**Department of Energy**
Savannah River Operations Office
P.O. Box A
Aiken. South Carolina 29802

FEB 17 2026

Ms. Susan B. Fulmer, P. G., Manager
Federal Remediation Section
Division of Site Assessment, Remediation and Revitalization
Bureau of Land and Waste Management
South Carolina Department of Environmental Services
2600 Bull Street
Columbia, South Carolina 29201

Mr. Jon Richards
Savannah River Site Remedial Project Manager
Superfund and Emergency Management Division
U. S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, Georgia 30303

Dear Ms. Fulmer and Mr. Richards:

SUBJECT: Savannah River Site's Responses to the Regulatory Comments on the Calendar Year 2024 D-Area Oil Seepage Basin Operable Unit (631-G) Groundwater Mixing Zone Letter Report (RDDD-25-152, dated July 28, 2025) SEMS Number: 27

The U.S. Department of Energy (DOE) is submitting the subject comment responses for your review. The South Carolina Department of Environmental Services'(SCDES) and U.S. Environmental Protection Agency's (EPA) comments were received on November 20, 2025. This report will not be revised; however, all comment responses will be included in the next report, as applicable. Please review the enclosures and provide your response within thirty (30) days of receipt. The effort and time that the EPA and the SCDES have provided on this operable unit are appreciated.

Questions from you or your staff may be directed to me at (803) 952-6211.

Sincerely,

MATTHEW BAKER

Digitally signed by MATTHEW BAKER
Date: 2026.02.12 15:31:17 -05'00'

Matthew R. Baker
Acting FFA Remedial Project Manager
DOE-Savannah River Operations Office
Remediation, Deactivation, and Decommissioning Division

RDDD-26-129

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Ms. Susan Fulmer
Mr. Jon Richards 2

Enclosures:
1. SRS Responses to the South Carolina Department of Environmental Services' Comments on the Calendar Year 2024 D-Area Oil Seepage Basin Operable Unit (631-G) Groundwater Mixing Zone Letter Report, SEMS Number: 27
2. SRS Responses to the U.S. Environmental Protection Agency's Comments on the Calendar Year 2024 D-Area Oil Seepage Basin Operable Unit (631-G) Groundwater Mixing Zone Letter Report, SEMS Number: 27

c w/o encl:
M. Reece, SCDES-Columbia
H. J. Porter, SCDES-Columbia
J. Blalock, SCDES-Columbia
S. French, SCDES-Columbia
R. G. Stewart, SCDES-Columbia
M. Mehta, SCDES-Columbia
G. O'Quinn, SCDES-Midlands Aiken Environmental Affairs Office
T. G. Corley, SCDES-Midlands Aiken Environmental Affairs Office
C. L. Robertson, SCDES-Midlands Aiken Environmental Affairs Office
E. G. Downing, SCDES-Midlands Aiken Environmental Affairs Office
H. L. Herlong, SCDES-Midlands Aiken Environmental Affairs Office

c w/encl:
B. Martin, EPA-Atlanta
H. H. Cathcart, SCDES-Columbia
M. McRae, TechLaw, Inc.

**SRS Responses to United States Environmental Protection Agency Comments on the Submittal Letter for the Calendar Year 2024 D-Area Oil Seepage Basin Operable Unit (631-G) Groundwater Mixing Zone Letter Report, SEMS Number: 27, RDDD-25-152, July 28, 2025, Savannah River Site, Aiken, South Carolina Comments received November 20, 2025**



## GENERAL COMMENTS

1. The Report states that the D-Area Oil Seepage Basin (DOSB) Operable Unit (OU) Groundwater Mixing Zone (GWMZ) is performing adequately since the requirements specified in the GWMZ Application for the DOSB (WSRC-RP-97-422, Revision 1.5, May 2009) were met. However, it appears that the DOSB OU GWMZ remedy is not reducing GWMZ constituents to below EPA Maximum Contaminant Levels (MCLs) *within a reasonable timeframe*. The monitoring data for well DOB 15 indicates constituents of concern (COC) concentrations are consistently higher than surrounding wells. The time-series trend graphs prepared for tetrachloroethylene (PCE), trichloroethylene (TCE), cis-1,2-dichloroethylene (cDCE) and vinyl chloride (VC) concentrations over time in DOB 15 (see Figure 9, Time Serie Plots of PCE, TCE, cDCE, and VC at Additional Well DOB 11 and Plume Compliance Wells DOL 2 and DOB 15 at the DOSB OU) shows that COC trends are stabilized. The Report states that at the current trends, the data indicates that it will take longer to achieve MCLs that the modeled cleanup time of 20 years, or approximately 2027. Factors contributing to the extended cleanup time include groundwater geochemistry conditions that are not favorable to reductive dechlorination and back-diffusion or de-sorption of GWMZ constituents from low permeability zones, conditions not accounted for in the modeled cleanup time. The Report states that a full calendar year (CY) 2025 data report, including multiple plume maps and time-series trends of contaminant data, will be submitted in July 2026. *It is recommended that the CY 2025 data report discuss additional remedial actions that could be implemented to reduce cleanup timeframes particularly the potential source material remaining near well DOB 15. Please include a discussion of any unfavorable geochemistry results, stable COC trends in select wells, and additional remedial actions that could be implemented to reduce cleanup timeframes, particularly the potential source material remaining near well DOB 15, in the CY 2025 data report.*

**Response: Clarification**

**The time series plot in Figure 9 referenced in the comment shows stable or decreasing values for PCE, TCE, cis-1,2-DCE, and VC at well DOB 15 for the past few years. Further, trends also demonstrate a long-term decrease in downgradient wells DOB 19 and DOB 19A. The most recent Five-Year Remedy Review for Savannah River Site Operable Units with Groundwater Remedies, recently approved in July 2025, concludes that the DOSB groundwater remedy (GWMZ with institutional controls) is performing adequately and is protective of human health and the environment. As a result, SRS does not propose to discuss or evaluate any additional remedial actions to reduce timeframes for reaching MCLs. SRS will qualitatively discuss the timeframe to reach MCLs in the CY 2025 data report.**

**Responsible Party: Evan Eastabrooks, (803) 952-8154, evan.eastabrooks@srs.gov**

**SRS Responses to United States Environmental Protection Agency Comments on the Submittal Letter for the Calendar Year 2024 D-Area Oil Seepage Basin Operable Unit (631-G) Groundwater Mixing Zone Letter Report, SEMS Number: 27, RDDD-25-152, July 28, 2025, Savannah River Site, Aiken, South Carolina Comments received November 20, 2025**



**SPECIFIC COMMENTS:**

1. **2024 Data Analyses, PDF Page 5 of 19:** The text states that periods of high water levels may correlate with increased contaminant concentrations; however, a figure/graph of water level data compared with contaminant concentrations over time was not provided as an additional line of evidence. *Please include a figure/graph of water level data compared with contaminant concentrations over time in the CY 2025 data report for DOB 15 and DOL 2.*

   **Response: Agree**

   **A figure/graph of water level data compared with contaminant concentrations over time will be included in the CY 2025 data report for DOB 15 and DOL 2.**

   **Responsible Party: Evan Eastabrooks, (803) 952-8154, evan.eastabrooks@srs.gov**

2. **2024 Data Analyses, PDF Page 5 of 19:** The text states that PCE, TCE, cDCE, and VC contaminant trends at DOB 15 are depicted on Figure 8 (Cross Section A-A' of the DOSB Area with 2024 VC Plume and Results); however, the contaminant trends are shown on Figure 9 (Time Series Plots of PCE, TCE, cDCE, and VC at Additional Well DOB11 and Plume Compliance Wells DOL 2 and DOB 15 at the DOSB OU). *Please revise the text to replace the Figure 8 reference with Figure 9.*

   **Response: Agree**

   **The text referring to PCE, TCE, cDCE, and VC contaminant trends at DOB 15 being depicted on Figure 8 instead of correctly being depicted on Figure 9 is a typographical error. SRS will be more careful to eliminate such errors in future submittals of the report. No changes are proposed for the CY 2024 letter report.**

   **Responsible Party: Evan Eastabrooks, (803) 952-8154, evan.eastabrooks@srs.gov**

3. **2024 Data Analyses, PDF Page 5 of 19:** The text states that Wells DOB 15, DOL 2, and DOB 16 are located within or below clayey zones in which volatile organic compounds (VOCs) may be sorbing to those clays thereby prolonging the physical attenuation process (dispersion) as well as slowing the transport vertically. According to Figure 8 (Cross Section A-A' of the DOSB Area with 2024 VC Plume and Results), carbonate layers are as prominent in the subsurface at DOB 15 and DOB 16 as the clay layers; however, the presence of the carbonate layer and whether it is a source of secondary contamination is not discussed in the text. *Please discuss the presence of the carbonate layer and whether it serves as a potential source of secondary contamination in the CY 2025 data report.*

**SRS Responses to United States Environmental Protection Agency
Comments on the
Submittal Letter for the Calendar Year 2024 D-Area Oil Seepage Basin Operable Unit (631-G)
Groundwater Mixing Zone Letter Report,
SEMS Number: 27, RDDD-25-152, July 28, 2025,
Savannah River Site, Aiken, South Carolina
Comments received November 20, 2025**



**Response: Agree**

**The carbonate layers present at approximately 35 to 45 ft below ground surface at wells DOB 15 and DOB 16 were described as partially lithified clayey sand to silty sand during well installation and soil boring activities. It is unlikely that these layers serve as potential sources of secondary contamination. One likely possibility is that these layers serve as slightly impermeable zones that slow vertical movement of groundwater. Back diffusion of VOCs from the carbonate layer and low permeability zone above the more permeable aquifer zone A3 could also contribute to the higher presence of contamination within the aquifer at DOB 15. The presence of the carbonate layers at DOB 15 and DOB 16 and whether they serve as potential sources of secondary contamination will be discussed in the CY 2025 data report.**

**Responsible Party: Evan Eastabrooks, (803) 952-8154, evan.eastabrooks@srs.gov**

**SRS Responses to the South Carolina Department of Environmental Services (SCDES) Comments on the Calendar Year 2024 D-Area Oil Seepage Basin (631-G) Groundwater Mixing Zone Letter Report, SEMS Number: 27, RDDD-25-152, July 28, 2025, Savannah River Site, Aiken, South Carolina Comments received November 20, 2025**



**GENERAL COMMENTS:**

1. Based on review of previous reports, surface water station DOBSW1 has been dry the last several years, with the last successful surface water sample collected in 2019. This fact merits discussion, including any potential replacement locations for a viable surface water sample to be collected.

   **Response: Agree.**

   **DOBSW1 is sampled from an intermittent stream which directs surface drainage southward. Periods of dry conditions in the intermittent stream can make it unsuitable for collecting a surface water sample from DOBSW1. The surface water station was found to be dry in the 2Q25 sampling event, so a sample could not be collected at that time. Adding another surface water sampling station further downstream from DOBSW1, near DOB 22 and toward the distal end of the mixing zone, will be explored prior to conducting the 2026 sampling event. Discussion about potentially adding another surface water station will be included in the CY 2025 data report.**

   **Responsible Party: Evan Eastabrooks, (803) 952-8154, evan.eastabrooks@srs.gov**

**SPECIFIC COMMENTS:**

1. **Table 1, 2024 DOSB OU Groundwater Mixing Zone Monitoring Results, page 18.** For monitoring well DOB 15, the 1,4-Dioxane result is "<EQL ()". While the constituent was below detection, the sample-specific Estimated Quantitation Limit is missing from inside the parentheses. Please include the sample-specific Estimated Quantitation Limit for 1,4-Dioxane in the parentheses.

   **Response: Agree.**

   **The missing sample-specific Estimated Quantitation Limit for 1,4-Dioxane from Table 1 is a typographical error. The Estimated Quantitation Limit for 1,4-Dioxane should have been listed in the table as "<EQL (1)". SRS will be more careful to eliminate such errors in future submittals of the report. No changes are proposed for the CY 2024 letter report.**

   **Responsible Party: Evan Eastabrooks, (803) 952-8154, evan.eastabrooks@srs.gov**