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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
81 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

November 08, 2017

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. John Michael Japp
Federal Facility Agreement Manager
Oak Ridge Office for Environmental Management
Department of Energy
P.O. Box 2001
Oak Ridge, TN 37831

Dear Mr. Japp:

The U.S. Environmental Protection Agency (EPA) has completed review of the *Phase 1 Field Sampling Plan for the Proposed Environmental Management Disposal Facility for Comprehensive Environmental Response, Compensation, and Liability Act, Oak Ridge, Tennessee* (DOE/OR/1-2739&D1).

This letter notifies the Department of Energy Oak Ridge Reservation (DOE) that this Field Sampling Plan (FSP) sufficiently meets the overall level of effort, number and location of monitor wells, and data collection parameters consistent with the *EPA/TDEC Statement of Work to Expedite Groundwater Characterization at Site 7c, Central Bear Creek Valley (CBCV)*, dated August 8, 2017. However, it does not collect necessary design-specific geological, hydrological, and hydrologic data that will be required for the CBCV Site 7c Remedial Design Work Plan.

Specific comments on the D1 FSP are attached. The resolution of these minor comments and rapid submittal of a revised D2 document will allow for quick approval. The DOE should now expedite the activities listed in Section 5 of the FSP to meet the critical need for geological data collection during the 2017/2018 wet season. This wet season geologic data is necessary to move the CBCV Site 7c forward in the CERCLA process.

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

Sincerely,

Carl R. Froede Jr., P.G.
Senior Remedial Project Manager
Restoration and DOE Coordination Section
Superfund Division

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EPA Comments on the Phase 1 Field Sampling Plan for the Proposed Environmental Management Disposal Facility for Comprehensive Environmental Response, Compensation, and Liability Act, Oak Ridge, Tennessee (DOE/OR/1-2739&D1).

General Comments

1. The DOE cover letter transmitting the D1 Field Sampling Plan conveys changes to the D1 document that are consistent with the original expectations of the EPA/TDEC issued *Statement of Work to Expedite Groundwater Characterization at Site 7c, Central Bear Creek Valley*:

A. Modify the frequency of continuous surface water and groundwater measurements to 30 minute intervals (from 1 hour intervals stated in the D1 Field Sampling Plan).

B. Clarify the surface water additional walkover effort to include a description every 50-ft (as access allows and is appropriate) and field measurements of temperature, specific conductivity, and pH.

C. Regarding the field parameters identified in "B" above, the DOE further clarified:

1. Continuous monitoring of groundwater levels and temperature will be conducted.
2. DOE will commit to monitor specific conductivity and pH on a routine, manual basis rather than continuously, based on previous difficulties encountered with continuous monitoring of conductivity and on the much higher cost that continuous monitoring of these two parameters would incur.

While specific conductivity and pH were originally cited as requiring continuous measurement, the EPA agrees with the DOE to collect these groundwater parameters on a weekly schedule.

These changes will need to be made to the revised document.

Specific Comments

1. In Table 1 (Section 4), the problem statement should add wording to indicate that additional contaminants (e.g. volatile organic compounds) could also be present in materials disposed in the EMDF. This comment also has relevance to wording in the "State the Problem" part of Table 1, Table 2, Table 3, and Table 4 on pages 19, 22, 24, and 27.
2. The final DQO step for groundwater data acquisition (continuation of Table 1; page 22) indicates that FLUTE testing will be done on bedrock piezometers. Figure 14 shows the locations of proposed deep piezometers (presumably representing bedrock piezometer locations). One location is identified as a "Deep Piezometer/Shallow Well Point" and 12 locations are identified as being "Shallow/Deep Piezometer Pair." The figure shows that an area within the bounds of the "Outside Perimeter Landfill Berms" is lacking any representation by deep or shallow piezometers. This area is roughly defined as the area south of the Haul Road, as shown on Figure 1 below.

The FSP needs to explain the proposed placement of the shallow and deep piezometers and other test locations shown on Figure 14. The explanation should cover the absence of deep and shallow piezometers in the area shown on Figure 1 below, a lack of deep and shallow piezometers in the vicinity of NT-11, the relatively high density of piezometers in the north central part of the proposed landfill area, and the location of piezometers on or near both the northern and southern landfill boundaries with no locations around or along the east and west boundaries.

3. In Appendix B, Section B.3 on page B-15, Table B.4 refers to potential laboratory hydraulic conductivity testing. Some discussion is needed regarding the criteria that will be used to decide whether or not a laboratory hydraulic conductivity test will be done. Within an individual boring, the criteria for selecting a specific zone for laboratory testing needs to be stated. Would there be a single test per location or is there a potential for multiple tests on samples from a location? Sample collection and handling procedures need to be described for earth materials to be laboratory tested for hydraulic conductivity.
4. Referring to Table B.5., ASTM D2434-68 is a withdrawn standard with no replacement. This standard is (or was) probably not appropriate as a method for approximating in-situ hydraulic conductivity of aquifer materials.

Table B.9 lists a variety of laboratory geotechnical tests to be run on collected soil (and rock?) samples. Sample selection for testing is to be made "...following review of borehole logs and collected samples." The criteria that would be used to select samples for the proposed tests should be described in the Appendix B text.

(End of Comments)