



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

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

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COUNTY MAYOR'S OFFICE

December 19, 2023

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

TDEC Comment Letter: Addendum 2 for the Implementation Process to the Upper East Fork Poplar Creek Soils Remedial Action Work Plan, Oak Ridge, Tennessee (DOE/OR/01-2423&D2/A2)

Dear Mr. Petrie

The Tennessee Department of Environment and Conservation (TDEC), Division of Remediation-Oak Ridge Office, received the above referenced submittal on September 25, 2023. The document has been reviewed pursuant to the Federal Facility Agreement (FFA) for the Oak Ridge Reservation (ORR). The following comments are relevant to the review of this document:

General Comment

As has been discussed among the FFA parties for some time now, environmental regulations in Tennessee designate groundwater across the ORR as General Use Groundwater. Therefore, the final remediation goal for general use groundwater requires contaminant concentrations to not exceed federal and/or state Maximum Contaminant Levels (MCL) for the protection of human health.

Seemingly in contrast, the Upper East Fork Poplar Creek (UEFPC) Phase II Record of Decision (ROD) for Interim Remedial Actions and associated Remedial Action Work Plan (RAWP) establishes a process for calculating soil trigger levels (TLs) for protection of groundwater based on an *interim DOE-controlled industrial use of the property and the groundwater*. The ROD for Phase II Interim Remedial Actions states "*the focus of efforts is aimed at eliminating or reducing existing contamination to below unacceptable risk-based levels for workers on site.*"

TDEC recommends the FFA parties discuss these differing remediation goals and reach agreement on a path forward which is acceptable to all the stakeholders and is transparent to the public. The following list is intended to both clarify the record and assist with future FFA discussions on this subject.

- The UEFPC ROD for Phase II Interim Remedial Actions (2229&D3) was signed in 2006 with "*a primary objective of the remediation measures presented...to protect industrial workers from*

exposure to hazardous substances at Y-12.” At both that time and presently, the UEFPC area is the site of the Department of Energy’s (DOE) industrial activities. The ROD continues with “the remedial actions in the ROD are considered interim actions to protect future workers based upon an anticipated DOE-controlled land use. The remedial actions implemented under this ROD will be completed, evaluated, and used as the basis for determining what, if any, additional remedial actions may be necessary to meet final goals. Decisions regarding final land use and final goals and to address ... soils, surface water, and groundwater will be determined in future decision documents.”

- As has been discussed with the Department of Energy at the East Tennessee Technology Park (ETTP) and Oak Ridge National Lab (ORNL) sites, land use does not designate a groundwater classification. State regulations do not allow for the classification of groundwater as industrial use as a final groundwater decision.
- With the passing of nearly 18 years since the signing of the UEFPC ROD, TDEC strongly recommends the FFA parties re-evaluate the appropriateness of continuing to use *interim groundwater goals* as part of soil remedial actions. These *interim groundwater goals* were developed nearly two decades ago associated with the industrial use of the property and will ultimately not achieve final soil clean-up goals. Continuing down this path may require two characterization efforts and/or remedial actions for the same exact piece of property. Duplicating efforts will divert money from other clean-up projects and will negatively impact overall ORR remediation schedules and taxpayer costs by having to re-evaluate and possibly remediate areas twice.
- Understanding that this current UEFPC ROD prescribes interim actions based on an industrial groundwater use, TDEC maintains that impacts to soils should be characterized and soil data results be compared to MCL-based groundwater soil cleanup levels to support the eventual final groundwater goals. The knowledge of the magnitude of impacts to soil produced by this additional characterization and comparison to MCLs would inform near-term remediation plans, thus allowing the potential for faster and less costly cleanup of the area.

In addition to the potential for overall reduction in schedule and cost savings discussed above, an additional benefit to conducting remedial actions for soil to final soil clean-up goals includes providing areas of completed remedial actions to programs looking to reuse the property. With the lack of available land for redevelopment within the UEFPC area, coupled with the demand for building new infrastructure to support future missions, the benefits for evaluation and completion of soil remedial actions to final remediation goals versus piecemealing remedial actions over longer periods outweigh the benefits of continuing on the current path.

Specific Comments

1. **Page 5, Section 3.1.1, fourth sentence:** Please delete “typically no longer than 2 weeks”.
2. **Page 5, Section 3.1.2, first paragraph, first sentence:** Change “changes agreed to” to “discussions”.
3. **Page 6, Figure 2:** The Technical Brief process should be added to this flow diagram.

4. **Page 7, first paragraph:** The package should also include remaining regulator concerns from the Data Quality Objectives (DQO) review.
5. **Section 3.2, 2nd paragraph, 1st sentence:** Change to "At a minimum, sampling results will be evaluated using UEFPC Phase II IROD criteria presented in Section 3.2 of the UEFPC RAWP. Though not directly required in the Interim UEFPC ROD, the FFA parties may also agree to compare the data to soil levels which would ultimately be required for groundwater protection."
6. **Page 9, Section 3.6, first paragraph, second to last sentence:** Change "may" to "will", as it is included in the flow chart.
7. **Page A-4, Table A.1, Path forward, Appendices:** Include a bullet for Regulator Comments and DOE Response to Comments.
8. **Page B-5, Table B.1, EU Status and path forward, Appendices:** Include a bullet for Regulator Comments and DOE Response to Comments.

Review of this document meets the review cycle protocol of 90 days. Questions or comments concerning the contents of this letter should be directed to Cody Juneau at the above address or by phone at (865) 314-2328.

Sincerely



Randy C. Young
FFA Project Manager
Division of Remediation - Oak Ridge Office

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