Dispute Resolution Agreement
for Informal Dispute Concerning
Oak Ridge Reservation Federal Facility Agreement
Supplemental Interim Action to Construct the
Outfall 200 Mercury Treatment Facility
Under the Record of Decision for
Phase I Interim Source Control Actions,
Upper East Fork Poplar Creek Characterization Area,
Oak Ridge, Tennessee

This Agreement resolves the dispute initiated by the U.S. Department of Energy (DOE) between the Oak Ridge Office of Environmental Management, the U.S. Environmental Protection Agency Region 4 (EPA) and the State of Tennessee Department of Environment and Conservation (TDEC) (collectively the Parties) regarding the waiver of applicable or relevant and appropriate requirements (ARARs) for the Outfall 200 Mercury Treatment Facility (MTF).

Background

The Parties signed the *Record of Decision for Phase I Interim Source Control Actions in the Upper East Fork Poplar Creek Characterization Area* (Phase I ROD) in 2001, with a stated purpose of addressing mercury-contaminated soils, sediments, and groundwater which contribute to contamination of surface water within the Upper East Fork Poplar Creek. The Parties have agreed that the construction of a water treatment facility to treat contaminated surface water should be considered as an additional remedial alternative for furthering the Phase I ROD's remedial action objectives.

Process Summary

DOE invoked informal dispute on the issue of whether an interim action waiver from the Tennessee Ambient Water Quality Criteria for mercury could be accepted by the Parties for the construction and operation of the Outfall 200 MTF. After informal dispute discussions, DOE submitted a written statement of dispute on January 12, 2015, which initiated the Federal Facility Agreement's (FFA) formal dispute resolution proceedings. Based on the resolution of this dispute, DOE agrees to withdraw the formal statement of dispute and enter into this agreement to resolve the dispute at an informal level.

<u>Agreement</u>

In order to resolve the dispute, the Parties acknowledge and agree to the following:

- The Outfall 200 MTF will provide capture for base flow and storm flow to a combined flow rate of 40,000 gallons per minute (gpm).
- The proposed Outfall 200 MTF will include a stormwater storage capacity of 2 million gallons, and treatment capacity of 3,000 gpm. Further optimization of storage and treatment throughput capacities may occur during Remedial Design activities and would be based on maximizing mercury flux reduction and cost effectiveness.
- If selected, the Outfall 200 MTF design will be based upon Alternative 2c of the draft Focused Feasibility Study (FFS) being developed for this project. This alternative consists of conventional water treatment technologies including solids removal, chemical precipitation, and multi-media filtration. This configuration provides the best balance of reliability, cost effectiveness, and flexibility to achieve the desired levels of mercury reduction under a wide range of influent conditions. The Proposed Plan for this project will identify Alternative 2c as the preferred alternative, and will not include effluent polishing (i.e., granulated activated carbon) as a component of the treatment system.
- CERCLA documentation supporting this project will recognize the Ambient Water
 Quality Criteria standard of 51 ppt total mercury as an action-specific ARAR for the Outfall
 200 MTF.
- If, after two years of operation, the facility fails to meet the 51 ppt ARAR, then EPA, TDEC and DOE will collaborate on the selection and implementation of follow-on actions. Follow-on actions that will be evaluated will include possible modifications to the Outfall 200 MTF as well as other actions at the site that may have a greater impact on reducing mercury flux in the Upper East Fork Poplar Creek. If a tri-party decision is reached at that time to not modify the Outfall 200 MTF and that other actions are not reasonable to achieve compliance with the 51 ppt ARAR, a waiver from the action-specific ARAR will be granted by EPA and TDEC. Alternatively, if a tri-party decision is reached to modify the Outfall 200 MTF or take other actions to achieve compliance with the 51 ppt. ARAR, a waiver from the action-specific ARAR will not be undertaken.
- Water that must bypass the Outfall 200 MTF without treatment due to flow or storage capacity limitations shall meet a daily maximum concentration of 2,000 ppt total mercury, and an annual rolling flux of 1 kilogram/year total mercury. Outfall 200 MTF discharges shall not be acutely toxic to fish and aquatic life. Stream concentrations shall not exceed 1,400 ppt dissolved mercury.

- An Appendix J milestone is in place for the construction completion of the Outfall 200 MTF in Fiscal Year 2021. Annual Appendix J milestones shall be established for the first year status and the final completion/and reporting of Outfall 200 MTF performance testing. This will be included in the Remediation Effectiveness Report (RER) documenting the facility's performance at the end of years 1 and 2 after system startup. The RER will support the triparty evaluation of the facility's success in complying with ARARs, and, if required, a new FFS will be conducted to evaluate follow-on measures deemed necessary. The existing Appendix J milestone may require adjustment based on the final schedule for completing the FFS under dispute.
- The chemical-specific ARAR waiver from the Ambient Water Quality Criteria standard for mercury that is currently in effect for Upper East Fork Poplar Creek under the Phase I ROD will not be changed by CERCLA documentation supporting the Outfall 200 MTF project.
- The FFS will be revised consistent with this dispute resolution agreement.

The Parties understand that this agreement resolves those matters covered by this dispute.

Manager

U.S. Department of Energy

Oak Ridge Office of Environmental Management