VIA e-mail to

Administrator Michael S. Regan
U.S. Environmental Protection Agency
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RE: Misinformation concerning the Department of Energy (DOE) Oak Ridge Reservation (ORR) Environmental Management Waste Management Facility (EMWMF) and the proposed Environmental Management Disposal Facility (EMDF) that affects the EMDF Record of Decision (ROD), Oak Ridge, Tennessee

Dear Administrator Regan,

Before retiring from the Tennessee Department of Environment and Conservation (TDEC), the cosigns were involved in numerous Superfund issues at the Department of Energy (DOE) Oak Ridge Reservation (ORR), Department of Defense sites, and private sector sites. We found that evaluating multiple lines of evidence was important to good decision making and that misinformation hinders that process.

We are aware of misinformation concerning the DOE ORR Environmental Management Waste Management Facility (EMWMF) and the proposed Environmental Management Disposal Facility (EMDF). Attached is a document based on the administrative record identifying some of the misinformation. Several key points include:

1. EMWMF is not indicative of a future EMDF. K-25 (East Tennessee Technology Park or ETTP), Y-12, and X-10 (Oak Ridge National Lab or ORNL) have different radionuclide and Clean Water Act (CWA) pollutant waste profiles. Wastes from Y-12 and ORNL proposed to be disposed in a future EMDF are orders of magnitude more contaminated with CWA pollutants (e.g., mercury) and radionuclides than wastes from ETTP disposed in the EMWMF. Concentrations of mercury and radionuclide activity concentrations in EMDF landfill wastewater are also projected to be orders of magnitude greater than mercury concentrations and radionuclide activity concentrations measured in EMWMF landfill wastewater.
2. EMWMF was not always operated consistent with federal law. The EMWMF Record of Decision (ROD) did not authorize discharge of landfill wastewater to surface water as part of the remedial action. An EMWMF contractor had an unauthorized release of landfill wastewater containing radionuclides to Bear Creek during 2002 to avert a pond failure and pled guilty in federal court to unlawfully discharging EMWMF refuse (e.g., landfill wastewater containing radionuclides) into a waterway without a permit. EMWMF wastewater has been discharged to Bear Creek surface water for over 18 years and the EMWMF ROD has not been amended to (1) authorize the discharge of landfill wastewater with radionuclides and Clean Water Act pollutants and (2) establish legally compliant and protective discharge criteria. The Focused Feasibility for Water Management (FFS) was intended to address this failure. The D3 draft of the FFS submitted by DOE after EPA Administrator Wheeler's final dispute decision did not incorporate Administrator Wheeler's decision. It also failed to utilize (or waive) applicable or relevant and appropriate requirements (ARARs) to set discharge criteria for CWA pollutants (e.g., mercury and PCBs) and radionuclides and did not demonstrate overall protection of human health and the

environment. These are threshold criteria that the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires must be met for an alternative to be eligible for selection as a remedial action.

3. There were high groundwater table issues under EMWMF, and installation of the underdrain created a landfill inconsistent with at least two ARARs listed in the EMWMF ROD. EMWMF documents state the underdrain will collect a significant fraction of leachate and direct it to Bear Creek. EMWMF documents also stated that channeling leachate to Bear Creek reduces radionuclides in groundwater and supports expanding the EMWMF from 4 to 6 cells without exceeding waste acceptance criteria (WAC) for any of the constituents with an approved WAC.
4. The Environmental Management Disposal Facility (EMDF) is proposed to be authorized for disposal of Toxic Substances Control Act (TSCA) waste including polychlorinated biphenyls (PCBs). If laboratory method detection limits and reporting limits for PCBs at a future EMDF are consistent with those used at EMWMF (i.e., detection limits are greater than recreational use water quality criteria), then, pursuant to legally applicable antidegradation rules, discharge of landfill wastewater from a future EMDF cannot be authorized to surface water listed on the 303(d) list for PCBs.
5. The EMDF D1 ROD may include ARARs and then not apply the ARARs. For example, even though the EMDF D1 ROD included Tennessee antidegradation rule 0400-40-03-.06(2)(a) as an ARAR, it did not propose discharge criteria for mercury and PCBs consistent with the ARAR. Similarly, even though the D3 FFS included stream flows required by Tennessee Water Quality Criteria to calculate discharge criteria as an ARAR, calculation of discharge criteria in the FFS did not use the required stream flows to calculate proposed discharge criteria.
6. EMWMF WAC included a limited set of radionuclides and are likely not protective of human health associated with future groundwater use. Unlimited amounts of radionuclides without WAC may be disposed and those radionuclides are not tracked and used to determine if the landfill is in overall compliance with waste acceptance criteria. The WAC proposed in the D1 ROD for a future EMDF did <u>not</u> include protection of human health from future groundwater use or consumption of fish caught downstream as exposure pathways in WAC development. Inadvertent intrusion into the landfill at a cancer risk level greater than would be allowed by CERCLA and Nuclear Regulatory Commission (NRC) Class C limits were used to develop the EMDF D1 ROD WAC. WAC proposed in the D1 ROD was not demonstrated to be protective of human health and are not consistent with relevant and appropriate requirements.
7. The EMDF D1 ROD includes an ARAR waiver or exemption from TSCA 40 CFR 761.75(b)(3), related to hydrologic conditions, including waiving or exempting "*There shall be no hydraulic connection between the site and standing or flowing surface water.*" Without laboratory method detection limits capable of measuring release of PCBs to surface water at the recreational use water quality criteria, it is not demonstrated protective of human health to waive or exempt this requirement. Isolation of the site from surface water is needed during landfill operations, closure, and post closure to protect human health and the environment from PCB pollution.
8. The EMDF D1 ROD includes an ARAR waiver or exemption for TDEC 0400-20-11-.17(1)(h): *"The hydrogeologic unit used for disposal shall not discharge groundwater to the surface within the disposal site."* This waiver or exemption has not been demonstrated to be protective of human health since the waiver or exemption is partially based on WAC in the D1 ROD. WAC in the D1 ROD are based on inadvertent intrusion and NRC Class C limits instead of human health protection based on future groundwater and surface water use.

Some of the information needed to understand and correct misinformation was added to the administrative record after the EMDF Proposed Plan and public comment period. This premature and incomplete Proposed Plan was issued to the public in 2018 as part of a dispute resolution. Instead of resolving State concerns before the 2018 Proposed Plan, the Proposed Plan included a discussion of the seven key unresolved State concerns. The Proposed Plan did not include WAC and discharge criteria that would protect public health and comply with ARARs which are threshold criteria. ROD development for a CERCLA remedial alternative where the selected alternative does not clearly meet CERCLA threshold criteria for a remedial alternative to be eligible for selection warrants a pause on the ROD process until those information gaps are resolved and its clear threshold criteria are met.

We request that EPA work with DOE to ensure those information gaps are corrected before DOE issues a revised Proposed Plan and provides the associated public comment opportunity.

Cosigns for this letter include retired TDEC employees with a cumulative of over 127 years of service to the State of Tennessee, over 145 years of combined environmental experience, and over 67 years of experience with the DOE ORR. Two of the cosigns served as former TDEC Division of Remediation (TnDoR) directors and one cosign served as deputy director of the former TDEC Division of Department of Energy Oversight (TnDOEO). TDEC's Division of Remediation is functionally equivalent to EPA's Division of Superfund.

Thank you for your time and consideration of this request.

Sincerely,

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