



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

February 17, 2023

VIA ELECTRONIC MAIL

Mr. Roger B. Petrie
Federal Facility Agreement Manager
Oak Ridge Office for Environmental Management
Department of Energy
Post Office Box 2001
Oak Ridge, Tennessee 37831

Dear Mr. Petrie:

The U.S. Environmental Protection Agency has completed review of the *Remedial Design Report/Remedial Action Work Plan for the Environmental Management Disposal Facility for the Disposal, Oak Ridge, Tennessee, Early Site Preparation Activities* (DOE/OR/01-2934&D1) received electronically on January 3, 2023.

The conceptual design of the Environmental Management Disposal Facility (EMDF) is based on a total constructed volumetric capacity of approximately 2.2 million cubic yards, with approximately 100 acres impacted during development. The EMDF will be designed and constructed to meet applicable or relevant and appropriate requirements as included in the EMDF Record of Decision, including a liner and cap system compliant with Resource Conservation and Recovery Act requirements. Surface water will be managed by diverting water around the facility. The construction of a liner and geologic buffer system should isolate the facility from groundwater. A leachate collection system and other support facilities, including a landfill wastewater treatment system, will also be designed and constructed as part of the EMDF; final details will be included in a separate Remedial Design Report for the landfill design.

This document conveys the activities being conducted to expedite the project and clear interferences to site development. These Early Site Preparation (ESP) activities will support future construction of the disposal cells and support facilities by performing the initial activities necessary to support large-scale site development including:

1. Reroute of the existing Bear Creek Road and Haul Road
2. Initial preparation for Site 7b borrow area development
3. Extension of water line utilities (fire and potable water) to the EMDF Project area
4. Extension of power line utilities (electrical) to the EMDF Project area
5. Installation of construction support area (including trailer and parking areas)

This Remedial Design Report/Remedial Action Work Plan (RDR/RAWP) describes the scope of the ESP activities related to these tasks. Based on the preliminary design, this ESP work is required prior to landfill construction; however, these activities are not associated with any of the project features that will be used to control contamination.

The ESP activities are expected to occur in uncontaminated areas; therefore, all waste generated is expected to be disposed at the Oak Ridge Reservation Landfills. The DOE is reminded that disposal of any CERCLA-derived hazardous waste that might be discovered must be preceded by approval from EPA of the Waste Handling Plan.

Comments are attached and must be resolved before a revised document is submitted.

If you have any questions or concerns regarding this matter or require additional information, then please contact me at (404) 562-8550, or electronically at froede.carl@epa.gov.

Sincerely,

Carl R. Froede Jr.
Senior Remedial Project Manager
Restoration & DOE Coordination Section
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EPA Comments on the Remedial Design Report/Remedial Action Work Plan for the Environmental Management Disposal Facility for the Disposal, Oak Ridge, Tennessee, Early Site Preparation Activities (DOE/OR/01-2934&D1)

GENERAL COMMENTS

1. It is unclear if borrow soils from Site 7b will be utilized during site preparation activities. It is noted, the Phase 3 (Borrow Areas) Characterization Report for the Environmental Management Disposal Facility, Oak Ridge Tennessee dated September 2019 does not appear to be referenced in the RDR/RAWP. Please revise the RDR/RAWP to reference the aforementioned document, if applicable.
2. The Executive Summary of the RDR/RAWP indicates that Early Site Preparation (ESP) activities will occur in uncontaminated areas, yet no environmental data or reports are summarized or referenced in this design. Please revise the RDR/RAWP to summarize or reference previously approved documents in the administrative record that report the areas where activities will occur are uncontaminated.
3. The specifications included in Appendix A (Bear Creek Road and Haul Road Reroute Design Package), Appendix D (Initial Preparation of Site 7B Borrow Area Design Package), and Appendix E (Installation of Construction Support Area Design Documents) lack provisions to test, confirm or document that materials being used during ESP activities are free of chemical contamination. Examples include, but may not be limited to, the following:
 - Specification for Section 31 00 00 Earthwork. Part 1: General, Section 1.02 Definition of Terms: The specification outlines what makes up Unsatisfactory Material. The definition does not preclude use of chemically contaminated material. The specification should include provisions to include any material that is chemically contaminated as Unsatisfactory.
 - Specification for Section 31 00 00 Earthwork. Part 2: Products, Section Sec 2.01 Materials, Paragraph A, B and D: The specification outlines site materials for construction imported or reused from onsite sources. All proposed materials should be free of chemical contamination. The specification should include that all fill materials used onsite shall be tested for chemical contamination prior to import.
 - Specification for Section 31 00 00 Earthwork. Part 2: Products, Section 2.01 Materials, Paragraph E: The specification states that construction water for moisture conditioning of the compacted fill shall be obtained from the onsite water source designated by the UCOR construction manager. There is a risk that the water source could be chemically contaminated. The specification should include the stipulation that all water sources be tested for contaminants prior to use onsite.
 - Specification for Section 31 00 00 Earthwork. Part 3: Execution, Section 3.01 Subgrade Preparation: The specification outlines that the sub grade topsoil shall be stripped and stockpiled. There is a slight risk that topsoil could be contaminated with pesticides or other chemicals. The specification should include provisions to test existing topsoil for chemical contamination prior to removal/stockpiling.
 - Specification for Section 32 12 00 Aggregate Materials. Part 2: Products, Section 2.01 Materials: The specification outlines requirements for imported aggregate materials. There is a risk that any imported materials could be chemically contaminated. The specification should include chemical testing prior to delivery to the site.

- Specification for Section 32 12 00 Aggregate Materials. Part 2: Products, Section 2.01 Materials: The specification outlines requirements for imported aggregate materials. There is a risk that any recycled or reused aggregate material is contaminated. The specification should include chemical testing of any recycled or reused material prior to use for the site work.

Please review and revise the specifications to ensure, as noted above, that provisions to test, confirm or document the materials being used during ESP activities are free of chemical contamination are included.

SPECIFIC COMMENTS

1. Section 4, Remedial Design Report, Page 13: The sequencing of the five main ESP activities are not clearly defined in the RDR/RAWP. For example, Section 4 describes, in general, the five ESP activities; however, the sequencing of events is not defined. Please revise the RDR/RAWP to describe the order of events.

2. Appendix B, Extension of Electric Utilities Design Package, Drawing EY002-MVP-0134, 13.8KV Overhead Line, Extension Plan, PDF 10 of 38: Clarity should be provided to certain areas of the Overhead (O/H) and poles layout presented on Drawing EY002-MVP-134. For example, the O/H Line between poles #K2748, #K2747 and #K2476 is shown as a dark line, which is the same as between the M4-XXX series poles. In addition, it is unclear if the O/H Line will be disconnected at tie pole #K2747 and will be reconnected after the existing tie pole is replaced with a new steel pole. Lastly, it is unclear if the existing O/H line conductor will be replaced if required to connect to the new pole. Please revise the drawing to add a note to clarify that the O/H line between these three poles is the existing O/H #4 CU conductor line; clarify if the O/H Line will be disconnected at tie pole #2747; and, clarify if the O/H line conductor will be replaced if required to connect to a new pole.

3. Appendix B, Extension of Electric Utilities Design Package, Drawing EY002-MVP-0134, 13.8KV Overhead Line, Extension Plan, PDF 10 of 38: Several pole numbers are not referenced on Drawing EY002-MVP-0134. For example, pole numbers to the three existing poles shown going to the Backflow Preventer Building are missing. Please revise Drawing EY002-MVP-0134 to reference the three noted existing poles.

4. Appendix C, Drawing E2E-OSWDF0-F307, Water Line Extension, Backflow Preventer Building, Electrical Site Plan and Details, PDF 16 of 224: The following details are not provided on Drawing E2E-OSWDF0-F307:

- The voltage of 480V and 1 PH power is not shown on the One Line Diagram.
- In Section 'A' Elevation (pole #K5340), the new power feed is not clearly defined. For example, the definition states 'NEW 2 "POWER FEED', but does not include details (e.g., 480V, 1PH POWER FEED IN 2" CONDUIT).
- In Section 'A' Elevation (pole #K5340), the description does not include the voltage for the meter.
- In Section 'A' Elevation (pole #K5340), there is a note missing (e.g., Cap spare 2" spare conduit stub-up').
- In Duct bank section 'C' and 'D', the spare conduit is not identified.

Please revise Drawing E2E-OSWDF0-F307 to include the aforementioned details, as applicable.

5. Appendix C, Drawing E2E-OSWDF0-F308, Water Line Extension, Backflow Preventer Building, Electrical Plan and Details, PDF 17 of 224: The breaker size in panel schedule 'LP-1' is not provided on Drawing E2E-OSWDF0-F308. For clarity, please revise the drawing to add the appropriate breaker size in the panel schedule for LP-1.

6. Appendix E, Installation of Construction Support Area Design Documents, Drawing E2E-OSWDF0-F971, Construction Support Area Electrical Site Plan, PDF 14 of 170: The following details are not provided on Drawing E2E-OSWDF0-F971:

- The interior power service panel is missing information. Please add to the inside UCOR Construction Trailer an identification of the 120/240V Interior Power service panel, which is provided by the trailer vendor.
- Information regarding pull boxes is not clear. If necessary between the U/G conduit run between Pole # M4-009 and the construction trailer power panel, include and show a drawing detail.
- A reference is missing. Please add to note #4 a reference to CNS for 13.8 KV extension work, as shown on the One Line Diagram on Drawing E2E-OSWDF0-F972.

Please revise Drawing E2E-OSWDF0-F971 to include the aforementioned details, as applicable.

7. Appendix E, Installation of Construction Support Area Design Documents, Drawing C2E-OSWDF0-F956 Construction Support Area Site Layout and Grading Plan, PDF Page 9 of 170 and C2E-OSWDF0-F958, Construction Support Area Details and Sections, PDF Page 11 of 170: The design drawings show a 6 inch aggregate base layer over an 8-ounce non-woven geotextile. Since construction equipment will be parked, fueled and maintained there, there is an increased risk of site contamination over the duration of the project. Please revise Appendix E to include a flexible membrane liner to minimize/isolate contaminant spread.

(End of Comments)