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February 21, 2024

ENVIRONMENTAL COMPLIANCE &

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AREA COMPLETION PROJECTS

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

Re: Effectiveness Monitoring Report (EMR) for the C-Area Groundwater (CAGW) Operable Unit (OU) Removal Action (U) – July 2022 through June 2023, SEMS Number: 82 (SRNS-RP-2023-00913, Revision 0, October 2023) received October 26, 2023.

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/DHEC 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: 2024.02.21 13:14:05 -05'00'

Susan B. Fulmer, P.G., Manager
Federal Remediation Section
Division of Site Assessment, Remediation, Revitalization
Bureau of Land and Waste Management

cc: C. L. Bergren, SRNS-ACP (Signed Original)
Travis Fuss, Aiken Environmental Affairs Office (via email)
Jon Richards, EPA Region IV
Heather Cathcart, BLWM

South Carolina Department of Health and Environmental Control Comments on:
Effectiveness Monitoring Report (EMR) for the C-Area Groundwater (CAGW) Operable Unit (OU) Removal Action (U) – July 2022 through June 2023, SEMS Number: 82 (SRNS-RP-2023-00913, Revision 0, October 2023) received October 26, 2023.

General Comments

1. CRW-1A and CRW-1D are identified in Table 4 as mid plume wells although they are located upgradient of Tritium and VOC source areas. CRW-1D is shown upgradient of the former source areas in Figure 2. The location of CRW-1A is not shown in any of the figures. Please consider revising how these wells are classified.

2. Some of the figure names and numbers are misaligned. There are two Figure 30s and two Figure 31s. Starting with Figure 10b, the figure names are misaligned until Figure 31. For example, Figure 10c, described in Section 3.4 of the text and in the List of Figures, references Former ERH-SVE TCE source area trends. In the figure section of the report, the figure number for the Former ERH-SVE TCE source area trends is Figure 12c.

Specific Comments

1. Section 3.1.2, CAGW OU Groundwater Monitoring Network, page 8. The first sentence of this section states that the CAGW OU monitoring network includes 62 monitoring stations, 48 of which are wells. Table 4 lists 63 monitoring stations in the CAGW OU network, including 49 wells. Additionally, the first sentence of the LAZ discussion in Section 3.4.2.1 states there are 11 CAGW OU wells screened in the LAZ; Table 4 lists 12. It appears that a monitoring well is not accounted for in the total mentioned in Section 3.1.2.

2. Section 3.2, Groundwater Elevation Measurements and Groundwater Flow Direction, page 8. It would be useful to include a table that has the depth to groundwater measurements and calculated groundwater elevations above mean sea level in addition to the potentiometric figures presented in Appendix E. Please include a table with this information in future reports.

3. Section 3.4, Groundwater and Surface Water Compliance, page 12. The second paragraph of the page reads "In 2Q23, CSB 15D and CSB020C groundwater TCE concentrations (37.6 µg/L and 40.2 µg/L, respectively) exceeded the TCE MCL (5 µg/L) (Figure 10b)." There is no Figure 10b attached to the report. Regardless of its presence, the title of Figure 10b, in the List of Figures, implies surface water trends. It is unlikely that groundwater results from CSB 15D and CSB020C would be included in this figure.

4. Section 3.4.1.9, BioTrap QuantArray-Chlor® Data, page 22. The second paragraph states "New well CRW029C had elevated levels of phenol hydroxylase, toluene monooxygenase, toluene monooxygenase 2, and detectable toluene dioxygenase, while new well CRW030C had elevated levels of phenol hydroxylase, toluene

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monooxygenase, and toluene monooxygenase 2 (Table 4)." Please clarify why Table 4 is referenced in this sentence.

5. Section 3.4.2.1, Trichloroethylene in the Lower Aquifer Zone (LAZ), page 24. The text states that there are 11 LAZ wells monitoring the CAGW OU. CSB013B and CSB13D are in the same cluster of wells and are both screened in the LAZ and both sampled during the November 2022 sampling event. CRW15D and CRW015B are in the same cluster of wells and are both screened in the LAZ and both sampled during the November 2022 sampling event. To clarify the specific zones that are being monitored, please include a table that identifies the screen intervals below land surface and above mean sea level for all monitoring wells in the CAGW OU. This table could be combined with the groundwater levels and groundwater elevation table that was requested in Specific Comment 2.

6. Section 3.4.2.1, Trichloroethylene in the Gordon Aquifer (GA) page 25. There are 10 Gordon aquifer wells, as stated in the text and included in Table 4. CRW 1A is identified as a Gordon Aquifer well that is to be sampled semi-annually. However, CRW 1A was not sampled during this reporting period, nor was a water level collected or a groundwater elevation reported on Figure E-4. In fact, Gordon Aquifer well CRW 1A is not depicted on any of the report map figures. There are no analytical results or groundwater elevation data associated with well CRW 1A in this report. Please discuss the absence of CRW-1A groundwater elevation data and analytical data.

7. Section 3.4.2.2 Tetrachloroethylene, page 25. The text states that the maximum 4Q22 PCE concentration was 1.92 ug/L from monitoring well CRW 10C. However, according to Table 3 and Table F-2, the maximum 4Q22 PCE concentration was 8.30 ug/L from monitoring well CRP 5C. While PCE remains a minor component of the CAQW OU VOC groundwater plume, it can no longer be said that PCE concentrations have not exceeded the MCL of 5 ug/L at any CAGW OU monitoring station since 2006.

8. Figure 4, CAGW OU NTC RA Area (4Q2022), page 37. Figure 4 depicts CAGW OU NTC RA monitoring station results from 4Q22. CSB020B, CSB020D, CRW 13A, CSB-15B, and CSL001 are not part of the NTC monitoring network, were not sampled in 4Q22, and should not be included in this figure. Furthermore, CSB020B and CSB020D were not sampled during the sampling period detailed in this report although they are identified in Table 4 as CAGW OU monitoring wells that are scheduled to be sampled annually. Please consider revising Figure 4 to only include CAGW OU NTC RA results and discuss why CSB020B and CSB020D were not sampled during this reporting period.

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9. Figure E-1, November 2022 Potentiometric Contours for the Upper Aquifer Zone (UAZ), page E-3. Figure E-1 depicts November 2022 Potentiometric Contours for the Upper Aquifer Zone. The figure includes groundwater elevation contours but not the associated elevations that the contours represent. Please add numbers next to the contour lines indicating the groundwater elevations represented.