



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

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

November 8, 2022

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

RECEIVED  
NOV 15 2022  
COUNTY MAYOR'S OFFICE

**Re: TDEC Comment Response Letter for the Proposed Plan for the Record of Decision for Groundwater in the K-31/K-33 Area at the East Tennessee Technology Park, Oak Ridge, Tennessee (DOE/OR/01-2922&D1)**

Dear Mr. Petrie

The Tennessee Department of Environment and Conservation (TDEC), Division of Remediation-Oak Ridge Office (DoR-OR), received the U.S. Department of Energy (DOE) letter transmitting the above referenced document on September 14, 2022. TDEC has reviewed the above referenced document pursuant to the Federal Facility Agreement (FFA) for the Oak Ridge Reservation and offers the attached specific comments for resolution prior to approval.

TDEC looks forward to working with the tri-parties to continue to move groundwater remediation work forward at ETTP in a timely and mutually satisfactory manner. If you have questions or comments concerning the contents of this letter, please feel free to reach out to Heather Lutz at [heather.lutz@tn.gov](mailto:heather.lutz@tn.gov) or (865) 220-6574 or to Randy Hoffmeister at [randy.hoffmeister@tn.gov](mailto:randy.hoffmeister@tn.gov) or (865) 220-6583.

Sincerely

Randy C. Young  
FFA Project Manager

Enclosure

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## **SPECIFIC COMMENTS**

### **Comment 1: Section 3, Summary of Site Risks, fifth paragraph, page 9**

Please identify in this text that the *Final Sitewide Remedial Investigation and Feasibility Study for Residual Contamination at East Tennessee Technology Park (DOE/OR/01-2279&D3)* was never approved. As currently written, it could be perceived by the public that this document is an approved document in this record. This is potentially confusing to the general reader.

### **Comment 2: Section 3, Summary of Site Risks, fifth paragraph, page 9**

All constituents exceeding regulatory limits or human health risk levels in groundwater should be addressed by the proposed remedy though out this document. As was addressed in comment response #1 from DOE to TDEC in TDEC's DOE/OR/01-2893&D1/R1 comments to be incorporated in to the D2 FFS document, DOE has stated previously: "*No COCs have been excluded from the FS based on the HHRA, frequency of MCL exceedances, or magnitude of the concentrations.*"

- Please evaluate and reword the text in paragraph 5 under section 3 that uses the unapproved "Final Sitewide Remedial Investigation and Feasibility Study for Residual Contamination at ETP, Oak Ridge, TN Volumes 1 through 3 (DOE/OR/01-2279&D3)" to state that "metals were not analytes of interest in groundwater in the K31/33 Area due to their limited frequency of detection above screening levels."

### **Comment 3: Section 3, Summary of Site Risks, sixth paragraph, page 9**

A baseline human health risk assessment does not differentiate between what COCs should be retained and what COCs should be excluded during site cleanup. The decision to retain COCs should be evaluated using process knowledge to identify which COCs are site related and which COCs are not believed to be attributed to site activities. Please revise this paragraph to state the reasoning for only retaining chromium and nickel as COCs and remove the statement that reads;" the baseline human health risk assessment concluded chromium and nickel are considered to be the primary COCs for groundwater in the K-31/K-33 Area".

### **Comment 4: Section 3, Summary of Site Risks, last paragraph, page 9**

Please remove the portion of the statement that an ecological risk assessment was not conducted because the site is an industrial area. Land use does not prescribe whether an ecological risk assessment needs to be completed. Please provide clarification in the comment response regarding when eco risk will be addressed at this site within the administrative record.

### **Comment 5: Section 4, Remedial Action Objectives, page 9, first bullet**

Revise the first RAO bullet to state: "Return usable ground waters to their beneficial uses wherever practicable, within a timeframe that is reasonable given the particular circumstances of the site".



**Comment 6: Section 4, Remedial Action Objectives, page 9**

Please include an RAO bullet that states "Groundwater contamination should not be allowed to migrate and further contaminate the aquifer or other media (e.g. vapor intrusion into buildings, sediment, surface water, or wetland)."

**Comment 7: Section 4, Remedial Action Objectives, page 9, bullets 2, 4, and 5**

RAO bullets 2, 4, and 5 address preventing exposures. As LUCs are interim measures while groundwater remedy is being implemented, please include "until groundwater is returned to beneficial use" to the end of those bullet statements. This intent is referenced in text section 7.1.2 Land Use Controls, but please include this language into these bulleted RAOs specifically as well.

**Comment 8: Section 4, Remedial Action Objectives, first paragraph, page 9**

Please remove the sentences that discuss the near-term and future end uses in the K-31/K-33 area in this section:

*"The anticipated near-term and future end uses in the K-31/K-33 Area are industrial, which is consistent with the Covenant Deferral Request transferring the land to the Community Reuse Organization of East Tennessee. Currently, the K-31 area is being leased as a support facility to the Y-12 Uranium Processing Facility construction project, and the K-33 footprint has been sold to Kairos Power who plans to use it for a nuclear energy demonstration reactor.*

*Future industrial use of the groundwater at ETPP is improbable and would require prior approval from DOE, EPA, and TDEC before implementation. Groundwater would be of limited industrial use due to the complex geology, the availability of the Clinch River immediately adjacent as a water source, and the availability of the existing municipal water supply. Future residential use of the K-31/K-33 Area is prohibited through LUCs established under the Zone 2 ROD."*

The end use for the K-31/K-33 area is irrelevant when establishing RAOs for groundwater. All groundwater in the State of Tennessee is considered "General Use Groundwater" 0400-40-03-.07. This information might be better placed in Section 2.1.2 Site History and Status.

**Comment 9: Section 4, Remedial Action Objectives, second paragraph, page 9**

Please remove the term "industrial use" from the first sentence of this paragraph.

Comment 8 above recommends removing or relocating these paragraphs. Please note, regardless of where the paragraphs are relocated, the term "industrial use groundwater" is not a relevant classification under TDEC Rule 0400-40-03 General Water Quality Criteria, and that "industrial use groundwater" terminology should be reworded or removed in all instances where groundwater usage and the required water quality criteria associated with those uses, are being discussed.

**Comment 10: Section 6.2, Compliance with Applicable or Relevant and Appropriate Requirement, first paragraph, page 15**

Please revise the sentence to state that Alternative 1 would not achieve the chemical specific ARARs which would include ALL enforceable numerical standards, both EPA MCLs and TN general use water quality criteria.

**Comment 11: Section 6.7, Cost, last sentence, page 17**

Please change "Remedial Design Report" to "Remedial Design Work Plan".

**Comment 12: Section 7.1.1, page 18**

Please include after paragraph 2 in this section, a discussion regarding the evaluation of the monitoring network and the potential need for installing additional monitoring wells as part of the Remedial Design Work Plan (RDWP) and Remedial Design Report (RDR) stage of the CERCLA process.

**Comment 13: Section 8, Natural Resource Damages, page 19**

The first sentence of this paragraph reads: "Hazardous substances above health-based levels will remain onsite if this remedy is implemented." Please define hazardous substances in the context of this statement and elaborate what hazardous substances are intended to be left in groundwater with implementation of this remedy, and for what time frame are they intended to remain?

