



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

April 6, 2023

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

RECEIVED
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COUNTY MAYOR'S OFFICE

Dear Mr. Petrie

TDEC Comment Letter

Addendum to the Action Memorandum for the Y-12 Facilities Non-Time Critical Removal Action Deactivation/Demolition Project, Oak Ridge, Tennessee (DOE/OR/01-2462&D2/A1/R2)

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 March 28, 2023, transmitting the above referenced document. DoR-OR received the transmittal the same day. TDEC has completed a review of the document pursuant to the Federal Facility Agreement (FFA) for the Oak Ridge Reservation (ORR). Although TDEC supports the general intent of this Action Memorandum (AM) Addendum, TDEC cannot support the contingent use of the NPDES-permitted Liquid and Gaseous Waste Operations (LGWO) at the Oak Ridge National Laboratory (ORNL) to treat mercury-contaminated wastewater without a numerical limit for the discharge of mercury into White Oak Creek. While the AM Addendum does note discharges will remain protective of the receiving waters when CERCLA waste is treated at wastewater treatment plants, the AM Addendum does not provide adequate explanation of how this protective determination is being made. As there is no limit for mercury in the LGWO permit and the FFA documents do not propose a limit for allowable mercury discharge, the protection of the receiving waters from the discharge cannot be assured.

TDEC's position on this issue has been reiterated since the first version of the AM Addendum was submitted. On December 5, 2022, TDEC received an Addendum to this AM (DOE/OR/01-2462&D2/A1) that included language allowing wastewater from work conducted under this AM to be treated at the LGWO. As multiple facilities and environmental media at Y-12 are known to have exceptional levels of mercury contamination, TDEC responded to the AM Addendum submittal on January 5, 2023, stating the position noted above and requesting all references to the LGWO be removed from the AM Addendum. On February 14, 2023, TDEC received a revision to the AM Addendum (DOE/OR/01-2462&D2/A1/R1) that did not remove LGWO as a treatment facility option. During a call on February 22, 2023, the tri-parties discussed

establishing a mercury limit on the discharge that could be enforced through CERCLA allowing the use of the LGWO for Y-12 wastewater. In an email exchange on this issue initiated by DOE on February 28, 2023, TDEC agreed to compromise on an in-stream limit and worked with TDEC's Division of Water Resources (DWR) to determine what an appropriate limit would be for this outfall. In this email exchange TDEC informed DOE of the limits calculated by TDEC DWR (0.00057 lbs/day, which equates to 249 ng/L using DWR's procedures for establishing limits) but noted as this would be an in-stream limit, dilution must be taken into account. TDEC did not receive a response from DOE to this email and sent its official response on the R1 reiterating that a numerical mercury limit for the LGWO discharge was still needed. As noted above, the R2 was received March 28, 2023, with agreed upon language, but lacking a numeric limit for mercury in the discharge. The cover letter for the R2 states this version of the document is final.

The DOE Office of Science, owner and permit holder of the LGWO, has maintained that:

The CERCLA and the FFA specifically govern the remediation and removal of legacy mercury contamination at the ORR.

Given the above, the NPDES permit should not contain any requirements related to CERCLA activities...¹

This comment was made in response to TDEC's inclusion of mercury loading limits in the June 1, 2021, draft permit modification to ensure compliance with water quality criteria.² TDEC subsequently agreed to not include mercury loading limits in the final permit in response to DOE's assertion in its responsive comments that mercury would be regulated through the CERCLA process. Regardless of TDEC's ultimate position on this comment, its efforts to regulate this mercury discharge through CERCLA have not been accepted by DOE Environmental Management (EM). With the permittee pushing regulation to CERCLA and DOE EM negating this oversight need, the mercury contaminated wastewater going to the LGWO essentially enters a regulatory void.³ TDEC cannot approve the unregulated discharge of mercury. This is of even greater importance considering the levels of mercury found in wastewater at Y-12. Stormwater associated with the COLEX D&D in 2018 had mercury levels in excess of 100,000 ng/L.

¹ State of Tennessee Department of Environment and Conservation, Division of Water Resources. State of Tennessee NPDES Permit No. TN0002941 (Modified). December 15, 2022. Page AAA-3.

² State of Tennessee Department of Environment and Conservation, Division of Water Resources. State of Tennessee NPDES Permit No. TN0002941 (Draft Modification). June 1, 2021. Pages AA-1 – AA-2.

³ DOE's comments invoked CERCLA Section 121(e)'s permit exemption as grounds for why a mercury limit in the NPDES permit was inappropriate. Regardless of whether or not TDEC agrees that DOE would actually qualify for this exception, it is worth noting the CERCLA permit exemption does not relieve DOE of complying with the substantive standards that would otherwise be in a permit. See National Oil and Hazardous Substances Pollution Contingency Plan, 53 Fed. Reg. 51394, 51406 (Dec. 21, 1988) ("EPA emphasizes that *the lead agency must always comply with the substantive requirements that would otherwise be included in a permit*") (emphasis added). DOE's unwillingness to include mercury limits in CERCLA documentation fails to recognize that the permit exemption it asserts only relieves lead agencies of administrative requirements, not substantive requirements such as wastewater discharge limits.

As DOE has made the R2 version of the AM Addendum final with no limit and intends to proceed under their removal action authority, TDEC will conduct independent sampling of the discharge and use the limits established by DWR to assess whether the discharge remains protective of the receiving waters.

Also, TDEC requests they and EPA be notified prior to mercury-contaminated wastewater being generated at and sent from Y-12 to the LGWO. This notification must include the volume of wastewater and the concentration of mercury in the wastewater.

In addition, the March 28 transmittal cover letter states the EPA approved the D2/A9/R1 document. There is no D2/A9/R1 version of the document. DOE should clarify the approval status of the document, as it is unclear at this time.

Review of this document was conducted within 30 days. Questions or comments concerning the contents of this letter should be directed to Angel Perkey at angel.perkey@tn.gov or by phone at (865) 985-6851.

Sincerely

**Randy C
Young**

Randy C. Young,
FFA Project Manager

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