



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

July 24, 2020

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



EPA Comments on the Proposed Plan for the Lower Three Runs Integrator Operable Unit (IOU) (U), SEMS Number 35, [SRNS-RP-2019-00058], Revision 0, April 2020, Savannah River Site, Aiken, South Carolina

Dear Mr. Hennessey,

The U.S. Environmental Protection Agency, Region 4 (EPA), has reviewed the Proposed Plan for Lower Three Runs OU, Revision 0, April 2020. EPA's comments are enclosed. Please address all comments and revise the document.

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

Sincerely,

**ROBERT
POPE**

Digitally signed by
ROBERT POPE
Date: 2020.07.24 11:14:05
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Robert H. Pope, GS-14
Senior Remedial Project Manager
Superfund and Emergency
Management Division

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

**EPA REVIEW OF THE
PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE
UNIT (IOU) (U), SEMS NUMBER 35, [SRNS-RP-2019-00058], REVISION 0, APRIL 2020,
SAVANNAH RIVER SITE, AIKEN, SOUTH CAROLINA**

EPA COMMENTS

1. Pages 1 and 2, Introduction. Please describe the actions to be taken for each individual Exposure Area (EA) first before describing the remedy of Land Use Controls and Monitored Natural Recovery for all EAs.
2. Page 2, EA 1 bullet. Please delete the word “single”
3. Page 4, Operable Unit Background. Please add a brief statement regarding the Removal Action completed and reference the Action Memorandum and the Removal Action Report in the text.
4. Page 5. In the discussion regarding sampling, please add a statement regarding the additional sampling done in accordance with the 2016 SAP.
5. Page 7, EA5. Please add a statement regarding the accessibility of the area of Joyce Branch.
6. Page 8, Summary of Site Risks. A brief description of the conceptual site model is needed in the section. The pathway of contaminated sediment to benthic organisms to pelagic fish to fisherperson should be described in the section.
7. Page 13, ARARs. Please delete the reference to Table 2. Please add language stating that draft ARARs are presented in the Feasibility Study and that final ARARs will be selected and presented in the Record of Decision (ROD).
8. Description and Comparison of Alternatives. Please add language regard Alternative A-6 to clearly state that the alternative is not to address surface water contamination but is instead to continue to break the direct contact pathway to the contaminated sediments.
9. Table 2, Page 33. Please remove the ARARs table. Final ARARs should be presented in the ROD. EPA may comment on or request additional ARARs during the review of the ROD. However, ARARs are not required to be included in the Proposed Plan and are not finalized until the ROD is signed by all three parties to the Federal Facilities Agreement.

COMMENTS PROVIDED BY THE EPA OFFICE OF REGIONAL COUNSEL

1. Page 4 of 44. III. OPERABLE UNIT BACKGROUND. Please add the following underlined text clarifying what is meant by “designated as freshwater.”: “LTR is a large

blackwater stream containing ponds and tributary systems that are waters of the state classified as fresh water (FW).”

2. Page 8 of 44. Text states: “The risk to the IOU onsite worker from Cs-137 (Exposure Point Concentration [EPC] = 148 pCi/g) is 8.2E-04 (decay corrected to 6.4E-04). The risk to the IOU onsite worker from Co-60 is 1.7E-06 (decay corrected to <1E-06).” What is EPC value for Co-60? Suggest adding explanation of “Exposure Point Concentration” to either the body of the proposed plan or glossary to aid public in understanding the term. As an example, the following is an explanation of EPC described in a ROD for another Site: “In the HHRA, the EPA uses a concentration for each COPC to calculate the risk. This concentration, called the exposure point concentration, is a statistically-derived number based on the sampling data for the Site. Generally, the 95 percent upper confidence limit (UCL) on the arithmetic mean concentration for a chemical is used as the exposure point concentration. Exposure point concentrations for each exposure medium are shown in Table 15.”
3. Page 9 of 44. Text states in multiple places that the PTSM threshold is risk $\geq 1E-03$. Please explain basis for the PTSM threshold or how it was derived. Recommend adding to glossary the following explanation of “Principal Threat Source Material” to aid public in understanding the term: “The NCP establishes an expectation that the remedial action use treatment to address the principal threats posed by a Site wherever practicable (40 CFR §300.430(a)(1)(iii)(A)). Identifying principal threat wastes combines concepts of both hazard and risk. In general, principal threat wastes are those source materials considered to be highly toxic or highly mobile which generally cannot be contained in a reliable manner or would present a significant risk to human health or the environment should exposure occur. Conversely, non-principal threat wastes are those source materials that generally can be reliably contained and that would present only a low risk in the event of exposure.”
4. Page 9 of 44. Regarding EA3, the text states: “Based on results of the PTSM screening for EA3 and the subsequent refinement/uncertainty evaluation, there are no PTSM RCOCs identified for EA3. However, two locations (Figure 3) had sample results above the PTSM threshold (i.e., risk $\geq 1E-03$) for the IOU onsite worker and were conservatively taken into consideration for the remedial alternative evaluation.” To the public, the target audience of the proposed plan, these two statements appear to contradict one another and should be further explained or clarified. If sample results indicate PTSM above threshold levels is present in one or more locations, then provide explanation why DOE concluded no PTSM RCOCs have been identified for EA3?
5. Page 9 of 44. Regarding EA5, the text states: “Based on results of the PTSM screening for EA5 and the subsequent refinement/uncertainty evaluation, there are no PTSM RCOCs identified for EA5. However, two locations (Figure 3) had sample results above the PTSM threshold (i.e., risk $\geq 1E-03$) for the IOU onsite worker and were

conservatively taken into consideration for the remedial alternative evaluation.” Same as previous comment. Please clarify. If sample results indicate PTSM above threshold is present, then why has DOE concluded no PTSM RCOCs have been identified for EA3?

6. Page 11 of 44. Conclusion section. The text states: “No PTSM RCOCs are identified for any EA within the LTR IOU. However, EA1, EA3, and EA5 had specific locations where Cs-137 levels were above the PTSM threshold (i.e., risk $\geq 1E-03$) and were taken into consideration for the remedial alternative evaluation.” Same as previous comment. Please clarify. If sample results indicate PTSM above threshold is present, then why has DOE concluded no PTSM RCOCs have been identified for EA3?
7. Page 18 of 44. Evaluation of alternatives states that: “Alternative A-2 would prevent human exposure to all contaminated sediment/soil. Contaminated sediment/soil would be left in place, but exposure pathways would be broken.” LUCs discussion states that signs, worker protection programs, and deed restrictions would be implemented in the EAs. Evaluation of alternatives should be clear that while LUC measures may mitigate human exposure they do not prevent exposure. In addition, evaluation should note that alternative A-2 does not reduce bioavailability of COCs to eco-receptors, including fish that may be consumed by humans. Alternative A-2, absent conjunction with other remedial measures, does not break all exposure pathways.
8. Page 16 of 44. Please indicate whether E-Area Low Level Waste Facility [LLWF]) is an NRC licensed facility under DHEC authority or done under DOE order authority.