**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960



October 28, 2019

Mr. Brian T. Hennessey, 730-B
SRS Remedial Project Manager
Area Completion Project
U.S. Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802

RE: **EPA comments on the R-Area Groundwater (NBN) Biennial Effectiveness Monitoring Report in Support of R Area Operable Unit (U), January 2017 through December 2018, SEMS Number: 95, SRNS-RP-2019-00267, Revision 0, June 2019, Savannah River Site NPL Site, South Carolina**

Dear Mr. Hennessey,

The U.S. Environmental Protection Agency, Region 4 (EPA), has reviewed R-Area Groundwater (NBN) Biennial Effectiveness Monitoring Report in Support of R Area Operable Unit (U), January 2017 through December 2018, SEMS Number: 95, SRNS-RP-2019-00267, Revision 0, June 2019. EPA comments are attached.

If you have any questions or require additional information, please contact me at (404) 562-8447.

Sincerely,

CRAIG VANTREES

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Date: 2019.10.28 14:16:16 -04'00'

Craig VanTrees
Remedial Project Manager
Superfund Division

ec: C.L. Bergren, SRNS-ACP
Susan Fulmer, SCDHEC

**EPA comments on the R-Area Groundwater (NBN) Biennial Effectiveness Monitoring Report in Support of R Area Operable Unit (U), January 2017 through December 2018, SEMS Number: 95, SRNS-RP-2019-00267, Revision 0, June 2019, Savannah River Site NPL Site, South Carolina**

## TECHNICAL REVIEW COMMENTS

1. In section 3 on page 6, the text states well RDB 2D will be an auxiliary ISD monitoring well during the five year time period (i.e., 2018 through 2022). However, the EMR does not discuss or state what conditions would warrant the sampling of auxiliary ISD monitoring well RDB-2D. As such, the purpose of the auxiliary well is not clear. Additionally, this well is not depicted in Figure 4 (ISD Monitoring Wells 5-Yrs). Revise the R-Area Groundwater (NBN) Biennial Effectiveness Monitoring Report in Support of R-Area Operable Unit (U), January 2017 through December 2018, SEMS Number: 95, SRNS-RP-2019-00267, Revision 0, dated June 2019 (EMR) to address this issue to ensure the purpose and location of auxiliary well RDB-2D is clearly documented.

2. The EMR indicates Mill Creek surface water station MCSW-03 was not sampled due to dry conditions in 2017. The EMR also indicates two surface water locations, PASL-01 and PASL-02 along Pond A, were also not sampled in 2017 and 2018 due to dry conditions at these locations. It is noted that text in Section 3.3 (Groundwater Flow Direction) states the rainfall measured during 2017 and 2018 was 54.41 inches (in) and 55.37 in, respectively, greater than the 30 year average (1986-2016) of 46.6 in/year. As such, it is not clear if the current locations of surface water stations MCSW-03, PASL-01 and PASL-02 remain appropriate to adequately monitor plume(s) migration, or if they should be relocated considering these locations were dry during years with greater than average annual rainfall. Revise the EMR to address this issue to ensure the surface water monitoring stations are appropriately located.

3. Section 5.1.1 (Eastern VOC Plume) states, "Based on the 2017 and 2018 monitoring data, monitored natural attenuation (MNA) continues to be an effective remedy for the RAGW Eastern VOC Plume. The key source area well RWT003C and all plume definition wells except for RAG008B show decreasing VOC trends." It is noted the trichloroethylene (TCE) trend in RAG008B as illustrated in Figure 12 (RAGW Easter VOC Plume Wells) indicates increasing TCE trend in lower aquifer zone (LAZ) well RAG008B. The most recent TCE concentration in RAG008B is 22.1 micrograms per liter (µg/L). Currently, it is not clear if the increasing TCE trend indicates vertical plume migration. Additionally, the vertical extent of dissolved TCE contamination within the Eastern VOC Plume is poorly defined at RAG008B. Revise the EMR to address this issue to ensure MNA is effectively mitigating vertical TCE plume migration considering the vertical extent of TCE contamination is poorly defined in the Eastern volatile organic compound (VOC) Plume at RAG008B.

4. The text in Section 5.2 (ISD Conclusions) states the 2017 increase in tritium and carbon-14 at well RDB 3D may be due to mobilization of a small shallow legacy spill near the disassembly basin, related to the recent high-water table levels. The EMR also notes that greater than average rainfall was measured at the Savannah River Site during 2017 and 2018. As such, it is recommended the annual monitoring event be scheduled during seasons of high rainfall when high water table conditions exists to ensure representative

groundwater samples are collected to monitor potential source mobilization near the disassembly basin.

5. Table 2 (RCOC Maximum Results for 2018 by Plume) incorrectly reports the maximum contaminant level (MCL) for TCE for well RAG008B in the Eastern VOC Plume as 70 micrograms per liter (µg/L). The MCL for TCE is 5 µg/L. Revise the table accordingly to address this issue.