



**Department of Energy**  
 Savannah River Operations Office  
 P.O. Box A  
 Aiken, South Carolina 29802

NOV - 8 2021

Ms. Susan B. Fulmer, P. G., Manager  
 Federal Remediation Section  
 Division of Site Assessment, Remediation and Revitalization  
 Bureau of Land and Waste Management  
 South Carolina Department of Health and Environmental Control  
 2600 Bull Street  
 Columbia, South Carolina 29201

Mr. Jon Richards  
 Savannah River Site Remedial Project Manager  
 Superfund Division  
 U. S. Environmental Protection Agency, Region 4  
 61 Forsyth Street, SW  
 Atlanta, Georgia 30303

Dear Ms. Fulmer and Mr. Richards:

**SUBJECT:** Savannah River Site's Responses to the Regulatory Comments on the Performance Evaluation Report for the A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) and the Miscellaneous Chemical Basin/Metals Burning Pit (731-4A, -5A) Operable Unit - January through December 2020 (U) (SRNS-RP-2021-00584, Revision 0, May 2021) SEMS Number: 28

In accordance with the terms of the Federal Facility Agreement, the U.S. Department of Energy (DOE) is submitting the subject comment responses for your review and approval. The U.S. Environmental Protection Agency (EPA) provided comments on August 5, 2021 and the South Carolina Department of Health and Environmental Control (SCDHEC) provided conditional approval of the report on September 8, 2021. This performance evaluation report (PER) will not be revised; however, all comment responses will be included in the next scheduled PER, as applicable. Please review these responses and provide your approval within thirty (30) days from receipt. The time and effort that the SCDHEC and the EPA have given on the subject operable unit are greatly appreciated.

Questions from you or your staff may be directed to me at (803) 952-8365, or the DOE Federal Project Director, Ms. Karen Adams, at (803) 952-7871.

Sincerely, **Brian T. Hennessey**  
 Digitally signed by  
 Brian T. Hennessey  
 Date: 2021.11.02  
 22:19:41 -04'00'

Brian T. Hennessey  
 SRS Remedial Project Manager  
 Infrastructure and Area Completion Division

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Ms. Susan Fulmer  
Mr. Jon Richards

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Enclosures:

1. SRS Responses to the U. S. Environmental Protection Agency's Comments on the Performance Evaluation Report for the A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) and the Miscellaneous Chemical Basin/Metals Burning Pit (731-4A, -5A) Operable Unit - January through December 2020 (SRNS-RP-2021-00584, Revision 0, May 2021) SEMS Number: 28
2. SRS Response to the SCDHEC Comment on the Performance Evaluation Report for the A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) and the Miscellaneous Chemical Basin/Metals Burning Pit (731-4A, -5A) Operable Unit - January through December 2020 (SRNS-RP-2021-00584, Revision 0, May 2021) SEMS Number: 28

cc w/o encl:

J. Blalock, SCDHEC-Columbia  
S. French, SCDHEC-Columbia  
M. Reece, SCDHEC-Columbia  
G. K. Taylor, SCDHEC-Columbia  
T. R. Fuss, SCDHEC – Aiken Environmental Affairs Office  
G. O'Quinn, SCDHEC - Aiken Environmental Affairs Office  
B. Cameron, SCDHEC–Aiken Environmental Affairs Office  
K. L. Beatty, SCDHEC–Aiken Environmental Affairs Office  
H. L. Herlong, SCDHEC-Aiken Environmental Affairs Office  
R. H. Pope, EPA-Atlanta

cc w/encl:

M. McRae, TechLaw, Inc.

SRS Responses to  
South Carolina Department of Health and Environmental Control Comments on:  
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GENERAL COMMENTS

1. The Section 4.3, Overall Recommendations, pages 10 and 11. The Department agrees with the recommendation to perform soil sampling to evaluate the current soil concentrations against the remedial goals (RGs) and looks forward to reviewing the Sampling and Analysis Plan in FY22. However, until these sampling results have been discussed with the Core Team and it has been agreed that the RGs have been met, Performance Evaluation Reports must continue to be submitted annually.

**Response: Agree. Section 4.3 last paragraph text will be revised in the next PER submittal similar to the following:**

**“It is the project’s recommendation to perform confirmation soil sampling at ABRP/MCB to evaluate the current soil concentrations against the RGs with the intent to justify shutting down the PSVE. A Sampling Analysis Plan will be developed and submitted for Core Team approval in FY23. Upon approval, soil sampling will be performed in FY24. Upon completion of the sampling, a Core Team meeting will be convened to discuss the results of the sampling in context to the RGOs. Annual performance reviews will continue until the Core Team reaches agreement that the RGs have been met.”**

**Responsible Party: Eric Schiefer, (803)952-6273, eric.schiefer@srs.gov**

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**GENERAL COMMENT**

1. The Performance Evaluation Report for the A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) and the Miscellaneous Chemical Basin/Metals Burning Pit (731-4A, -5A) (the PER) indicates the soil-gas vapor samples have remained at very low (near the laboratory detection limits) asymptotic levels indicating volatile organic compounds (VOCs) are no longer productively being removed and VOCs are nearly depleted. However, this statement does not recognize the increasing soil-gas concentration trend in A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) (ABRP) well ASH-06. According to Table 4, ABRP MicroBlowers™ Well Exhaust Gas TCE Results, Page 29 of 46, Trench Subunit well ASH-06, trichloroethene (TCE) soil-gas concentrations have been increasing since the conversion of the well from active soil vapor extraction (ASVE) to passive SVE (PSVE) in last quarter of 2018 when the well was equipped with a MicroBlower™. As such, it is not clear how the increasing TCE soil-gas trends impact the current recommendation to perform confirmation soil sampling at ABRP/Miscellaneous Chemical Basin (MCB) to evaluate the current soil concentrations against the remedial goals (RGs) with the intent to justify shutting down the PSVE. *Please revise the PER to address this issue to ensure any increasing soil-gas trends are adequately evaluated in order to demonstrate progress towards meeting the soil RGs.*

**Response: Clarification.** Although the soil-gas data from Well ASH-06 shows a slight increase in VOCs over the last several 2020 sampling events, it is believed that the measured concentrations indicate more of a local effect of a diffusion removal rate and do not indicate a significant pocket of subsurface VOCs, especially when considering the overall operable unit. Sampling results in the first three quarters of 2021 for Well ASH-06 were 0.0169 ppmV, 0.0841 ppmV, and 0.0099 ppmV, consistent with asymptomatic levels. Soil-gas data will continue to be collected and evaluated for any increasing trends. Since the RG is based on a soil concentration as documented in the IROD and not a vapor concentration, soil sampling data should continue to be the evidence necessary to cease operation of the PSVE.

**The 2021 soil-gas data will be reported in the next PER. No change to the current PER is proposed.**

**Responsible Party: Eric Schiefer, (803)952-6273, [eric.schiefer@srs.gov](mailto:eric.schiefer@srs.gov)**

**SPECIFIC COMMENTS**

1. **Section 1.1 ABRP Area Subunits, Page 1 of 46 and Section 2.1.2, Historical Information, Page 4 of 46:** The text does not clearly state the A-Area Ash Pile (788-2A) is one of the subunits located in

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the ABRP area. For example, the text states the Trench Subunit is located beneath the A-Area Ash Pile (788-2A). Additionally, the A-Area Ash Pile is not identified as a subunit of the ABRP Area in Section 2.1.2. *Please revise the text to state the A-area Ash Pile (788-2A) is a subunit of the ABRP Area.*

**Response: Agree. PER Section 1.1 ABRP Area Subunits specifically provides the historical information of the remedial actions (RAs) conducted at the Trench Subunit. Therefore, 788-2A Ash Pile Subunit was not included in Section 1.0. Along with all other subunits, 788-2A Ash Pile Subunit historical cleanup activities or RAs is addressed in Table 1.**

**Section 1.1 first sentence will be revised in the next PER submittal to discuss the ABRP Subunit similar to the following:**

**“The Trench Subunit (outlined in blue on Figure 2), located beneath the A-Area Ash Pile Subunit (788-2A), has been identified as a source for volatile organic compound (VOC) contamination...”**

**Section 2.1.2 first paragraph will be revised in the next PER submittal to discuss the ABRP Subunit similar to the following:**

**“...The approved ROD for the ABRP/MCB/MBP OU (WSRC 2007) selected phased SVE as the RA for the Trench Subunit vadose zone and a soil cover as the RA for the A-Area Ash Pile Subunit (788-2A).”**

**Responsible Party: Eric Schiefer, (803)952-6273, [eric.schiefer@srs.gov](mailto:eric.schiefer@srs.gov)**

2. **Section 2.2.4, PSVE Results, Page 8 of 46:** The last sentence indicates wells near the dilute edge of the plume at the MCB Vadose Zone Subunit produce very little contaminant removal, as indicated by sampling. However, a plume map depicting the locations of the wells near the dilute edge of the plume is not provided in the PER. As such, their locations relative to the dilute plume edge is not known. *Please revise the PER to include a map depicting the wells near the edge of the dilute plume.*

**Response: Agree. Section 2.2.4 last sentence will be revised in the next PER submittal to identify the wells near the dilute edge of the plume at the MCB Vadose Zone Subunit and reference the map in Figure 4 similar to the following:**

**“Wells (e.g., MCSV-5, -8, -9, -11, -15, -23) near the dilute edge of the plume produce**

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very little contaminant removal, as indicated by sampling. See Figure 4 for well locations.”

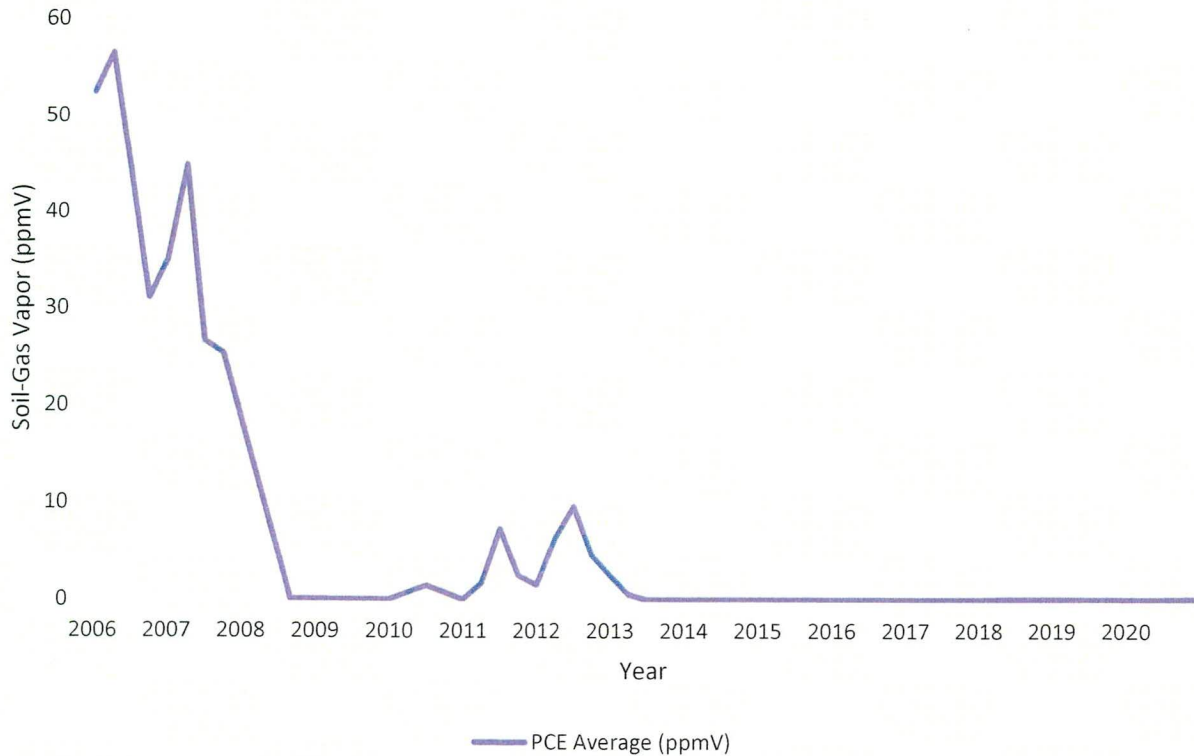
**Responsible Party:** Eric Schiefer, (803)952-6273, [eric.schiefer@srs.gov](mailto:eric.schiefer@srs.gov)

3. **Section 4.3, Overall Recommendations, Page 10 of 46:** The PER does not present a soil-gas vapor concentration over time trend diagram to support that soil-gas levels have reached asymptotic levels. For example, the text indicates the soil-gas vapor samples have remained at very low (near the laboratory detection limits) asymptotic levels VOCs are no longer productively being removed from and VOCs are nearly depleted; however, no trend diagram was presented. *Please revise the PER to present a vapor concentration over time trend diagram to support that soil-gas levels have reached asymptotic levels.*

**Response:** Agree. Figures 5 and 6 will be added to the next PER to present vapor concentration over time trend diagrams to support that soil-gas levels have reached asymptotic levels. Section 4.3 will be revised in the next PER submittal to reference the new trend diagrams.

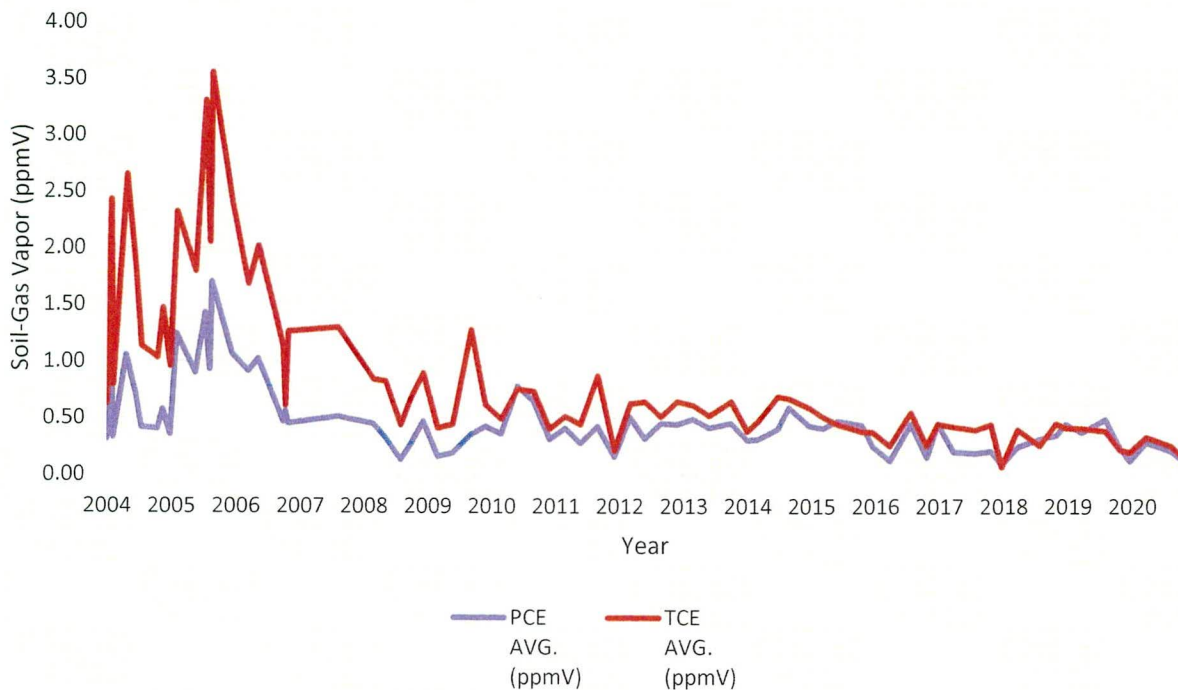
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Figure 5. ABRP TCE Soil-Gas Vapor Levels



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Figure 6. MCB Soil-Gas Vapor Levels



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