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

JUL 13 2026

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 Environmental Services
2600 Bull Street
Columbia, South Carolina 29201

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

Dear Ms. Fulmer and Mr. Richards:

SUBJECT: Early Action Statement of Basis/Proposed Plan for the Beneficial Use of Select Coal Ash and Coal Fines at the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) Operable Units (U) (SRNS-RP-2025-01221, Revision 1 Redline, July 2026), Early Action Statement of Basis/Proposed Plan Fact Sheet (SRNS-RP-2025-01261, July 2026) (Redline), Draft Revised Public Notice Information, and Savannah River Site's Responses to the Regulatory Comments on the Revision 0 Document,, SEMS Numbers: 61, 62, 88, 90, & 91

In accordance with the terms of the Federal Facility Agreement (FFA), the U. S. Department of Energy (DOE) is submitting the subject information for your review. The *Early Action Statement of Basis/Proposed Plan for the Beneficial Reuse of Select Coal Ash and Coal Fines at the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) Operable Units (U)* (SRNS-RP-2025-01221, Revision 0, October 2025) was submitted to the South Carolina Department of Environmental Services (SCDES) and the U. S. Environmental Protection Agency (EPA) on October 15, 2025. The SCDES' and EPA's comments were received on December 12, 2025, and February 11, 2026, respectively. The draft responses to the regulatory comments were submitted for review via email on June 9, 2026. The EPA and SCDES accepted the draft responses via email on June 10, 2026, and June 22, 2026, respectively. The final responses were incorporated into the subject information as applicable. Please note that the term "Beneficial Reuse" as used throughout the previous document has been revised to "Beneficial Use" to comply with 40 Code of Federal Regulations 257.53.

Please review the enclosures and provide your response within thirty (30) days of receipt. The time and effort that the SCDES and the EPA have given on the subject operable unit are greatly appreciated.

JUL 13 2026

Ms. Susan Fulmer
Mr. Jon Richards 2

Comments or questions from you or your staff may be directed to me at (803) 952-6211.

Sincerely,

MATTHEW BAKER

Digitally signed by MATTHEW BAKER
Date: 2026.07.13 10:57:14 -04'00'

Matthew R. Baker
Acting FFA Remedial Project Manager
DOE-Savannah River Operations Office
Remediation, Deactivation, and Decommissioning Division

RDDD-26-157

Enclosures:

1. Early Action Statement of Basis/Proposed Plan for the Beneficial Use of Select Coal Ash and Coal Fines at the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) Operable Units (U) (SRNS-RP-2025-01221, Revision 1 Redline, July 2026) SEMS Numbers: 61, 62, 88, 90 & 91
2. United States Department of Energy Early Action Statement of Basis/Proposed Plan Fact Sheet for the Beneficial Use of Select Coal Ash and Coal Fines at the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) OUs (SRNS-RP-2025-01261, July 2026) (Redline) SEMS Numbers: 61, 62, 88, 90 & 91
3. Draft Revised Public Notice Information: Environmental Bulletin, RCRA Permit Modification and Radio Announcement
4. SRS Responses to SCDES Comments on the Early Action Statement of Basis/Proposed Plan for the Beneficial Reuse of Select Coal Ash and Coal Fines at the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) Operable Units (U) (SRNS-RP-2025-01221, Revision 0, October 2025) SEMS Numbers: 61, 62, 88, 90 & 91
5. SRS Responses to USEPA Comments on the Early Action Statement of Basis/Proposed Plan for the Beneficial Reuse of Select Coal Ash and Coal Fines at the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) Operable Units (U) (SRNS-RP-2025-01221, Revision 0, October 2025) SEMS Numbers: 61, 62, 88, 90 & 91

JUL 13 2026

c w/o encl:
M. Reece, SCDES-Columbia
H. J. Porter, SCDES-Columbia
J. Blalock, SCDES-Columbia
S. French, SCDES-Columbia
R. G. Stewart, SCDES-Columbia
M. Mehta, SCDES-Columbia
G. O'Quinn, SCDES-Midlands Aiken Environmental Affairs Office
T. G. Corley, SCDES-Midlands Aiken Environmental Affairs Office
C. L. Robertson, SCDES-Midlands Aiken Environmental Affairs Office
E. G. Downing, SCDES-Midlands Aiken Environmental Affairs Office
H. L. Herlong, SCDES-Midlands Aiken Environmental Affairs Office

c w/ encl:
H. H. Cathcart, SCDES-Columbia
M. McRae, TechLaw, Inc.

SRS Responses to USEPA on the Early Action Statement of Basis/Proposed Plan for the Beneficial Reuse of Select Coal Ash and Coal Fines at the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) Operable Units (U), SEMS Numbers: 61, 62, 88, 90, & 91, SRNS-RP-2025-01221, Revision 0, October 2025
Savannah River Site, Aiken, South Carolina

Comments Received February 11, 2026

GENERAL COMMENTS

1. The SB/PP does not explain the technical terms or concepts used for the risk assessment discussions in Section V (Summary of Site Risks) that are likely to be unfamiliar to the public (i.e., Total Cumulative Risk (TCR] and Hazard Index [HI]). As noted in Section 3.3.5 (Summary of Site Risks) of EPA's *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (EPA 540-R-98-031), dated July 1999 (the EPA Decision Guidance), technical terms or concepts should be explained or defined if used in the Proposed Plan. *Please revise SB/PP, Section XII (Glossary) to include the definition of TCR and HI.*

Response: Agree.

The document will be revised to include TCR and HI in Section XII (Glossary) as shown below.

"Hazard Index (HI): Quantifies the risk of developing non-cancer health effects by comparing exposure levels to a standard exposure level. Determined by first finding the individual hazard quotient (HQ) for each noncarcinogen, which is equal to the ratio of the exposure point concentration (EPC) over the regional screening level (RSL). These HQs are summed to derive the cumulative HI."

"Total Cumulative Risk (TCR): Quantifies the risk of developing cancer by comparing exposure levels to a standard exposure level. Determined by first finding the risk estimate for each carcinogen by multiplying 1E-06 by the ratio of the exposure point concentration (EPC) over the regional screening level (RSL) or preliminary remediation goal (PRG). The risk estimates by constituent grouping (i.e., inorganic, organic, and radionuclide) are then summed to provide the TCR."

Responsible Party: Maggie Dercole, (803) 952-5797, maggie.dercole@srs.gov

2. It is unclear if a HI value was calculated for the A-area Ash Pile and A-Area Coal Pile Runoff Basin Operable Unit (OU). For example, the risk to the future resident for the F-Area Landfill and H-, K-, and L-Area Ash Basin OUs include both a TCR value and HI value; however, the A-Area Ash Pile and A-Area Coal Pile Runoff Basin OU do not include a HI value. *Please revise the text and include a HI value or discuss why a HI value for the A-area Ash Pile and A-Area Coal Pile Runoff Basin OU was not included.*

Response: Clarification.

Per core team agreement in the Focused EA CMS/FS Scoping Summary (SRNS-RP-

2023-00858), the risk assessment strategy for the AAP and ACPRB used the conclusions of the previously conducted RI/BRA (SRNS-2010-01457, Revision 1) to support the Focused EA CMS/FS (SRNS-RP-2024-00222, Revision 1). Similar to the industrial worker scenario for HAB, KAB, LAB and FAL assessment, an HI value was calculated at the time of the original assessment. However, the HI value was either less than 1 or the noncarcinogenic constituents were eliminated as part of the refinement process and therefore the HI value was not included as part of the risk summary.

No change to the current document is proposed.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

SPECIFIC COMMENTS

1. **Section II, Community Participation, Page 4 of 46:** Although the text states that the lead agency will provide an opportunity for a public meeting during the public comment period, `it does not mention the possibility of having a virtual meeting as an option or in addition to a face-to-face meeting. The SB/PP should inform the public of the various options for holding the public meeting. *Please revise the SB/PP to include the possibility of having a virtual meeting as an option or in addition to a face-to-face meeting*.

   Response: Agree.

   Section II, Community Participation, will be revised as shown below.

   "USDOE will provide an opportunity for a public meeting <u>(face-to-face and/or virtual)</u> during the public comment period if significant interest is expressed."

   Responsible Party: Shelia McFalls, (803) 645-8119, shelia.mcfalls@srs.gov

2. **Section III, Operable Unit Background, A-Area Ash Pile and A-Area Coal Pile Runoff Basin, Page 6 of 46:** The last sentence references the wrong figure. The text states that sampling along transects was conducted to determine the extent of ash outside the boundary of the A-Area Ash Pile and references Figure 3 (A-Area Ash Pile Topography and Ash Observation Transects) and Figure 4 (A-Area Coal Pile Runoff Basin Topography). However, only Figure 3 should be referenced as it demonstrates the transects along the boundary of the A-Area Ash Pile. The text should accurately reference figures pertaining to the A-Area Ash Pile. *Please revise the text to reference only Figure 3.*

   Response: Agree.

The text will be revised to remove Figure 4 from the callout as shown below.

"In 2020, sampling along transects was conducted to determine the extent of ash outside the boundary of the ash pile (Figures 3 ~~and 4~~)."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

ATTORNEY (GENERAL COMMENTS)

1. EPA recognizes that inclusion of a brief summary of important ARARs in the Proposed Plan is suggested by guidance, but inclusion of an ARARs table is not necessary. See, e.g., the NCP at 40 CFR 300.430(f)(2). EPA Region 4 ORC requests that, going forward, a discission of important ARARs be included in the proposed plan, as the actual ARARs tables are included in the ROD.

   Response: Agree.

   The EA SB/PP Revision 0 document was prepared in accordance with the approved SRS SB/PP Format (Format F-6 in the EC&ACP Regulatory Document Handbook [SRNS-RP-2022-00330, Revision 0, June 2023, updated December 2025 {corrected}]). Going forward, the ARAR table will be removed from the EC&ACP Regulatory Document Handbook and the handbook will be updated to reflect this change. The EA SB/PP will be updated to remove Table 2 from the document.

   Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

2. ORC has questions about whether determinations about the nature of the various units in this and associated reports ("coal ash piles," "coal pile runoff basin", "coal ash landfill," and "coal ash basins") have been made. These determinations are necessary in order to determine the applicability or relevance and appropriateness of the Coal Combustion Residuals (CCR) rule, including the rules related to closure and to beneficial reuse. Page 444 of the 2024 R0 *Focused EA/CMS FA for the AAP, ACPRB, FAL, HAB, KAB and LAB OUs* contains a table (*CCR/Ash Basin Strategy – CCR/Ash Waste Units Requiring Closure)* that briefly summarizes how the ash came to be located in the piles, landfills, and basins (the appendices, which include this table, that were in the R0 were not provided in the R1 version of the FFS, hence ORC references the R0 page number).
   A. Based on this summary, it appears that all the ash areas, with perhaps an exception for the A-Area Coal Pile Runoff Basin, 788-3A, are like CCR landfills (A-Area Ash Pile, F-Area Ash Landfill) or CCR surface impoundments (H-Area Ash Basin, K-Area Ash Basin, and L-Area Ash Basin), as defined in the Coal Combustion Residuals rule, at 40 CFR 257.53 and that any rules that could be considered relevant and appropriate would start from this position.
   B. Based upon the information in the FFS, it appears that the F-Area Ash Landfill may be like an "existing CCR landfill", despite that it is a permitted Class III solid waste landfill. An

"existing CCR landfill" means "a CCR landfill that receives CCR both before and after October 19, 2015." Please clarify whether the F-Area Ash Landfill meets the definition of an existing CCR landfill within the meaning of the regulation.

The comparison of this action to the "early action decision remedial alternative selection document that was prepared for the in-situ decommissioning of the reactor building complexes" (cited report at page ES-4 of ES-8) may not be a good one, if there are not ARARs in that action, similar to the Coal Combustion Residuals rule, that are likely at play here.

Response: Agree.

The referenced table in the 2024 Revision 0 Focused EA CMS/FS is also included in Revision 1 version in Appendix H, Page H-5 of H-30 (PDF page 449 of 474).

A) The operable units in question were designed to receive the coal ash and coal fines (known as CCR) that are currently present within the units and can be referred to as CCR units as defined in 40 CFR 257.53. As part of the proposed remedy, Phase 2 (Beneficial Use) proposes to excavate and utilize the CCR as cover base fill in other areas of the site which qualifies as "Beneficial Use" as defined in 40 CFR 257.53.

For clarity the text in Section I, Introduction and Background, will be revised as follows:

"The preferred remedial alternative for the remaining coal ash and coal fines OUs is Land Use Controls (LUCs) with Beneficial ~~Reuse.~~Use[2] as defined in 40 CFR 257.53. Per 40 CFR 257.53, the remaining coal ash and coal fines OUs are to be considered as Coal Combustion Residuals (CCR) units (CCR surface impoundments [ACPRB, HAB, KAB, LAB], CCR pile [AAP], and existing CCR landfill [FAL]). LUCs with Beneficial Use~~Reuse~~ provides adequate protection from human exposure to contaminated media . . . "

B) Yes, as defined in 40 CFR 257.53, the FAL meets the definition of an existing CCR Landfill as CCR has been received at the unit both before and after October 19, 2015. See the revision to the text above as it addresses this portion of the comment.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

3. The Proposed Plan primarily addresses the LUCs and introduces the concept of beneficial use, but does not provide any details regarding that scope, performance, cost, etc. of that remedy. In addition, it does not address closure in any detail should the parties determine that beneficial

reuse is not going to occur or if CCR is left in place after beneficial reuse has completed. *EPA proposes that DOE consider to issue an IROD for Phase I followed by a final ROD for Phase II. Phase II will include beneficial use and closure of the CCR units (i.e., clean closure after removal of all waste or closure with some waste left in place).*

Response: Clarification.

SRS prefers to use the current approach of a single final ROD rather than the interim and final ROD strategy. Implementation of an interim and final ROD approach would likely result in multiple final decisions rather than one. The current strategy would likely result in savings in schedule and cost (~ 18 months and $100K per decision). A single final ROD also establishes the selected path for these units, rather than allowing for in-place closures, which will help drive beneficial use solutions for the facilities (e.g., use of ash as fill for Saltstone Disposal Unit closure).

The details of the selected beneficial use of the CCR will be outlined in the Post-ROD design documents (e.g., Corrective Measures Implementation Plan/Remedial Action Implementation Plan [CMIP/RAIP]) prior to the implementation of the remedial action. However, more clarification outlining the potential/preferred beneficial use options will be added to Section VII, Summary of Remedial Alternatives, Alternative A-2: LUCs with Beneficial Use, as shown below.

". . .OUs will remain in-place until the CCR~~ash~~ is excavated and transported to its beneficial ~~r~~euse location. Phase 2 (excavation and beneficial ~~r~~euse) of this alternative would involve excavation of the CCR ~~ash material in an attempt to achieve~~with the goal of achieving unrestricted use levels while providing beneficial ~~r~~euse of the CCR~~material~~. In the event a clean closure is not possible, closure with CCR left in place will be evaluated by the FFA parties and may be documented in an ESD or amendment to the final ROD to include the appropriate ARARs and modified final remedial decision. Phase 2 of the remedial alternative includes releasing any standing water from the OUs that have the potential to hold water, clearing and grubbing each of the vegetated areas within the OUs, constructing a stormwater management system, the removal and beneficial use of the CCR, confirmation sampling, and site restoration. Excavation activities would include the use of standard commercial equipment (i.e., excavator, dump truck, bulldozer). To complete the excavation, stormwater will be managed by releasing water through a stormwater best management practice sediment control feature (i.e., check dams, silt fences, etc.) to eliminate sediment migration. Following completion of the excavation activities, confirmation sampling will be performed to ensure cleanup levels are achieved. After sample confirmation, the ash units will be restored (i.e., contoured for proper drainage and revegetated as necessary). Proven unencapsulated beneficial ~~r~~euse

alternatives for CCR~~coal ash/fines~~ include use as fill material. SRS will have a need for large quantities of fill material for the closures of waste storage facilities such as the SDUs or F-Area and H-Area Tank Farms. CCR~~Coal ash/fines~~ can be used as lower fill material as part of the cover systems at these receiving facilities. Testing of the proposed fill material (chemical [i.e., SPLT] and geotechnical) will be needed to support design, accommodating CCR use as part of the cover systems. Preliminary analysis indicates that the ash can be used as lower fill material as part of the cover systems at these receiving facilities. Prior to use as lower backfill any organic material will need to be removed from the ash. This is the most likely/preferred option as the SDU closure will require an estimated 3.1 million m^3 (4.0 million yd^3) of backfill material to be placed beneath the class III cover system. The total volume of ash within the remaining coal ash and coal fines OUs is approximately 840,000 m^3 (1.1 million yd^3). Therefore, all of the ash could potentially be beneficially used as part of the SDU closure. The approximate time frame for use as part of this phase of the alternative is 12 years (i.e. SDU remedial action start is projected for 2038). Another beneficial reuse alternative includes using the CCR~~coal ash/fines~~ as an additive or replacement for cement in concrete mixes, improving the durability and strength of concrete products. These beneficial use options will ensure that unacceptable exposure or leaching of the ash does not occur. Any beneficial use action selected during Phase 2 will be compliant with 40 CFR 257.53. The LUCs with Beneficial Use~~Reuse~~ alternative would achieve RAOs."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

ATTORNEY (SPECIFIC COMMENTS)

1. **Introduction Section, page 2, first paragraph, first sentence**: After the first sentence starting with "The preferred remedial alternative for the remaining coal ash and coal fines…", it is recommended to add a reference to the CCR regulation that defines "beneficial use." For example, "The preferred remedial alternative for the remaining coal ash and coal fines OUs is Land Use Controls (LUCs) with Beneficial Reuse of Coal Combustion Residuals (CCR) as defined in 40 CFR 257.53."

   Response: Agree.

   The text in Section I, Introduction and Background, will be revised as follows:

   "The preferred remedial alternative for the remaining coal ash and coal fines OUs is Land Use Controls (LUCs) with Beneficial ~~Reuse.~~Use[2] as defined in 40 CFR 257.53."

   Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

2. **Introduction Section, page 2, end of second paragraph**: After the sentence, "Following excavation and removal of the coal ash and coal fines in Phase 2 . . .," it is suggested to add the following sentence. "In the event a clean closure is not possible due to the amount of remaining coal ash and coal fines, closure with waste in place will be evaluated by the FFA parties and documented in a final Record of Decision (ROD) that includes the relevant ARARs." See General Comment #3 above.

   Response: Agree.

   Text will be added to Section I, Introduction and Background, as shown below.

   "Following excavation and removal of the CCR~~coal ash and coal fines~~ in Phase 2, clean closure (i.e., unrestricted land use) will be evaluated for each OU. In the event a clean closure is not possible, closure with CCR left in place will be evaluated by the FFA parties and may be documented in an Explanation of Significant Difference (ESD) or amendment to the final Record of Decision (ROD) to include the appropriate applicable or relevant and appropriate requirements (ARARs) and final remedial decision."

   Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

3. **SRS Compliance History Section, last complete paragraph, page 3:** The document states "[s]election of the remedial alternative that will satisfy the FFA requirements will be made by USDOE, in consultation with USEPA and SCDES**.** Revise to "Selection of the remedial alternative that will satisfy the FFA requirements will be made jointly by USDOE and USEPA, in consultation with SCDES. Under CERCLA both EPA and the lead agency select the remedial action, unless the parties are unable to reach an agreement. *See* 42 USC § 9604(e)(4)(A) ("Each Interagency agreement under this subsection shall include . . . [a] review of alternative remedial actions and *selection of a remedial action by the head of the relevant department, agency, or instrumentality and the Administrator* or, if unable to reach agreement on selection of a remedial action, selection by the Administrator." (emphasis added)). The NCP also requires that the remedy be selected by EPA and the lead agency. *See* 40 CFR § 300.430(f)(4)(iii) ("The process for selection of a remedial action at a federal facility on the NPL, pursuant to CERCLA section 120, shall entail: (A) Joint selection of remedial action by the head of the relevant department, agency, or instrumentality and EPA . . . .").

   Response: Agree.

   Section I, Introduction and Background, SRS Compliance History, will be revised as follows:

   ". . . The final remedial decision under RCRA will be in the form of a final permit

modification, which is made by SCDES. Selection of the remedial alternative that will satisfy the FFA requirements will be made jointly by USDOE and USEPA, in consultation with ~~USEPA and~~ SCDES. It is important to note that the final action(s) may . . .”

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

4. **Community Participation Section, pages 3-4**: Please include the name and contact information for the local Community Advisory Group at SRS (i.e. the “Savanna River Site Citizens Advisory Board”, https://cab.srs.gov/srs-cab.html, 1-800-249-8155, srscitizensadvisoryboard@srs.gov) in the Community Participation Section. *See* A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents, OSWER 9200.1-23P, July 1999 (herein after “ROD Guidance”), at 3-10 (“The following public participation information should be included in the Proposed Plan: . . . [n]ame and contact number of local Community Advisory Group (CAG), if applicable.”).

   Response: Agree.

   Section II, Community Participation, will be revised as shown below, and CAB will be added to the List of Acronyms and Abbreviations.

   “The SRS Citizens Advisory Board (CAB) is a stakeholder group that provides the USDOE advice, information, and recommendations on issues affecting the Environmental Management program at SRS. The contact information for the SRS CAB is listed below.

   Savannah River Site Citizens Advisory Board
   https://cab.srs.gov/srs-cab.html
   1-800-249-8155
   srscitizensadvisoryboard@srs.gov

   The public will be notified of the public comment period through mailings of the SRS Environmental Bulletin, a newsletter…”

   Responsible Party: Shelia McFalls, (803) 645-8119, shelia.mcfalls@srs.gov

5. **Operable Unit Background Section, page 4, first paragraph**: The second sentence states, “As a result of boiler operations, coal ash (coal combustion products) was produced as a waste product.” Please revise to use the regulatory term CCR because the coal ash is not a “product” and the coal ash fits the definition of CCR in the CCR regulations. *See* 40 CFR 257.53 (“Coal combustion residuals (CCR) means fly ash, bottom ash, boiler slag, and flue gas

desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers."). Alternatively, you can remove the phrase "coal combustion products."

Response: Agree.

Section III, Operable Unit Background, will be revised as follows:

"As a result of boiler operations, coal ash (CCR~~coal combustion products~~) was produced as an industrial waste ~~product~~."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

6. **Operable Unit Background Section, page 5, first complete paragraph**: Please add the following sentence at the end of the paragraph after the sentence starting with, "[h]owever, finalization and regulatory approval of the Interim Action…." "CERCLA section 121(d)(2) and the NCP at 40 CFR 300.430(f)(5)(i)(B) require remedial actions to comply with ARARs unless a waiver is justified."

   Response: Agree.

   This section is providing background information to provide context for this decision including multiple operable units. Section VI, which discussed ARARs, is a more appropriate section to include this detail. Section VI, Remedial Action Objectives, Applicable or Relevant and Appropriate Requirements, will be revised as follows:

   ". . .They specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site. ~~Section 121(d) of CERCLA, as amended by the Superfund Amendments Reauthorization Act (SARA), requires that remedial actions comply with requirements and standards set forth under federal and state environmental laws.~~ CERCLA section 121(d)(2), as amended by the Superfund Amendments Reauthorization Act, and the NCP at 40 CFR 300.430(f)(5)(i)(B) require remedial actions to comply with ARARs unless a waiver is justified."

   Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

7. **Operable Unit Background Section, Subsection A-Area Ash Pile and A- A-Area Coal Pile Runoff Basin, page 6, first complete paragraph**: The document states "The depth to groundwater in this area is ~37 m (~120 ft) bgs." Please indicate if there is ever standing water atop the ACPRB. Given the large rainfall amounts in this region, one would expect there are

occasions with standing water and that when the coal ash is removed for beneficial use that de-watering of the coal ash will be needed depending on that beneficial use.

Response: Agree.

Section III, Operable Unit Background, will be revised to state the following:

"The depth to groundwater in this area is ~37 m (~120 ft) bgs. <u>During times of large rain events standing water may be present within the ACPRB.</u>"

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

8. **Operable Unit Background Section, Section "F-Area Ash Landfill Operable Unit", page 6, second paragraph**: The document states that "the 288-F Class II Ash Landfill will remain a permitted operating landfill until beneficial reuse is initiated (SRNS 2022)." Given that the F-Area Ash Landfill is an active solid waste landfill, one would assume that the permit contains requirements related to current groundwater detection monitoring per R61-107.19 Part IV Section E and submittal of a closure plan once operations cease. Please clarify whether there is a groundwater detection monitoring program for this unit and whether results indicate there are releases of metals and/or radionuclides into the groundwater.

   Response: Agree.

   Text in Section III, Operable Unit Background, F-Area Ash Landfill Operable Unit, will be revised as shown below.

   ". . . and is an active Class II Landfill (SCDES Solid Waste Landfill Permit #025800-1601). SCDES clarified in a May 2022 meeting with the Core Team that the 288-F Class II Ash Landfill will remain a permitted operating landfill until beneficial ~~reuse~~ is initiated (SRNS 2022). <u>Currently, a groundwater monitoring program exists for the FAL OU and will continue to be monitored semi-annually in accordance with its Solid Waste permit. No metals and/or radionuclides related to 288-F landfill have been reported at levels above the permitted thresholds within the groundwater beneath the OU.</u>"

   Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

9. **Operable Unit Background Section, Subsection "H-, K-, and L- Area Ash Basin Operable Units", page 7, bottom of first column**: The document states "[w]et ash/soils at the southeastern side of the basinare [sic] primarily located/associated with ash deposits outside the basin berm where ash deposits align with the location of a historical Carolina bay that a

portion of the HAB OU was partially constructed on top of (Figure 6)." Please clarify whether the Carolina bay was considered one of the waters of the State or a wetland that was filled.

Response: Clarification.

The HAB was constructed in 1952 and became operational in 1954, which predates any wetland or state regulations. For clarity Section III, Operable Unit Background, H-, K-, and L- Area Ash Basin Operable Units, will be updated as follows:

". . .Wet ash/soils at the southeastern side of the basin are primarily located/associated with ash deposits outside the basin berm where ash deposits align with the location of a historical Carolina bay that a portion of the HAB OU was partially constructed on top of (Figure 6). The basin was constructed in 1952 which predates any wetland or state regulations."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

10. **Scope and Role of Operable Unit or Response Action Section, page 8, second paragraph**: The document states, "In 2022, the USDOE . . . that includes future beneficial reuse of the ash material (Phase 2) . . . ." Please revise to use the regulatory term CCR because coal ash is not a "material" but rather a solid waste. *See* 40 CFR 257.53 ("Coal combustion residuals (CCR) means fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers."). Please revise accordingly and make conforming changes throughout the document such that "ash material" is replaced with "coal ash waste" or CCR.

Response: Agree.

Section IV, Scope and Role of Operable Unit or Response Action, will be updated as follows:

". . . that includes future beneficial ~~re~~use of the CCR~~ash material~~ (Phase 2) following the implementation of LUCs (Phase 1)."

Other sections of the document that refer to ash as material will also be revised to include the use of the CCR terminology.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

11. **Summary of Site Risks Section, page 9**: The opening paragraph introduces a term "Refined Constituents of Concern." This term is not used in CERCLA, the NCP, or EPA guidance.

Please include a footnote that describes how this term relates to the term used in Superfund cleanups, "Contaminant of Concern." See EPA RI-FS guidance, *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*, EPA OSWER 9355.3-01, October 1988, and EPA ROD guidance, *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, EPA OSWER 9200.1-2P, July 1999, for discussions of how contaminants of concern are identified and used in the remedial process. Going forward and to avoid confusion, ORC recommends that the SRS remedial process use terms that have been developed in EPA guidance documents or ensure that the remedial documents contain an explanation that cross-references the CERCLA term.

Response: Clarification.

The RCOC term will be added to the glossary of the EA SB/PP as shown below:

"Refined Constituents of Concern (RCOCs): Constituents of Concern (COC) that have been carried forward following the refinement process (SRNS 2023) and warrant a response action."

The reference to the EC&ACP Regulatory Document Handbook will also be added to section XI. References, as shown below.

"SRNS, 2023. *Environmental Compliance and Area Completion Projects Regulatory Document Handbook*, SRNS-RP-2022-00330, Revision 0, June 2023, updated December 2025 (corrected), Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC"

Within the SRS remedial process, the term refined constituent of concern (RCOC) is a related but separate concept from contaminant or constituent of concern (COC). Its use has been outlined in a process defined in the EC&ACP Regulatory Document Handbook, specifically the *Constituents of Concern (COC) Refinement Process (Protocol COC-1),* which was agreed to by USDOE, USEPA, and SCDES. After COCs are identified, they are subsequently refined using an uncertainty evaluation for each COC. This process involves identifying and selecting COCs which have a reasonable likelihood of being released, are consistent with the conceptual site model, and pose an adverse hazard or risk to human health or the environment. COCs that are carried forward following the refinement process are designated as RCOCs, and are those contaminants related to the waste unit to be evaluated as part of the remedy alternatives analysis.

Responsible Party: Maggie Dercole, (803) 952-5797, maggie.dercole@srs.gov

12. **Summary of Human Health Risk Assessment through Problems Warranting Action, pages 9 through 11**: These sections begin discussing the contaminants at the sites. Then on page 11, the text contains the conclusion that the radionuclides are naturally-occurring. Please include a short factual summary before the text on page 11 that describes how it was determined that contaminants that pose an unacceptable risk (in this case, radionuclides) are naturally occurring.

    Response: Agree.

    Coal contains trace amounts of naturally occurring radionuclides. The radionuclides that are present within coal ash therefore occur naturally in the environment/coal but have been concentrated as a result of human activities (i.e., coal combustion). Coal ash, which contains elevated levels of radionuclides, is defined by the EPA as Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM). Naturally Occurring Radioactive Material (NORM) refers to materials containing any of the primordial radioactive elements as they occur in nature that are undisturbed as a result of human activities.

    For clarity, the first mention of the phrase naturally occurring in Section I, Introduction and Background, Page 1, last paragraph, will be updated as shown below:

    "Arsenic and naturally-occurring radionuclides present in surface ash/soil may pose an unacceptable exposure risk to the future resident and industrial worker in all five of the remaining coal ash and coal fines OUs. Radionuclides present within the ash occur naturally in coal. However, coal ash is considered a form of Technologically Enhanced Naturally Occurring Radioactive Material, as the elevated activity levels of radionuclides found within the ash units are the result of coal combustion."

    Responsible Party: Maggie Dercole, (803) 952-5797, maggie.dercole@srs.gov

13. **Remedial Action Objectives Section, page 12, fourth paragraph**: The PP states that "[f]or the HAB OU and LAB OU, the RAO is to protect groundwater resources from migration of contaminants in unit ash/soil that would impact the groundwater above groundwater protection standards." Please revise this RAO to state: "For the HAB OU and LAB OU, the RAO is to protect groundwater (which is classified by South Carolina as a Class GB Ground Water and an underground source of drinking water) from migration of contaminants in unit ash/soil that would impact the groundwater above drinking water standards (i.e., Maximum Contaminant Levels [MCLs], or more stringent SCDES Groundwater Cleanup Target Levels [GCTLs])."

This RAO revision is recommended because the U.S. EPA expects to return usable groundwater to its beneficial use wherever practicable, within a timeframe that is reasonable given the particular circumstances of the site. See NCP at 40 CFR 300.430(a)(1)(iii)(F). All South Carolina groundwater is classified as Class GB unless otherwise listed. See S.C. Code § 48-1-10, South Carolina Regulation 61-69.

Response: Clarification.

SRS agrees that groundwater should be returned to beneficial use wherever practicable and within a reasonable timeframe given unit characteristics/circumstances. The water table aquifers, although designated as Class GB, are not typically used for drinking water based on aquifer characteristics. Regardless, SRS establishes drinking water standards (both federal and state if more stringent) as the RAO targets. The RAO will be revised as shown below:

"For the HAB OU and LAB OU, the RAO is to protect groundwater resources from migration of contaminants in unit ash/soil that would impact the groundwater above ~~groundwater protection~~drinking water standards."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

14. **Summary of Remedial Alternatives Section, page 12**: The preferred alternative should be identified at the beginning of the summary of remedial alternatives section. *See* ROD Guidance at 3-5 ("The alternatives that is recommended as the Preferred Alternative should be identified as such at the beginning of this [Summary of Remedial Alternatives] section.").

Response: Clarification.

Although the 1991 USEPA guidance recommends that the preferred alternative be identified at the beginning of the *Summary of Remedial Alternatives* section, SRS believes this placement before Section VIII. *Evaluation of Alternatives* is premature and could potentially bias selection of the preferred alternative. For this reason, the preferred alternative is identified in Section IX. *Preferred Alternative* after the evaluation of alternatives in accordance with the SRS SB/PP Format (Format F-6 in the EC&ACP Regulatory Document Handbook [SRNS-RP-2022-00330, Revision 0, June 2023, updated December 2025 {corrected}]).

No change to the current document is proposed.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

15. **Summary of Remedial Alternatives Section, Alternative A-2**: LUCs with Beneficial Reuse Section, page 13: Please see EPA's earlier comment on the use of the term "beneficial reuse" and please ensure that the term is being used consistent with the CCR regulation terminology. Since some provisions of 40 CFR part 257 are being identified as Action-Specific ARARs, EPA would prefer use of the term "Beneficial Use of CCR" or "Beneficial use." The coal ash and fines in these OUs are solid waste that have been disposed. Phase II would excavate CCR (i.e., coal ash waste) and utilize the CCR for disposal in other areas of the Site which qualifies as "Beneficial Use" as defined in 40 CFR 257.53.

    Response: Agree.

    The term "Beneficial Reuse" as used throughout the current document will be revised to "Beneficial Use". A footnote will also be added to the first use of this terminology to clarify the use of the former term in any previous documentation as shown below.

    "[2] The term "Beneficial Use" was formerly referred to as "Beneficial Reuse" in prior documentation."

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

16. **Summary of Remedial Alternatives Section, Alternative A-2**: LUCs with Beneficial Reuse Section, page 13, column 2, first paragraph: The document states, "[d]ue to the CM concerns at the HAB and LAB OUs, groundwater monitoring wells would be installed/identified at these two OUs and would be monitored every five years to coincide with the five-year remedy reviews." Monitoring frequency should be decided in the ROD or post-ROD documents approved by EPA. Revise to state, "would be routinely monitored according to a Plan approved by EPA and SCDES. Groundwater monitoring results will be evaluated in routine reports as well as part of the Five-Year Review process for the selected remedy."

    Response: Agree.

    Monitoring frequency will be discussed in the ROD or post-ROD documents. However, based on the prolonged time frame for potential impacts (hundreds of years), SRS used a five-year monitoring frequency, which has been used at other operable units with long time frames for potential groundwater impact, as reasonable to help inform the cost estimate. SRS believes the need for individual monitoring reports outside of the five-year remedy reviews is unnecessary as contaminants are not expected to migrate before beneficial use occurs. However, the text in Section VII, Summary of Remedial Alternatives, will be revised as shown below.

    "Due to the CM concerns at the HAB and LAB OUs, groundwater monitoring wells

would be installed/identified at these two OUs and would be monitored and reported as described in the ROD or post-ROD documents~~every five years to coincide with the five-year remedy reviews~~."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

17. **Summary of Remedial Alternatives Section, Alternative A-2**: LUCs with Beneficial Reuse Section, page 13, column 2, first paragraph: The document states, "Phase II (excavation and beneficial reuse) of this alternative would involve excavation of ash material in an attempt to achieve unrestricted use levels while providing beneficial reuse of the material." Please see EPA's earlier comments regarding the use of the regulatory term CCR instead of "material" with respect to the CCR. Please revise accordingly to indicate that CCR (or coal ash waste) will be excavated and put to a beneficial use at other areas of the Site as part of Phase II of the remedy.

    Response: Agree.

    Section VII, Summary of Remedial Alternatives, Alternative A-2, LUCs with Beneficial Use, will be revised as shown below.

    "Phase 2 (excavation and beneficial ~~re~~use) of this alternative would involve excavation of the CCR ~~ash material in an attempt to achieve~~with the goal of achieving unrestricted use levels while providing beneficial ~~re~~use of the CCR~~material~~."

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

18. **Summary of Remedial Alternatives Section, Alternative A-3**: Class III Cover with LUCs, page 14, first paragraph: The document states that "[a] Class III cover system includes a geosynthetic materials [sic] including a liner and a draining layer to limit infiltration of rainwater through the covered waste." Given the nature of the solid waste and that there are closure performance requirements including requirements for a final cover in 40 CFR 257.102(d) for leaving CCR waste in place, EPA thinks these requirements are "relevant and appropriate requirements." EPA recognizes that the Class III final cover requirements in R61-107.19 Part V Subpart F are similar in terms of material thickness and permeability rating. Consider revising the Alternative Title to "Landfill Cover with Lucs" and including language in the description to include reference to ARARs such as those in 40 CFR 257.102(d).

    Response: Clarification.

    The recommendation to change the alternative title seems unnecessary due to the similarities in cover requirements and given the use of this title in the approved CMS/FS.

As mentioned in the comment, ". . . the Class III final cover requirements in R61-107.19 Part V Subpart F are similar in terms of material thickness and permeability rating". If the requirements of 40 CFR 257.102(d) are covered under the implementation of a Class III cover system, then SRS does not see the added benefit of changing the alternative title. The alternatives were presented, evaluated, and agreed upon by the core team (USEPA, SCDES, and USDOE). However, language referencing 40 CFR 257.102(d) can be added to Section VIII, Evaluation of Alternatives, under the Compliance with ARARs subsection as shown below.

"Action-specific ARARs associated with Alternatives A-2 and A-3 are achieved by employing best management practices to minimize erosion of ash/soil and management of storm water runoff, and developing a storm water management plan. Action-specific ARARs such as 40 CFR 257.102(d) and R61-107.19 part V, as applicable, shall also be achieved under the implementation of Alternative A-3."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

19. **Compliance with ARARs section, page 15**: EPA agrees that inclusion of a brief summary of important ARARs in the Proposed Plan is recommended by guidance. In contrast, EPA guidance does not recommend including an ARARs table in a proposed plan. And EPA hereby recommends that the ARARs table (Table 2) be removed. EPA recommends that the best approach is that Phase I (i.e., LUCs and groundwater monitoring) be documented in an IROD, followed by a final ROD that includes Phase II (i.e., beneficial use and closure of the CCR units). EPA recognizes that the F-Area Ash Landfill is a regulated solid waste landfill subject to closure requirements under SCDES regulations identified as applicable requirements.

    Response: Clarification.

    See response to Attorney (General Comments) #1 and #3.

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

20. **Compliance with ARARs section, page 15, first paragraph**: The document states "Excavation within any wetland area may require restoration upon completion of the excavation." Any unavoidable impacts to wetlands would also need to comply with Clean Water Act Section 404(b)(1) guidelines, including regulations in Subpart J 40 CFR 230.91 et seq. for compensatory mitigation. Please revise this language to include reference to this regulation.

    Response: Agree.

Section VIII, Evaluation of Alternatives, Compliance with ARARs, will be updated as follows:

"Excavation within any wetland area may require restoration upon completion of the excavation to comply with the applicable ARARs in 10 CFR 1022 and ~~1023~~, the Clean Water Act Section 404(b)(1) guidelines ~~(see Table 2)~~."

Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

21. **Compliance with ARARs section, page 15, first paragraph**: The document states "[i]n addition, the characterization, disposal, and transportation of ash generated from Alternative A-2 would be handled in accordance with Federal and State regulations 40 CFR 262.11(b) and SCDES 61-107.5(D)(3)." Please revise the citation to include 40 CFR 262.11(a)-(d).

Response: Agree.

Section VIII, Evaluation of Alternatives, Compliance with ARARs, will be updated as follows:

"In addition, the characterization, disposal, and transportation of ash generated from Alternative A-2 would be handled in accordance with Federal and State regulations 40 CFR 262.11~~(b)~~(a)-(d) and SCDES 61-107.5(D)(3)."

Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

22. **Evaluation of Alternatives section, Compliance with ARARs, page 15**: The first paragraph, next-to-last sentence states that "Coal ash and coal pile runoff are excluded as hazardous, solid waste per 40 CFR 261.4(b)(4)(i) and (ii)." Please revise to remove the word "solid" as this waste is considered solid waste, but not hazardous waste under this section. See the section title, "Solid wastes which are not hazardous wastes" and the following introductory statement, "The following solid wastes are not hazardous wastes . . . ."

Response: Agree.

Section VIII, Evaluation of Alternatives, Compliance with ARARs, will be updated as follows:

"Coal ash and coal pile runoff are excluded as hazardous~~, solid~~ waste per 40 CFR 261.4(b)(4)(i) and (ii)."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

23. **Evaluation of Alternatives section, Compliance with ARARs, page 15, last sentence**: The document states that "[i]nstallation of monitoring wells will be in accordance with R. 61-71B(2))." Note that the regulations regarding groundwater monitoring are located in R.61-71H. Revise this citation to include R.61-71H. There are also additional specific requirements that would need to be included in an IROD or ROD, depending on USDOE's acceptance of EPA's recommendation for implementation of Phase I and Phase II. EPA can provide those requirements in a separate table in preparation for the IROD or ROD.

    Response: Agree.

    Section VIII, Evaluation of Alternatives, Compliance with ARARs, will be updated as follows:

    ". . .installation of monitoring wells will be in accordance with R. 61-71~~B(2))~~H."

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

24. **Preferred Alternative Section, page 16, second column, second bullet point**: The document states, "[i]nstallation/identification of groundwater monitoring wells for the HAB and LAB OUs, monitored every five years. Groundwater beneath the FAL OU will be monitored semi-annually." Please see EPA's earlier comment. Specification of the monitoring frequency in the Proposed Plan is premature and requires EPA and SCDES approval. Please revise this language accordingly.

    Response: Agree.

    The language in Section IX, Preferred Alternative, will be revised as follows:

    "Installation/identification of groundwater monitoring wells for the HAB and LAB OUs, monitored ~~every five years~~as determined in the ROD or post-ROD documents."

    The groundwater at the FAL is currently monitored semi-annually per the current Solid Waste Landfill permit and will continue to be monitored under the same frequency until implementation of the final remedy. An explanation will be added to Section IX, Preferred Alternative, as shown below.

    "Groundwater beneath the FAL OU will be monitored semi-annually as required under the current Solid Waste Landfill permit until implementation of the final remedy, at which point the frequency shall be determined by the ROD or Post-ROD documentation."

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

25. Please confirm that the proposed beneficial use as contemplated in Phase II of this action would meet the following conditions of "beneficial use of CCR" in the CCR regulation 40 CFR 257.53 Definitions.
Beneficial use of CCR means the CCR meet all of the following conditions:
(1) The CCR must provide a functional benefit;
(2) The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices, such as extraction;
(3) The use of the CCR must meet relevant product specifications, regulatory standards or design standards when available, and when such standards are not available, the CCR is not used in excess quantities; and
(4) When unencapsulated use of CCR involving placement on the land of 12,400 tons or more in nonroadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.
40 CFR 257.53. Please include a discussion of the proposed Phase II beneficial use that provides at least as much detail as is discussed in this regulation to confirm that the proposed beneficial use meets the definition of "beneficial use of CCR."

Response: Clarification.

The exact beneficial use of CCR will not be determined until Phase 2 is initiated. However, any action that is selected will be compliant with the requirements in 40 CFR 257.53. Section VII, Summary of Remedial Alternatives, Alternative A-2, LUCs with Beneficial Use will be updated as shown below.

". . . and strength of concrete products. <u>These beneficial use options will ensure that unacceptable exposure or leaching of the ash does not occur. Any beneficial use action selected during Phase 2 will be compliant with 40 CFR 257.53.</u> The LUCs with Beneficial <u>Use</u>~~Reuse~~ . . ."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

26. **Table 2, page 33**: Please see EPA's General Comment #3 and the earlier comment including EPA's recommendation that ARARs not be included in the Proposed Plan. If USDOE wants to retain an ARAR table despite EPA's recommendation, then the table should be limited to those requirements related to Phase I, specifically groundwater monitoring requirements. Any

ARARs for Phase II (i.e., beneficial reuse and closure of CCR units) would be included in the final ROD.

Response: Agree.

Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

27. **Table 2, page 34**: Note that EPA revised the RCRA regulations on waste characterization and that the language in 40 CFR 262.11 is different than what is provided in the Proposed Plan and thus these ARARs need to be revised to be consistent with the regulation in the upcoming ROD. EPA Region 4 can provide the updated language and ARARs for submission in the final ROD.

    Response: Agree.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The updated ARARs will be provided in the final ROD.

    Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

28. **Table 2, page 36, Section Dewatering of Ash Basin**: Note that these ARARs would apply to Phase II if Beneficial Use of CCR occurs. Clarification is needed as to the location of the discharge of the wastewater given the classification of the receiving water, but this detail should be provided in the final ROD.

    Response: Clarification.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The exact details of the selected beneficial use of the CCR will be outlined in the Post-ROD design documents (e.g., Corrective Measures Implementation Plan/Remedial Action Implementation Plan [CMIP/RAIP]) prior to the implementation of the remedial action. The location of any discharge wastewater will be provided in the Post-ROD documents.

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

29. **Table 2, page 36, Section Monitoring Well Installation, Operation, and Abandonment**: The groundwater monitoring ARARs that apply during Phase I are more extensive than what is provided in Table 2 of the Proposed Plan. Additionally, in the event that Phase II results in closure of the sites with waste in place as opposed to "beneficial use of CCR", there would be

additional ARARs that are required as part of post-closure care which need to be added to any ARARs table. See earlier comments on content of ARARs tables and EPA's General Comment #3.

Response: Agree.

Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The appropriate groundwater monitoring ARARs will be provided in the ARAR table of the final ROD. Please see the response to Attorney (General Comment) #3 in reference to the Phase 2 ARARs in the event that any CCR is left in place.

Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

30. **Table 2, page 36, Section On-Site Closure/Capping of Ash Basins**: Consistent with EPA's earlier comments, no ARARs table is required for inclusion in the proposed plan. In the event USDOE decides to include an ARARs table in this proposed plan, EPA recommends the ARARs be limited to just Phase I (i.e., groundwater monitoring requirements). See earlier comments on content of ARARs tables and EPA's General Comment #3.

    Response: Agree.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP.

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

31. **Table 2, page 36, Section On-Site Closure/Capping of Ash Basins, entry for action "Closure of CCR Unit", requirements**: This entry in Table 2 does not use the correct regulatory language. Consistent with EPA's earlier comments, no ARARs table is required for inclusion in the proposed plan. EPA expects revision of the language consistent with that in 40 CFR 257.102(a) in the ROD ARARs table, as follows:
    Closure of a CCR unit must be completed either by leaving the CCR in place and installing a final cover system or through removal of the CCR and decontamination of the CCR unit, as described in paragraphs (b) through (j) of this section. Retrofit of a CCR surface impoundment must be completed in accordance with the requirements in paragraph (k) of this section.

    Response: Agree.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The closure requirements will be updated in the ARAR table of the final ROD.

    Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

32. **Table 2, page 36, Section On-Site Closure/Capping of Ash Basins, entry for action "Closure of CCR Unit", Citation**: Consistent with EPA's earlier comments, no ARARs table is required for inclusion in the proposed plan. Further, there are many more entries for South Carolina solid waste landfill closure and post-closure regulations for the 288-F landfill (Class III) and the other CCR management units that are missing from this table. EPA contends that in the ARARs table for the final ROD including the closure requirements for CCR management units in 40 CFR 257.102(d), but excluding timeframes and notice requirements, would be more appropriate for the CCR units other than the 288-F Landfill than the closure requirements for Class III landfill in SC R. 61-107.19 part V Subpart F, although the final cover requirements are similar. Accordingly, when including these ARARs in the final ROD, the ARARs need to be revised to include those CCR closure requirements.

    Response: Agree.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The closure requirements will be updated in the ARAR table of the final ROD.

    Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

33. **Table 2, page 38, Section Location Specific ARARs**: Consistent with EPA's earlier comments, no ARARs table is required for inclusion in the proposed plan. In the ARARs table for the final ROD, these entries need to be revised to better reflect the language in the regulations. Also, for any unavoidable impacts to aquatic resources such as wetlands, the Clean Water Act section 404(b)(1) requirements for compensatory mitigation need to be added to the Location-specific ARARs table. EPA Region 4 can provide an example table with these requirements during preparation of the R0 of the final ROD.

    Response: Agree.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The ARAR table in the final ROD will be updated to include the Clean Water Act section 404(b)(1) requirements for compensatory mitigation.

    Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

34. **In the Operable Unit Background Section, H-, K-, and L- Area Ash Basin Operable Units Subsection, first paragraph, page 15**: The document states that "[a] constructed ditch on the southern side of the basin channels water from the basin to the south-east toward a small permanently pooled water body that flows toward a small tributary of Fourmile Branch at the northwest corner of H Area." Does this ditch capture runoff from the H-Area basin? Has it been tested to check if there are discharges of pollutants from the coal ash in the H-Area basin?

Is there an NPDES permit for this outfall? What does it mean that it is an as-built industrial wastewater facility or that that it is receiving rainwater runoff from an above ground pipeline?

Response: Clarification.

The ditch was constructed as a stormwater drainage ditch, to reroute any excess water around the exterior of the basin. This is a common design used to alleviate any erosion of the basin walls. The ditch has not been analytically sampled as part of previous characterization efforts. However, transects were used to visually verify the extent of ash outside the basin boundary, as documented in the EA CMS/FS (SRNS-RP-2024-00222, Revision 1). Based on the transects, ash was confirmed within and beyond the constructed ditch. An NPDES permitted outfall does not exist for this drainage ditch.

For clarity, the text in the Operable Unit Background, H-, K-, and L- Area Ash Basin Operable Units, will be revised as shown below.

" . . . A constructed ditch on the southern side of the basin channels water ~~from~~around the exterior of the basin to the south-~~east~~west toward a small permanently pooled water body that flows toward a small tributary of Fourmile Branch~~ at the northwest corner of H Area~~. The ditch was constructed as a stormwater drainage ditch, to reroute any excess water around the exterior of the basin. This is a common design used to alleviate any erosion of the basin walls. The depth to groundwater in this area is . . ."

The HAB OU is permitted as an "as-built" industrial wastewater facility because it is currently receiving rainwater runoff from an above ground pipeline that accumulates in abatement pumps located behind the H-Area powerhouse (284-H).

For clarity on the "as-built" industrial wastewater facility, the text in the Operable Unit Background, H-, K-, and L- Area Ash Basin Operable Units, will be revised as shown below.

". . .the HAB OU is permitted as an "as-built" industrial wastewater facility (Permit #~~729~~18748-IW). HAB OU is currently receiving rainwater runoff from abatement pumps located behind the H-Area powerhouse (284-H) through an above ground pipeline and is considered an active unit in that regard.~~that~~ The pipeline can be re-routed, as necessary, to support future remedial activities at the HAB OU."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

SRS Responses to USEPA on the Early Action Statement of Basis/Proposed Plan for the Beneficial Reuse of Select Coal Ash and Coal Fines at the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) Operable Units (U), SEMS Numbers: 61, 62, 88, 90, & 91, SRNS-RP-2025-01221, Revision 0, October 2025 Savannah River Site, Aiken, South Carolina

Comments Received February 12, 2026

GENERAL COMMENTS

1. The SB/PP does not explain the technical terms or concepts used for the risk assessment discussions in Section V (Summary of Site Risks) that are likely to be unfamiliar to the public (i.e., Total Cumulative Risk (TCR] and Hazard Index [HI]). As noted in Section 3.3.5 (Summary of Site Risks) of EPA's *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (EPA 540-R-98-031), dated July 1999 (the EPA Decision Guidance), technical terms or concepts should be explained or defined if used in the Proposed Plan. *Please revise SB/PP, Section XII (Glossary) to include the definition of TCR and HI.*

Response: Agree.

The document will be revised to include TCR and HI in Section XII (Glossary) as shown below.

"Hazard Index (HI): Quantifies the risk of developing non-cancer health effects by comparing exposure levels to a standard exposure level. Determined by first finding the individual hazard quotient (HQ) for each noncarcinogen, which is equal to the ratio of the exposure point concentration (EPC) over the regional screening level (RSL). These HQs are summed to derive the cumulative HI."

"Total Cumulative Risk (TCR): Quantifies the risk of developing cancer by comparing exposure levels to a standard exposure level. Determined by first finding the risk estimate for each carcinogen by multiplying 1E-06 by the ratio of the exposure point concentration (EPC) over the regional screening level (RSL) or preliminary remediation goal (PRG). The risk estimates by constituent grouping (i.e., inorganic, organic, and radionuclide) are then summed to provide the TCR."

Responsible Party: Maggie Dercole, (803) 952-5797, maggie.dercole@srs.gov

2. It is unclear if a HI value was calculated for the A-area Ash Pile and A-Area Coal Pile Runoff Basin Operable Unit (OU). For example, the risk to the future resident for the F-Area Landfill and H-, K-, and L-Area Ash Basin OUs include both a TCR value and HI value; however, the A-Area Ash Pile and A-Area Coal Pile Runoff Basin OU do not include a HI value. *Please revise the text and include a HI value or discuss why a HI value for the A-area Ash Pile and A-Area Coal Pile Runoff Basin OU was not included.*

Response: Clarification.

Per core team agreement in the Focused EA CMS/FS Scoping Summary (SRNS-RP-

2023-00858), the risk assessment strategy for the AAP and ACPRB used the conclusions of the previously conducted RI/BRA (SRNS-2010-01457, Revision 1) to support the Focused EA CMS/FS (SRNS-RP-2024-00222, Revision 1). Similar to the industrial worker scenario for HAB, KAB, LAB and FAL assessment, an HI value was calculated at the time of the original assessment. However, the HI value was either less than 1 or the noncarcinogenic constituents were eliminated as part of the refinement process and therefore the HI value was not included as part of the risk summary.

No change to the current document is proposed.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

SPECIFIC COMMENTS

1. **Section II, Community Participation, Page 4 of 46:** Although the text states that the lead agency will provide an opportunity for a public meeting during the public comment period, `it does not mention the possibility of having a virtual meeting as an option or in addition to a face-to-face meeting. The SB/PP should inform the public of the various options for holding the public meeting. *Please revise the SB/PP to include the possibility of having a virtual meeting as an option or in addition to a face-to-face meeting*.

   Response: Agree.

   Section II, Community Participation, will be revised as shown below.

   "USDOE will provide an opportunity for a public meeting (face-to-face and/or virtual) during the public comment period if significant interest is expressed."

   Responsible Party: Shelia McFalls, (803) 645-8119, shelia.mcfalls@srs.gov

2. **Section III, Operable Unit Background, A-Area Ash Pile and A-Area Coal Pile Runoff Basin, Page 6 of 46:** The last sentence references the wrong figure. The text states that sampling along transects was conducted to determine the extent of ash outside the boundary of the A-Area Ash Pile and references Figure 3 (A-Area Ash Pile Topography and Ash Observation Transects) and Figure 4 (A-Area Coal Pile Runoff Basin Topography). However, only Figure 3 should be referenced as it demonstrates the transects along the boundary of the A-Area Ash Pile. The text should accurately reference figures pertaining to the A-Area Ash Pile. *Please revise the text to reference only Figure 3.*

   Response: Agree.

The text will be revised to remove Figure 4 from the callout as shown below.

"In 2020, sampling along transects was conducted to determine the extent of ash outside the boundary of the ash pile (Figures 3 ~~and 4~~)."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

ATTORNEY (GENERAL COMMENTS)

1. EPA recognizes that inclusion of a brief summary of important ARARs in the Proposed Plan is suggested by guidance, but inclusion of an ARARs table is not necessary. See, e.g., the NCP at 40 CFR 300.430(f)(2). EPA Region 4 ORC requests that, going forward, a discission of important ARARs be included in the proposed plan, as the actual ARARs tables are included in the ROD.

   Response: Agree.

   The EA SB/PP Revision 0 document was prepared in accordance with the approved SRS SB/PP Format (Format F-6 in the EC&ACP Regulatory Document Handbook [SRNS-RP-2022-00330, Revision 0, June 2023, updated December 2025 {corrected}]). Going forward, the ARAR table will be removed from the EC&ACP Regulatory Document Handbook and the handbook will be updated to reflect this change. The EA SB/PP will be updated to remove Table 2 from the document.

   Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

2. ORC has questions about whether determinations about the nature of the various units in this and associated reports ("coal ash piles," "coal pile runoff basin", "coal ash landfill," and "coal ash basins") have been made. These determinations are necessary in order to determine the applicability or relevance and appropriateness of the Coal Combustion Residuals (CCR) rule, including the rules related to closure and to beneficial reuse. Page 444 of the 2024 R0 *Focused EA/CMS FA for the AAP, ACPRB, FAL, HAB, KAB and LAB OUs* contains a table (*CCR/Ash Basin Strategy – CCR/Ash Waste Units Requiring Closure)* that briefly summarizes how the ash came to be located in the piles, landfills, and basins (the appendices, which include this table, that were in the R0 were not provided in the R1 version of the FFS, hence ORC references the R0 page number).
   A. Based on this summary, it appears that all the ash areas, with perhaps an exception for the A-Area Coal Pile Runoff Basin, 788-3A, are like CCR landfills (A-Area Ash Pile, F-Area Ash Landfill) or CCR surface impoundments (H-Area Ash Basin, K-Area Ash Basin, and L-Area Ash Basin), as defined in the Coal Combustion Residuals rule, at 40 CFR 257.53 and that any rules that could be considered relevant and appropriate would start from this position.
   B. Based upon the information in the FFS, it appears that the F-Area Ash Landfill may be like an "existing CCR landfill", despite that it is a permitted Class III solid waste landfill. An

"existing CCR landfill" means "a CCR landfill that receives CCR both before and after October 19, 2015." Please clarify whether the F-Area Ash Landfill meets the definition of an existing CCR landfill within the meaning of the regulation.

The comparison of this action to the "early action decision remedial alternative selection document that was prepared for the in-situ decommissioning of the reactor building complexes" (cited report at page ES-4 of ES-8) may not be a good one, if there are not ARARs in that action, similar to the Coal Combustion Residuals rule, that are likely at play here.

Response: Agree.

The referenced table in the 2024 Revision 0 Focused EA CMS/FS is also included in Revision 1 version in Appendix H, Page H-5 of H-30 (PDF page 449 of 474).

A) The operable units in question were designed to receive the coal ash and coal fines (known as CCR) that are currently present within the units and can be referred to as CCR units as defined in 40 CFR 257.53. As part of the proposed remedy, Phase 2 (Beneficial Use) proposes to excavate and utilize the CCR as cover base fill in other areas of the site which qualifies as "Beneficial Use" as defined in 40 CFR 257.53.

For clarity the text in Section I, Introduction and Background, will be revised as follows:

"The preferred remedial alternative for the remaining coal ash and coal fines OUs is Land Use Controls (LUCs) with Beneficial ~~Reuse.~~Use[2] as defined in 40 CFR 257.53. Per 40 CFR 257.53, the remaining coal ash and coal fines OUs are to be considered as Coal Combustion Residuals (CCR) units (CCR surface impoundments [ACPRB, HAB, KAB, LAB], CCR pile [AAP], and existing CCR landfill [FAL]). LUCs with Beneficial Use~~Reuse~~ provides adequate protection from human exposure to contaminated media . . . "

B) Yes, as defined in 40 CFR 257.53, the FAL meets the definition of an existing CCR Landfill as CCR has been received at the unit both before and after October 19, 2015. See the revision to the text above as it addresses this portion of the comment.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

3. The Proposed Plan primarily addresses the LUCs and introduces the concept of beneficial use, but does not provide any details regarding that scope, performance, cost, etc. of that remedy. In addition, it does not address closure in any detail should the parties determine that beneficial

reuse is not going to occur or if CCR is left in place after beneficial reuse has completed. *EPA proposes that DOE consider to issue an IROD for Phase I followed by a final ROD for Phase II. Phase II will include beneficial use and closure of the CCR units (i.e., clean closure after removal of all waste or closure with some waste left in place).*

Response: Clarification.

SRS prefers to use the current approach of a single final ROD rather than the interim and final ROD strategy. Implementation of an interim and final ROD approach would likely result in multiple final decisions rather than one. The current strategy would likely result in savings in schedule and cost (~ 18 months and $100K per decision). A single final ROD also establishes the selected path for these units, rather than allowing for in-place closures, which will help drive beneficial use solutions for the facilities (e.g., use of ash as fill for Saltstone Disposal Unit closure).

The details of the selected beneficial use of the CCR will be outlined in the Post-ROD design documents (e.g., Corrective Measures Implementation Plan/Remedial Action Implementation Plan [CMIP/RAIP]) prior to the implementation of the remedial action. However, more clarification outlining the potential/preferred beneficial use options will be added to Section VII, Summary of Remedial Alternatives, Alternative A-2: LUCs with Beneficial Use, as shown below.

". . .OUs will remain in-place until the CCR~~ash~~ is excavated and transported to its beneficial ~~re~~use location. Phase 2 (excavation and beneficial ~~re~~use) of this alternative would involve excavation of the CCR ~~ash material in an attempt to achieve~~with the goal of achieving unrestricted use levels while providing beneficial ~~re~~use of the CCR~~material~~. In the event a clean closure is not possible, closure with CCR left in place will be evaluated by the FFA parties and may be documented in an ESD or amendment to the final ROD to include the appropriate ARARs and modified final remedial decision. Phase 2 of the remedial alternative includes releasing any standing water from the OUs that have the potential to hold water, clearing and grubbing each of the vegetated areas within the OUs, constructing a stormwater management system, the removal and beneficial use of the CCR, confirmation sampling, and site restoration. Excavation activities would include the use of standard commercial equipment (i.e., excavator, dump truck, bulldozer). To complete the excavation, stormwater will be managed by releasing water through a stormwater best management practice sediment control feature (i.e., check dams, silt fences, etc.) to eliminate sediment migration. Following completion of the excavation activities, confirmation sampling will be performed to ensure cleanup levels are achieved. After sample confirmation, the ash units will be restored (i.e., contoured for proper drainage and revegetated as necessary). Proven unencapsulated beneficial ~~re~~use

alternatives for CCR~~coal ash/fines~~ include use as fill material. SRS will have a need for large quantities of fill material for the closures of waste storage facilities such as the SDUs or F-Area and H-Area Tank Farms. CCR~~Coal ash/fines~~ can be used as lower fill material as part of the cover systems at these receiving facilities. Testing of the proposed fill material (chemical [i.e., SPLT] and geotechnical) will be needed to support design, accommodating CCR use as part of the cover systems. Preliminary analysis indicates that the ash can be used as lower fill material as part of the cover systems at these receiving facilities. Prior to use as lower backfill any organic material will need to be removed from the ash. This is the most likely/preferred option as the SDU closure will require an estimated 3.1 million m^3 (4.0 million yd^3) of backfill material to be placed beneath the class III cover system. The total volume of ash within the remaining coal ash and coal fines OUs is approximately 840,000 m^3 (1.1 million yd^3). Therefore, all of the ash could potentially be beneficially used as part of the SDU closure. The approximate time frame for use as part of this phase of the alternative is 12 years (i.e. SDU remedial action start is projected for 2038). Another beneficial reuse alternative includes using the CCR~~coal ash/fines~~ as an additive or replacement for cement in concrete mixes, improving the durability and strength of concrete products. These beneficial use options will ensure that unacceptable exposure or leaching of the ash does not occur. Any beneficial use action selected during Phase 2 will be compliant with 40 CFR 257.53. The LUCs with Beneficial Use~~Reuse~~ alternative would achieve RAOs."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

ATTORNEY (SPECIFIC COMMENTS)

1. **Introduction Section, page 2, first paragraph, first sentence**: After the first sentence starting with "The preferred remedial alternative for the remaining coal ash and coal fines…", it is recommended to add a reference to the CCR regulation that defines "beneficial use." For example, "The preferred remedial alternative for the remaining coal ash and coal fines OUs is Land Use Controls (LUCs) with Beneficial Reuse of Coal Combustion Residuals (CCR) as defined in 40 CFR 257.53."

   Response: Agree.

   The text in Section I, Introduction and Background, will be revised as follows:

   "The preferred remedial alternative for the remaining coal ash and coal fines OUs is Land Use Controls (LUCs) with Beneficial ~~Reuse.~~Use[2] as defined in 40 CFR 257.53."

   Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

2. **Introduction Section, page 2, end of second paragraph**: After the sentence, "Following excavation and removal of the coal ash and coal fines in Phase 2 . . .," it is suggested to add the following sentence. "In the event a clean closure is not possible due to the amount of remaining coal ash and coal fines, closure with waste in place will be evaluated by the FFA parties and documented in a final Record of Decision (ROD) that includes the relevant ARARs." See General Comment #3 above.

   Response: Agree.

   Text will be added to Section I, Introduction and Background, as shown below.

   "Following excavation and removal of the CCR~~coal ash and coal fines~~ in Phase 2, clean closure (i.e., unrestricted land use) will be evaluated for each OU. In the event a clean closure is not possible, closure with CCR left in place will be evaluated by the FFA parties and may be documented in an Explanation of Significant Difference (ESD) or amendment to the final Record of Decision (ROD) to include the appropriate applicable or relevant and appropriate requirements (ARARs) and final remedial decision."

   Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

3. **SRS Compliance History Section, last complete paragraph, page 3:** The document states "[s]election of the remedial alternative that will satisfy the FFA requirements will be made by USDOE, in consultation with USEPA and SCDES**.** Revise to "Selection of the remedial alternative that will satisfy the FFA requirements will be made jointly by USDOE and USEPA, in consultation with SCDES. Under CERCLA both EPA and the lead agency select the remedial action, unless the parties are unable to reach an agreement. *See* 42 USC § 9604(e)(4)(A) ("Each Interagency agreement under this subsection shall include . . . [a] review of alternative remedial actions and *selection of a remedial action by the head of the relevant department, agency, or instrumentality and the Administrator* or, if unable to reach agreement on selection of a remedial action, selection by the Administrator." (emphasis added)). The NCP also requires that the remedy be selected by EPA and the lead agency. *See* 40 CFR § 300.430(f)(4)(iii) ("The process for selection of a remedial action at a federal facility on the NPL, pursuant to CERCLA section 120, shall entail: (A) Joint selection of remedial action by the head of the relevant department, agency, or instrumentality and EPA . . . .").

   Response: Agree.

   Section I, Introduction and Background, SRS Compliance History, will be revised as follows:

   ". . . The final remedial decision under RCRA will be in the form of a final permit

modification, which is made by SCDES. Selection of the remedial alternative that will satisfy the FFA requirements will be made jointly by USDOE and USEPA, in consultation with ~~USEPA and~~ SCDES. It is important to note that the final action(s) may . . .”

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

4. **Community Participation Section, pages 3-4**: Please include the name and contact information for the local Community Advisory Group at SRS (i.e. the “Savanna River Site Citizens Advisory Board”, https://cab.srs.gov/srs-cab.html, 1-800-249-8155, srscitizensadvisoryboard@srs.gov) in the Community Participation Section. *See* A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents, OSWER 9200.1-23P, July 1999 (herein after “ROD Guidance”), at 3-10 (“The following public participation information should be included in the Proposed Plan: . . . [n]ame and contact number of local Community Advisory Group (CAG), if applicable.”).

   Response: Agree.

   Section II, Community Participation, will be revised as shown below, and CAB will be added to the List of Acronyms and Abbreviations.

   “The SRS Citizens Advisory Board (CAB) is a stakeholder group that provides the USDOE advice, information, and recommendations on issues affecting the Environmental Management program at SRS. The contact information for the SRS CAB is listed below.

   Savannah River Site Citizens Advisory Board
   https://cab.srs.gov/srs-cab.html
   1-800-249-8155
   srscitizensadvisoryboard@srs.gov

   The public will be notified of the public comment period through mailings of the SRS Environmental Bulletin, a newsletter…”

   Responsible Party: Shelia McFalls, (803) 645-8119, shelia.mcfalls@srs.gov

5. **Operable Unit Background Section, page 4, first paragraph**: The second sentence states, “As a result of boiler operations, coal ash (coal combustion products) was produced as a waste product.” Please revise to use the regulatory term CCR because the coal ash is not a “product” and the coal ash fits the definition of CCR in the CCR regulations. *See* 40 CFR 257.53 (“Coal combustion residuals (CCR) means fly ash, bottom ash, boiler slag, and flue gas

desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers."). Alternatively, you can remove the phrase "coal combustion products."

Response: Agree.

Section III, Operable Unit Background, will be revised as follows:

"As a result of boiler operations, coal ash (CCR~~coal combustion products~~) was produced as an industrial waste ~~product~~."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

6. **Operable Unit Background Section, page 5, first complete paragraph**: Please add the following sentence at the end of the paragraph after the sentence starting with, "[h]owever, finalization and regulatory approval of the Interim Action…." "CERCLA section 121(d)(2) and the NCP at 40 CFR 300.430(f)(5)(i)(B) require remedial actions to comply with ARARs unless a waiver is justified."

   Response: Agree.

   This section is providing background information to provide context for this decision including multiple operable units. Section VI, which discussed ARARs, is a more appropriate section to include this detail. Section VI, Remedial Action Objectives, Applicable or Relevant and Appropriate Requirements, will be revised as follows:

   ". . .They specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site. ~~Section 121(d) of CERCLA, as amended by the Superfund Amendments Reauthorization Act (SARA), requires that remedial actions comply with requirements and standards set forth under federal and state environmental laws.~~ CERCLA section 121(d)(2), as amended by the Superfund Amendments Reauthorization Act, and the NCP at 40 CFR 300.430(f)(5)(i)(B) require remedial actions to comply with ARARs unless a waiver is justified."

   Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

7. **Operable Unit Background Section, Subsection A-Area Ash Pile and A- A-Area Coal Pile Runoff Basin, page 6, first complete paragraph**: The document states "The depth to groundwater in this area is ~37 m (~120 ft) bgs." Please indicate if there is ever standing water atop the ACPRB. Given the large rainfall amounts in this region, one would expect there are

occasions with standing water and that when the coal ash is removed for beneficial use that de-watering of the coal ash will be needed depending on that beneficial use.

Response: Agree.

Section III, Operable Unit Background, will be revised to state the following:

"The depth to groundwater in this area is ~37 m (~120 ft) bgs. <u>During times of large rain events standing water may be present within the ACPRB.</u>"

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

8. **Operable Unit Background Section, Section "F-Area Ash Landfill Operable Unit", page 6, second paragraph**: The document states that "the 288-F Class II Ash Landfill will remain a permitted operating landfill until beneficial reuse is initiated (SRNS 2022)." Given that the F-Area Ash Landfill is an active solid waste landfill, one would assume that the permit contains requirements related to current groundwater detection monitoring per R61-107.19 Part IV Section E and submittal of a closure plan once operations cease. Please clarify whether there is a groundwater detection monitoring program for this unit and whether results indicate there are releases of metals and/or radionuclides into the groundwater.

   Response: Agree.

   Text in Section III, Operable Unit Background, F-Area Ash Landfill Operable Unit, will be revised as shown below.

   ". . . and is an active Class II Landfill (SCDES Solid Waste Landfill Permit #025800-1601). SCDES clarified in a May 2022 meeting with the Core Team that the 288-F Class II Ash Landfill will remain a permitted operating landfill until beneficial ~~reuse~~ is initiated (SRNS 2022). <u>Currently, a groundwater monitoring program exists for the FAL OU and will continue to be monitored semi-annually in accordance with its Solid Waste permit. No metals and/or radionuclides related to 288-F landfill have been reported at levels above the permitted thresholds within the groundwater beneath the OU.</u>"

   Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

9. **Operable Unit Background Section, Subsection "H-, K-, and L- Area Ash Basin Operable Units", page 7, bottom of first column**: The document states "[w]et ash/soils at the southeastern side of the basinare [sic] primarily located/associated with ash deposits outside the basin berm where ash deposits align with the location of a historical Carolina bay that a

portion of the HAB OU was partially constructed on top of (Figure 6)." Please clarify whether the Carolina bay was considered one of the waters of the State or a wetland that was filled.

Response: Clarification.

The HAB was constructed in 1952 and became operational in 1954, which predates any wetland or state regulations. For clarity Section III, Operable Unit Background, H-, K-, and L- Area Ash Basin Operable Units, will be updated as follows:

". . .Wet ash/soils at the southeastern side of the basin are primarily located/associated with ash deposits outside the basin berm where ash deposits align with the location of a historical Carolina bay that a portion of the HAB OU was partially constructed on top of (Figure 6). The basin was constructed in 1952 which predates any wetland or state regulations."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

10. **Scope and Role of Operable Unit or Response Action Section, page 8, second paragraph**: The document states, "In 2022, the USDOE . . . that includes future beneficial reuse of the ash material (Phase 2) . . . ." Please revise to use the regulatory term CCR because coal ash is not a "material" but rather a solid waste. *See* 40 CFR 257.53 ("Coal combustion residuals (CCR) means fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers."). Please revise accordingly and make conforming changes throughout the document such that "ash material" is replaced with "coal ash waste" or CCR.

Response: Agree.

Section IV, Scope and Role of Operable Unit or Response Action, will be updated as follows:

". . . that includes future beneficial ~~re~~use of the CCR~~ash material~~ (Phase 2) following the implementation of LUCs (Phase 1)."

Other sections of the document that refer to ash as material will also be revised to include the use of the CCR terminology.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

11. **Summary of Site Risks Section, page 9**: The opening paragraph introduces a term "Refined Constituents of Concern." This term is not used in CERCLA, the NCP, or EPA guidance.

Please include a footnote that describes how this term relates to the term used in Superfund cleanups, "Contaminant of Concern." See EPA RI-FS guidance, *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*, EPA OSWER 9355.3-01, October 1988, and EPA ROD guidance, *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, EPA OSWER 9200.1-2P, July 1999, for discussions of how contaminants of concern are identified and used in the remedial process. Going forward and to avoid confusion, ORC recommends that the SRS remedial process use terms that have been developed in EPA guidance documents or ensure that the remedial documents contain an explanation that cross-references the CERCLA term.

Response: Clarification.

The RCOC term will be added to the glossary of the EA SB/PP as shown below:

"Refined Constituents of Concern (RCOCs): Constituents of Concern (COC) that have been carried forward following the refinement process (SRNS 2023) and warrant a response action."

The reference to the EC&ACP Regulatory Document Handbook will also be added to section XI. References, as shown below.

"SRNS, 2023. *Environmental Compliance and Area Completion Projects Regulatory Document Handbook*, SRNS-RP-2022-00330, Revision 0, June 2023, updated December 2025 (corrected), Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC"

Within the SRS remedial process, the term refined constituent of concern (RCOC) is a related but separate concept from contaminant or constituent of concern (COC). Its use has been outlined in a process defined in the EC&ACP Regulatory Document Handbook, specifically the *Constituents of Concern (COC) Refinement Process (Protocol COC-1),* which was agreed to by USDOE, USEPA, and SCDES. After COCs are identified, they are subsequently refined using an uncertainty evaluation for each COC. This process involves identifying and selecting COCs which have a reasonable likelihood of being released, are consistent with the conceptual site model, and pose an adverse hazard or risk to human health or the environment. COCs that are carried forward following the refinement process are designated as RCOCs, and are those contaminants related to the waste unit to be evaluated as part of the remedy alternatives analysis.

Responsible Party: Maggie Dercole, (803) 952-5797, maggie.dercole@srs.gov

12. **Summary of Human Health Risk Assessment through Problems Warranting Action, pages 9 through 11**: These sections begin discussing the contaminants at the sites. Then on page 11, the text contains the conclusion that the radionuclides are naturally-occurring. Please include a short factual summary before the text on page 11 that describes how it was determined that contaminants that pose an unacceptable risk (in this case, radionuclides) are naturally occurring.

    Response: Agree.

    Coal contains trace amounts of naturally occurring radionuclides. The radionuclides that are present within coal ash therefore occur naturally in the environment/coal but have been concentrated as a result of human activities (i.e., coal combustion). Coal ash, which contains elevated levels of radionuclides, is defined by the EPA as Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM). Naturally Occurring Radioactive Material (NORM) refers to materials containing any of the primordial radioactive elements as they occur in nature that are undisturbed as a result of human activities.

    For clarity, the first mention of the phrase naturally occurring in Section I, Introduction and Background, Page 1, last paragraph, will be updated as shown below:

    "Arsenic and naturally-occurring radionuclides present in surface ash/soil may pose an unacceptable exposure risk to the future resident and industrial worker in all five of the remaining coal ash and coal fines OUs. Radionuclides present within the ash occur naturally in coal. However, coal ash is considered a form of Technologically Enhanced Naturally Occurring Radioactive Material, as the elevated activity levels of radionuclides found within the ash units are the result of coal combustion."

    Responsible Party: Maggie Dercole, (803) 952-5797, maggie.dercole@srs.gov

13. **Remedial Action Objectives Section, page 12, fourth paragraph**: The PP states that "[f]or the HAB OU and LAB OU, the RAO is to protect groundwater resources from migration of contaminants in unit ash/soil that would impact the groundwater above groundwater protection standards." Please revise this RAO to state: "For the HAB OU and LAB OU, the RAO is to protect groundwater (which is classified by South Carolina as a Class GB Ground Water and an underground source of drinking water) from migration of contaminants in unit ash/soil that would impact the groundwater above drinking water standards (i.e., Maximum Contaminant Levels [MCLs], or more stringent SCDES Groundwater Cleanup Target Levels [GCTLs])."

This RAO revision is recommended because the U.S. EPA expects to return usable groundwater to its beneficial use wherever practicable, within a timeframe that is reasonable given the particular circumstances of the site. See NCP at 40 CFR 300.430(a)(1)(iii)(F). All South Carolina groundwater is classified as Class GB unless otherwise listed. See S.C. Code § 48-1-10, South Carolina Regulation 61-69.

Response: Clarification.

SRS agrees that groundwater should be returned to beneficial use wherever practicable and within a reasonable timeframe given unit characteristics/circumstances. The water table aquifers, although designated as Class GB, are not typically used for drinking water based on aquifer characteristics. Regardless, SRS establishes drinking water standards (both federal and state if more stringent) as the RAO targets. The RAO will be revised as shown below:

"For the HAB OU and LAB OU, the RAO is to protect groundwater resources from migration of contaminants in unit ash/soil that would impact the groundwater above ~~groundwater protection~~drinking water standards."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

14. **Summary of Remedial Alternatives Section, page 12**: The preferred alternative should be identified at the beginning of the summary of remedial alternatives section. *See* ROD Guidance at 3-5 ("The alternatives that is recommended as the Preferred Alternative should be identified as such at the beginning of this [Summary of Remedial Alternatives] section.").

Response: Clarification.

Although the 1991 USEPA guidance recommends that the preferred alternative be identified at the beginning of the *Summary of Remedial Alternatives* section, SRS believes this placement before Section VIII. *Evaluation of Alternatives* is premature and could potentially bias selection of the preferred alternative. For this reason, the preferred alternative is identified in Section IX. *Preferred Alternative* after the evaluation of alternatives in accordance with the SRS SB/PP Format (Format F-6 in the EC&ACP Regulatory Document Handbook [SRNS-RP-2022-00330, Revision 0, June 2023, updated December 2025 {corrected}]).

No change to the current document is proposed.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

15. **Summary of Remedial Alternatives Section, Alternative A-2**: LUCs with Beneficial Reuse Section, page 13: Please see EPA's earlier comment on the use of the term "beneficial reuse" and please ensure that the term is being used consistent with the CCR regulation terminology. Since some provisions of 40 CFR part 257 are being identified as Action-Specific ARARs, EPA would prefer use of the term "Beneficial Use of CCR" or "Beneficial use." The coal ash and fines in these OUs are solid waste that have been disposed. Phase II would excavate CCR (i.e., coal ash waste) and utilize the CCR for disposal in other areas of the Site which qualifies as "Beneficial Use" as defined in 40 CFR 257.53.

    Response: Agree.

    The term "Beneficial Reuse" as used throughout the current document will be revised to "Beneficial Use". A footnote will also be added to the first use of this terminology to clarify the use of the former term in any previous documentation as shown below.

    "[2] The term "Beneficial Use" was formerly referred to as "Beneficial Reuse" in prior documentation."

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

16. **Summary of Remedial Alternatives Section, Alternative A-2**: LUCs with Beneficial Reuse Section, page 13, column 2, first paragraph: The document states, "[d]ue to the CM concerns at the HAB and LAB OUs, groundwater monitoring wells would be installed/identified at these two OUs and would be monitored every five years to coincide with the five-year remedy reviews." Monitoring frequency should be decided in the ROD or post-ROD documents approved by EPA. Revise to state, "would be routinely monitored according to a Plan approved by EPA and SCDES. Groundwater monitoring results will be evaluated in routine reports as well as part of the Five-Year Review process for the selected remedy."

    Response: Agree.

    Monitoring frequency will be discussed in the ROD or post-ROD documents. However, based on the prolonged time frame for potential impacts (hundreds of years), SRS used a five-year monitoring frequency, which has been used at other operable units with long time frames for potential groundwater impact, as reasonable to help inform the cost estimate. SRS believes the need for individual monitoring reports outside of the five-year remedy reviews is unnecessary as contaminants are not expected to migrate before beneficial use occurs. However, the text in Section VII, Summary of Remedial Alternatives, will be revised as shown below.

    "Due to the CM concerns at the HAB and LAB OUs, groundwater monitoring wells

would be installed/identified at these two OUs and would be monitored and reported as described in the ROD or post-ROD documents~~every five years to coincide with the five-year remedy reviews~~."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

17. **Summary of Remedial Alternatives Section, Alternative A-2**: LUCs with Beneficial Reuse Section, page 13, column 2, first paragraph: The document states, "Phase II (excavation and beneficial reuse) of this alternative would involve excavation of ash material in an attempt to achieve unrestricted use levels while providing beneficial reuse of the material." Please see EPA's earlier comments regarding the use of the regulatory term CCR instead of "material" with respect to the CCR. Please revise accordingly to indicate that CCR (or coal ash waste) will be excavated and put to a beneficial use at other areas of the Site as part of Phase II of the remedy.

    Response: Agree.

    Section VII, Summary of Remedial Alternatives, Alternative A-2, LUCs with Beneficial Use, will be revised as shown below.

    "Phase 2 (excavation and beneficial ~~re~~use) of this alternative would involve excavation of the CCR ~~ash material in an attempt to achieve~~with the goal of achieving unrestricted use levels while providing beneficial ~~re~~use of the CCR~~material~~."

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

18. **Summary of Remedial Alternatives Section, Alternative A-3**: Class III Cover with LUCs, page 14, first paragraph: The document states that "[a] Class III cover system includes a geosynthetic materials [sic] including a liner and a draining layer to limit infiltration of rainwater through the covered waste." Given the nature of the solid waste and that there are closure performance requirements including requirements for a final cover in 40 CFR 257.102(d) for leaving CCR waste in place, EPA thinks these requirements are "relevant and appropriate requirements." EPA recognizes that the Class III final cover requirements in R61-107.19 Part V Subpart F are similar in terms of material thickness and permeability rating. Consider revising the Alternative Title to "Landfill Cover with Lucs" and including language in the description to include reference to ARARs such as those in 40 CFR 257.102(d).

    Response: Clarification.

    The recommendation to change the alternative title seems unnecessary due to the similarities in cover requirements and given the use of this title in the approved CMS/FS.

As mentioned in the comment, ". . . the Class III final cover requirements in R61-107.19 Part V Subpart F are similar in terms of material thickness and permeability rating". If the requirements of 40 CFR 257.102(d) are covered under the implementation of a Class III cover system, then SRS does not see the added benefit of changing the alternative title. The alternatives were presented, evaluated, and agreed upon by the core team (USEPA, SCDES, and USDOE). However, language referencing 40 CFR 257.102(d) can be added to Section VIII, Evaluation of Alternatives, under the Compliance with ARARs subsection as shown below.

"Action-specific ARARs associated with Alternatives A-2 and A-3 are achieved by employing best management practices to minimize erosion of ash/soil and management of storm water runoff, and developing a storm water management plan. Action-specific ARARs such as 40 CFR 257.102(d) and R61-107.19 part V, as applicable, shall also be achieved under the implementation of Alternative A-3."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

19. **Compliance with ARARs section, page 15**: EPA agrees that inclusion of a brief summary of important ARARs in the Proposed Plan is recommended by guidance. In contrast, EPA guidance does not recommend including an ARARs table in a proposed plan. And EPA hereby recommends that the ARARs table (Table 2) be removed. EPA recommends that the best approach is that Phase I (i.e., LUCs and groundwater monitoring) be documented in an IROD, followed by a final ROD that includes Phase II (i.e., beneficial use and closure of the CCR units). EPA recognizes that the F-Area Ash Landfill is a regulated solid waste landfill subject to closure requirements under SCDES regulations identified as applicable requirements.

    Response: Clarification.

    See response to Attorney (General Comments) #1 and #3.

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

20. **Compliance with ARARs section, page 15, first paragraph**: The document states "Excavation within any wetland area may require restoration upon completion of the excavation." Any unavoidable impacts to wetlands would also need to comply with Clean Water Act Section 404(b)(1) guidelines, including regulations in Subpart J 40 CFR 230.91 et seq. for compensatory mitigation. Please revise this language to include reference to this regulation.

    Response: Agree.

Section VIII, Evaluation of Alternatives, Compliance with ARARs, will be updated as follows:

"Excavation within any wetland area may require restoration upon completion of the excavation to comply with the applicable ARARs in 10 CFR 1022 and ~~1023~~, the Clean Water Act Section 404(b)(1) guidelines ~~(see Table 2)~~."

Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

21. **Compliance with ARARs section, page 15, first paragraph**: The document states "[i]n addition, the characterization, disposal, and transportation of ash generated from Alternative A-2 would be handled in accordance with Federal and State regulations 40 CFR 262.11(b) and SCDES 61-107.5(D)(3)." Please revise the citation to include 40 CFR 262.11(a)-(d).

Response: Agree.

Section VIII, Evaluation of Alternatives, Compliance with ARARs, will be updated as follows:

"In addition, the characterization, disposal, and transportation of ash generated from Alternative A-2 would be handled in accordance with Federal and State regulations 40 CFR 262.11~~(b)~~(a)-(d) and SCDES 61-107.5(D)(3)."

Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

22. **Evaluation of Alternatives section, Compliance with ARARs, page 15**: The first paragraph, next-to-last sentence states that "Coal ash and coal pile runoff are excluded as hazardous, solid waste per 40 CFR 261.4(b)(4)(i) and (ii)." Please revise to remove the word "solid" as this waste is considered solid waste, but not hazardous waste under this section. See the section title, "Solid wastes which are not hazardous wastes" and the following introductory statement, "The following solid wastes are not hazardous wastes . . . ."

Response: Agree.

Section VIII, Evaluation of Alternatives, Compliance with ARARs, will be updated as follows:

"Coal ash and coal pile runoff are excluded as hazardous~~, solid~~ waste per 40 CFR 261.4(b)(4)(i) and (ii)."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

23. **Evaluation of Alternatives section, Compliance with ARARs, page 15, last sentence**: The document states that "[i]nstallation of monitoring wells will be in accordance with R. 61-71B(2))." Note that the regulations regarding groundwater monitoring are located in R.61-71H. Revise this citation to include R.61-71H. There are also additional specific requirements that would need to be included in an IROD or ROD, depending on USDOE's acceptance of EPA's recommendation for implementation of Phase I and Phase II. EPA can provide those requirements in a separate table in preparation for the IROD or ROD.

    Response: Agree.

    Section VIII, Evaluation of Alternatives, Compliance with ARARs, will be updated as follows:

    ". . .installation of monitoring wells will be in accordance with R. 61-71~~B(2))~~H."

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

24. **Preferred Alternative Section, page 16, second column, second bullet point**: The document states, "[i]nstallation/identification of groundwater monitoring wells for the HAB and LAB OUs, monitored every five years. Groundwater beneath the FAL OU will be monitored semi-annually." Please see EPA's earlier comment. Specification of the monitoring frequency in the Proposed Plan is premature and requires EPA and SCDES approval. Please revise this language accordingly.

    Response: Agree.

    The language in Section IX, Preferred Alternative, will be revised as follows:

    "Installation/identification of groundwater monitoring wells for the HAB and LAB OUs, monitored ~~every five years~~as determined in the ROD or post-ROD documents."

    The groundwater at the FAL is currently monitored semi-annually per the current Solid Waste Landfill permit and will continue to be monitored under the same frequency until implementation of the final remedy. An explanation will be added to Section IX, Preferred Alternative, as shown below.

    "Groundwater beneath the FAL OU will be monitored semi-annually as required under the current Solid Waste Landfill permit until implementation of the final remedy, at which point the frequency shall be determined by the ROD or Post-ROD documentation."

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

25. Please confirm that the proposed beneficial use as contemplated in Phase II of this action would meet the following conditions of "beneficial use of CCR" in the CCR regulation 40 CFR 257.53 Definitions.
Beneficial use of CCR means the CCR meet all of the following conditions:
(1) The CCR must provide a functional benefit;
(2) The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices, such as extraction;
(3) The use of the CCR must meet relevant product specifications, regulatory standards or design standards when available, and when such standards are not available, the CCR is not used in excess quantities; and
(4) When unencapsulated use of CCR involving placement on the land of 12,400 tons or more in nonroadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.
40 CFR 257.53. Please include a discussion of the proposed Phase II beneficial use that provides at least as much detail as is discussed in this regulation to confirm that the proposed beneficial use meets the definition of "beneficial use of CCR."

Response: Clarification.

The exact beneficial use of CCR will not be determined until Phase 2 is initiated. However, any action that is selected will be compliant with the requirements in 40 CFR 257.53. Section VII, Summary of Remedial Alternatives, Alternative A-2, LUCs with Beneficial Use will be updated as shown below.

". . . and strength of concrete products. <u>These beneficial use options will ensure that unacceptable exposure or leaching of the ash does not occur. Any beneficial use action selected during Phase 2 will be compliant with 40 CFR 257.53.</u> The LUCs with Beneficial <u>Use</u>~~Reuse~~ . . ."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

26. **Table 2, page 33**: Please see EPA's General Comment #3 and the earlier comment including EPA's recommendation that ARARs not be included in the Proposed Plan. If USDOE wants to retain an ARAR table despite EPA's recommendation, then the table should be limited to those requirements related to Phase I, specifically groundwater monitoring requirements. Any

ARARs for Phase II (i.e., beneficial reuse and closure of CCR units) would be included in the final ROD.

Response: Agree.

Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

27. **Table 2, page 34**: Note that EPA revised the RCRA regulations on waste characterization and that the language in 40 CFR 262.11 is different than what is provided in the Proposed Plan and thus these ARARs need to be revised to be consistent with the regulation in the upcoming ROD. EPA Region 4 can provide the updated language and ARARs for submission in the final ROD.

    Response: Agree.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The updated ARARs will be provided in the final ROD.

    Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

28. **Table 2, page 36, Section Dewatering of Ash Basin**: Note that these ARARs would apply to Phase II if Beneficial Use of CCR occurs. Clarification is needed as to the location of the discharge of the wastewater given the classification of the receiving water, but this detail should be provided in the final ROD.

    Response: Clarification.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The exact details of the selected beneficial use of the CCR will be outlined in the Post-ROD design documents (e.g., Corrective Measures Implementation Plan/Remedial Action Implementation Plan [CMIP/RAIP]) prior to the implementation of the remedial action. The location of any discharge wastewater will be provided in the Post-ROD documents.

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

29. **Table 2, page 36, Section Monitoring Well Installation, Operation, and Abandonment**: The groundwater monitoring ARARs that apply during Phase I are more extensive than what is provided in Table 2 of the Proposed Plan. Additionally, in the event that Phase II results in closure of the sites with waste in place as opposed to "beneficial use of CCR", there would be

additional ARARs that are required as part of post-closure care which need to be added to any ARARs table. See earlier comments on content of ARARs tables and EPA's General Comment #3.

Response: Agree.

Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The appropriate groundwater monitoring ARARs will be provided in the ARAR table of the final ROD. Please see the response to Attorney (General Comment) #3 in reference to the Phase 2 ARARs in the event that any CCR is left in place.

Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

30. **Table 2, page 36, Section On-Site Closure/Capping of Ash Basins**: Consistent with EPA's earlier comments, no ARARs table is required for inclusion in the proposed plan. In the event USDOE decides to include an ARARs table in this proposed plan, EPA recommends the ARARs be limited to just Phase I (i.e., groundwater monitoring requirements). See earlier comments on content of ARARs tables and EPA's General Comment #3.

    Response: Agree.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP.

    Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

31. **Table 2, page 36, Section On-Site Closure/Capping of Ash Basins, entry for action "Closure of CCR Unit", requirements**: This entry in Table 2 does not use the correct regulatory language. Consistent with EPA's earlier comments, no ARARs table is required for inclusion in the proposed plan. EPA expects revision of the language consistent with that in 40 CFR 257.102(a) in the ROD ARARs table, as follows:
    Closure of a CCR unit must be completed either by leaving the CCR in place and installing a final cover system or through removal of the CCR and decontamination of the CCR unit, as described in paragraphs (b) through (j) of this section. Retrofit of a CCR surface impoundment must be completed in accordance with the requirements in paragraph (k) of this section.

    Response: Agree.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The closure requirements will be updated in the ARAR table of the final ROD.

    Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

32. **Table 2, page 36, Section On-Site Closure/Capping of Ash Basins, entry for action "Closure of CCR Unit", Citation**: Consistent with EPA's earlier comments, no ARARs table is required for inclusion in the proposed plan. Further, there are many more entries for South Carolina solid waste landfill closure and post-closure regulations for the 288-F landfill (Class III) and the other CCR management units that are missing from this table. EPA contends that in the ARARs table for the final ROD including the closure requirements for CCR management units in 40 CFR 257.102(d), but excluding timeframes and notice requirements, would be more appropriate for the CCR units other than the 288-F Landfill than the closure requirements for Class III landfill in SC R. 61-107.19 part V Subpart F, although the final cover requirements are similar. Accordingly, when including these ARARs in the final ROD, the ARARs need to be revised to include those CCR closure requirements.

    Response: Agree.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The closure requirements will be updated in the ARAR table of the final ROD.

    Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

33. **Table 2, page 38, Section Location Specific ARARs**: Consistent with EPA's earlier comments, no ARARs table is required for inclusion in the proposed plan. In the ARARs table for the final ROD, these entries need to be revised to better reflect the language in the regulations. Also, for any unavoidable impacts to aquatic resources such as wetlands, the Clean Water Act section 404(b)(1) requirements for compensatory mitigation need to be added to the Location-specific ARARs table. EPA Region 4 can provide an example table with these requirements during preparation of the R0 of the final ROD.

    Response: Agree.

    Per response to Attorney (General Comment) #1, Table 2 will be removed from the EA SB/PP. The ARAR table in the final ROD will be updated to include the Clean Water Act section 404(b)(1) requirements for compensatory mitigation.

    Responsible Party: Caleb Jones, (803) 952-3840, caleb.jones@srs.gov

34. **In the Operable Unit Background Section, H-, K-, and L- Area Ash Basin Operable Units Subsection, first paragraph, page 15**: The document states that "[a] constructed ditch on the southern side of the basin channels water from the basin to the south-east toward a small permanently pooled water body that flows toward a small tributary of Fourmile Branch at the northwest corner of H Area." Does this ditch capture runoff from the H-Area basin? Has it been tested to check if there are discharges of pollutants from the coal ash in the H-Area basin?

Is there an NPDES permit for this outfall? What does it mean that it is an as-built industrial wastewater facility or that that it is receiving rainwater runoff from an above ground pipeline?

Response: Clarification.

The ditch was constructed as a stormwater drainage ditch, to reroute any excess water around the exterior of the basin. This is a common design used to alleviate any erosion of the basin walls. The ditch has not been analytically sampled as part of previous characterization efforts. However, transects were used to visually verify the extent of ash outside the basin boundary, as documented in the EA CMS/FS (SRNS-RP-2024-00222, Revision 1). Based on the transects, ash was confirmed within and beyond the constructed ditch. An NPDES permitted outfall does not exist for this drainage ditch.

For clarity, the text in the Operable Unit Background, H-, K-, and L- Area Ash Basin Operable Units, will be revised as shown below.

" . . . A constructed ditch on the southern side of the basin channels water ~~from~~around the exterior of the basin to the south-~~east~~west toward a small permanently pooled water body that flows toward a small tributary of Fourmile Branch~~ at the northwest corner of H Area~~. The ditch was constructed as a stormwater drainage ditch, to reroute any excess water around the exterior of the basin. This is a common design used to alleviate any erosion of the basin walls. The depth to groundwater in this area is . . ."

The HAB OU is permitted as an "as-built" industrial wastewater facility because it is currently receiving rainwater runoff from an above ground pipeline that accumulates in abatement pumps located behind the H-Area powerhouse (284-H).

For clarity on the "as-built" industrial wastewater facility, the text in the Operable Unit Background, H-, K-, and L- Area Ash Basin Operable Units, will be revised as shown below.

". . .the HAB OU is permitted as an "as-built" industrial wastewater facility (Permit #~~729~~18748-IW). HAB OU is currently receiving rainwater runoff from abatement pumps located behind the H-Area powerhouse (284-H) through an above ground pipeline and is considered an active unit in that regard.~~that~~ The pipeline can be re-routed, as necessary, to support future remedial activities at the HAB OU."

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

DRAFT REVISED RADIO ANNOUNCEMENT

ANNOUNCER:

The U. S. Department of Energy (D-O-E) released an Early Action Statement of Basis / Proposed Plan on Month Day, Year for A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basini (188-K), and L-Area Ash Basin (188-L) Operable Units (OUs) at the Savannah River Site (S-R-S). The proposed remedy consists of Land Use Controls with Beneficial ~~Reu~~Use. The South Carolina Department of Environmental Services (S-C-D-E-S) also released a draft hazardous and mixed waste permit modification for the remedy.~~;~~ ~~t~~The draft is available for review during regular business hours, 8:30 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at S-C-D-E-S's Bureau of Land and Waste Management Office, 2600 Bull Street, in Columbia, telephone (803) 898-0255~~Midland Aiken Environmental Affairs Office~~. The public is invited to review and comment on the proposed remedy.

This document is available at the D-O-E Public Reading Rooms at the University of South Carolina – Aiken, Augusta University, the University of South Carolina – Columbia, Savannah State University, and is available on the S-R-S webpage, https://public.srs.gov, under Environmental Stewardship~~www.srs.gov~~.

Written comments and requests for a public hearing must be received no later than Month Day, Year by Kent Krieg of S-C-D-E-S at kent.krieg@des.sc.gov or Barbara Smoak of S-R-S at barbara.smoak@srs.gov.

DRAFT REVISED ENVIRONMENTAL BULLETIN

Early Action Statement of Basis/Proposed Plan for the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) Operable Units Available for Public Comment

The United States Department of Energy (DOE) will release an Early Action Statement of Basis/Proposed Plan (SB/PP) for the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) Operable Units (OUs) on Month Day, Year, describing the preferred remedial approach for these units at the Savannah River Site (SRS). The South Carolina Department of Environmental Services (SCDES) will also release a draft Resource Conservation and Recovery Act (RCRA) permit modification for the proposed remedial action for these units. These documents will be available for public review and copying at the locations listed below. The forty-five (45) day public comment period is scheduled for Month Day, Year, to Month Day, Year.

The Early Action SB/PP was completed to meet the terms of the Comprehensive Environmental Response, Compensation, and Liability Act, a law governing the investigation and cleanup of waste units. DOE has worked with the United States Environmental Protection Agency-Region 4 (EPA) and the SCDES to ensure the remedial approach is consistent with all applicable environmental requirements. DOE, EPA, and SCDES have reviewed the risks associated with this OU and have evaluated the cleanup alternatives presented in this plan.

The A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) OUs are located in various areas of the SRS. A remedial action is needed at these remaining coal ash and coal fines OUs. Arsenic, naturally occurring radionuclides, and contaminants with the potential to migrate to groundwater and exceed action levels within 1,000 years are present in ash/soils at levels that may pose a threat to human health and the environment.

The proposed remedy for the OUs consists of Land Use Controls (LUCs) with Beneficial ~~Reu~~Use and will be implemented in two phases. Phase 1 would implement LUCs for each of the remaining coal ash and coal fine OUs. LUCs include posting and maintenance of warning signs and the establishment of administrative and worker access controls to effectively reduce exposure of contaminated media to human receptors. This phase does not support unrestricted land use, and five-year remedy reviews would be required. Due to contaminant migration concerns at the H-Area Ash Basin (288-H) and L-Area Ash Basin (188-L) OUs, groundwater monitoring wells would be installed/identified and monitored every five years to coincide with the remedy reviews. Groundwater beneath the F-Area Ash Landfill (288-F) would continue to be monitored semi-annually per the existing permit. The 288-F Ash Landfill will remain a permitted operating landfill until Phase 2 of the proposed remedy is initiated. Groundwater will be addressed as part of the respective area groundwater OU characterization and cleanup decisions. Any cleanup of groundwater contamination will take place under those separate closure agreements. The monitoring of groundwater at these units is to verify that contaminants associated with the ash units do not migrate to groundwater above regulatory limits.

Phase 2 of the remedy includes excavation of the ash and its beneficial ~~re~~use. Beneficial ~~re~~use will involve the excavation of contaminated ash/soil for later incorporation into a ~~re~~use option.

DRAFT REVISED ENVIRONMENTAL BULLETIN

Early Action Statement of Basis/Proposed Plan for the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) Operable Units Available for Public Comment

Following completion of the excavation activities, the ash units will be restored (i.e., contoured for proper drainage and revegetated as necessary). LUCs will remain in place until beneficial ~~re~~use can occur. Phase 2 is effective in eliminating human exposure to contaminants and preventing direct radiation exposure by physically removing the source. Proven unencapsulated beneficial ~~re~~use alternatives for coal ash/fines include use as a fill material, or as an additive or replacement for cement in concrete mixes. Once implemented this phase of the proposed remedy supports unrestricted land use and would not require five-year remedy reviews.

Comments on the Early Action SB/PP and the draft RCRA permit are requested by Month Day, Year. Upon completion of the public comment period, a Responsiveness Summary that addresses public comments will be prepared. The Responsiveness Summary will be made available with the Early Action Record of Decision and the final RCRA permit modification and will be sent to each person who submits comments.

To aid in the review of the Early Action SB/PP, an Early Action SB/PP Fact Sheet for the OUs was prepared.

Copies of the Early Action SB/PP and the Fact Sheet are available in the Administrative Record. The Administrative Record is available in the information repositories listed below:

US Department of Energy
Public Reading Room
Gregg-Graniteville Library
University of South Carolina – Aiken
471 University Parkway
Aiken, South Carolina 29801
(803) 641-3456

Thomas Cooper Library
Government Information and Maps Department
University of South Carolina
1322 Greene Street
Columbia, South Carolina 29208
(803) 777-4841

Hard copies of the Early Action SB/PP and Fact Sheet are available at the following locations:

Reese Library
Government Information Department
Augusta University
2500 Walton Way
Augusta, Georgia 30904
(706) 737-1744

Asa H. Gordon Library
Savannah State University
2200 Tompkins Road
Savannah, Georgia 31404
(912) 358-4324

The Early Action SB/PP and Fact Sheet are available electronically at the following address: ~~http://www.srs.gov/general/programs/soil/pub/pubinv.html~~https://public.srs.gov/missions-and-programs/environmental-stewardship/public-involvement-2/

DRAFT REVISED ENVIRONMENTAL BULLETIN

Early Action Statement of Basis/Proposed Plan for the A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), F-Area Ash Landfill (288-F), H-Area Ash Basin (288-H), K-Area Ash Basin (188-K), and L-Area Ash Basin (188-L) Operable Units Available for Public Comment

Copies of the draft RCRA permit modification are available for review at SCDES during regular business hours, 8:30 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the following location~~s~~:

SCDES
Bureau of Land and Waste Management
2600 Bull Street
Columbia, SC 29201
Phone: (803) 898-2000

~~SCDES~~
~~Midlands Aiken Environmental Affairs Office~~
~~206 Beaufort St., N.E.~~
~~Aiken, SC 29801~~
~~Phone: (803) 642-1637~~

If there is interest in discussing the recommended remedial approach, a public hearing may be requested. Comments on the Early Action SB/PP should be sent to Barbara Smoak. Comments on the draft RCRA permit modification or requests for a public hearing should be sent to Kent Krieg. For additional information or to request a public meeting contact:

Barbara Smoak
Savannah River Nuclear Solutions, LLC
Savannah River Site
Building 703-43A
Aiken, SC 29808
(803) 952-8060
barbara.smoak@srs.gov

SCDES
Attn: Kent Krieg, Director
Division of Waste Management
Bureau of Land and Waste Management
2600 Bull Street
Columbia, SC 29201
(803) 898-0255
kent.krieg@des.sc.gov