



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

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

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COUNTY MAYOR'S OFFICE

October 3, 2025

Mr. Roger Petrie
Federal Facility Agreement Manager
U.S. Department of Energy
Oak Ridge Office of Environmental Management
Post Office Box 4067
Oak Ridge, TN 37831

Dear Mr. Petrie

RE: Transmittal of Explanation of Significant Differences for the Record of Decision for Interim Actions in Bethel Valley, Oak Ridge, Tennessee: Mercury Goal (DOE/OR/01-3011&D1)

The Tennessee Department of Environment and Conservation (TDEC), Division of Remediation-Oak Ridge Office, received the above referenced submittal on August 4, 2025. The document has been reviewed pursuant to the Federal Facility Agreement for the Oak Ridge Reservation. The following comments are relevant to that review:

1. TDEC received the *Notification to Rescind the Addendum 2 to the Remedial Action Work Plan/Waste Handling Plan for Liquid and Gaseous Waste Operations at the Oak Ridge National Laboratory, Oak Ridge, Tennessee: Liquid and Gaseous Waste Operations (DOE/OR/01-2830&D1/A2/R1)* on August 22, 2025. That Addendum 2 established a discharge goal for mercury that is being replaced by the mercury discharge limit identified in this Explanation of Significant Differences (ESD). The *Action Memorandum for the Y-12 Facilities Non-Time-Critical Removal Action Deactivation/Demolition Project, Oak Ridge, Tennessee (DOE/OR/01-2462&D2)* was revised via the errata process to reference the Addendum 2. Once this ESD has been approved and signed, the Action Memorandum should be updated to include the appropriate reference to this ESD.
2. Change all references of a mercury discharge "goal" to a mercury discharge "limit." This change should be made throughout the document, including the title pages.
3. **Page 1, first paragraph**
Provide a detailed description of what is included in process waste system (PWS) facilities.
4. **Page 2, Figure 1**
Explain why there are two areas with red dashing within the central campus of Bethel Valley. The legend indicates the red dash is the National Priorities List (NPL) site footprint suggesting that these two areas may not be included in the NPL site footprint.

5. Page 3, last paragraph

Please explain why the *Maintain protection for area population of terrestrial organisms; protect reach-level populations of aquatic organisms* remedial action objective is not pertinent to this ESD.

6. Page 4, last paragraph

Explain the relevance of the last sentence and why it is included in the ESD.

7. Page 5, second paragraph

The second sentence requires clarification. Explain why wastewater meeting established numeric acceptance criteria would need to go through the Waste Acceptance Criteria variance process.

8. Page 5, third paragraph

Revise the last sentence to remove the term the "CERCLA." There is no need to classify the discharge limit as "CERCLA."

9. Page 5, fourth paragraph, second sentence

Change "surface water" to "the X12 discharge."

10. Page 5, fourth paragraph

Add to the last sentence that this ESD allows waste generated from decommissioning, deactivating, and demolishing Liquid and Gaseous Waste Operations (LGWO) facilities under CERCLA to be disposed at EMWMF and EMDF under a tri-party approved Waste Handling Plan (WHP) or WHP addendum.

11. Page 5, fifth paragraph

Revise the first sentence to remove the reference to a "CERCLA" mercury goal. (See comment #8.)

12. Page 5, fifth paragraph

A loading equivalent limit should be established for the discharge. In addition, include language that compliance will be based upon the sampling frequency conducted under the LGWO National Pollutant Discharge Elimination System (NPDES) permit.

13. Page 5, last two paragraphs

Clarify if the Water Quality Protection Plan quarterly composite sampling meets the daily maximum sampled quarterly CERCLA mercury limit. Explain how this quarterly composite is collected.

14. Page 5, last paragraph

Provide a statement that the monthly discharge monitoring reports and other available data will be reported in the annual Remediation Effectiveness Report.

15. Page 6, first paragraph

Once this ESD is approved, the Bethel Valley Administrative Watershed Remedial Action Report Comprehensive Monitoring Plan (CMP) should be updated to reflect these monitoring

requirements and mercury discharge limit. Please add a statement that indicates the CMP will be updated to reflect this monitoring requirement and performance standard.

16. Page 6, third paragraph

Revise the first sentence. TDEC did not participate in early review or revision of the ESD.

17. Page 6, fourth paragraph

Add a statement that as part of the review every five years, the mercury discharge limit will be evaluated using the most recent data to determine if the mercury discharge limit is still protective of the receiving waters. If the mercury discharge limit needs to be revised, this ESD should be updated to reflect this change.

18. Appendix A

Provide clarification for how the calculation takes into consideration mercury discharged from other outfalls, specifically Outfall X01.

Review of this document meets the review cycle protocol of 60 days. Questions or comments concerning the contents of this letter should be directed to Angel Perkey at the above address or by phone at (865) 985-6851.

Sincerely

**Eileen
Marcillo**

Eileen Marcillo

FFA Project Manager

Division of Remediation – Oak Ridge Office

Digitally signed by Eileen Marcillo
Date: 2025.10.03 13:00:19 -04'00'

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