ENVIRONMENTAL COMPLIANCE &

SEP 23 2026

AREA COMPLETION PROJECTS

REGION 4
ATLANTA, GA 30303

September 23, 2026

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

EPA Comments: Effectiveness Monitoring Report for the Monitored Natural Attenuation (MNA) at the Chemicals, Metals, and Pesticides (CMP) Pits Operable Unit (OU) (U), April 2025 through March 2026, SEMS Number: 24, SRNS-RP-2026-00316, Revision 0, June 2026, Savannah River Site

Dear Mr. Baker:

EPA has reviewed the CMP EMR MNA for April 2025 through March 2026, dated June 17, 2026. Our Comments are attached.

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

Sincerely,

JON RICHARDS Digitally signed by JON RICHARDS Date: 2026.09.23 08:15:15 -04'00'

Jon Richards, FFA RPM
Federal Facilities Branch
Superfund and Emergency Management Division

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

GENERAL COMMENT

1. Section 3.0 (Summary) states that the monitoring data through March 2026 suggests the monitored natural attenuation (MNA) remedy is performing as expected; however, the tetrachloroethene (PCE) **cleanup time of 104 years does not seem reasonable, which questions the effectiveness of the MNA remedy**. As indicated in *Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites* (EPA MNA guidance; EPA, 1999), MNA relies on natural processes to achieve remediation objectives in a reasonable timeframe compared to that offered by more active methods. Therefore, the text should discuss this inefficiency and include recommendations to reduce the cleanup timeframe. It is noted that additional soil borings will be investigated and integrated with the 2021 soil investigation to support vadose-zone modeling in 2027 and future groundwater model updates. However, the text does not discuss whether additional remedial actions (RA) will be taken to reduce the estimated cleanup timeframe if the soil boring sample results indicate that PCE concentrations in vadose zone soil are at levels that indicate the presence of dense non-aqueous phase liquid (DNAPL) and/or a contaminant migration to groundwater issue. The EMR discusses how interim and final electrical resistance heating (ERH) and soil vapor extraction (SVE) RAs were performed that allowed for MNA of contaminated groundwater by remediating PCE soil concentrations greater than the DNAPL trigger concentration of 60 milligrams per kilogram (mg/kg) and the contaminant migration trigger concentration of 30.7 mg/kg. The EMR acknowledges that residual contamination remains trapped within clay horizons and/or pore spaces in the vadose zone in or out of the ERH/SVE zone. This residual contamination is a secondary source for groundwater contamination that directly impacts the effectiveness of the MNA remedy and results in the unreasonable timeframe of 104 years. *Please revise the text to discuss the effectiveness of the MNA remedy given the unreasonable cleanup time of 104 years and future attempts to investigate whether subsurface conditions are conducive to natural attenuation.*

SPECIFIC COMMENTS

1. **Section 1.2, Nature and Extent of Contamination, PDF Page 12 of 377:** The text indicates Gordon Aquifer (GA) well CMP010A was determined to be compromised after initial sampling indicated volatile organic compounds (VOCs) contamination above maximum contaminant levels (MCLs), and the well was ultimately replaced with well CMP010AR in July 2024; however, the text should clarify that CMP010AR has been sampled since installation and low detections of PCE at 1.53 micrograms per liter (µg/L) during the fourth quarter 2025 (4Q25) will require semi-annual monitoring for VOCs to continue through 2026 (see Section 2.2.2.2 (PCE and TCE) and Table 3 (CMP Pits OU Annual MNA Results, April 2025 through March 2026)). *Please revise the text to clarify that VOCs have been detected below the MCL at well CMP010AR since its installation, and monitoring will continue on a semi-annual schedule through 2026.*

2. **Section 1.4, Observed Hydrology at the CMP Pits OU, PDF Page 17 of 377 and Table 1, CMP Pits OU MNA Monitoring Network, PDF Page 119 of 377:** The second paragraph states that, "The newly installed shallow Pen Branch Wells (CMP-PB-##) [*sic*] screened between ~1 ft and 6.2 ft bgs [below ground surface] show slightly lower water elevations across all aquifer water elevations, although many of the other CMP monitoring wells are located extremely upslope of the stream, and Pen Branch is believed to mainly be a gaining stream as it rarely has no flow;" however, the text does not list the newly installed shallow Pen Branch wells. Section 2.2.2.2 indicates eleven shallow groundwater wells were installed below the Pen Branch stream bed in 2024 across six locations. Table 1 lists the Pen Branch wells, and Figure 5 depicts the location of these wells. *Please revise the text to list the newly installed Pen Branch wells and include references to Table 1 and Figure 5.*

3. **Section 2.2.2, Groundwater Sampling Results, Page 20 of 377:** The text indicates that compromised well CMP 50B was abandoned and replaced with well CMP 50BR in January 2026; however, Table 3 indicates the well is "to be abandoned" making it unclear if the well has been abandoned. *Please revise the EMR to clarify whether compromised well CMP 50B has been abandoned.*

4. **Section 2.2.2.2, PCE and TCE, Middle Aquifer Zone, Page 26 of 377:** The text states that both PCE and TCE were detected just above the MCLs at well CMP 41D; however, the TCE concentration at this well was just below the MCL. As shown on Figure 17 (2025 TCE Plume and Groundwater and Surface Water Results in the TZ and MAZ), the TCE concentration at CMP 41D was 4.32 µg/L, consistent with the result reported in Table 3. Also, the time series plot for TCE concentrations at CMP 41D shows the 2025 result just below the MCL (see PDF Page 261 of 377). *Please revise the text to indicate the TCE concentration at CMP 41D was just below the MCL.*

5. **Section 2.2.2.2, PCE and TCE, Pen Branch Shallow Wells, Page 30 of 377:** It is unclear whether reducing the sampling frequency at the newer Pen Branch shallow wells is appropriate. The text indicates the Pen Branch shallow wells will continue to be monitored semi-annually in 2026, then will be reduced to an annual sampling frequency. However, detections of PCE/TCE exceeded their respective MCLs in most wells sampled during the reporting period, as shown on Table 3. Also, the text indicates that sampling of these wells began in 4Q2024 which would result in approximately 2 years of semi-annual monitoring. Contaminant trends at these wells should be considered to support the change in sampling frequency. *Please revise the text to discuss the rationale for reducing the monitoring frequency at the Pen Branch shallow wells*

from semi-annual to annual sampling, and consider providing contaminant trends prior to implementation of the change in monitoring frequency to support the change.

6. **Figure 6, Regional Water Table and GA Potentiometric Surface, 2Q2025, PDF Page 33 of 377:** The figure does not illustrate groundwater flow to the south from the northern side of Pen Branch. As suggested in Section 1.4 (Observed Hydrology at the CMP Pits OU), groundwater in the vicinity of Pen Branch flows south towards Pen Branch on the northern side of the stream and the text states that "Figure 6 depicts the regional potentiometric surface of the UTRA [Upper Three Runs Aquifer] illustrating the groundwater flow from both sides of Pen Branch." However, this flow path is not depicted on Figure 6. Also, there is an undefined purple line perpendicular to the potentiometric surface contours, starting at the 220-foot contour to the tip of the groundwater flow arrow. *Please revise the figure to include the groundwater flow path (i.e., groundwater flow arrow) depicting flow to the south from the northern side of Pen Branch and define the purple line running perpendicular to the potentiometric surface contours.*

7. **Table 4, Table 4. CMP Pits OU PCE Max Results from 2008 and 2025 (µg/L), Page 126 of 377:** The table lists well CMP 15B as a Middle Aquifer Zone (MAZ) well; however, this well should be listed as a Lower Aquifer Zone (LAZ) well. *Please revise the table to reconcile the discrepancy with well CMP 15B.*