

Brad Stephenson

Subject: Elevation of the EMWMF/EMDF Focused Feasibility Study for Water Management

Importance: High

From: Jones, Connie [<mailto:Jones.Constance@epa.gov>]

Sent: Friday, August 24, 2018 11:06 AM

To: Hill, Franklin; Mullis, Jay; Chris P. Thompson

Cc: Adler, David Green; Japp, John Michael; brian.henry@orem.doe.gov; Blevins, John; Colby Morgan; Chaffins, Randall; Campbell, Richard; Froede, Carl; Richards, Jon M.; Randy Young; Adler, David Green

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Franklin/Jay/Chris,

Attached is the EPA letter to elevate the informal dispute on the DOE Focused Feasibility Study for Water Management. Efforts to resolve this matter have not achieved consensus on a path forward acceptable to all parties.

Hopefully, the hardcopy of this letter will be placed in the mail today.

If you have any questions, please contact me.

Regards,

Constance A. Jones

Constance A. Jones

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AUG 24 2018

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Chris P. Thompson, Director
Division of Remediation
Tennessee Department of Environment
and Conservation
312 Rosa L. Parks Avenue, 14th Floor
Nashville, Tennessee 37243

Jay A. Mullis, Manager
Oak Ridge Office of
Environmental Management
U.S. Department of Energy
Post Office Box 2001
Oak Ridge, Tennessee 37831

Dear Ms. Thompson and Mr. Mullis:

The purpose of this letter is to forward to the Oak Ridge Reservation (ORR) Dispute Resolution Committee (DRC) a written statement of dispute on the D2 *Focused Feasibility Study (FFS) for Water Management for the Disposal of CERCLA Waste on the Oak Ridge Reservation*, Oak Ridge, Tennessee, thereby elevating the dispute to the DRC for resolution, consistent with ORR Federal Facility Agreement (FFA) Section XXVI (RESOLUTION OF DISPUTES). Please note that while the statement of dispute specifically elevates the D2 FFS for resolution, the same Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) wastewater issues are part of an informal dispute on an Explanation of Significant Differences (ESD) to a Record of Decision at East Tennessee Technology Park (ETTP) Zone 2. To the degree that the ETTP Zone 2 dispute has not yet been resolved as of this date, the outcome of this dispute should be applied to that site to the extent appropriate.

This dispute concerns the discharge(s) of CERCLA wastewaters (containing hazardous substances including pollutants) into Tennessee surface waters, and specifically, establishing effluent limits as part of remedy selection that are protective of human health and the environment and comply with all applicable or relevant and appropriate legal requirements (ARARs) as required by CERCLA Section 121 and the FFA Section XI (REMEDIAL INVESTIGATION(S)/FEASIBILITY STUDY(S)). Under CERCLA and the National Contingency Plan (NCP) such wastewaters discharged to surface waters must be at a level that is protective of human health and the environment and that complies with all ARARs (unless a waiver is invoked). In addition, the Department of Energy Oak Ridge Office of Environmental

Management (DOE) should adhere to the process for remedy selection established in CERCLA and the NCP, as further described in FFA Section XI (REMEDIAL INVESTIGATION(S)/FEASIBILITY STUDY(S)), FFA Section XIV (REMEDIAL ACTION PLAN(S)/RECORD(S) OF DECISION) on Review/Comment) and dispute of Primary Documents (FFA Section XXVI (RESOLUTION OF DISPUTES)).

The FFS (both D1 and D2) prepared by DOE failed to provide that such discharge of hazardous substances will be protective of human health and the environment (including the receiving waters) and failed to fully identify ARARs related to those discharges as required by FFA Section [insert ARARs section]. Accordingly, the D2 FFS (and ESD for other response action projects, including ETTP Zone 2 and the Environmental Management Waste Management Facility (EMWMF)) should be revised to identify and/or establish contaminant-specific effluent limits for wastewaters that are expected to be generated by the various response action activities, including but not limited to, management of landfill leachate and contaminated storm water or contact water from within the active portion of the landfill. Specifically, the revised D2 FFS must identify limits and be consistent with the Clean Water Act (CWA) and federal and Tennessee CWA-implementing regulations, which EPA considers to be applicable requirements for the discharge of pollutants, and relevant and appropriate requirements for the discharge of wastewaters containing radioactive contaminants which are listed hazardous substances.

These requirements, or ARARs, consist of the *General Water Quality Criteria*, the *Anti-degradation Statement* found in Tennessee Chapter 0400-40-03, and the *Use Classification for Surface Waters* in Chapter 0400-40-04. In addition, Tennessee's (TN) National Pollutant Discharge Elimination System (NPDES) regulation provides that effluent limitations shall be designed to require application of the best available technology economically achievable (BAT) in accordance with the requirements of CWA Section 301(b)(2)A. Under both the federal and the State's CWA regulations, when there are, as here, no applicable federal effluent guidelines, best professional judgment (BPJ) analysis should be employed to identify the BAT and to determine appropriate effluent limitations and standards.

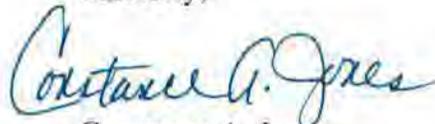
If after applying BAT to the wastewaters and analyzing the effect of a discharge on the receiving water, technology-based effluent limitations (TBELs) alone may not achieve the applicable water quality standards, and a more stringent effluent limitation would be required pursuant to Section 301(b)(1)(C) of the CWA, as necessary to meet applicable TN water quality standards. In such cases, CWA and its implementing regulations require development of water quality-based effluent limitations (WQBELs) to ensure that the discharge is consistent with meeting TN water quality criteria (both narrative and numeric). TDEC has promulgated numeric ambient water quality criteria (AWQC) for certain toxic pollutants that DOE has indicated are expected to be in the wastewater discharges (e.g., arsenic, chromium III, chromium VI, lead, mercury, trichloroethylene and polychlorinated biphenyls). While TN does not have numeric water quality criteria for radionuclides, it does have narrative water quality standards pertaining to toxic substances as well as narrative criteria in each of the Use Classifications: *Domestic Water Supply*, *Fish and Aquatic Life* and *Recreation*. The regulations also specify that where, as at Bear Creek (receiving water for EMWMF/Environmental Management Disposal Facility landfill discharges) and the Clinch River (receiving water for ETTP Zone 2 discharges), streams are classified for multiple uses, the most stringent criteria must be met.

In addition, the D2 FFS should be revised to ensure that effluent limits be attained at the point or points where the release enters the surface water¹ and not allow for dilution considering stream volume to inflate the discharge limit and avoid treatment.² Only in the event that the promulgated AWQC or AWQC-equivalent (for radioactive materials) is lower than the TBEL concentration at the “end of pipe” would the discharge be evaluated to determine if a discharge limit could accommodate the assimilative capacity of the stream (i.e., consider use of a mixing zone). If, on the other hand, the TBEL is lower than the AWQC or AWQC-equivalent, then a concentration higher than the TBEL would not need to be considered.

Lastly, discharges must comply with the requirement in the NCP establishing the 10⁻⁶ risk level for carcinogens as the point of departure for determining preliminary remediation goals (PRGs) when ARARs are not available or when ARARs are not sufficiently protective because of the presence of multiple contaminants at a site or multiple pathways of exposure.³ In these instances, DOE must apply the CWA methodology or EPA’s Superfund Program Preliminary Remediation Goals for Radionuclides⁴ for deriving AWQC-equivalent for radionuclide contaminants.

Per Section XXVI.E of the ORR FFA, the DRC shall have 21 days after receipt of this elevation notification to unanimously resolve the dispute and issue a written decision. Please contact me at your earliest convenience to schedule a meeting among the EPA, TDEC and DOE DRC representatives, at email address jones.constance@epa.gov or phone number (404) 562-8551.

Sincerely,



Constance A. Jones
FFA Project Manager

cc: Franklin E. Hill, EPA
Randy Young, TDEC
John Michael Japp, DOE

¹40 CFR § 300.400(e)(1) and *CERCLA Compliance with Other Laws Manual, Interim Final, Part I, OSWER Dir. 9234.1-01, EPA/540/G-89/006, August 1988*, p. xvi.

² Dilution of hazardous substances by mixing within a stream is inconsistent with CERCLA Section 121(b)(1). CERCLA requires that “remedial actions which permanently and significantly reduce the volume, toxicity, or mobility of the hazardous substances, pollutants, and contaminants is a principal element, are to be preferred over remedial actions not involving such treatment.”

³ 40 CFR 300.430(e)(2)(i)(A)(2).

⁴ <https://epa-prgs.ornl.gov/radionuclides/>.