



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

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COUNTY MAYOR'S OFFICE

December 6, 2023

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

**RE: Transmittal of the Addendum 2 to the Remedial Action Work Plan/Waste Handling Plan for the 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)**

Dear Mr. Petrie

The Tennessee Department of Environment and Conservation (TDEC), Division of Remediation-Oak Ridge Office (DoR-OR) received the above referenced submittal on October 2, 2023. The document has been reviewed pursuant to the Federal Facility Agreement for the Oak Ridge Reservation.

The need for a mercury discharge goal for the Liquid and Gaseous Waste Operations (LGWO) at the Process Waste Treatment Complex arose from the fact that the National Pollutant Discharge Elimination System (NPDES) permit did not include a mercury limit and the U.S. Department of Energy Oak Ridge Office of Environmental Management (DOE OREM) was proposing to send mercury-contaminated wastewater from Y-12 demolition activities to the facility for treatment. Lacking a mercury limit in both the permit and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) documentation meant this discharge would have gone unregulated, which TDEC cannot allow.

When the proposal was made to include a mercury goal in this document, TDEC, the U.S. Environmental Protection Agency (EPA) and DOE OREM met to discuss how to implement this action. It was the understanding of the State that the quarterly sampling of mercury conducted by the LGWO, as required by the NPDES permit, would suffice as a CERCLA reporting requirement to comply with an agreed upon mercury goal, and that an equivalent loading goal would also be established. This strategy ensured no extra sampling would have to be conducted, and DOE OREM could simply report the data already reported by the LGWO. At no time was there a mention of using an annual average as the mercury goal. Neither was the notion of an annual average addressed in follow up emails about this issue, during which the calculations of an equivalent loading goal were discussed. The use of an annual average and refusal to include the loading equivalent as a goal stray from what the State understood as an agreement reached from efforts to compromise. The State cannot support the imposition of this goal as a concentration-based annual average.

If DOE OREM cannot agree in this CERCLA document to a concentration goal as a daily maximum and the loading equivalent as a goal, both reported on a quarterly basis, DoR-OR will work with TDEC's Division of Water Resources to include a mercury limit in the NPDES permit to address this new mercury-contaminated influent source.

The following specific comments were identified during the review:

1. Page 7, first paragraph, first sentence - Remove "on an annual average" and replace with "as a daily maximum sampled quarterly" as is consistent with the NPDES permit reporting (see Part I.A., page 3 of the NPDES permit). Since demolition wastewater is not a continuous source of influent, but rather will be sent in batches to the LGWO, an annual average will be less representative of the effluent. All other CERCLA documents that include mercury discharge limits are established as daily maximums, as the State does not impose concentration limits as annual averages.
2. Page 7, first paragraph, second sentence - Rephrase the sentence to "In addition, there is a 0.000146 lb/day loading goal to be evaluated on the same frequency." Bioaccumulative parameters can be detrimental to fish and aquatic life, therefore a loading goal is necessary.
3. Page 7, first paragraph, third sentence - Creating a mercury goal in this document supplants the need for a mercury discharge limit in the NPDES permit. The remedial action objective (RAO) in the Record of Decision is to "Achieve AWQC for designated stream uses in all waters of the state," which is not assessed as an annual average. There is no relevance of this RAO to implementing a concentration based annual average goal. Remove language referencing the RAO.

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 Angel Perkey at the above address or by phone at (865) 985-6851.

Sincerely

Randy C Young

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

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