



**STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

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

February 16, 2024

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 Letter Regarding DOE's Response to Comments for Bear Creek Valley Mercury Sources Remedial Site Evaluation Sampling and Analysis Plan Oak Ridge, Tennessee (DOE/OR/01-2958&D1)

The Tennessee Department of Environment and Conservation (TDEC), Division of Remediation-Oak Ridge Office, received the above referenced submittal on December 20, 2023. The following comments are relevant to the U.S. Department of Energy's (DOE) responses:

General Comments

1. TDEC believes that hyporheic sampling is warranted for this project, though DOE has stated that it will not pursue this sampling. If DOE maintains this position, TDEC will consider the feasibility of conducting the proposed sampling.
2. TDEC strongly encourages the involvement of subject matter experts from Oak Ridge National Laboratory on this project. Their experience and historical research with methylmercury on the reservation make them essential to evaluating methylmercury source concerns in Bear Creek Valley.
3. Considering existing data, TDEC requests that DOE look at the relationship between nitrates contributing to periphyton growth in Bear Creek and whether nutrient reduction technologies could decrease methylation.
4. DOE has not yet identified obvious historical sources of mercury for remediation in Bear Creek Valley, and it is possible that current sampling may not identify sources. Considering this, DOE should evaluate alternative methods of addressing the mercury and methylation issues in Bear Creek Valley to satisfy the Environmental Management

Disposal Facility (EMDF) Record of Decision in order to ensure Bear Creek will have assimilative capacity to manage discharges from mercury disposal in the EMDF.

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
FFA Project Manager
Division of Remediation – Oak Ridge Office

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