



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

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

October 31, 2022

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

Dear Mr. Petrie

RE: Addendum 2 to the Fiscal Year 2006 Phased Construction Completion Report for the Zone 2 Soils, Slabs, and Subsurface Structures (Exposure Unit Z2-42) at East Tennessee Technology Park, Oak Ridge, Tennessee (DOE/OR/01-2317&D2/A2)

The Tennessee Department of Environment and Conservation (TDEC) Division of Remediation, Oak Ridge Office (DoR-OR) is in receipt of the Department of Energy (DOE) letter dated August 10, 2022, transmitting the above referenced document. DoR-OR received the transmittal the same day. TDEC has completed a review of the document pursuant to Federal Facility Agreement (FFA) for the Oak Ridge Reservation and offers the following comments for consideration:

1. **Page 1, Section 1, second paragraph**
Please include the Z2-33 PCCR as a reference in Section 11.
2. **Page 13, Figure 5**
Please revise the label for FS-BR-16 to BRW-131 on this figure and globally throughout the document.
3. **Page 32, Section 4.2.1, second and third paragraphs**
Please correct the references for the K-1200 and K-1052 pits from Figure 9 to Figure 11.
4. **Page 52, Section 4.3, last paragraph**
Please add text discussing how accumulated water in the mid-section of the K-1220 slab was managed.
5. **Page 57, Section 4.3, last paragraph**
Please correct the references for the K-1210 and K-1220 sample locations from Figures 16 and 17 to Figures 17 and 18.

6. **Page 62, Section 4.3, third paragraph**

Please confirm if the uranium-238 concentration in this paragraph should read 111 pCi/g or 11 pCi/g as written.

7. **Page 66, Section 4.3, paragraph below Table 11**

Please include a figure showing the K-1004-N1 radiological survey and concrete sample locations discussed in the paragraph.

8. **Page 117, Section 7.3**

This section references that data in Appendix G were screened to identify constituents that exceeded MCLs in over 5% of samples. Using a percentage screen is not appropriate as it could result in a constituent being removed from consideration even though it may have exceeded the respective MCL at the most recent sampling event. Groundwater data are time series data that are variable with time. Therefore, it is not appropriate to use percentages that neglect and can dilute the time component (e.g., non-detects for many years and high exceedances within the last year may result in <5% exceedance). Samples should be screened at MCLs and should be identified if any exceedances occur. The use of arbitrary percentages to screen data continues despite repeated TDEC comments requesting that MCLs at any time be used for screening. Please remove the text referencing 5% and the Zone 2 RDR/RAWP.

9. **Page 118, Section 7.5**

Please include a statement in this paragraph about the final disposition of the storm drain piping. Figure 34 shows various storm drain piping that has been abandoned, but how they have been abandoned is not explained in the text.

10. **Page 125, Section 8, last paragraph**

The discussion in the paragraph is not consistent with the data presented in Appendix G. Tetrachloroethene, chloroform, carbon tetrachloride, and 1,1,2-trichloroethane have groundwater MCL exceedances. Also, more than 49 samples have been analyzed for trichloroethene. Please reevaluate this paragraph for accuracy.

11. **Page G-3, Table 11**

In accordance with TDEC 0400-40-03-.03, the numerical standard for lead is 5 micrograms per liter (µg/L). Please update Table 11 and revise any evaluation as necessary.

12. **Page G-3, Table 11**

At least one constituent (e.g., carbon tetrachloride) that exceeds the MCL in over 5% of samples is omitted from the text in Section 7.3. Please revise this section to include all the constituents that are omitted.

This letter meets the FFA review cycle protocol of 90 days for the subject document. TDEC looks forward to working with DOE to ensure timely resolution of these comments. Questions or comments concerning the contents of this letter should be directed to Randy Hoffmeister at the above address or by phone at (865) 220-6583.

Sincerely

A handwritten signature in blue ink, appearing to read "Randy C. Young".

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

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