

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

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

August 15, 2022

VIA ELECTRONIC MAIL

Mr. Roger B. Petrie
Federal Facility Agreement Manager
Oak Ridge Office for Environmental Management
Department of Energy
Post Office Box 2001
Oak Ridge, Tennessee 37831

Dear Mr. Petrie:

The U.S. Environmental Protection Agency has completed review of the revised *Zone 1 Groundwater Plumes Remedial Investigation Work Plan, East Tennessee Technology Park, Oak Ridge, Tennessee* (DOE/OR/01-2903&D2) received from the U.S. Department of Energy, Oak Ridge Reservation (DOE) on June 13, 2022. Due to the extensive nature of the EPA comments and revisions to this document, the EPA required an additional 30-days for review. Comments are provided and revision will be necessary for EPA approval of this work plan.

Perhaps the central issue that remains to be resolved between the three Federal Facility Agreement (FFA) parties (i.e., DOE, EPA, and the Tennessee Department of Environment & Conservation) concerns the K-720 Coal Fly Ash Area. According to the D2 work plan, the only planned activities encompass:

Samples from the eleven existing K-720 monitoring wells will be collected during the wet and dry seasons and analyzed for metals, SVOCs, water quality parameters (anions and alkalinity), total dissolved solids, and total organic carbon (Table 6.1). Both filtered and unfiltered samples for metals will be collected. (p. 6-5)

While necessary, these activities do not address the coal fly ash source of groundwater contamination. DOE is merely resampling contaminated groundwater. The DOE has indicated at the project team level that the K-720 Coal Fly Ash Area, which includes all areas that may have been impacted by the disposal of the coal fly ash, and specifically all media impacted by the coal fly ash, will be addressed under the ETTP Zone 1 Groundwater Plumes Record of Decision. The DOE has not provided information in this RI work plan that addresses coal fly ash characterization or an assessment of the human health and ecological risk from exposures to the coal fly ash (both covered and exposed). This is inconsistent with the agreement between the various ETTP Zone 1 project teams. Therefore, this work plan is incomplete. The approval of this work plan will require additional scope of work which the ETTP Zone 1 Groundwater Plumes project team will need to review and approve to be included in a revised work plan. However, if the DOE should choose to extract the K-720 Coal Fly Ash media from the ETTP Groundwater Plumes project scope of work, then it should formalize this agreement through the project team/FFA managers and issue a letter setting a new FFA milestone for the delivery of that comprehensive work plan.

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Another issue of confusion is created by assigning some of the East Tennessee Technology Park Zone 1 (Zone 1) monitoring wells (e.g., UNW-161 and BRW-140) to the ETTP Main Plant Area investigation. DOE justifies this as:

... they were installed as part of the Main Plant Groundwater Feasibility Study. Because the source of the TCE detected in these wells is uncertain, and potentially may be related to a source in the Main Plant Area of ETTP, investigation of this plume will be handled under the Main Plant Groundwater ROD. (DOE response to EPA comments on D1 work plan)

This sorting of all groundwater monitoring wells across the ETTP into those that fall under the Main Plant Area (MPA) and those that are included in the Zone 1 Groundwater Plumes remedial investigation has not been presented in any document associated with either the MPA or Zone 1 sites. This misunderstanding presents an opportunity for the three FFA parties to overlook the assessment of one or more groundwater monitoring wells based on a belief that they are being addressed in a separate investigation. Therefore, this work plan will need to identify/list all Zone 1 monitoring wells assigned to the MPA to eliminate any point of confusion (i.e., create an Appendix or present a map showing all of the Zone 1 monitoring wells assigned to the MPA).

Additional comments to this revised document are attached and must be address before it can be approved. Hopefully, all of these issues can be quickly resolved and approved allowing DOE to proceed with the implementation of the revised work plan.

If you have any questions or concerns regarding this matter or require additional information, then please contact me at (404) 562-8550, or electronically at froede.carl@epa.gov.

Sincerely,

Froede, Carl

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Carl R. Froede Jr.
Senior Remedial Project Manager
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EPA Comments on the Revised *Zone 1 Groundwater Plumes Remedial Investigation Work Plan, East Tennessee Technology Park, Oak Ridge, Tennessee (DOE/OR/01-2903&D2)*

1. DOE Response to EPA Comments Table, General Comment 2. The revised text:

The results of the DQOs process are presented in Chap. 6, and the EPA's seven-step process for each Zone 1 Groundwater Plumes area of concern is described in the DQO meeting materials provided in Appendix A.

The text is acceptable but missing from Section **1.7 DATA QUALITY OBJECTIVES**. The last sentence on page 1-14 is cut off and the missing text is found beneath Figure 1.5. but not visible to the reader. Please fix this issue.

2. DOE Response to EPA Comments Table, Specific Comment 19. The revised text states:

Project-specific DQOs were developed to help identify new well and monitoring needs and to support preparation of the Field Sampling Plan (FSP) [Appendix B].

The text is acceptable but missing from Section **1.7 DATA QUALITY OBJECTIVES**. The last sentence on page 1-14 is cut off and the missing text is found beneath Figure 1.5. but not visible to the reader. Please fix this issue.

3. DOE Response to EPA Comments Table, Specific Comment 22. The DOE response states:

Clarification. The Zone 1 boundary stops at Hwy 58 in the southernmost portion and this area is underlain by bedrock of the Rome Formation (undivided), which is shown in the light purple on Fig. 3.3. The Conasauga Group (undivided group) subcrops south of Hwy 58 at the southernmost part of Fig. 3.3 as indicated by the darker purple in Fig. 3.3. (Gray highlighted text in original response)

No text in the revised document has been changed consistent with this "Clarification." However, it provides useful information that should be added to the text in the places originally identified in the EPA comment. Please make this correction to the document.

(End of Comments)