



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF REMEDIATION - DOE OVERSIGHT OFFICE  
761 EMORY VALLEY ROAD  
OAK RIDGE, TN 37830

May 26, 2016

Mr. John Michael Japp  
Federal Facility Agreement Manager  
Department of Energy  
Oak Ridge Operations Office  
PO Box 2001  
Oak Ridge TN 37831

Dear Mr. Japp

**Bethel Valley Administrative Watershed Remedial Action Report Comprehensive Monitoring Plan, Oak Ridge, Tennessee (DOE/OR/01-2478&D2)**

The Tennessee Department of Environment and Conservation (TDEC), Division of Remediation Oak Ridge Office (DoR-ORO), has reviewed the above referenced submittal pursuant to the Federal Facility Agreement for the Oak Ridge Reservation. TDEC has the following comments on the document:

**1. Page 1, Section 1.2 Remediation Strategy, 2<sup>nd</sup> paragraph**

DOE should add some discussion of known and potential impacts from contaminant sources to both on-site and off-site groundwater.

**2. Page 2, Section 1.2 Remediation Strategy, last paragraph, 3<sup>rd</sup> and 5<sup>th</sup> sentences**

These sentences should be reworded. Although the watershed scale is used and considered with most actions on the Oak Ridge Reservation (ORR), the sentences are too absolute as they are worded. Individual decisions have been and will continue to be made in the watersheds.

**3. Page 7, Section 2.2, last bullet on page**

Please modify the bullet to read: *"Several groundwater plumes...most of which partially discharge...along WOC (Figure 3). More information is needed to delineate the extent of contaminated groundwater plumes in Bethel Valley."*

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**4. Page 8, Section 2.2, last bullet**

If Raccoon Creek has potentially been impacted by contaminated groundwater, then the bullet should discuss that possibility.

**5. Page 11, Section 2.2.2, 1<sup>st</sup> paragraph, 2<sup>nd</sup> sentence**

The sentence should acknowledge the possibility of groundwater contaminants extending beyond the Northwest Tributary and Raccoon Creek.

**6. Page 11, Section 2.2.2, 1<sup>st</sup> paragraph, 4<sup>th</sup> sentence**

This sentence should be deleted or at least modified. The Interim Bethel Valley ROD did not make a decision on groundwater or ecological risk. The inclusion of that sentence in this report is unnecessary and confusing.

**7. Page 11, Section 2.2.2, 2<sup>nd</sup> and 4<sup>th</sup> paragraphs**

Each of these paragraphs should also discuss the fact that there is not enough data to determine if all the contaminated groundwater discharges to creeks, pipelines, and sumps as the paragraphs suggest. There is not enough characterization data available to determine the extent of groundwater plumes in Bethel Valley.

**8. Page 12, Section 2.2.3, 1<sup>st</sup> full paragraph**

The first sentence should also mention the impact on contaminant migration from the rise and fall of groundwater into the SWSA 3 buried waste.

**9. Page 15, Figure 4**

The model completely ignores the possibility of contaminant migration over long distances by way of groundwater. Please revise the model accordingly.

**10. Page 30, 3<sup>rd</sup> full paragraph**

The paragraph discusses monitoring that is being dropped per previous agreement of the FFA parties. A map and table would better provide the reader a clear picture of monitoring that has been dropped and monitoring that remains.

**11. Page 30, last paragraph, 5<sup>th</sup> sentence**

The approach described in this sentence does not appear consistent with the goal of water level monitoring in wells to determine if groundwater elevations are reaching a level to infiltrate the waste trenches. Please explain.

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**12. Page 35, Section 5**

This section attempts to draw a distinction between the approval processes for changing land use control (LUC) objectives versus changing land use controls. The distinction is unclear. For example, the details of how a LUC objective will be accomplished (e.g. the penetration permit program and access controls) are extremely important and ultimately decide if a LUC objective can be implemented. TDEC does not see the need for the distinction of the two processes when changes are being proposed by DOE.

**13. Page E-3, Table E-1**

The FFA parties should discuss expanding the *Access Controls* to be more specific. TDEC understands one of the goals of developing this comprehensive plan is to consolidate requirements into one document. This section is very general and the table actually has a footnote directing the reader to previous documents.

Questions or comments concerning the contents of this letter should be directed to Randy Young at (865) 220-6584.

Sincerely

A handwritten signature in blue ink that reads "Randy C. Young". The signature is stylized, with the first name "Randy" written in a cursive-like font and the last name "Young" in a more blocky, slightly cursive font. There is a small mark at the end of the signature that looks like a checkmark or a flourish.

Randy C. Young  
FFA Manager

xc: Jon Richards, EPA  
Jeff Crane, EPA  
Carl Froede, EPA  
Dave Adler, DOE  
Pat Halsey, DOE