



**STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

Division of Remediation - Oak Ridge  
761 Emory Valley Road  
Oak Ridge, Tennessee 37830

October 18, 2023

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

**TDEC Comment Letter: 2023 Five-Year Review for the East Tennessee Technology Park Administrative Watershed and the Clinch River/Poplar Creek and Lower Watts Bar Reservoir Operable Units on the U.S. Department of Energy Oak Ridge Site, Oak Ridge Tennessee (DOE/OR/01-2947&D1)**

Dear Mr. Petrie

The Tennessee Department of Environment and Conservation (TDEC), Division of Remediation-Oak Ridge Office has reviewed the above referenced document pursuant to the Federal Facility Agreement (FFA) for the Oak Ridge Reservation. This letter meets the FFA review cycle protocol of 90 days for the subject document. The following comments are relevant to that review.

**General**

1. Several of the remedies at East Tennessee Technology Park (ETTP) include Land Use Controls (LUCs) as a component of the remedy; therefore, evaluating the implementation and effectiveness of LUCs is included as part of the protectiveness determination during the Five-Year Review (FYR). The Excavation/Penetration Permit (EPP) program is one of the LUCs currently being implemented at ETTP. In a January 17, 2023, tri-party meeting, TDEC expressed its concerns regarding the implementation and effectiveness of the EPP program. To date it appears these concerns have not been fully addressed and call into question whether this LUC is effectively being implemented. TDEC continues to have concerns and requests that a tri-party meeting be scheduled to allow for further discussion.

2. See comments numbered 3 and 4. Please address these comments throughout the document as appropriate.

### **Executive Summary**

3. **Page ES-5, first and third paragraphs**

The land transfer deeds also include LUCs for surface water and vapor intrusion. Please revise these two paragraphs to include these LUCs which should be evaluated during the protectiveness determination.

4. **Page ES-5, last paragraph**

Please include the ETPP Main Plant Area (MPA) Groundwater Final Records of Decision (RODs) (FFA Appendix J date 2032; Remedial Action Report (RAR) 2037) as specified in Table 1.2.

5. **ES-6, OU 47**

As this section only pertains to the MB Chromium Reduction Removal Action, clarify what "additional actions" will be addressed under the ETPP MPA Groundwater Interim ROD. The ETPP MPA Groundwater Interim ROD is limited to addressing volatile organic compounds (VOCs) greater than 1,000 ug/L and does not address metal contamination. Please revise this sentence and Table 1.2 (page 1-14) to reference the appropriate Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) groundwater document (ETPP MPA Groundwater Final ROD(s) [FFA Appendix J date 2032; RAR 2037]) that will address chromium impacted groundwater.

### **Section 1.0 2023 Oak Ridge Site Five-Year Review**

No Comments

### **Section 2.0 ETPP**

6. **Page 2-26**

This is not the LUC table from the most recent approved erratum to the ETPP RAR Comprehensive Monitoring Plan (DOE/OR/01-2477&D4, dated January 2023) and does not include the vapor intrusion property record restrictions. Please revise the document as appropriate.

7. **Page 2-35, Section 2.1.4.4.2, CSA**

Please elaborate on the LUCs, specifically access controls, that ensure there is no land disturbance at the Contractor's Spoil Area considering this is within the Black

Oak Ridge Conservation Easement, a known recreational area. Figures 2 and 3 on Page A-8 do not show any posted signs.

8. **Page 2-56, Table 2.13**

Please confirm the cis-1,2-dichloroethene for August 2021 is -35 ug/L.

9. **Page 2-59, third paragraph**

The text states that no contaminants exhibit an increasing trend over the past 5- and 10-year periods. Figure 2.8 suggests a general upward trend in 1,1-DCA and Vinyl Chloride concentrations since 2008 and 2009, respectively. The discussion in the paragraph below Figure 2.10 supports the general increasing trends observed in Figure 2.8. Please address this contradiction.

10. **Page 2-65**

Please confirm the response for *Have there been any changes in the toxicity factors for COCs?* should be "No," as the note suggests several toxicity factors have changed.

11. **Page 2-73, bullet points**

Please identify which recreational use the LUCs "prevent" and which recreational use the LUCs "minimize."

12. **Page 2-76, Section 2.3.3**

Regarding the 2021 FYR recommendation, was a manageable solution developed to mitigate the high project costs and fish- and plant-management activities or did the recent performance data and more routine grate cleanout along with streamlined operations satisfy this recommendation, as suggested by the last sentence? If so, please clearly state that the 2021 FYR recommendation was achieved through those efforts.

13. **Page 2-77, Section 2.3.4.2.1.1 K-1007-P1 Holding Pond**

Data in Oak Ridge Environmental Information System (OREIS) provide detected polychlorinated biphenyl (PCB) concentrations in addition to the three that are summed to express the total PCB concentration (Aroclor-1248, Aroclor-1254, and Aroclor-1260). Please provide rationale for not including all the PCB concentrations in the total value.

14. **Page 2-86, Section 2.3.4.2.2.1.3**

Please elaborate on the significance of the increased presence of ducks on the K-1007-P1 Holding Pond and whether they are the target wildlife for assessing protectiveness. Have other wildlife been monitored since 2009?

15. **Page 2-91, Section 2.3.4.2.2.2.2, second paragraph**

The text in this paragraph reads as if wildlife monitoring was conducted in the K-901-A Pond, while none was performed. Please confirm that no wildlife surveys were performed in this pond and revise the text to specify what type(s) of monitoring was conducted in each water body in accordance with the Ponds Removal Action Report.

### **Section 3.0 Off-Site LWBR and CR/PC CERCLA Decisions**

16. **Page 3-24, sixth paragraph**  
Provide the screening-level preliminary remediation goals for recreational swimmer.
17. **Page 3-27, Section 3.2.1, second paragraph**  
Identify the mudflat area on a map within this document.
18. **Page 3-37, Section 3.2.5.1**  
Provide the level of the exceedance for CR14.5TDEC-02.

### **Appendix A: Site Visits**

19. **Page A-16, Figures 3 and 4**  
Are there plans to update these signs to ensure they are legible and the LUC is protective?

### **Appendix B: ARARs and Human Health Risk Updates**

No Comments

### **Appendix C: Property Transfers for ETP**

20. **Page C-3, Section C.2**  
The land transfer deeds also include LUCs pertaining to use of surface water, please revise this section appropriately.

### **Appendix D: Certificate of LUC Implementation for FY21 and FY22**

No Comments

### **Appendix E: Conversion Factors, Units and Chemical and Radionuclide Names**

No Comments

Questions or comments concerning the contents of this letter should be directed to Dana Casey by phone at (865) 310-0253 or by email at [dana.casey@tn.gov](mailto:dana.casey@tn.gov).

Sincerely

**Randy C Young**

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Randy C. Young  
FFA Project Manager  
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