SC DEPARTMENT *of*
ENVIRONMENTAL SERVICES

Susan Fulmer, P.G.
Bureau of Land and Waste Management
2600 Bull Street
Columbia, SC 29201

September 25, 2025

Mr. Matthew R. Baker, Acting FFA Remedial Project Manager
Remediation and Deactivation & Decommissioning Division
U. S. Department of Energy
Savannah River Operations Office
Post Office Box A
Aiken, South Carolina 29802

Re: Treatability Study Data Report for Groundwater Injection and Discharge Canal Neutralization at the D-Area Groundwater Operable Unit (U) – 2024 Data and Information, SEMS Number: 63 (SRNS-TR-2025-00218, Revision 0, May 2025) received May 30, 2025.

Dear Mr. Baker:

The Department has completed its review of the above referenced document pursuant to the Savannah River Site Federal Facility Agreement. The attached comments were generated as a result of this review. These comments must be addressed prior to final approval of the above referenced document. As specified in Section XXII, Review/Comment on Documents, the appropriate technical staff will be available to participate in a joint DOE/EPA/SCDES comment resolution meeting to discuss these comments, if necessary.

To schedule a meeting to resolve the attached comments or to obtain further information, please contact me at (803) 898-4331.

Sincerely,

Susan B. Fulmer, P.G., Manager
Federal Remediation Section
Division of Site Assessment, Remediation, Revitalization

cc: C. L. Bergren, SRNS-ACP (Signed Original)
Gregg O'Quinn, BRLS – Aiken
Jon Richards, EPA Region IV
Heather Cathcart, BLWM

South Carolina Department of Environmental Services Comments on:
Treatability Study Data Report for Groundwater Injection and Discharge Canal Neutralization at the D-Area Groundwater Operable Unit (U) – 2024 Data and Information, SEMS Number: 63 (SRNS-TR-2025-00218, Revision 0, May 2025) received May 30, 2025.

General Comments

1. When comparing Figure 2, D-Area Groundwater 2Q2024 pH and Beryllium Plume, and Figure 3, D-Area Groundwater 2Q2020 pH and Beryllium Plume, it appears as though the field pH and beryllium plumes in the Upper Three Runs Aquifer (UTRA) have shown a western migration between 2020 and 2024. Regarding pH, there are notable decreases in pH observed between 2020 and 2024 at monitoring wells DWP 8 (5.3 to 3.3), DWP 9 (4.9 to 4.3) and, DWP009A (5.6 to 4.7). Regarding beryllium, the western boundary of the beryllium plume is observed to have moved west of the monitoring wells DWP 2 and DWP 8 between 2020 and 2024. Based on the figures, there are no groundwater monitoring wells located west and downgradient of DWP 9 and DWP009A; therefore, there appears to be no way to confirm the western extent of the field pH of less than 4.5 or monitor the beryllium plume if it also continues to migrate west towards the Savannah River. Please clarify if there is a plan to address or monitor the potential western migration of the field pH and beryllium plumes, as this Treatability Study is ongoing, and if there could be a potential impact to the Savannah River.

Specific Comments

1. Section 4.0, Sampling and Analysis, page 6 and Table 1, D-Area Treatability Study 2024 Monitoring Network and Sampling Schedule, pages 21 and 22. The second paragraph of Section 4.0 states that there are 41 monitoring wells included in the treatability study network. Then in the next couple of sentences, it is indicated that 23 wells include sampling for metals, sulfate, pH and other routine field analyses and 17 wells are sampled for water elevation measurements, totaling 40 monitoring wells. Figure 10 depicts monitoring well DCB 45C in blue font, indicating it is a monitoring well in the treatability study network that is monitoring water elevation. This well is not listed in Table 1 which includes all of the treatability study network monitoring wells. Please clarify the discrepancies between Section 4.0, Table 1, and Figure 10 regarding the total number of wells and the status of well DCB 45C.

2. Section 5.1.1, Groundwater Injection Observations, page 10. The fourth paragraph states, "Injection wells DGI011 and DGI012 accept less than 2 gpm and continue to underperform." When reviewing Figure 17, Graph of Injection Well Flow Rates for 2022 and 2024, it appears as though the flow rate for both wells DGI011 and DGI012 has decreased from ~3gpm in 2022 to less than 2 gpm in 2024. If all injection well isolation valves have been fully opened (except DGI016 at ~80%), please clarify if there has been any cause determined as to why these wells have lower flow rate trends compared to the other installed injection wells and if there is any way to improve the performance from these wells.

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3. Table 1, D-Area Treatability Study 2024 Monitoring Network and Sampling Schedule *(continued/end)*, page 22. In Section 4.0, Sampling and Analysis, the fourth sentence of the second paragraph states that the wells added to the water elevation monitoring starting second quarter (2Q) 2024 were DCB 54, DCB079, and DCB080. However, upon review of Table 1, the wells added in 2Q2024 are listed as DCB 54, DCB078, and DCB079. Please clarify which list of wells added in 2Q2024 is correct.

4. Figure 22, Location of Reworked $CaCO_3$ Reactive Structures, page 69. The figure does not include the location of the newly installed stream gauge, DSWM-8B, located downgradient of the downstream reactive structure. Please include the location of DSWM-8B on the figure.