REGION 4
ATLANTA, GA 30303

October 13, 2026

ENVIRONMENTAL COMPLIANCE &

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AREA COMPLETION PROJECTS

Mr. Matthew Baker, SRS Remedial Project Manager
Remediation and Deactivation & Decommissioning Division
U.S. Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802

EPA Comments: Early Action Record of Decision Remedial Alternative Selection 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-2026-00742, Revision 0, August 2026) SEMS Numbers: 61, 62, 88, 90, & 91

Dear Mr. Baker,

The U.S. Environmental Protection Agency, Region 4 (EPA) has reviewed the Early Action ROD for the Beneficial Use of Coal Ash and Coal Fines at A, F, H, K and L areas [OUs 61, 62, 88, 90, 91]. The following are our questions on the R0 are attached:

If you have any questions or require additional information, please contact me at (404) 431-1340.

Sincerely,

JON RICHARDS Digitally signed by JON RICHARDS
Date: 2026.10.13 12:13:51 -04'00'

Jon Richards
FFA Remedial Project Manager
Superfund & Emergency Management Division

ec: C.L. Bergren, SRNS-ACP
Susan Fulmer, SCDES

General Comments:

- For the coal basins that have been closed (described as "remediated/certified closed" on page 3 of the ROD), are those sites subject to FYRs and, if so, which of the FYR reports are they addressed in?
- Can you tell us why the H and K basins have wastewater permits? Why do they need those permits?

Comment #1, Declaration, Unit Name and Location, page i of x, paragraph 1: Please add a new last sentence that explains the significance of sites being in Appendix C of the FFA. While it may be known to all who routinely work on SRS CERCLA matters, a short explanation would be helpful to provide context for the existing sentence. *A proposed sentence might read, "Appendix C lists the RCRA/CERCLA units for which the FFA establishes requirements, such as schedules for investigation and, as appropriate, remediation."*

Comment #2, Declaration, Assessment of the Site, page ii of x, paragraph 1, sentence 2: Please drop a footnote with a short explanation of the phrase "naturally occurring radionuclides." The use of this phrase may be confusing to readers who are familiar with the CERCLA process but less familiar with the cleanup of radionuclides. In CERCLA, "naturally occurring" is usually used in the sense of contamination that might be present in the "background" and not be a site-related/operational release, but that is not the meaning intended here.

Comment #3, Declaration, Assessment of the Site, page ii of x, paragraph 1, sentence 4: Consider defining the term "Technologically Enhanced Naturally Occurring Radioactive Material", as it is not a term that is commonly known or often encountered in RODs.

Comment #4, Declaration, Description of the Selected Remedy, p. iii of x, first full paragraph, sentence 2: Please revise the sentence to read, with supplemental statements, "LUCs will be in effect until the site is protective for unrestricted use and unlimited exposure. While this is intended to occur after Phase 2 of the remedy is implemented, a determination will be made after implementation of Phase 2 whether the LUCs are still necessary for protection of human health and the environment."

Comment #5, Declaration, Description of the Selected Remedy, p. iii of x, first full paragraph, second bullet: Please add text in this bullet explaining that the Site Use/Site Clearance Program will also prevent any residential uses of the property, which might include day care centers. Accordingly, please change the "heading" of this bullet to read, "Administrative/Worker Access/Residential Use Controls."

Comment #6, Declaration, Description of the Selected Remedy, p. iv of x, first full paragraph: Please add a sentence like the fourth sentence in the first paragraph of the Statutory Determinations Section (i.e. a sentence explaining what will happen if unrestricted use is not achieved in Phase 2 of Alternative A-2) to the end of the first full paragraph starting with "[t]his alternative would. . . ."

Comment #7, Declaration, Description of the Selected Remedy, p. iv of x, second full paragraph: Please insert the phrase, after "(RAOs)", "provides the best balance of tradeoffs with respect to the balancing and modifying criteria including that the remedy . . . ."

Comment #8, Declaration, Statutory Determinations, p. iv of x, first paragraph: The first paragraph appears to contain a description of the selected remedy. Please consider moving it to the preceding section, Description of the Selected Remedy.

Comment #9, Declaration, Statutory Determinations, p. v and vi of x: Please consider moving the paragraphs that discuss LUCs and property transfer to the preceding section, Description of the Selected Remedy, because these paragraphs discuss the content of the Selected Remedy and do not address the content recommended in the EPA ROD Guidance for the Declaration/Statutory Determination.

Comment #10, Declaration, Statutory Determinations, p. v and vi of x: See EPA ROD guidance, section 6.2.5 for a description of the content recommended for this section. Accordingly, consider moving the paragraph at the top of page v before the paragraph that discusses the requirement for a Five-Year Review. Ensure that this moved text addresses all of the following five requirements:

> This can be accomplished by making confirmatory statements that the Selected Remedy attains the mandates of CERCLA §121, and, to the extent practicable, the NCP. Specifically, the remedy must do the following: (1) Be protective of human health and the environment; (2) Comply with ARARs (or justify a waiver); (3) Be cost-effective; (4) Utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; (5) Satisfy the preference for treatment as a principal element of the remedy which permanently and significantly reduces the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants.

EPA ROD Guidance, page 6-4. Note, specifically, that the existing text in the draft ROD does not address requirement in #4 to "[u]tilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable." Please address this requirement. The ROD guidance notes that Highlight 6-4 provides standard language that can be tailored to the situation.

Comment #11, SAVANNAH RIVER SITE AND OPERABLE UNIT NAME, LOCATION, AND DESCRIPTION, Unit Name, Location, and Brief Description, p. 1: The EPA ROD guidance says that this section should describe the source of cleanup money. Please include. In addition, in accordance with the ROD guidance, please include a brief site description. While the first two paragraphs give a summary of SRS, it should also include a brief description/abstract (not complete summary, that is more for the next section) of the coal ash and coal fines operable units and the operations thereon that gave rise to this contamination.

Comment #12, Remedial Action Objectives, p. 27: EPA suggests the RAOs be revised to the following.

> **Remaining coal ash and coal fines OUSs RAO 1** — Prevent exposure of human receptors to contaminants present in the surface ash/soil that present a risk to the future resident and industrial worker greater than 1 E-06 risk threshold or background levels.
>
> **Remaining coal ash and coal fines OUs RAO 2** — Protect groundwater resources from migration of contaminants in unit ash/soil that would result in groundwater having concentrations of contaminants above drinking water standards (i.e. MCLs, or more stringent, promulgated state applicable or relevant and appropriate requirements, or risk-based concentrations) within a reasonable time.

Comment #13, Section VII, Summary of Operable Unit Risks, Summary of Human Health Risk Assessment, p. 18 and following: The ROD guidance suggests that this section be subdivided into four subsections, corresponding to major sections of the risk assessment: (1) Identification of chemicals of concern, (2) Exposure Assessment, (3) Toxicity Assessment, and (4) Risk Characterization. With such subdivision, "individuals unfamiliar with the site can understand the basis for undertaking remedial action." ROD guidance, p. 6-13. While much of this information may be in this section, using a consistent outline and approach for describing how the risk was determined assists with understanding the decision-making. Please see this section of the ROD guidance and address the topics recommended therein.

Comment #14, Section VII, Summary of Operable Unit Risks, Summary of Human Ecological Assessment, p. 22 and following: As with the prior comment, please see Section 6.3.7.2 of the EPA ROD guidance and present the information recommended therein. It, too, may have much of the recommended information, but all of it is not there and what is there would be easier to find using the recommended headings and organization.

Comment #15, Section VII, Summary of Operable Unit Risks, Summary of Fate and Transport Analysis, p. 24-25: As with the prior comments, the fate and transport discussion should occur earlier in the ROD and not after the risk assessment. The fate and transport discussion sets up what is where and why, and describes what the COCs are or how they are found, not how big a risk they present. Please move to an earlier section of the ROD, such as the site characteristics section. See Section 6.3.5 of the EPA ROD guidance.

Comment #16, Section VII, Summary of Operable Unit Risks, Discussion of Principal Threat Source Material, p. 25-26: Please be aware that EPA guidance on principal threat source material or principal threat waste (*A Guide to Principal Threat and Low Level Threat*

Wastes, OSWER 9380.3-06FS, November 1991, which is cited in the ROD) cautions against using risk levels as a direct indicator of whether a source is a PTSM/PTW.

> However, this concept of principal and low level threat waste should not necessarily be equated with the risks posed by site contaminants via various exposure pathways. Although the characterization of some material as principal or low level threats takes into account toxicity (and is thus related to degree of risk posed assuming exposure occurs), characterizing a waste as a principal threat does not mean that the waste poses the primary risk at the site. For example, buried drums leaking solvents into ground water would be considered a principal threat waste, yet the primary risk at the site (assuming little or no direct contact threat) could be ingestion of contaminated groundwater, which as discussed above is not considered to be a source material, and thus would not be categorized as a principal threat.

This guidance does include risk in the discussion, but again, PTSM are "source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur." It appears that the conclusion that there is no principal threat source material is a correct one, but it should not be based on the risk numbers, per se, but rather on the toxicity or mobility of the source material. Accordingly, please revise this section to make the PTSM determination based on toxicity and/or mobility, not so directly based on risk numbers.

Comment #17, Remedial Action Objectives and Remedial Goals, Remedial Action Objectives, p. 27: This section should describe the specific actions that are being taken. Accordingly, please add an RAO that states, "**Remaining coal ash and coal fines OUSs RAO 3 —** Remove the coal ash and coal fines above a risk level of 1 x 10-6 and use for beneficial use." Since this RAO is specifically for Phase II of the remedy, the bullet could specify that this RAO is for Phase II. The second existing RAO appears to also be for Phase II, while the first bullet seems to be for both Phase I and Phase II. See the RAO examples in ROD guidance section 6.3.8 and revise as appropriate ("e.g., treatment of contaminated soils above health-based actions levels, restoration of ground-water plume to drinking water levels, and containment of DNAPL source areas)."

Comment #18, Remedial Action Objectives and Remedial Goals, Cleanup Levels and Applicable or Relevant and Appropriate Requirements, p. 27-29: Please see the EPA ROD guidance and note that these sections should not be included in the RAO section, but in the following discussion of the description of the remedial alternatives.

Comment #19, Remedial Action Objectives and Remedial Goals, Applicable or Relevant and Appropriate Requirements, p. 28: The definition of "applicable requirements" does not match the language in the NCP. Rather than invite confusion, it is a

better practice to use the definition established in the regulation. Please revise. *See* 40 CFR § 300.5.

Comment #20, Remedial Action Objectives and Remedial Goals, Applicable or Relevant and Appropriate Requirements, p. 28: The definition of "relevant and appropriate requirements" does not match the language in the NCP. As above, please revise. *See* 40 CFR § 300.5.

Comment #21, Description of Alternatives; Remedy Components, Common Elements, and Distinguishing Features of Each Alternative, Alternative A-2: LUCs with Beneficial Use, p. 30, paragraph 1, fourth sentence: This sentence lists the specific LUCs that are part of the remedy. Because the LUC "RCRA Permit Renewal Application, Volume 1, Section F.1" has internal commas, consider separating the individual LUCs with semicolons, bullets, or some other method to avoid confusion.

Comment #22, Description of Alternatives; Remedy Components, Common Elements, and Distinguishing Features of Each Alternative, Alternative A-2: LUCs with Beneficial Use, p. 30: First, the EPA suggests adding "Excavation" to the title of the remedy, because excavation is a better description of the remedy, not so much the beneficial use. Rather, beneficial use is a regulatorily-established option for what is allowed to be done with the excavated ash material.

Comment #23, Description of Alternatives; Remedy Components, Common Elements, and Distinguishing Features of Each Alternative, Alternative A-2: LUCs with Beneficial Use, p. 31, last paragraph: In the last paragraph above the Summary of Costs, please add as sentence like the fourth sentence in the first paragraph of the Statutory Determinations Section which clarifies what will happen if clean closure will not be achieved. The referenced sentence from the Declaration is: "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 or amendment to the final EA ROD."

Comment #24, Description of Alternatives; Remedy Components, Common Elements, and Distinguishing Features of Each Alternative, Alternative A-2, p. 30-31: The document states in the Description of Phase 2 section on pages 39-40 that CCR may be placed in a storage facility, releasing of standing water from OUs that have the potential to hold water, clearing and grubbing of each of the vegetated areas within the OUs, constructing a stormwater management system, confirmation sampling, and site restoration. But the description of Alternative A-2 on pages 30-31 does not mention these things or include a comparable degree of detail. Please provide more details regarding what will be involved in the excavation of the CCR, transport of the CCR to the site of beneficial use, etc. in this section in Alternative A-2.

Comment #25, Comparative Analysis of Alternatives, Reduction of Toxicity, Mobility, or Volume through Treatment, p. 34: In the second sentence, please note that it is incorrect to state that the statutory preference for treatment is "not applicable." Rather, it is appropriate in this section to explain that because none of the alternatives accomplished a reduction in the toxicity,

mobility, or volume through treatment, this factor could not be used to compare or distinguish the alternatives. Because the second sentence already provides an explanation (although this explanation could be reserved for the Statutory Preferences section), it should be revised to read, "The statutory preference for treatment as a principal element of the remedy was not met in this action, because it was determined that the contaminants present in the CCR have no reasonable way to be treated."

Comment #26, new section at this point on Principal Threat Wastes, before Section XI: Per the EPA ROD guidance, please consider adding a section here that discusses Principal Threat Wastes. *See* Section 6.3.11.

Comment #27, The Selected Remedy, p. 35: Please consider adding a new subsection entitled "Summary of the Rationale for the Selected Remedy" per the EPA ROD guidance, Section 6.3.12.

Comment #28, The Selected Remedy, Description of Phase 1, third bullet point, p. 35: The selected remedy includes "[m]aintain[ing] the integrity of any current or future groundwater monitoring system." Please include a description of when and under what conditions the groundwater monitoring will end (i.e. will groundwater monitoring end when the CCR has been extracted, when the landfill is closed, etc.).

Comment #29, The Selected Remedy, Detailed Description of the Selected Remedy, Description of Phase 1, p. 35, LUC Objectives: The first LUC objective prevents unauthorized contact, removal or excavation of contaminated ash/soil within the OUs. Please add a LUC objective that states, "Ensure that authorized contact, removal, or excavation of ash/soil within the OUs will protect human receptors."

Comment #30, The Selected Remedy, Detailed Description of the Selected Remedy, Description of Phase 1, last paragraph, p. 39: Please revise the last sentence regarding the duration of LUCs to match the LUC Checklist (Sample Federal Facility Land Use Control ROD Checklist with Suggested Language (LUC Checklist), OSWER Directive 9355.6-12, dated January 4, 2013) #6 which states:

> Duration language: "Land Use Controls will be maintained until the concentration of hazardous substances in the soil and groundwater are at such levels to allow for unrestricted use and exposure."

Comment #31, Statutory Determinations, p. 43-44: Please revise this section per the EPA ROD guidance, Section 6.3.13 and Highlight 6-37. This section should be rewritten to address, in this order,

- Protection of human health and the environment – this subsection discusses how the Selected Remedy will adequately protect human health and the environment and how the risk posed by the site through each pathway will be eliminated, reduced, or controlled by the remedy.

- Compliance with ARARs – this subsection gives a high-level summary of the key ARARs that this action will meet and how.
- Cost-effectiveness – this subsection explains how the selected remedy meets the statutory requirement that all Superfund remedies be cost-effective.
- Utilization of Permanent Solutions and Alternative Treatment (or Resource Recovery) Technologies to the Maximum Extent Practicable – this subsection describes the rationale for the remedy selected, explaining how the remedy provides the best balance of trade-offs among the alternatives with respect to the balancing criteria set out in NCP §300.430(f)(1)(i)(B), such that it represents the maximum extent to which permanence and treatment can be practicably utilized at this site.
- Preference for treatment as a principal element – this subsection describes whether the statutory preference was met, and if not, why not.
- Five-year review requirements – this subsection evaluates whether a five year review is required per CERCLA 121(c) and the NCP (or whether a policy review is appropriate).

Comment #32, Table 1 Legend, p. 63: Should "RSL/PRG = USEPA Regional Screening Level/Preliminary Remediation Goal set at risk 1 E=06" not be included in the legend at the bottom of the table since the table does not include these values for any of the COCs at any of the sites?

Comment #33, Table 2, Legend, p.64-66: Should ARAR, HHRA, PTSM, and RCOCs not be defined in the legend of Table 2 since these terms and abbreviations don't occur anywhere in the table?

Comment #34, Table 11: Please use the revised ARARs tables EPA is submitting along with EPA's comments on the ROD.

- Although existing information suggests that waste is nonhazardous at the Coal Ash and Coal Fines OUs, hazardous waste-related ARARs are included for completeness.
- The selected remedy, Alternative A-2: LUCs with Beneficial Use, on page 30 and elsewhere indicates that the full volumes of CCR within and outside the OU boundaries will be excavated. Since there will not be CCR left in place, the ARARs regarding On Site Closure/Capping of CCR under 40 CFR 257.102, the groundwater monitoring systems for CCR left in place under 40 CFR 257.91, and Post-Closure Care and Groundwater monitoring requirements would not apply. In the event CCR is left in place, a modification to the ROD would be issued to change the remedy.

Action-Specific ARARs			
Action	Requirements	Prerequisites	Citation
General Construction Standards — All Land-disturbing Activities (i.e., excavation, clearing, grading, etc.)			
Managing storm water run-off from land-disturbing activitie	Must comply with the substantive requirements for stormwater management and sediment control of NPDES General Permit No. SCR100000.	Large and small construction activities (as defined in R.61-9) of more than 1 acre of land – **applicable**	SC R.61-9.122.26(c) NPDES General Permit No. SCR100000
	The requirements of R.72-305 and R.72-307 will apply.	For land disturbing activities disturbing more than five (5) acres – **applicable**	SC R.72-305.B(3)
	All erosion and sediment control plans shall include details and descriptions of temporary and permanent erosion and sediment control measures and other protective measures shown on the stormwater and sediment management plan. Procedures in a stormwater and sediment management plan shall provide that all sediment and erosion controls are inspected at least once every seven calendar days and after any storm even of greater than 0.5 inches of precipitation during any 24-hour period	Land disturbing activities related to residential, commercial, industrial or institutional land use which are not specifically exempted or waived by these regulations – **applicable**	SC R 72-307B.1 – South Carolina Storm Water Management and Sediment Reduction Regulations
	The stormwater management and sediment control plan shall contain at a minimum the information provided in the following subsections: • A narrative description of the stormwater management and sediment control plan to be used during land disturbing activities. • The location of temporary and permanent vegetative and structural stormwater management and sediment control measures.	Activities involving two (2) acres or less of actual land disturbance which ar not part of a larger common plan of development or sale – **applicable**	SC R. 72-307H SC R. 72-307H(2) SC R. 72-307H(5)(d)
	The stormwater management and sediment control plan shall contain at a minimum the information provided in the following subsections:	Activities involving more than two (2) acres and less than five (5) acres of actual land disturbance which are not part of a larger common plan of development or sale – **applicable**	SC R.72-307 I. – South Carolina Storm Water Management and Sediment Reduction Regulations
	A plan for temporary and permanent vegetative and structural erosion and sediment control measures which specify the erosion and sediment control measures to be used during all phases of the land disturbing activity and a description of their proposed operation.		SC R.72-307 I.(3)(d)
	Provisions for stormwater runoff control during the land disturbing activity and during the life of the facility meeting the following requirements: Post-development peak discharge rates shall not exceed predevelopment discharge rates for the 2- and 10-year frequency 24-hour duration storm event. Implementing agencies may utilize a less frequent storm event (e.g. 25-year, 24-hour) to address existing or future stormwater quantity or quality problems. Discharge velocities shall be reduced to provide a non- erosive velocity flow from a structure, channel, or other control measure or the velocity of the 10-year, 24-hour storm runoff in the receiving waterway prior to the land disturbing activity, whichever is greater.		SC R.72-307 I.(3)(e)
Managing fugitive dust emissions from land disturbing activities	Emissions of fugitive particulate matter shall be controlled in such a manner and to the degree that it does not create an undesirable level of air pollution. Volatile organic compounds shall not be used for dust control purposes. Oil treatment is also prohibited.	Activities that will generate fugitive particulate matter (Statewide) – **applicable**	SC R.61-62.6 Section III(A)-Control of Fugitive Particulate Matter Statewide SC R.61-62.6 Section III(D)

Waste Characterization and Storage — (e.g., wastewaters, excavated ash, coal fines, contaminated soils/sediments, vegetation, debris)			
Characterization of solid waste	Must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations. A hazardous waste determination is made using the following steps: (a) Must be made at the point of waste generation, before any dilution, mixing, or other alteration of the waste occurs, and at any time in the course of its management that it has, or may have, changed its properties as a result of exposure to the environment or other factors that may change the properties of the waste such that the RCRA classification of the waste may change. (b) Must determine whether the solid waste is excluded from regulation under 40 CFR 261.4. (c) Must then use knowledge of the waste to determine whether waste meets any of the listing descriptions under subpart D of 40 CFR Part 261. Acceptable knowledge that may be used in making an accurate determination as to whether the waste is listed may include waste origin, composition, the process producing the waste, feedstock, and other reliable and relevant information.	Generation of solid waste as defined in 40 CFR 261.2 – **applicable**	40 CFR 262.11(a), (b), and (c) SC R.61-79 262.11(a), (b), and (c)
	Must determine whether the waste exhibits one or more hazardous characteristics as identified in subpart C of 40 CFR part 261 by following the procedures in paragraph (d)(1) or (2) of this section, or a combination of both.	Generation of solid waste which is not excluded under 40 CFR 261.4(a)– **applicable**	40 CFR 262.11(d) SC R.61-79 262.11(d)
Determination of characteristic hazardous waste through knowledge	The person must apply knowledge of the hazard characteristic of the waste in light of the materials or the processes used to generate the waste. Acceptable knowledge may include process knowledge (e.g., information about chemical feedstocks and other inputs to the production process); knowledge of products, by-products, and intermediates produced by the manufacturing process; chemical or physical characterization of wastes; information on the chemical and physical properties of the chemicals used or produced by the process or otherwise contained in the waste; testing that illustrates the properties of the waste; or other reliable and relevant information about the properties of the waste or its constituents. A test other than a test method set forth in subpart C of 40 CFR part 261, or an equivalent test method approved by the Administrator under 40 CFR 260.21, may be used as part of a person's knowledge to determine whether a solid waste exhibits a characteristic of hazardous waste. However, such tests do not, by themselves, provide definitive results. Persons testing their waste must obtain a representative sample of the waste for the testing, as defined at 40 CFR 260.10.	Generation of solid waste which is not excluded under 40 CFR 261.4(a)– **applicable**	40 CFR 262.11(d)(1)
Determination of characteristic hazardous waste through testing	When available knowledge is inadequate to make an accurate determination, the person must test the waste according to the applicable methods set forth in subpart C of 40 CFR part 261 or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or and in accordance with the following: (i) Persons testing their waste must obtain a representative sample of the waste for the testing, as defined at 40 CFR § 260.10. (ii) Where a test method is specified in subpart C of 40 CFR part 261, the results of the regulatory test, when properly performed, are definitive for determining the regulatory status of the waste.	Generation of solid waste which is not excluded under 40 CFR 261.4(a)– **applicable**	40 CFR 262.11(d)(2)

	Must refer to Parts 261, 262, 264, 265, 266, 268, and 273 of Chapter 40 for possible exclusions or restrictions pertaining to management of the specific waste.	Generation of solid waste which is determined to be hazardous waste – **applicable**	40 CFR 262.11(e) SC R.61-79 262.11(e)
Characterization of ***hazardous waste*** (all primary and secondary wastes)	Must obtain a detailed chemical and physical analysis on a representative sample of the waste(s), which at a minimum contains all the information that must be known to treat, store, or dispose of the waste in accordance with pertinent sections of 40 CFR 264 and 268.	Generation of RCRA hazardous waste for storage, treatment or disposal – **applicable**	40 CFR 264.13(a)(1)
Special rules for characteristic hazardous waste	Must determine each USEPA Hazardous Waste Number (waste code) applicable to the waste to determine the applicable treatment standards under subpart D of this part. This determination may be made concurrently with the hazardous waste determination required in 40 CFR 262.11 of this chapter. For purposes of part 268, the waste will carry the waste code for any applicable listed waste (40 CFR Part 261, subpart D). In addition, where the waste exhibits a characteristic, the waste will carry one or more of the characteristic waste codes (40 CFR Part 261, subpart C), except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in paragraph (b) of this section.	Generation of characteristic hazardous waste for storage, treatment or disposal – **applicable**	40 CFR 268.9(a) SC R.61-79 268.9(a)
	Must determine the underlying hazardous constituents [as defined in 40 CFR 268.2(i)] in the characteristic waste.	Generation of RCRA characteristic hazardous waste (and is not D001 non-wastewaters treated by CMBST, RORGS, or POLYM of Section 268.42 Table 1) for storage, treatment, or disposal – **applicable**	40 CFR 268.9(a) SC R.61-79 268.9(a)
Determinations for land disposal of hazardous waste	Must determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in 40 CFR 268.40, 268.45, or 268.49. This determination can be made concurrently with the hazardous waste determination required in 40 CRF 262.11 of this chapter, in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in "Test Methods of Evaluating Solid Waste, Physical/Chemical Methods," USEPA Publication SW–846, (incorporated by reference, see 40 CRF 260.11 of this chapter), depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. (Alternatively, the generator must send the waste to a RCRA-permitted hazardous waste treatment facility, where the waste treatment facility must comply with the requirements of 40 CRF 264.13 of this chapter and paragraph (b) of this section.)	Generation of hazardous waste for storage, treatment or disposal – **applicable**	40 CFR 268.7(a) SC R.61-79 268.7(a) (1)
Temporary Storage of Wastes – Primary Wastes and Secondary Wastes			
Temporary on-site storage of remediation waste in staging piles (e.g., excavated soils)	Must be located within the contiguous property under the control of the owner/operator where the wastes are to be managed in the staging pile originated. For purposes of this section, storage includes mixing, sizing, blending or other similar physical operations so long as intended to prepare the wastes for subsequent management or treatment.	Accumulation of ***solid non-flowing hazardous remediation waste*** (or remediation waste otherwise subject to land disposal restrictions) as defined in 40 C.F.R. 260.10 –**applicable**	40 C.F.R. 264.554(a) SC R. 61-79.264.554(a)

	Staging piles may be used to store hazardous remediation waste (or remediation waste otherwise subject to land disposal restrictions) based on approved standards and design criteria designated for that staging pile. Note: Design and standards of the staging pile should be included in CERCLA Remedial Design document approved or issued by USEPA.		40 CFR 264.554(b) SC R. 61-79.264.554(b)
Performance criteria for staging piles	Staging Pile must be designed to: • facilitate a reliable, effective and protective remedy; • prevent or minimize releases of hazardous wastes and constituents into the environment, and minimize or adequately control cross-media transfer as necessary to protect human health and the environment (e.g., use of liners, covers, run-off/run-on controls);	Storage of remediation waste in a staging pile –**applicable**	40 C.F.R. 264.554(d)(1)(i) and (ii) SC R. 61-79.264.554(d)(1)(i) and (ii)
Operation of a staging pile	Must not operate for more than 2 years, except when an operating term extension under 40 CFR 264.554(i) is granted. Note: Must measure the 2-year limit (or other operating term specified) from first time remediation waste placed in staging pile.	Storage of remediation waste in a staging pile – **applicable**	40 C.F.R. 264.554(d)(1)(iii) SC R. 61-79.264.554(d)(1)(iii)
Operation of a staging pile *Continued*	The Director may allow a staging pile to operate for up to two years after hazardous remediation waste is first placed into the pile. You must use a staging pile no longer than the length of time designated by the Director in the permit, closure plan, or order (the ''operating term''), except as provided in paragraph (i) of this section. NOTE: For a CERCLA action, USEPA decision on an operating term will be included in a Record of Decision (ROD), amended ROD, or Explanation of Significant Differences (ESD).		40 CFR 264.554(h)
Operating term extension	The Director may grant one operating term extension of up to 180 days beyond the operating term limit contained in the permit, closure plan, or order (see paragraph (l) of this section for modification procedures). To justify to the Director the need for an extension, you must provide sufficient and accurate information to enable the Director to determine that continued operation of the staging pile: (i) Will not pose a threat to human health and the environment; and (ii) Is necessary to ensure timely and efficient implementation of remedial actions at the facility. NOTE: For a CERCLA action, USEPA decision on an operating term extension will be included in a ROD, amended ROD, or ESD.		40 CFR 264.554(i)(1)(i) and (ii) SC R. 61-79.264.554(i)(1)(i) and (ii)
	The Director may, as a condition of the extension, specify further standards and design criteria in the permit, closure plan, or order, as necessary, to ensure protection of human health and the environment. NOTE: For a CERCLA action, USEPA decision on any further standards and design criteria as part of an operating term extension will be included in a ROD, amended ROD, or ESD.		40 CFR 264.554(i)(2)
Design criteria for staging pil	In setting standards and design criteria, must consider the following factors: • Length of time pile will be in operation; • Volumes of waste you intend to store in the pile; • Physical and chemical characteristics of the wastes to be stored in the unit;		40 CFR 264.554(d)(2)(i)-(vi) SC R. 61-79.264.554(d)(2)(i)-(vi)

	• Potential for releases from the unit; • Hydrogeological and other relevant environmental conditions at the facility that may influence the migration of any potential releases; and • Potential for human and environmental exposure to potential releases from the unit.		
Closure of staging piles of remediation waste	Must be closed within 180 days after the operating term by removing or decontaminating all remediation waste, contaminated containment system components, and structures and equipment contaminated with waste and leachate.	Storage of remediation waste in staging pile in ***previously contaminated area*** – **applicable**	40 CFR 264.554(j)(1) SC R. 61-79.264.554(j)(1)
	Must decontaminate contaminated sub-soils in a manner that USEPA determines will protect humans and the environment.	Storage of remediation waste in staging pile in ***previously contaminated area*** – **applicable**	40 CFR 264.554(j)(2) SC R. 61-79.264.554(j)(2)
	Must be closed within 180 days after the operating term according to 40 CFR 264.258(a) and 264.111, or 265.258(a) and 265.111.	Storage of remediation waste in staging pile ***in uncontaminated area*** – **applicable**	40 CFR 264.554(k) SC R. 61-79.264.554(k)
Temporary Storage of Solid Waste	Shall be conducted in a manner to: Inhibit the harborage of flies, rodents, and other vectors; Prevent conditions for transmission of diseases to man or animals; Prevent blowing debris and particulates so as not to be injurious to human health and the environment; Prevent water pollution and prevent the escape of solid waste or leachate to waters of the State; and Minimize objectionable odors, dust, unsightliness, and aesthetically objectionable conditions, and prevent the accumulation of materials in an untidy and unsafe manner so as to become a fire and safety hazard.	Generation of solid waste for temporary storage prior to processing, disposal of that waste – **relevant and appropriate**	SC R.61-107.5(C)(1)
Dewatering of Ash Basin (If Necessary – no basins currently hold water)			
Discharge to Surface Water	Any discharge into waters of the State must be permitted by the Department and receive a degree of treatment and/or control which shall produce an effluent which is consistent with the Act, the Clean Water Act (P.L. 92-500, 95-217, 97-117, 100-4), this regulation, and related regulations. Note: Under CERCLA Section 121(e) permits are not required for onsite response actions. Instead, SRS must meet any applicable effluent limits in its existing NPDES discharge permit or other substantive requirements, including the numeric water quality criteria for the protection and maintenance of the appropriate class of surface waters as adopted in SC R.61-68 and listed in Sections E, G, and the appendix therein in order to protect the water quality of the receiving water..	Discharge of pollutants (including toxic substances) into waters of the State of South Carolina – **applicable**	SC R.61-68E.4.a SC R.61-68 E.14
	Site-specific permit effluent limitations and alternate criteria less stringent than those derived in accordance with the requirements in SC R.61-68 E.14.c. may be derived where it is demonstrated that such limits and criteria shall maintain the existing and classified uses		SC R.61-68 E.14.c.(7)
	Discharge of garbage, cinders, ashes, oils, sludges, or other refuse is not allowed.	Quality Standards for Waters of the State of South Carolina (classified as FW as provided in SC R.61-68G.10) – **applicable**	SC R.61-68G.10.a
	Treated wastes, toxic wastes, deleterious substances in sufficient amounts to make the waters unsafe or unsuitable for primary contact recreation or to impair the waters for any other best usage are not allowed.		SC R.61-68G.10.b

	Discharge of toxic pollutants is not allowed except as prescribed in Section E of SC R.61-68.		SC R.61-68G.10.c
	Stormwater, and other nonpoint source runoff is allowed if water quality necessary for existing and classified uses shall be maintained and protected consistent with anti-degradation rules.		SC R.61-68G.10.d
	Dissolved oxygen – daily average not less than 5.0 mg/L with a low of 4.0 mg/L		SC R.61-68G.10.e
	pH between 6.0 and 8.5		SC R.61-68G.10.g
Monitoring Well Installation, Operation, and Abandonment			
Installation or Abandonment of Permanent and Temporary Monitoring Wells	All monitoring wells shall be drilled, constructed, maintained, operated, and/or abandoned to ensure that underground sources of drinking water are not contaminated.	Construction of permanent and temporary monitoring wells (including non-standard installation, as defined in R.61-71B(2)) – **relevant and appropriate** (NOTE: "**Applicable**" for 288-F only since it is a SCDES permitted landfill.)	SC R.61-71H.1(b)
	All monitoring wells shall yield water samples and water levels that are representative of the zone monitored.		SC R. 61-71H.1(c)
	Any monitoring well which is destroyed, rendered unusable, or abandoned, shall be properly abandoned, revitalized, or replaced as appropriate or as required by permit or regulation.		SC R. 61-71H.1(e)
Installation of Permanent Conventionally Installed or Direct Push Monitoring Wells	(1) Wells shall be grouted from the top of the bentonite seal to the land surface. (2) Grout is to be composed of neat cement, a bentonite cement mixture, or high solids sodium bentonite grout	Construction of permanent conventionally installed or direct push monitoring wells, as defined in R. 61-71B – **applicable**	SC R. 61-71H.2.a.(1),(2) [conventionally installed wells] SC R. 61-71H.3.b.(1),(2) [direct push wells]
	(3) The diameter of the annular space shall be large enough to allow for forced injection of grout through a tremie pipe. (4) All grouting shall be accomplished using forced injection to emplace the grout. When emplacing the grouting material, the tremie pipe shall be lowered to the bottom of the zone to be grouted. The tremie pipe shall be kept full continuously from start to finish of the grouting procedure, with the discharge end of the tremie pipe being continuously submerged in the grout until the zone to be grouted is completely filled.		SC R. 61-71H.2.a.(3),(4) [conventionally installed wells] SC R. 61-71H.3.b.(3),(4) [direct push wells]
	A cement or aggregate reinforced concrete pad at the ground surface of appropriate durability and strength, considering the setting and location of each well, that extends six inches beyond the borehole diameter and six inches below ground surface is required. The pad shall be capable of preventing infiltration between the surface casing and the borehole to the subsurface.		SC R. 61-71H.2.a.(5) [conventionally installed wells] SC R. 61-71H.3.b.(5) [direct push wells]
Installation of Permanent Conventionally Installed or Direct Push Monitoring Wells (cont'd)	Well Construction and Materials Standards – (1) Casing shall be of sufficient strength to withstand normal forces encountered during and after well installation and be composed of material so as to minimally affect water quality analyses. (2) Casing shall have a sufficient diameter to provide access for sampling equipment. (3) A properly hydrated bentonite seal with a minimum thickness of twelve inches directly above the filter pack shall be used, if the well has a filter pack. (4) The monitoring well intake or screen design shall minimize formational materials from entering the well. The filter pack 17 shall be utilized opposite the well screen as appropriate in so that parameter analyses will be minimally affected. (5) A locking cap or other security devices to prevent damage and/or vandalism shall be used.	Construction of permanent conventionally installed or direct push monitoring wells, as defined in R. 61-71B – **applicable**	SC R. 61-71H.2.b.(1)-(6) [conventionally installed wells] SC R. 61-71H.3.c [direct push wells]

	(6) Monitoring wells completed below grade shall be in a watertight vault with a well cap to prevent infiltration of surface water into the well.		
	All monitoring wells shall be properly labeled with an identification plate immediately upon well completion. The identification plate shall be constructed of a durable, weatherproof, rustproof, material. The identification plate shall be permanently secured to the well casing or enclosure floor around the casing where it is readily visible and shall identify: (1) company name and certification number of the driller who installed the well; (2) date well was completed; (3) total depth (feet); (4) casing depth (feet); (5) screened Interval; (6) designator and/or identification number.		SC R. 61-71H.2.c. [conventionally installed wells] SC R. 61-71H.3.d [direc push wells]
Additional Requirements for Installation of Direct Push Monitoring Wells	Direct push wells cannot be installed below a confining layer unless it can be demonstrated to the satisfaction of the Department that cross-contamination of the aquifer systems can be prevented.	Construction of direct push monitoring wells, as defined in R. 61-71B – **applicable**	SC R. 61-71H.3.a
Installation of Temporary Monitoring Wells	Construction and Materials – (1) Casing shall be of sufficient strength to withstand normal forces encountered during and after well installation and be 20 composed of material so as to minimally affect water quality analyses. (2) Casing shall have a sufficient diameter to provide access for sampling equipment. (3) The monitoring well intake or screen design shall minimize formational materials from entering the well. The filter pack or intake shall be utilized opposite the well screen as appropriate so that parameter analyses will be minimally affected.	Construction of temporary monitoring wells, as defined in R. 61-71B – applicable	SC R. 61-71H.4.a.(1)-(3
	All temporary monitoring wells shall be sealed with a watertight cap or seal until abandoned. Temporary monitoring wells shall be maintained such that they are not a source or channel of contamination before they are abandoned.	Operation and maintenance of temporary monitoring wells, as defined in R. 61-71B – **applicable**	SC R. 61-71H.4.b.
Abandonment of Permanent Conventionally Installed Monitoring Wells	Abandonment of permanent conventionally installed monitoring wells shall be by forced injection of grout or pouring through a tremie pipe starting at the bottom of the well and proceeding to the surface in one continuous operation. The well shall be filled with either with neat cement, bentonite-cement, or 20% high solids sodium bentonite grout, from the bottom of the well to the land surface.	Abandonment of permanent conventionally installed monitoring wells – **applicable**	SC R. 61-71H.2.e.
Abandonment of Permanent Direct Push Monitoring Well	(1) Permanent direct push wells that do not penetrate a confining layer shall be abandoned by removing all casing from the subsurface and be grouted by forced injection through a tremie pipe from the total depth to the land surface, or by forced injection or pouring of neat cement, bentonite-cement, or 20% high solids sodium bentonite grout through a tremie pipe starting at the bottom of the well and proceeding to the surface. (2) Direct push wells that penetrate a confining layer shall be abandoned by forced injection or pouring of neat cement, bentonite-cement, or 20% high solids sodium bentonite grout through a tremie pipe starting at the bottom of the well and proceeding to the surface in one continuous operation.	Abandonment of permanent direct push monitoring wells, as defined in R.61-71B – **applicable**	SC R. 61-71H.2.f.(1) an (2)
Abandonment of Temporary Conventionally Installed or Direct Push Monitoring Well	(1) All temporary monitoring wells shall be abandoned within 5 days of borehole completion. (2) A conventionally drilled temporary well shall be abandoned by forced injection of neat cement, bentonite-cement, or 20% high solids sodium bentonite grout through a tremie pipe starting at the bottom of the well and proceeding to the surface in one continuous operation.	Abandonment of temporary conventionally installed or direct push monitoring wells, as defined in R.61-71B – **applicable**	SC R. 61-71H.4.c.(1)-(4

	(3) A temporary direct push well that does not penetrate a confining layer shall be abandoned by forced injection of neat cement, bentonite-cement, or 20% high solids sodium bentonite grout through a tremie pipe after the sampling device has been removed. (4) A temporary direct push well that penetrates a confining layer shall be abandoned by forced injection of neat cement, bentonite-cement, or 20% high solids sodium bentonite grout through the sampling device as the sampling device is removed from the sub-surface. Abandonment shall occur during the initial withdrawal from the original push borehole and not by a separate tremie tool after the sampling device has been removed to ensure the breech in the confining layer is permanently sealed.		
Handling or Transporting CCR Material			
Air Criteria for Handling or Transporting CCR Material	The owner or operator of a CCR unit must adopt measures that will effectively minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units, roads, and other CCR management and material handling activities.	Owner or operator of a CCR unit (as defined in 40 CFR 257.53) – **relevant and appropriate.**	40 CFR 257.80(a) Air Criteria
	The owner or operator of a CCR unit must utilize CCR fugitive dust control measures that are most appropriate for site conditions, which may include: locating CCR inside an enclosure or partial enclosure; operating a water spray or fogging system; using wind barriers; establishing and enforcing reduced vehicle speed limits; paving and sweeping roads; covering trucks transporting CCR; reducing or halting operations during high wind events.		40 CFR 257.80(b)(1)
Transportation of Wastes			
Transportation of hazardous waste *on-site*	The generator manifesting requirements of 40 CFR 262.20 through 262.32(b) do not apply. Generator or transporter must comply with the requirements set forth in 40 CFR 263.30 and 263.31 in the event of a discharge of hazardous waste on a private or public right-of way.	Transportation of hazardous wastes on public or private right-of- way within o along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right-of-way – **applicable**	40 CFR 262.20(f) SC R.61-79.262.20(f)
Transportation of hazardous waste *off-site*	Must comply with the substantive generator requirements of 40 CFR 262.20-23 for manifesting, Sec. 262.30 for packaging, Sec. 262.31 for labeling, Sec. 262.32 for marking, and Sec. 262.33 for placarding.	Generator who initiates the off-site shipment of RCRA hazardous waste – **applicable**	40 CFR 262.10(h) SC R.61-79.262.10(h)
Transportation of Samples (i.e. Solid Waste, Soils and Wastewaters)	A sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this part or parts 262 through 268 or part 270 or part 124 of this chapter or to the notification requirements of section 3010 of RCRA, when: the sample is being transported to a laboratory for the purpose of testing; or the sample is being transported back to the sample collector after testing. the sample is being stored by sample collector before transport to a lab for testing.	Samples of solid waste or a sample of water, soil for purpose of conducting testing to determine its characteristics o composition –**applicable**	40 CFR 261.4(d)(1)(i)-(iii) SC R.61-79 261.4(d) (1) (i)-(iii)
	In order to qualify for the exemption in 40 CFR 261.4 (d)(1)(i) and (ii), a sample collector shipping samples to a laboratory must: Comply with U.S. Department of Transportation , U.S. Postal Service, or any other applicable shipping requirements. Assure that the information provided in (1) through (5) of this 40 CFR 261.4(d)(2)(ii)(A) accompanies the sample. Package the sample so that it does not leak, spill, or vaporize from its packaging.		40 CFR 261.4(d)(2)(i) and (ii) SC R.61-79 261.4(d) (2)(i)(A) and (B)

Managing Fugitive Dust Emissions from Land-Disturbing Activities	Emissions of fugitive particulate matter shall be controlled in such a manner and to the degree that it does not create an undesirable level of air pollution. Volatile organic compounds shall not be used for dust control purposes. Oil treatment is also prohibited.	Activities that will generate fugitive particulate matter (Statewide) – **applicable**	SC R. 61-62.6 Section III(a)- Control of Fugitive Particulate Matter Statewide SC R. 61-62.6 Section III(d)

Location-Specific ARARs			
Action	**Requirements**	**Prerequisites**	**Citation**
Presence of wetlands as defined in 10 CFR 1022.4	Avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction, occupancy, and modification of wetlands.	DOE actions that involve potential impacts to, or take place within, wetlands – **applicable**.	10 CFR 1022.3(c)
	Take action, to extent practicable, to minimize destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.		10 CFR 1022.3(a)(3),(7) and (8)
	Undertake a careful evaluation of the potential effects of any new construction in wetlands. Identify, evaluate, and as appropriate, implement alternative actions that may avoid or mitigate adverse impacts on wetlands.		10 CFR 1022.3(b) and (d)
	If no practicable alternative to locating or conducting the action in the wetland is available, then before taking action, design or modify the action in order to minimize potential harm to or within the wetland, consistent with the policies set forth in E.O. 11990.		10 CFR 1022.14(a)
Location encompassing aquatic ecosystem as defined in 40 CFR 230.3(b)	No discharge of dredged or fill material into an aquatic ecosystem is permitted if there is a practicable alternative that would have less adverse impact. No discharge of dredged of fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States. No discharge of dredged or fill material shall be permitted unless appropriate and practicable steps in accordance with 40 CFR 230.70 et seq. have been taken that will minimize potential adverse impacts of the discharge on the aquatic ecosystem.	Action that involves the discharge of dredged or fill material into waters of the United States, including jurisdictional wetlands – **applicable**.	40 CFR 230.10(a) 40 CFR 230.10(c) 40 CFR 230.10(d) Clean Water Act Section 404(b)(1) Guidelines 40 CFR 230
Compensatory Mitigation for Losses of Aquatic Resources	Compensatory mitigation for unavoidable impacts may be required to ensure that an activity requiring a section 404 permit complies with the Section 404(b)(1) Guidelines.		40 CFR 230.91 Clean Water Act Section 404(b)(1) Guidelines 40 CFR 230
	Must comply with the substantive requirements of the Nationwide Permit 38, General Conditions, as appropriate, any regional or case-specific conditions recommended by the Corps District Engineer, after consultation. Note: Despite that consultation may be considered an administrative requirement, it should be performed to ensure activities are in compliance with substantive provisions of the permit.	On-site CERCLA action conducted by Federal agency that involves discharge of dredged or fill material into waters of the United States, including jurisdictional wetlands – **relevant and appropriate**.	Nationwide Permit (38) – Cleanup of Hazardous and Toxic Waste 33 CFR 323.3(b)
Presence of wetlands	Requires Federal agencies to evaluate action to minimize the destruction, loss or degradation of wetlands and to preserve and enhance beneficial values of wetlands.	Actions that involve potential impacts to, or take place within, wetlands –**applicable**	Executive Order 11990 – Protection of Wetlands - Section 1.(a)

Presence of archeological or cultural artifacts	No person may excavate, remove, damage, or otherwise alter or deface, or attempt to excavate, remove, damage, or otherwise alter or deface any archaeological resource located on public lands unless such activity is pursuant to a permit issued under §7.8 or exempted by § 7.5(b) of this part. Note: Prior to removal activities existing Site Use process requires approval by the Savannah River Archaeological Research Program. The SRARP is a division of the South Carolina Institute of Archaeology and Anthropology (SCIAA) at the University of South Carolina. The SRARP manages the archaeological and other historic resources for the U.S. Department of Energy.	Excavation and/or removal of archaeological resources from public lands – **applicable**.	43 CFR Part 7 – implementing the Archaeological Resources Protection Act of 1979.
Presence of migratory birds and their habitats	No person may take, possess, import, export, transport, sell, purchaser, barter or offer for sale, purchase or barter, any migratory bird, or the parts, nests, or eggs of such bird except as may be permitted under the terms of a valid permit.	If action is likely to impact migratory birds – **applicable.**	16 USC 703-704 – Migratory Bird Treaty Act