



November 28, 2018

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



Re: Human Health and Ecological Evaluation for Confirmation Sampling at the 488-1D Ash Basin and Inlet Basins (U), SEMS Number: 63 (ERD-EN-2018-0007, Revision 0, October 2018) received October 4, 2018.

Dear Mr. Hennessey:

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, 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:**  
Human Health and Ecological Evaluation for Confirmation Sampling at the 488-1D Ash Basin  
and Inlet Basins (U), SEMS Number: 63 (ERD-EN-2018-0007, Revision 0, October 2018)  
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General Comments

Specific Comments

1. Section 2.2 Ecological, page 2, and Table 2. The screening value for the Ecological Thresholds (ECO TLs) used in this document is taken from the Los Alamos National Laboratory (LANL) ECO Risk Database low-effects screening level for soil media (LANL, 2015). The values from this LANL document are quite different with the ECO TLs used for the previous ecological evaluation for the 488-2D Ash Basin or the 489-D CPRB. For ecological evaluation for confirmation sampling at the 488-2D Ash Basin, the lowest observed adverse effects level (LOAEL)-based ECO TLs for sediment and soil were used as the screening values for aquatic and terrestrial receptors, respectively, which are more stringent than the LANL screening values, especially for Aluminum, Arsenic, Chromium, and Hexavalent Chromium. Therefore, if the LOAEL-based TLs were applied to the 488-1D Ash Basin evaluation, the maximum detected concentrations for these constituents would exceed the ECO TL (Note that Aluminum even exceeds the maximum SRS background concentration at several sampling locations). Please address why the source for the ECO TLs has been changed in this document and confirm that the LANL ECO TLs are the most appropriate values for use in the ecological evaluation and to support risk management decision making.
2. Section 4.3.2 Hexavalent Chromium, page 8. The last paragraph discusses the differences in results using EPA Method 7196A and Method 7199. Please consider the following revision for the last two sentences for clarity and correction: "A comparison of results for both methods by sample location are reported in Table 9. Table 10 is a data summary comparison of both methods that include minimum, maximum and mean concentrations. Mean values reported in Table 10 for Method 7196A use a surrogate of one-half the sample-specific detection limit for non-detects. Statistical input/output using EPA ProUCL software for Method 7196A are in Appendix B and the mean calculation is in Appendix D. Method 7199 did not yield non-detects and all results used as reported. Statistical input/output using EPA ProUCL software for Method 7199 are in Appendix D."

Furthermore, please identify on the statistical test output page used for Cr+6 in Appendix B, page B-4, as results from Method 7196A for completeness.

3. Section 5.3.2 Hexavalent Chromium, page 13, third paragraph. Like the specific comment above, please consider the following revision beginning with the second sentence: "A comparison of results for both methods by sample location are reported in Table 16. Table 17 is a data summary comparison of both methods that include minimum, maximum and mean concentrations. Mean values reported in Table 17 for Method 7196A use a surrogate of one-half the sample-specific detection

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limit for non-detects. Statistical input/output using EPA ProUCL software for both methods and the mean calculation for Method 7196A is in Appendix H. Method 7199 did not yield non-detects and all results used as reported."