



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
Division of Remediation, Oak Ridge Office  
761 Emory Valley Road  
Oak Ridge, Tennessee 37830

RECEIVED  
AUG 28 2023  
COUNTY MAYOR'S OFFICE

August 25, 2023

Mr. Steven Cooke  
Reindustrialization Project Manager  
Oak Ridge Office for Environmental Management  
Department of Energy  
PO Box 200  
Oak Ridge, TN 37831

Dear Mr. Cooke

**RE: Draft Covenant Deferral Request for the Proposed Title Transfer of the Zone 1 Portion of the Black Oak Ridge Conservation Easement and Exposure Units Z1-77, Z1-78, and Z1-79 at the East Tennessee Technology Park, Oak Ridge, Tennessee (DOE/OR/01-2954)**

The Tennessee Department of Environment and Conservation (TDEC) Division of Remediation, Oak Ridge Office (DoR-ORO) is in receipt of the U.S. Department of Energy (DOE) letter dated May 24, 2023, transmitting the above referenced document. DoR-ORO received the transmittal the same day. TDEC has completed review of the document pursuant to the Federal Facility Agreement (FFA) for the Oak Ridge Reservation and offers the following comments for consideration:

**General Comments**

1. Please state early in the document and in relevant sections that soils have been remediated to 10 feet, but that remaining media (i.e., sediment, surface water, ecology) and groundwater will not be fully addressed until respective Records of Decision (RODs) are in place. As is, the document states that all remediation has been completed, and information about the remaining media and groundwater work is buried in sections later in the document or in footnotes.
2. Throughout the document there is inconsistency when discussing the investigation areas within the transfer property footprint. These nine (9) investigations areas are clearly identified on Page 13 and include the eight (8) FFA sites (K-901-A North Disposal Area, K-895 Cylinder Destruct Facility, K-1070-A Landfarm, K-1070-A Burial Ground, Perimeter Road Fill, CSA, Blair Quarry, and the Blair Road Dump site) and one additional site, the Ox Box Lake Landfill. Please revise the document to reference these areas consistently and include these locations on all maps.

3. Please revise all references to the East Tennessee Technology Park (ETTP) Zone 1 Interim Record of Decision (IROD) to state ETTP Zone 1 Soils IROD so that it is clear to the reader that this IROD only addresses soil.
4. A discussion of general surface water conditions within the areas of investigation should be included in this Covenant Deferral Request (CDR). This discussion is directly related to the covenant that prohibits extracting, consuming, exposing, or using in any way water from any streams or ponds located on the property.
5. Discussions about the Contractor's Spoil Area (CSA) throughout the document lack detail and mislead the reader with regard to land use. Based on the Zone 1 IROD Amendment (DOE/OR/01-2817&D3), the only approved land use for the CSA is controlled recreational use to 0 ft; industrial use is not allowed. Statements throughout the document reference industrial use to 10 ft for the entire transfer property footprint which is not applicable to the CSA.
6. The vapor intrusion (VI) language as was agreed upon by the tri-parties is not included in this CDR. Please revise the VI language to the agreed upon language for the Exposure Units (EUs) within and adjacent to the K-1070-A chlorinated volatile organic compound (CVOC) plume.
7. There are inconsistencies throughout the CDR regarding the proposed uses of some or all of the site, which DOE seems to indicate as "industrial and/or recreational." Recreational uses typically require site-specific risk assessments. DOE should be clear in Exhibit D to the deed whether recreational risk assessments have been conducted at the areas intended for recreational use and explain why the data supports that use. If the data is not present to support recreational use, the deed should restrict to industrial use (assuming the levels would be safe for industrial use), and include language from TCA 68-212-225 that would allow the transferee or a subsequent owner to have the land use restriction amended by showing TDEC Division of Remediation that the risk has been reduced or canceled to support recreational use (or some other use). If the intent is to transfer the property under recreational use, then that should be noted as having been established in the deed itself.
8. Please include statements in Section 2.5 whether the approved soil No Further Actions (NFAs) are for industrial, recreational uses to 10 feet, or both for EUs Z1-49, Z1-56, Z1-57, Z1-58, Z1-60, Z1-66, Z1-67, Z1-68, Z1-70, Z1-71, Z1-73, and Z1-75. This should be consistent with the language used in Exhibit D.
9. All references to the concurrence authority of the Governor under Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 120 should add the phrase "or their designee" pursuant to the Delegation of Authority signed by Governor Lee delegating this authority to the Commissioner.



## **Specific Comments**

1. **Page 1, Executive Summary, second paragraph**

Multiple discrepancies exist between the list of areas included in the Property described in the second paragraph and the Property discussion on page 13. For example, the Blair Road Dump site and the Ox Bow Lake Landfill are omitted from the second paragraph discussion. Also, the K-1070-A Landfarm and Blair Quarry locations are not shown in Figure 3. Please address these inconsistencies and ensure that land descriptions within the Property footprint are consistent throughout the document.

2. **Page 2, Executive Summary, second paragraph**

Please include the list of the nine investigation areas as presented on page 13 of the CDR. The Blair Road Dump site and the Ox Bow Lake Landfill are omitted from this paragraph.

3. **Page 2, Executive Summary, fifth paragraph**

- Please state in the first sentence that soil depth sample results represent 0 to 10 ft below ground surface (bgs) per the Zone 1 Soils IROD.
- The CSA area is not cleared for industrial use, please revise this paragraph to include a discussion on the land use restrictions (LURs) and land use controls (LUCs) for the CSA.
- Please remove the sentence that states "based on the proposed recreational use of the property, vapor intrusion (VI) should not pose an unacceptable risk". A VI assessment was not conducted to support this statement and as written this CDR does not include a land use restriction that states the property can only be used for recreational purpose. As such, it is not appropriate to make VI decisions based on hypothetical future land use.
- Please include a discussion in the Executive Summary that states that groundwater and remaining media (surface water, sediment, ecology) have not been addressed and CERCLA decisions for these media will be made in the future Zone 1 Remaining Media ROD.

4. **Page 5, Figure 2**

Please revise the figure to clearly show the location of the Oxbow Lake. Also, please update the legend to state "Soils - No Further Action".

5. **Page 6, Figure 3**

Please revise the North Borrow Area label to read "Ox Bow Lake Landfill". The text more frequently references this investigation area as the Ox Bow Lake Landfill. Please ensure the distinction is made in the document.

6. **Page 7, second paragraph**

Please revise the first sentence to state "DOE has remediated unsaturated soil from 0 to 10 ft bgs over the entirety of the ...". Add the CSA as an exception to this statement.

7. **Page 7, second paragraph**  
Please include the Zone 1 Powerhouse Electrical Vaults Phased Construction Completion Report in the References section of the CDR. Please ensure that all documents cited are included as references.
8. **Page 7, third paragraph**  
For consistency throughout the document, please list the nine investigation areas in this paragraph. Currently, only five of the nine areas are provided. The K-901-A North Disposal Area, Blair Quarry, Blair Road Dump site, and the Ox Box Lake Landfill are not listed. Six of the nine areas are listed in the first paragraph on page 10.
9. **Page 10, Section 2.0**  
Paragraph H in Exhibit D to the deed places restrictions on water from streams and ponds on the Property, but there is no discussion in the CDR that drives the restrictions. Please include text in the document (perhaps in Section 2) discussing known surface water contamination within the property footprint as it relates to the deed restrictions (Spring 21-002, located north of the K-901-A Pond, is known to have surface water contamination for volatile organic compounds (VOCs)). Specifically, text should be added discussing the potential for exposure to the recreational user and to the environment (ecological). The discussion should state that final decisions for surface water bodies within and adjacent to the transfer footprint will be made in future RODs. Text should include wording that states how LUCs will be implemented for areas that have known surface water contamination.
10. **Page 11, second paragraph**  
Please clarify if the K-901-A Pond and Oxbow Lake themselves are being transferred.
11. **Page 11, second paragraph**  
Please specify in the last sentence to what soil depth no further action has been determined and the land use control for the CSA.
12. **Page 12, Figure 5**  
Please ensure all nine investigation areas are identified and labeled on this figure.
13. **Page 13, Section 2.2**  
Please list all nine investigation areas in the first paragraph as they are discussed in the rest of the section. Also, please consider limiting the discussions for these nine areas to past and present activities. Remedial actions taken in these areas should be reserved for Section 2.4.
14. **Page 14, K-1070-A Landfarm**  
Figure 5 shows this area in EU Z1-57, not in Z1-56, as stated. Please address this discrepancy.



15. **Page 15, K-1070-A Burial Ground**

Please identify this area in the first sentence as being in EU Z1-59.

16. **Page 16, Ox Bow Lake Landfill**

Please identify this area in the first sentence as being in EU Z1-71, as shown in Figure 3.

17. **Page 17, Blair Quarry, last paragraph**

Please provide references for the remedial actions conducted in 2011 and 2020.

18. **Page 17, Section 2.3**

Please include a figure that illustrates the locations of the adjacent properties discussed in this section. If an existing figure (e.g., Figure 5) is revised to illustrate these locations, then please distinguish between which investigation areas are located on the transfer property and which are located on adjacent properties.

19. **Page 18, K-901-A Holding Pond**

Please include a conclusion at the end of this paragraph that describes the ongoing CERCLA activities in this area.

20. **Page 18, Buildings K-1065-A, -B, -C, -D, and -E, first sentence**

Please correct "Z2-52" to read "Z1-52". Also, please state that these buildings are located south of Z1-54 and identify them on a figure.

21. **Page 21, Section 2.5, Soil Conditions**

For clarity, please structure each EU discussion similarly. The beginning of each section should discuss soil contamination identified under the dynamic verification strategy (DVS) with respect to both industrial and/or recreation land use and groundwater soil screening levels (SSLs). The end of each section should include a statement that identifies the land use(s) associated with the NFA soils determination and the soil depth (see EU Z1-59 section as an example).

22. **Page 22, EU Z2-55**

Please correct the title of this section to read "EU Z1-55".

23. **Page 23, EU Z1-56**

Figure 5 shows the K-1070-A Landfarm in EU Z1-57, while the first sentence states that it is in Z1-56. Also, the last sentence in this section states that an NFA for the area was approved for Z1-55. Please address these discrepancies and revise the text accordingly.

24. **Page 24, EU Z1-66**

It is unclear if soil contamination was identified in this EU. As illustrated in Figure 5, numerous soil samples were collected, but this section does not present a discussion of soil data with respect to industrial and/or recreational land use. Only groundwater SSLs

are referenced. Please revise this section to include a discussion of soil contamination or make a statement that no contaminated soil materials were identified under the DVS.

25. **Page 25, EU Z1-70**

Please see previous comment.

26. **Page 26, EU Z1-75**

The second paragraph in this section seems unrelated and not relevant. Please confirm if this paragraph is meant to be inserted in this section.

27. **Page 28, EU Z1-77**

Please include a conclusion statement about whether an NFA was approved for this EU.

28. **Page 28, Groundwater Conditions, first paragraph**

The first sentence states that groundwater can be found at depth less than 5 feet bgs. Is it possible that contaminated soil is present in the 0 to 10 ft bgs depths where groundwater is shallow? Please clarify in the text when discussing soil NFA determinations to 10 ft that this references unsaturated soil.

29. **Page 28, Groundwater Conditions, second paragraph**

Please include text after the second sentence that states activities are ongoing under the Zone 1 Groundwater Remedial Investigation Work Plan (RIWP) to evaluate if groundwater plumes exist at the CSA and Blair Quarry.

30. **Page 30, first paragraph**

Please remove the first sentence as it seems to be out of place and irrelevant. Also, please state after the third sentence that "These groundwater data need to be replicated before drawing conclusions about the presence or absence of groundwater plumes in these two areas.", or similar wording.

31. **Page 35, Table 1, footnote a**

The "a" footnote states that the ETP Main Plant Area (MPA) Groundwater Interim ROD will evaluate risk from groundwater to human health and ecological receptors. Please confirm if this footnote is referencing the correct groundwater ROD.

32. **Page 40, EU Z1-70, second paragraph**

This section states that the supplemental risk assessment confirmed no unacceptable risk to the recreational user to a depth of 10 ft in the CSA. The ETP end land use designations figure (Figure 3.2 in the ETP Comprehensive Monitoring Plan (CMP) - DOE/OR/01-2477&D4) illustrates the CSA as controlled recreational to 0 ft. Please confirm the depth associated with the CSA end land use and confirm if there is a soil cover that must be maintained within the CSA boundary as suggested in Table D.1 of the ETP CMP. If yes, then please discuss this LUC in the CDR.



33. **Page 43, Section 4.2, last paragraph**

Please remove the last sentence that states construction of a building is not expected. No land use restrictions are in place that prevents future use to include construction of a building, and VI land use controls should not be implemented based on hypothetical future land uses. Please revise the VI language to include the agreed upon tri-party language for these EUs.

34. **Page 44, second and third paragraph**

These two paragraphs are not relevant to Section 4.2 and should be moved to a more appropriate section. Also, please confirm the reference to the ETPP CMP is the most recent version of this document.

35. **Page 45, first paragraph**

There is unacceptable risk for the industrial land use scenario for the CSA. Please revise this paragraph to include a statement that only controlled recreational to 0 ft is allowed.

36. **Page 45, Section 5.0, last paragraph**

Please revise the last sentence to state "industrial and/or recreational use". There are areas where both land uses are not acceptable and only recreational use is allowed.

37. **Page 46, first full paragraph**

Please revise the VI language to reflect the tri-party agreed upon VI language: "VI will be addressed in the Zone 1 Groundwater Plumes ROD. DOE will ensure that any unacceptable risks due to VI will be addressed and a final remedy for VI selected. Grantees of ETPP properties have the legal responsibility to abide by the terms and conditions of the Quitclaim Deed (EXHIBIT "D", Paragraph I)".

38. **Page 46, last paragraph**

The last sentence states that "the deed prohibits the use of the Property in a manner inconsistent with the land use assumptions of industrial use". The only land use associated with the CSA is controlled recreational to 0 ft bgs. Please revise this statement.

39. **Page 47, second paragraph**

Please remove the underlined text from the second sentence: "constructed to minimize exposure to VOC vapors, if determined to be necessary, using...". The EUs identified as having a potential for unacceptable risk due to VI (page 43) can be referenced in this section.

40. **Page 47, third paragraph**

Please confirm the reference to the ETPP CMP is the most recent version of this document.

41. **Page 51, Attachment A**  
Please provide a copy of deed and the plat map as they are not included in this draft CDR.
42. **Page 57, Exhibit B to Quitclaim Deed**  
Note that industrial use is prohibited within the CSA; therefore, Exhibit "B" does not apply to the entire transfer property. Please confirm.
43. **Page 61, Exhibit D to Quitclaim Deed**  
There is no reference to the controlled recreational land use to 0 ft for the CSA within Exhibit "D". Please revise Exhibit "D" to include discussion of the controlled recreational to 0 ft land use restriction and reference the soil cover LUC for this area.
44. **Page 61, Exhibit D, second paragraph**  
Please revise the second to last sentence to read: "The Oak Ridge Office of Environmental Management (OREM) must address the sources to the contaminated groundwater plumes at the site to ensure protection of human health and the environment."
45. **Page 62, Exhibit D**  
The CSA only allows for controlled recreational to 0 ft, industrial use is not allowed. Please revise this section appropriately.
46. **Page 62, Exhibit D, Section D**  
This section should be revised to be more specific about the use restriction. Throughout the document, wording varies between stating that the use should be in accordance with the IROD or the applicable ROD or "industrial" or "industrial and/or recreational." Inconsistency in a recorded deed restriction does not constitute good notice to the purchaser or future landowner. An interested party should be able to readily ascertain what use is permitted on a given parcel to determine if enforcement action should be taken against a future owner for a violation of applicable restrictions.
47. **Page 63, Exhibit D**  
Section I uses the old language referencing the Office of Solid Waste and Environmental Response Guidance. Please revise this paragraph to include the new, agreed upon language regarding vapor intrusion.
48. **Page 63, Exhibit D, Section E**  
This section does not apply to the CSA. Please revise the text to reflect the LUR and LUC for the CSA.
49. **Page 63, Exhibit D, Section H**  
TDEC appreciates that this covenant includes not extracting, consuming, exposing, or using in any way water from any streams or ponds located on the property. The main



text in this CDR does not include a discussion on surface water quality within these streams and ponds. Please add a section in the main text that discusses the current understanding of the nature and extent of surface water quality. Also, within the main text please include a statement prohibiting the extraction, consumption, exposure, or use of water in any way from any streams or ponds located on the property.

50. **Page 63, Exhibit D, Section I**

Please insert the tri-party agreed upon VI language in this section.

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) 985-2513.

Sincerely

Randy C Young

Digitally signed by Randy C  
Young  
Date: 2023.08.23 15:20:04  
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Randy C. Young  
FFA Project Manager  
Division of Remediation - Oak Ridge Office

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