the term "biological waste".
 Response:
 Action:
- 4.) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 01121 Pg #: 2-2 Line #: 2nd paragraph Code: C
 Original Comment #:
 Comment: This paragraph states that many different materials will be disposed of in the OSDF. Please include an additional sentence within this text which states that these materials will be disposed of in the OSDF only if they meet the waste acceptance criteria.
 Response:
 Action:
- 5.) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 01123 Pg #: 2-3 Line #: 2nd paragraph Code: C
 Original Comment #:
 Comment: Please include an additional sentence within the text which states that all asbestos waste material removed will be handled in accordance with all state and federal laws concerning removal, packaging and disposal of such material.
 Response:
 Action:
- 6.) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 02110 Pg #: 3-1 Line #: 1st paragraph Code: C

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Original Comment #:

Comment: Is DOE investigating alternate means of disposal (composting) for cleared organic material such as trees, shrubs etc? This may be a desirable alternative to prevent the formation of methane gas within the OSDF.

Response:

Action:

7.) Commenting Organization: OEPA Commentor: GeoTrans
 Section #: 3 Civil-Gross Decontamination Pads and Equipment Pg. #: 3-1 Code: C
 Original Comment # 2

Comment: Section 02131 will potentially contain many specifications. We are not aware of a CHI designation for Section 02131, but it is in the Sitework Division. If the decontamination equipment listed in Section 02131 is to be supplied as a package system, then the Sitework Division should be included; however, if it is to be designed and will include drawings, it might be better to divide the required specifications between the appropriate divisions. These would include Concrete, Mechanical, Electrical, etc.

8.) Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 02142 Pg #: 3-2 Line #: 1st paragraph Code: C
 Original Comment #:

Comment: Soils in the areas surrounding the disposal areas should be stabilized as soon as possible after grading to minimize erosion.

Response:

Action:

9.) Commenting Organization: OEPA Commentor: GeoTrans
 Section #: 7 Electrical Pg. #: 7-1 Code: C
 Original Comment # 3

Comment: Will the electrical specifications need to include circuits for the pumps listed in Section 15160?

Ohio EPA Comments on the Design Criteria Package for Waste Units Remediation Project Design and Construction

10.) Commenting Organization: OEPA Commentor: GeoTrans
 Section #: 1.3 General Description of the Project Components Pg. #: 1-2 Code: C
 Original Comment # 1

Comment: In Section 1.3.1 it is stated that the excavations will proceed from highest to lowest elevation. In Section 1.3.2 it is stated that the excavations will be used as collection sumps for stormwater control. Without pumping or trenching, which is not included in

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this design, it is not clear how excavations in the highest portion of a contaminated area can be used for stormwater retention.

11.) Commenting Organization: OEPA Commentor: GeoTrans
 Section #: 1.4 Assumptions/Clarifications Pg. #: 1-4 Code: C
 Original Comment # 2

Comment: Assumption #1. How was a 10-year, 24-hour storm selected as a the design basis for stormwater controls? Is this sufficient?

12.) Commenting Organization: OEPA Commentor: GeoTrans
 Section #: 1.4 Assumptions/Clarifications Pg. #: 1-5 Code: C
 Original Comment # 3

Comment: Assumption #12. The OSDF was not designed to receive organic wastes. There are no controls for gas production in the landfill cap.

13.) Commenting Organization: OEPA Commentor: GeoTrans
 Section #: 2.3 Discipline Criteria Pg. #: 2-9 Code: C
 Original Comment # 4

Comment: Where will the high level alarm output be located? Who will respond to an alarm condition?

14.) Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 2.3.1 Pg #: 2-7 Line #: 2nd paragraph, 2nd to last sentence Code: G
 Original Comment #:

Comment: Please revise this sentence to read "Other perimeter erosion & sediment control measures will be used to control erosion and limit sediment from leaving the work area"..

Response:

Action:

15.) Commenting Organization: OEPA Commentor: GeoTrans
 Section #: 3.0 General Functional Requirements Pg. # 3 Paragraph #: 3 Code: C
 Original Comment # 5

Comment: This paragraph states that the excavation of contaminated soil and rubble will be defined by an excavation plan. This implies that the limits of the excavation will be defined before excavation begins. In Section 6.2, Design Criteria, confirmational sampling to determine the final limits of the excavation is discussed. Please explain or correct this inconsistency.

16.) Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 3.0 Pg #: 3 Line #: 5th paragraph Code: C
 Original Comment #:

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Comment: After the second sentence, please add an additional line which states that disturbed soils should be stabilized as soon as possible.

Response:

Action:

17.) Commenting Organization: Ohio EPA Commentor: DSW

Section #: 3.0 Pg #: 3 Line #: 5th paragraph Code: C

Original Comment #:

Comment: Please modify the last sentence to state that "Runoff will be controlled in accordance with "Rainwater and Land Development.....". This is the latest edition of this guidance document.

Response:

Action:

18.) Commenting Organization: Ohio EPA Commentor: DSW

Section #: Table A-4 Pg #: Line #: Code: C

Original Comment #:

Comment: The statement is made that 'neither habitat nor populations of the state listed threatened spring coralroot (*Corallorhiza wisteriana*) were found on the FEMP property." Although no populations were found, as stated in Results of Surveys for Spring Coralroot, Hamilton County Ohio, July 11, 1994, "Despite **the presence of suitable habitat near the western edge of the northern woodlands** (emphasis added) Spring Coralroot was not observed at any of the location surveyed", suitable habitat is present at the FEMP.

Response:

Action:

19.) Commenting Organization: Ohio EPA Commentor: OFFO

Section #: 6.2.1 Pg #: 6 Line #: 2nd paragraph Code: C

Original Comment #:

Comment: A sediment basin is for sediment control not erosion control. Erosion control measures that should be used include disturbed soil stabilization with mulch, hydroseeding and/or mats.

Response:

Action:

Ohio EPA Comments on the Drawings for Waste Units Remediation Project Design and Construction

20.) Commenting Organization: OEPA Commentor: GeoTrans

Area: Solid Waste Landfill Drawing #: General Code: C

Original Comment #

Comment: Will mechanical and concrete details be included for the wheel wash system? Will there be a sediment trap for the wash pad, or will the gradient of the drain be sufficient to keep

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solids suspended? In general, the design of this system should be presented in greater detail.

21.) Commenting Organization: OEPA Commentor: GeoTrans
 Area: Lime Sludge Ponds Drawing #: 92X-5900-G-00274 Code: E
 Original Comment #

Comment: Near Manhole 9, others is misspelled in the lines reading Exist Fence (to be removed by others).

22.) Commenting Organization: OEPA Commentor: GeoTrans
 Area: Lime Sludge Ponds Drawing #: 92X-5900-G-00276 Code: E
 Original Comment #

Comment: In Note 9, the word from is misspelled as form.

Ohio EPA Comments on the Fly Ash and South Field Waste Units Geotechnical Report

23.) Commenting Organization: Ohio EPA Commentor: GeoTrans
 Section#: Section 5 Pg#: Line#: Code: C
 Original Comment#:

Comment: Section 5 includes a review of the excavation approach. A summary figure (time line) would be helpful in conveying the expected progress of each phase of operation. This section should also include a more detailed discussion of the factors which might affect the proposed schedule.

24.) Commenting Organization: Ohio EPA Commentor: GeoTrans
 Section#: Section 5.1.2 Pg#: 5-2 Line#: 2 Code: C
 Original Comment#:

Comment: Perched groundwater conditions and seepage are anticipated during excavation. The text states that "normal sump and pump controls are used and areas for saturated conditions." Please provide additional explanation, or reference previous documents, regarding the sump and pump controls as they relate to the excavation approach. For example, were will pumped water be stored? What is the estimated quantity of water? Will materials be allowed to drain prior to placement? If so, what field procedures will be used to determine adequate drainage?

25.) Commenting Organization: Ohio EPA Commentor: GeoTrans
 Section#: Section 5.1 Pg#: 5-1 Line#: Code: C
 Original Comment#:

Comment: The proposed excavation plan can be modified if an excavation contractor submits an acceptable alternative plan. What is the approval procedure for alternative plans? Will the contractor have authority to change plans during excavation in response to unforeseen

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field conditions?

- 26.) Commenting Organization: Ohio EPA Commentor: GeoTrans
 Section#: Section 5.1.3 Pg#: 5-3 Line#: Code: C
 Original Comment#:
 Comment: Please provide additional detail on waste segregation and size reduction operations as discussed in this section.
- 27.) Commenting Organization: Ohio EPA Commentor: GeoTrans
 Section#: Section 5.2.1 Pg#: 5-4 Line#: Code: C
 Original Comment#:
 Comment: Please provide additional information on the special handling procedures referred to under this section.
- 28.) Commenting Organization: Ohio EPA Commentor: GeoTrans
 Section#: Section 5.2.4 Pg#: 5-9 Line#: 2 Code: C
 Original Comment#:
 Comment: The text mistakenly refers to Table 5-3 instead of Table 5-4 when referring to average dry densities of ash from the AFAP and IFAP. In addition, the average dry density is referred to as about 51 pcf while Table 5-4 shows an average maximum dry density of 64 pcf. Please clarify.
- 29.) Commenting Organization: Ohio EPA Commentor: GeoTrans
 Section#: Section 5.2.5 Pg#: 5-10 Line#: 2 Code: C
 Original Comment#:
 Comment: Section 5.2.5 lists in-place and remolded strength parameters for various strata and soil types. However, no summary discussion or interpretation is provided. Please provide additional text describing how the listed parameters will be used by the contractor and how they relate to and effect the excavation plan.
- 30.) Commenting Organization: Ohio EPA Commentor: GeoTrans
 Section#: Section 5.3 Pg#: 5-14 Line#: Code: C
 Original Comment#:
 Comment: What method of slope stability analysis was used to determine the various Factors of Safety? Please reference the software package and specific analyses used. Please provide sample calculations (an Appendix) of the slope stability analyses as discussed in Section 5.3.
- 31.) Commenting Organization: Ohio EPA Commentor: GeoTrans
 Section#: Section 5.3 Pg#: Line#: Code: C
 Original Comment#:

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Comment: The recommended side slopes appear to confirm the results of the OU2 Southern Waste Unit slope stability analyses. Were field verifications performed as part of this analyses or the Southern Waste Unit Slope Analysis to verify the predicted slope stabilities?

Ohio Department Of Health Comments

- 1) As concentrations of radionuclides will vary throughout these excavations, how are localized hot spots identified, removed, and segregated to meet the WAC's for disposal? If this information is forthcoming in a sampling and analysis plan, ODH requests this document once available.
- 2) Are there any contingencies besides sump pumping for mitigating the migration of contaminated stormwater/perched water from the bottoms of excavations that are proximal to the top of the GMA ?
- 3) As a comparison to perimeter air monitoring, analysis of other particulate concentrating devices (breathing zone analysers, vehicle radiators and air filters) may offer some additional insights into airborne emissions within the controlled area resulting from excavation activities.