



REGION 4
ATLANTA, GA 30303

ENVIRONMENTAL COMPLIANCE &

November 20, 2025

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SRNS-OS-2025-00379

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

AREA COMPLETION PROJECTS

EPA comments: CALENDAR YEAR 2024 D-AREA OIL SEEPAGE BASIN OPERABLE UNIT (631-G) GROUNDWATER MIXING ZONE LETTER REPORT, SEMS NUMBER: 27 JULY 28, 2025

Dear Mr. Baker:

The U.S. Environmental Protection Agency, Region 4 (EPA) has reviewed the 2024 Oil Seepage Basin, 631-G, Groundwater Mixing Zone Letter Report OU 27, dated July 28, 2025. EPA's comments are attached.

If you have any questions or require additional information, please contact Jon Richards at (404) 431-1340.

Sincerely,

JON RICHARDS

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RICHARDS
Date: 2025.11.20 14:37:40
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Jon Richards FFA RPM
Federal Facilities Branch
Superfund and Emergency Management Division

cc: C.L. Bergren, SRNS-ACP
Susan Fulmer, SCDES

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 than 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.*

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.*
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.*
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.*