



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JUL 24 2017

Mr. John Blevins
Senior Advisor
Oak Ridge Office Environment Management
P.O. Box 2001
Oak Ridge, Tennessee 37831

Re: Remedial Investigation/Feasibility Study for
CERCLA Oak Ridge Reservation Waste Disposal

Dear Mr. Blevins:

Enclosed please find the joint statement of position of the Environmental Protection Agency and Tennessee Department of Environment and Conservation members of the Dispute Resolution Committee.

Sincerely,

A handwritten signature in blue ink, appearing to read "Steve Goins".

Steve Goins
Director, Division of Remediation
Tennessee Department of Environment & Conservation

A handwritten signature in blue ink, appearing to read "Franklin E. Hill".

Franklin E. Hill
Director, Superfund Division
Environmental Protection Agency
Region 4

Enclosure

Cc: Anne Heard, EPA
Robert J. Martineau, Jr., TDEC
Jay Mullis, DOE

TDEC/EPA DRC POSITION
FORMAL DISPUTE - ENVIRONMENTAL MANAGEMENT DISPOSAL FACILITY (EMDF)

Background:

The U.S. Department of Energy (DOE) Oak Ridge Office of Environmental Management (OREM) wants to build a second on-site landfill, the Environmental Management Disposal Facility (EMDF), in Oak Ridge to dispose of radioactive, hazardous, and toxic waste generated onsite from Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) response actions under the Oak Ridge Reservation (ORR) FFA. OREM seeks authorization for the proposed landfill under the CERCLA. The cleanup of ORR continues with material being disposed of in the existing EMWMF landfill, which has capacity to hold waste at projected disposal levels until approximately 2024.

Despite several iterations of draft primary documents (D1-D5), OREM has failed to provide TDEC or EPA with an adequate RI/FS report that satisfies CERCLA and provides assurance that the proposed EMDF would be protective of human health or the environment and comply with federal and state environmental laws that are "applicable" or "relevant and appropriate" (ARARs) (or justify a waiver(s)). In spite of that failure, OREM wants to move ahead and provide the public with a Proposed Plan for this disposal facility. Therefore, OREM entered formal dispute with TDEC and EPA, because "extensive informal dispute resolution efforts have failed to advance the remedy selection process."

OREM's statement of dispute, dated May 22, 2017, does not clearly identify which version of the five draft RI/FS reports it is disputing, although it appears to use the D5 Version, based on preferred siting information. The dispute also states that any of the drafts (D1 through D5) were "sufficient" on which to base its Proposed Plan for EMDF. TDEC and EPA strongly disagree and find that previous drafts of the RI/FS report did not meet CERCLA and National Oil and Hazardous Substances Pollution Contingency Plan (NCP) requirements. Thus, neither TDEC or EPA could approve any of them.

TDEC and EPA requirements and approval thresholds for the proposed EMDF are no different than those for any other CERCLA landfill that might be proposed for disposing of radioactive, hazardous, and toxic waste in Tennessee. TDEC and EPA cannot approve any document or process that cannot demonstrate that it is protective of human health and the environment and meets ARARs. To date, all drafts of the RI/FS report have failed to meet these thresholds.

There have been many hours spent by all three agencies discussing how best to move the decision making process forward. The best way to move the process forward would be for OREM to submit an approvable RI/FS to TDEC and EPA. That being said, both TDEC and EPA realize that DOE-OREM has stringent and complex budgeting and procurement processes that can make scheduling and implementing very large projects challenging. TDEC and EPA have been willing to engage in discussions and to try to find solutions that would allow OREM to move forward with certain planning aspects of the proposed EMDF project as long as written commitments were made to perform certain future tasks in a manner required by TDEC and EPA. The two documents referenced below demonstrate TDEC and EPA agreement on alternative ways to move forward. Both documents were ultimately rejected by OREM.

- December 9, 2016 - Joint EPA/TDEC Letter from Rich Campbell and Chris Thompson to Dave Adler and Brian Henry. TDEC and EPA support the identification of site 7c as the most promising site for on-site disposal option pending further characterization. In addition, TDEC and EPA support the concept of a caveated approach, proposed by DOE ORR, that will allow work to continue on two caveated primary

documents 1) RI/FS and 2) Proposed Plan that completes assessment activities prior to the Record of Decision (ROD). The rejection of this proposal by DOE resulted in the DOE's submittal of a D5.

- May 12, 2017 – Informal Dispute Resolution Agreement (IDRA) proposal from Shari Meghreblian to Jay Mullis. This agreement identifies mutually agreeable commitments intended to respond and attempt to resolve comments on the Remedial Investigation/Feasibility Study (RI/FS), by describing the process to complete the Administrative Record prior to a Record of Decision and providing augmented public engagement activities for this project, as described below.

Issues Preventing Approval of RI/FS:

It is the EPA and TDEC's position that the RI/FS does not contain sufficient information to compare alternatives and to demonstrate that each of the four proposed landfill candidate sites will be protective of human health and the environment and meet ARARs (or justify a waiver(s)).

1. Protection of human health and the environment

A candidate site must demonstrate protection of human health and the environment to be selected as the remedial action under CERCLA.

- a) Site Characterization – Information such as depth to high water table and hydrologic properties of the substrate is necessary to ensure that the geology and hydrology of the site is compatible with long term protection of human health and the environment by keeping the waste contained in the landfill and minimizing/eliminating risk of future release into the environment.
 - Site characterization has not been conducted on the landfill candidate sites
 - See ARAR discussion below for additional requirements for site characterization
- b) Waste Acceptance Criteria/Modeling – For a mixed waste landfill, protectiveness is demonstrated primarily through modeling.
 - The DOE path forward outlined in DOE's latest draft of the RI/FS for developing waste acceptance criteria and demonstrating protectiveness pursuant to CERCLA is unclear.
 - DOE should demonstrate in the RI/FS that the waste acceptance criteria developed by the DOE Order process also achieves CERCLA requirements, including demonstrating that both Remedial Action Objectives in the D5 RI/FS and TDEC rule 0400-20-11-.16 *Performance Objectives* ARARs are met.
 - Finally, given the many unresolved modeling comments and concerns, EPA and TDEC expect DOE to resolve modeling comments and concerns, assuring appropriate exposure scenarios and contaminant pathways, evaluating cumulative dose or risk, and verifying CERCLA requirements and TDEC rule 0400-20-11-.16 ARARs will be met.

2. Appropriate and Relevant Requirements (ARARs)

In EPA's and TDEC's comments to the RI/FS, DOE was asked to provide factual information regarding, among other things, site hydraulic conditions and site topography, to either demonstrate that the landfill candidate sites meet applicable ARARs or to justify ARAR waivers. To date, DOE has failed to provide sufficient information to show that it meets ARARs or to show that waivers are appropriate.

To address ARARs, the following information must be included in the RI/FS for the landfill site candidate:

- Depth to high water table – sampling must establish the actual depth to water table sufficiently to describe the water table.
- Hydrologic properties of the substrate – data must demonstrate how groundwater moves across the disposal site and discharges to the surface either on the disposal site or at its nearest discharge point.
- Radiological Health Performance Objectives – data must demonstrate that the waste acceptance criteria developed by the DOE Order process also achieves CERCLA requirements and resolves TDEC's modeling comments, including a demonstration that TDEC rule 0400-20-11-.16 ARAR is met.

The information above must be utilized in the RI/FS to develop site-specific design or engineering plans to show that the landfill candidate sites meet ARARs, or to support a waiver of ARARs.

Waivers of ARARs are made on a site specific basis. Specifically, the following ARARs must be met or waived:

- TDEC 0400-20-11.17(1)(h), provides that the hydrogeologic unit used for disposal shall not discharge ground water to the surface within the disposal site. Information in the RI/FS documents that groundwater is discharging to surface water at no less than three of the 4 sites. The EPA and TDEC have requested information on hydrologic conditions in order to demonstrate whether an exemption to this requirement can be granted.
- TSCA 40 CFR 761.75(b)(5), provides that the landfill site shall be located in an area of low to moderate relief to minimize erosion and to help prevent landslides or slumping. The RI/FS states that the flanks of Bear Creek Valley represent an area of moderate to high relief, with slopes reaching as high as 30% to 50% on parts of the sites, and, therefore, this ARAR is not met for any of the four locations. To support a waiver, DOE must provide evidence that the landfill will not present an unreasonable risk to health or the environment.
- TSCA 40 CFR 761.75(b)(3), provides that the bottom of the landfill liner system or natural in-place soil barrier shall be at least fifty feet above the historical high water table, and there shall be no hydraulic connection between the site and standing or flowing surface water. DOE has failed to provide information on hydrologic conditions to establish that it meets these requirements or that waivers of these requirements are appropriate.

Proposed Plan

The purpose of the Proposed Plan is to provide the public the opportunity to provide input and comment on the preferred alternative, the other alternatives being presented in the Plan, and the Administrative Record (i.e., the RI/FS). Without addressing the issues identified above regarding the RI/FS, the Administrative Record for this project is not complete, and, the purpose and basis of the Proposed Plan comment process is undermined. TDEC and EPA have outlined mechanisms to move forward under at least two different approaches that recognizes the need to begin planning for the second landfill but also provides assurance of public health protection and compliance with federal and state law.



Steve Goins
Director, Division of Remediation
Tennessee Department of Environment & Conservation

7/24/17
Date



Franklin E. Hill
Director, Superfund Division
Environmental Protection Agency
Region 4

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Date