



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

September 1, 2023

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

Dear Mr. Petrie

TDEC Comment Letter Phased Construction Completion Report for the Non-Time-Critical Removal Action Building 9404-18 Demineralizer Facility Mercury-Contaminated Systems Demolition at the Y-12 National Security Complex (DOE/OR/01-2929&D1)

The Tennessee Department of Environment and Conservation (TDEC), Division of Remediation-Oak Ridge Office, received the above referenced submittal on June 6, 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 that review:

General Comment

1. This project was originally screened out of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) because it was expected not to be contaminated, especially by mercury. However, mercury was discovered within the facility. As this situation may be encountered again with on-going D&D activities at the Y-12 site, this seems like a prudent issue to understand which should aid in the characterization of other facilities. Have lessons learned been identified? Please add a section to the document to discuss the situation and any recommendations for remediation across the site at other facilities.

Specific Comments

1. **Page ix, Executive Summary, Table ES-1.** The 9404-18 building structure and non-mercury contaminated equipment and piping are identified as non-CERCLA in Table ES-1. According to Appendix C of the FFA, however, the entire Building 9404-18 Demineralizer Facility is a CERCLA Area. Please revise the table to be consistent with the FFA or to explain the inconsistency.

2. **Page 1, Section 1. Introduction, 5th paragraph.** This paragraph says that the scope of the removal action included demolition of Building 9404-18. The *Addendum to the Removal Action Work Plan for the Y-12 Facilities Deactivation/Demolition Project, Oak Ridge Tennessee: Building 9404-18 Mercury Contaminated Systems Demolition* (DOR/OR/2479&D1/A11) specifically excludes the facility structure and the non-mercury-contaminated systems. The addition of the Building 9404-18 structure to the scope appears to be a deviation that should be addressed here and throughout the document.
3. **Page 11, Section 3. Project Description, last paragraph.** *"Only the mercury-contaminated components fall within the AM scope; however, the PCCR discusses the entire deactivation and demolition process for completeness."* Additional clarification should be provided about what scope was added to the Action Memorandum versus Appendix C of the FFA.
4. **Page 13, Section 4.2 Demolition.** Section 4.2 should include a subsection that discusses air monitoring results.
5. **Page 13, Section 4.2.1, first paragraph.** Please provide further discussion regarding the release of mercury to storm water conveyance D3233 and identify it in Figure 13. Was the release captured prior to traveling through the storm water collection system?
6. **Page 19, Section 4.5 End State.** More information is needed regarding the end state of the facilities. Was a radiological survey conducted before the diked slab, trenches, and sumps were filled with concrete? Was a visual inspection for chemical contamination conducted? This section should also discuss the end state for the 9404-17 area and the concrete slab under the demineralized water and condensate tank systems.
7. **Page 20, Section 5. Waste Management, Table 1.** Table 1 should include the waste disposed of at the ORR Sanitary Industrial Landfill IV and the pre-demolition wastes disposed at other off-site facilities.
8. **Page 20, Section 5. Waste Management, Table 1.** Please clarify if 30 gallons of elemental mercury were disposed at Energy Solutions or if there were 2 gallons of elemental mercury packaged in a 30-gallon drum (see page 14, last paragraph).
9. **Page 20, Section 5. Waste Management.** Please revisit the discussion in Section 5 of the *Addendum to the Removal Action Work Plan for the Y-12 Facilities Deactivation/Demolition Project, Oak Ridge Tennessee: Building 9404-18 Mercury Contaminated Systems Demolition* (DOR/OR/2479&D1/A11) regarding disposal of waste on-site via Special Waste approval by TDEC Division of Solid Waste and verification that analytical data were less than 0.2 mg/L for mercury.
10. **Page 25, Section 7. Provisional Management.** As written, the document does not provide enough information to determine if provisional management is needed.

Provisional management requirements should be identified for all areas that have radiological or chemical contamination remaining following completion of demolition activities.

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

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

ec: Samantha Urquhart-Foster – EPA
Jon Richards – EPA
David Andrews – EPA
Sam Scheffler – DOE
Brian Henry – DOE
Tanya Salamacha – UCOR
Sid Garland – UCOR
ORSSAB
OREM Mailroom
Colby Morgan – TDEC
Chris Thompson – TDEC

xc: Amy Fitzgerald – ORRCA
Wade Creswell – ORRCA
Amanda Daugherty – ORRCA
Terry Frank - ORRCA

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