



SC DEPARTMENT of
**ENVIRONMENTAL
SERVICES**

Susan Fulmer, P.G.
Bureau of Land and Waste Management
2600 Bull Street
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October 8, 2024

ENVIRONMENTAL COMPLIANCE &

SRNS-OS-2024-00442

OCT 8 2024

Ms. Avery G. Hammett, SRS 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

AREA COMPLETION PROJECTS

Re: Treatability Study Data Report for Groundwater Injection and Discharge Canal Neutralization at the D-Area Groundwater Operable Unit (OU) (U) – 2023 Data and Information, SEMS Number: 63 (SRNS-TR-2024-00261, Revision 0, June 2024) received June 12, 2024.

Dear Ms. Hammett:

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

Digitally signed by Susan B.
Fulmer
Date: 2024.10.07 14:55:15 -04'00'

Susan B. Fulmer, P.G., Manager

Federal Remediation Section
Division of Site Assessment, Remediation, Revitalization

cc: C. L. Bergren, SRNS-ACP (Signed Original)
Travis Fuss, 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 (OU) (U) – 2023 Data and Information, SEMS Number: 63 (SRNS-TR-2024-00261, Revision 0, June 2024) received June 12, 2024.

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Specific Comments

1. Section 2.0, Project Description, page 5. The first complete sentence on this page indicates a specific acidic groundwater discharge point to the D-Area Effluent Discharge Canal somewhere upgradient of the calcium carbonate reactive structures. Please indicate this discharge point location on a figure and verify that it is upgradient of the newly located structures.
2. Section 4.0, Sampling and Analysis, page 6. The third paragraph states that water elevations dropped 3-5 feet overall in the D-Area between 2Q2020 and 2Q2023 in wells upgradient or side gradient of the injection wells. However, Section 5.1.2, Water Level Observations, discusses the increase in water elevation between 2022 and 2023 and states that water elevations decreased across D-Area from 2020 to 2022. Please clarify if there is any overall decreasing trend in water elevation between 2020 and 2023, or if the water elevation decrease is specifically between the 2020 to 2022 time period.
3. Section 7.0, Summary, page 14. The last complete sentence of this page states that for the majority of injection wells installed to date, the ability to accept more water than originally anticipated has compensated for installing half of the proposed wells (10 of 20). This statement implies that these 10 injection wells will be sufficient, and that the remaining 10 injection wells would not be installed as originally planned. Please clarify.
4. Section 7.0, Summary, page 16. The second paragraph of this page states that surface water stations DSWM-8 and -8A are being removed from the monthly schedule and being replaced for monthly pH monitoring by surface water stations DSWM-4C, -6 and -7. Table 3, which lists all monitoring wells and surface water stations in the treatability study monitoring network, does not list DSWM-8 and -8A at all, implying that these wells are being removed completely from the monitoring network and not just the monthly pH monitoring schedule. Please clarify if these wells will remain in the monitoring network and if so, in which capacity/monitoring frequency, and revise Section 7.0 and/or Table 3 accordingly.
5. Appendix D, Section 1.0 Alternate Estimation of Injection Time Based on Site Complexity at D Area, page D-3. This section lists certain assumptions that were made during original calculations for determining the injection volume required to adjust the pH of acidic groundwater at D-Area, along with changes made from these original assumptions. The second paragraph of page 3 of the data report indicates a porosity value of 0.3 was used in original calculations for determining the pore space volume in this area; however, this section of Appendix D indicates this porosity value was changed to 0.2. This change in original calculation assumptions should be noted in this section, as well as the reason for the change in this assumption.