



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

August 22, 2022

ENVIRONMENTAL COMPLIANCE &

AUG 22 2022

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

AREA COMPLETION PROJECTS

EPA comments on the 2021 Groundwater Mixing Zone Report for the R-Area Reactor Seepage Basins/108-4R Overflow Basin Operable Unit, SEMS Number: 25 [SRNS-RP-2022-00212], REVISION 0, dated June 2022

Dear Mr. Hennessey:

The U.S. Environmental Protection Agency, Region 4 (EPA), has reviewed this 2021 report for the R Area GWMZ RSB, OU25.
EPA has attached the comments below:

If you have any questions or require additional information, please contact me at (404) 562-8648.

Sincerely,

JON
RICHARDS

Digitally signed by
JON RICHARDS
Date: 2022.08.22
17:00:38 -04'00'

Jon Richards
FFA Remedial Project Manager
Superfund & Emergency Management
Division

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

GENERAL COMMENTS

1. It is unclear how restoration of contaminated groundwater will be attained if contaminant concentrations in auxiliary wells exceed applicable maximum contaminant levels (MCLs). For example, the Report discusses one sample exceeded the Strontium-90 (Sr-90) MCL of 8 picocuries per liter (pCi/L) in auxiliary well RPC 11DU; however, the Report also states the auxiliary wells are monitored for information only and the results are not compared to established groundwater mixing zone concentration limits (MZCLs) or MCLs. *Please revise the Report to address this issue by clarifying how complete restoration of groundwater for beneficial use will be attained.*
2. Based on the Figure B-2 (Groundwater Mixing Zone Boundary and Monitoring Well Network) and Figure B-6 (Potentiometric Surface in the Transmissive Zone [1Q2022]), it is unclear if the current monitoring well network is sufficient to monitor potential migration of Sr-90 contamination to the northwest along a flow path from A/AA Horizon wells RPC 11DU and RSE 1A (auxiliary wells with historical and current exceedances). There are currently two boundary wells, RSE034D and RSE032D, located northwest of RSE 1A; however, the boundary wells are separated by over 1,000 feet and no wells are installed between them to monitor this potential migration pathway. *Please revise the Report to address this issue to ensure the monitoring well network is sufficient to monitor this potential migration pathway to the northwest of RSE 1A.*

SPECIFIC COMMENTS

1. **Section 3.3.1, Recharge and Precipitation Measurements, Page 13 of 22 and Appendix B, Figure B-8, Monthly Rainfall Measurements at SRS during 2021 Compared with the 30-year Average, Page B-9 of B-10:** Both the text and the graph compare 2021 precipitation data to historical averages but do not include relevant precipitation data for the re-sampling event in the first quarter of 2022. In addition, it is not discussed whether sampling in the first quarter of the year would be expected to impact results due to seasonal patterns of water availability. *Please revise the Report to include precipitation data through the first quarter 2022 sampling event and provide a discussion as to whether this may impact the expected results.*
2. **Appendix C, Time Series Plot, Pages C-7 and C-9 of C-24:** The plume/intermediate well graphs in Appendix C (RSD002DL, RSD002DU, RSE 10DU, and RSE010DL) do not include a horizontal line identifying the mixing zone concentration limit (MZCL). Section 1.3 (Groundwater Mixing Zone Compliance, Page 4 of 22) states, “The purpose of the plume/intermediate wells is to verify that the contaminants do not exceed MZCLs”, however, a horizontal line identifying the respective MZCL value is not included on the graphs for the noted plume/intermediate wells. Concentration limits that are used to determine courses of action should be included on the noted graphs. *Please revise the graphs to include a the MZCL limit line for the noted wells.*