



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

July 8, 2022

ENVIRONMENTAL COMPLIANCE &

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
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JUL - 8 2022

AREA COMPLETION PROJECTS

EPA Review of the Remedial Action Implementation Plan for the Lower Three Runs Integrator Operable Unit Upper Subunit (U), SEMS Number: 35, SRNS-RP-2022-00011, Revision 0, March 2022

Dear Mr. Hennessey,

The U.S. Environmental Protection Agency, Region 4 (EPA), has received and reviewed the Review of the Remedial Action Implementation Plan for the Lower Three Runs Integrator Operable Unit Upper Subunit (U), SEMS Number: 35, SRNS-RP-2022-00011, Revision 0, March 2022, Savannah River Site, Aiken, South Carolina. EPA's comments are enclosed. EPA looks forward to continuing to work with DOE and SCDHEC to implement the remedy for the Lower Three Runs Integrator Operable Unit (OU 35). If you have any questions or require additional information, please contact me at (404) 562-8506.

Sincerely,

ROBERT POPE

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Robert H. Pope, GS-14
Senior Remedial Project Manager
Superfund and Emergency
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cc: C.L. Bergren, SRNS-ACP
Susan Fulmer, SCDHEC

**REVIEW OF THE
REMEDIAL ACTION IMPLEMENTATION PLAN FOR THE LOWER THREE RUNS
INTEGRATOR OPERABLE UNIT UPPER SUBUNIT (U)**

**SEMS NUMBER: 35
SRNS-RP-2022-00011, REVISION 0
MARCH 2022**

**SAVANNAH RIVER SITE
AIKEN, SOUTH CAROLINA**

GENERAL COMMENTS

1. Except for the identification of Pond A on Figure B4 (Sampling Results from Locations within R-Area Discharge Canal, Page B-22 of B-28) of Appendix B [Field Sampling Plan (FSP) for Field Sampling Plan [sic] for Pre and Post PTSM Excavation for the R-Area Discharge Canal of Exposure Area 1 (EA1)], the location of Pond A included in exposure area (EA) 1 and Pond 2 included in EA7 are not identified on any figure prepared for the RAIP. Furthermore, the location of Pond A is misidentified on Figure 4 (Sample Locations that Exceed the Cleanup Levels in the Upper Subunit of the LTR IOU, Page 30 of 42) as being included in EA7. Please revise the figures as appropriate so the location of Pond A is clearly identified in EA1, as well as the location of Pond 2 in EA7.
2. There is a discrepancy between the cesium (Cs)-137 data presented on Figure 7 (PTSM Location for EA1 in the Upper Subunit of the LTR IOU, Page 33 of 42) and the Cs-137 data presented on Figure B4 (Sampling Results from Locations within R-Area Discharge Canal, Page B-22 of B-28) of Appendix B [Field Sampling Plan (FSP) for Field Sampling Plan [sic] for Pre and Post PTSM Excavation for the R-Area Discharge Canal of Exposure Area 1 (EA1)]. As such, the data sets used for the principal threat source material (PTSM) characterization are unclear. For example, the text box on Figure 7 showing the location of PTSM indicates four results were greater than 400 picocuries per gram (pCi/g) with 2013 being the highest most recently. However, on Figure B4, the text box "Exceeds PTSM" indicates seven results were greater than 400 pCi/g with the most recent result of 526.183 pCi/g on 1/1/2017. Furthermore, Figure 7 shows sample LTROU-01 with a detection of 2.13 pCi/g located and adjacent to the PTSM; however, on Figure B4, the location of the 2.13 pCi/g result is depicted further to the south along the first transect line. Please revise the RAIP as appropriate to address the discrepancy in the reported data results between Figure 7 and Figure B4.
3. It is unclear whether there is a minimum surface water level elevation in feet relative to mean sea level that will be required for the selected remedy for EA3 (Pond B) and EA6 (PAR Pond) to maintain water levels in Pond B, PAR Pond, and Pond C. The RAIP states water levels need to be maintained to reduce exposure and mitigate sediment/soil migration; however, a minimum water level elevation is not defined to ensure the locations of the sediment/soil preliminary remediation goal (PRG) exceedances shown on Figure 4 (Sample Locations that Exceed the Cleanup Levels in the Upper Subunit of the LTR IOU, Page 30 of 42) are not exposed and remain covered. Please revise the text to state the minimum water level elevation that needs to be maintained in Pond B and PAR Pond to ensure exposure is reduced and sediment/soil migration is mitigated.

SPECIFIC COMMENTS

- 1. Section 1.5.1, LUCs with MNR, Page 9 of 42:** It is unclear whether more robust land use controls (LUCs), including extra signage and/or fencing, will be applied to EA3 due to the two PTSM locations. For example, the text states that to address the PTSM in two locations in EA5, more robust LUCs will be applied in the form of additional signage along the bank near the PTSM locations and the installation of barrier gates across roads leading to the two PTSM locations. However, the text does not discuss if more robust LUCs will also be implemented for the two PTSM locations in EA3. Please revise the text to state if more robust LUCs, including, but not limited to, additional signage and fencing, will be applied at EA3 to prevent exposure to PTSM sediment/soil, or explain why implementation of additional LUCs are not necessary in EA3 to be protective.
- 2. Section 2.5, Design Criteria, Page 15 of 42:** Surface water management, including testing requirements for disposal, during remedial action implementation is not clearly defined in Section 2.5. For example, the text does not discuss if there are any testing requirements for surface water disposal if dewatering the limits of excavation (LOE) is performed instead of mechanical dredging. As another example, the text states for mechanical dredging the water will be allowed to drain from the specialized equipment by pausing with the bucket just above the water surface; however, it is unclear whether the water will be allowed to drain back into the LOE. Finally, the text states the design criteria will include efforts to reduce the amount of water that is removed from the canal; however, the controls that will be used to reduce the amount of water removed from the canal are not defined. Please revise the text to discuss the management of surface water and whether there are any testing requirements for disposal during the remedial action implementation.
- 3. Figure 4, Sample Locations that Exceed the Cleanup Levels in the Upper Subunit of the LTR IOU, Page 30 of 42:** The figure identifies Pond A as included in EA7; however, Pond A is the surface water body included in EA1 and Pond 2 is the surface water body included in EA7. Please revise the figure to identify the correct locations of Pond A and Pond 2.
- 4. Figure 5, PTSM Locations for the Upper Subunit of the LTR IOU, Page 32 of 42:** The PTSM location in EA1 shown on Figure 5 is the previously mis-plotted and incorrect R-1, Downstream of R-Area location; however, this fact is not reflected in the figure legend. Please revise the Figure 5 legend to clarify the PTSM location shown on the figure is the previously depicted mis-plotted location R-1, Downstream of R-Area.
- 5. Figure 7, PTSM Location for EA1 in the Upper Subunit of the LTR IOU, Page 33 of 42:** The figure shows green squares for the locations where sediment/soil and surface water samples were collected north of the discharge canal; however, no blue shading is illustrated to indicate the presence of a surface water body (i.e., Pond A). Please revise the figure to include the blue shading to indicate the presence of a surface water body (i.e., Pond A) north of the discharge canal.
- 6. Figure 7, PTSM Location for EA1 in the Upper Subunit of the LTR IOU, Page 33 of 42:** The figure does not depict the locations of existing wells RPC-12DU and RPC-12C that are installed near the PTSM excavation area in EA1. In Attachment 1-3 (Preliminary Design Sketch for Excavation of PTSM Sediments, Page Att1-5 of Att1-6) of Appendix B [Field Sampling Plan (FSP) for Field Sampling Plan [sic] for Pre and Post PTSM Excavation for the R-Area Discharge Canal of Exposure Area 1 (EA1)], existing wells RPC-12DU and RPC-12DL are shown installed to the east of the access road and proposed PTSM excavation area. Please revise Figure 7 to include the locations of existing monitoring wells RPC-12DU and PPC-12DL.

7. **Figure B4, Sampling Results from Locations within R-Area Discharge Canal, Appendix B, Page B-22 of B-28:** According to Figure B4, sediment/soil samples were collected on 1/1/2017 for Cs-137 analysis with results reported on the figure; however, the 2017 sampling event is not discussed in the RAIP, and it is unclear how this data set relates to the PTSM characterization. Please revise the RAIP to address this issue by clarifying the use of the 2017 data set for PTSM characterization.

8. **Table B2, Data Quality Objectives Worksheet for Sediment/Soil Media, Appendix B, Page B-25 of B-28:** The Pathway (Media) identified in Table B2 is sediment only; however, the selected remedial action is for excavation, treatment and disposal of PTSM sediment/soil. Please revise Table B2 to address this issue.