

**Finding of No Significant Impact
for the
National Pollutant Discharge Elimination System (NPDES)
Stormwater Compliance Alternatives
at the
Savannah River Site**

Agency: U.S. Department of Energy

Action: Finding of No Significant Impact

Summary: The Department of Energy (DOE) has prepared an environmental assessment (EA) (DOE/EA-1563) to analyze the potential environmental impacts of the proposed and alternative actions to protect the quality of State waters at 38 stormwater outfalls located at the Savannah River Site (SRS). The draft EA was made available to the States of South Carolina and Georgia, and to the public, for a 30-day comment period. Based on the analyses in the EA, DOE has determined that the proposed action is not a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act (NEPA) of 1969. Therefore, the preparation of an environmental impact statement (EIS) is not required and DOE is issuing this finding of no significant impact (FONSI).

Public Availability: Copies of the final EA and FONSI or further information on the DOE NEPA process are available from:

Andrew R. Grainger, NEPA Compliance Officer
U.S. Department of Energy, Savannah River Operations Office
Building 730-1B, Room 3150
Aiken, South Carolina 29808
Fax/telephone: 1-800-881-7292
e-mail: nepa@srs.gov

Background: The South Carolina Department of Health and Environmental Control (SCDHEC) issued a renewal of the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity (SCR000000) on July 22, 2004. The *Basic Data Report for NPDES General Permit Compliance for SRS Stormwater Outfalls* identifies 39 outfalls possessing stormwater discharges associated with industrial activity. Stormwater monitoring data acquired in 2004 and 2005 were used to evaluate the potential impacts of outfall discharges on waters of the State. The South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity is silent on which water quality standards (WQS) should be used and on how to determine when a noncompliance has occurred. In lieu of specific effluent limitations for stormwater discharges, Washington Savannah River Company (WSRC), DOE's Operating Contractor for SRS, used selected Environmental Protection Agency (EPA) multi-sector general permit benchmark criteria to assess stormwater quality.

Based on these benchmark criteria, the following 19 outfalls were found to present potential water quality problems: A-08, C-01, E-03, E-04, E-06, F-3B, H-7A, K-01, K-02, K-04, N-01, N-02, N-2A, N-03, N-05, N-06, N-12, N-12A, and Y-01. Using these same benchmark criteria, SCDHEC determined that nine of these 19 outfalls (A-08, H-7A, K-02, N-01, N-2A, N-05, N-12, N-12A, and Y-01) would require individual permit coverage under the NPDES Permit for Discharge to Surface Waters (SC0000175). The NPDES Permit for Discharge to Surface Waters is the individual wastewater permit issued by SCDHEC. Some of these problematic stormwater discharges would be due, in part, to naturally occurring high background metals concentrations (e.g., iron) found in certain SRS soils. SCDHEC also determined that the remaining stormwater outfalls (excluding Outfall G-21, for which no stormwater monitoring data exist) met water quality benchmarks (WQB) and therefore require no corrective actions. The EPA benchmark criteria used in this assessment exceed the concentrations of the least stringent State WQS. This difference, however, is not critical to the EA because the benchmark criteria were used only for the purpose of identifying stormwater discharges where corrective action may be necessary and not to ensure compliance with yet to be defined discharge limits.

WSRC established a project team consisting of environmental subject matter experts, outfall custodians, and site engineering leads to identify, evaluate, and rank technically viable, cost-effective best management practice (BMP) options for the problematic stormwater outfalls. Selected criteria used to evaluate and rank these compliance options included capital cost, operation and maintenance, technological effectiveness and flexibility, and potential environmental impact. Specific discharge limits to be used in the NPDES permit have not yet been defined by SCDHEC and the management and treatment of stormwater pollution is still an evolving science. With the exception of the 'no discharge' BMP (i.e., retention basin), it cannot be stated with significant confidence that the implementation of BMPs considered in the EA would prevent the contravention of applicable State WQS. A stormwater monitoring program will determine the efficacies of applied BMPs and the impacts on State waters. In those instances where monitoring indicates the need for additional corrective action(s), SRS will revise the Stormwater Pollution Prevention Plan and implement additional BMPs as required until continued monitoring demonstrates that applicable WQS are met. If necessary, additional NEPA review will be conducted.

Since 2006, additional SRS stormwater outfalls have been identified which are not within the scope of the EA. These outfalls include C-03, F-02, G-21, H-04, H-05, H-7C, H-08, S-07, and S-10. Outfalls F-02, H-04, and H-08 are presently regulated as industrial wastewater discharges but are proposed to be reclassified as stormwater outfalls due to the elimination of industrial wastewater from their discharges. There are presently no stormwater discharge data available for any of these outfalls to determine the need for corrective actions. Once the necessary stormwater discharge studies have been performed, a separate NEPA review would be conducted for any proposed corrective actions deemed necessary to achieve regulatory compliance.

Purpose and Need for Agency Action: Nineteen (19) industrial stormwater outfalls have been identified at SRS that exceed WQBs and therefore may not presently meet the new NPDES permit requirements. The purpose of the proposed and alternative actions considered in the EA is to ensure that discharges from these outfalls protect the quality of State waters in a technically reliable, cost-effective manner. DOE needs to achieve and maintain regulatory compliance with the renewed South Carolina NPD ES General Permit for Stormwater Discharges Associated with Industrial Activity and NPDES Permit for Discharge to Surface Waters.

Proposed Actions: Following is an outfall-specific discussion of proposed actions reviewed in the EA. The outfalls are grouped according to their expected regulatory (permitting) end-states.

1. Stormwater Outfalls Included in the NPDES Permit for Discharge to Surface Waters

Outfall A-08: This outfall drains approximately 2 acres in the general vicinity of Powerhouse 784-A. Stormwater sampling found that the average zinc concentration exceeded its WQB. The proposed action for Outfall A-08 is to redirect the majority of flow from the catchment to the existing A-10 Coal Pile Runoff Basin. Outfall A-08 would not be relocated or eliminated. SCDHEC has directed SRS to apply for an individual permit. The expected regulatory end-state for Outfall A-08 would be its coverage under the NPDES Permit for Discharge to Surface Waters.

Outfall K-02: This outfall receives runoff from approximately 12 acres in the northeastern portion of K Area. Stormwater sampling found that the average zinc concentration exceeded its WQB. The proposed action for Outfall K-02 is to redirect flow from the catchment, via an extended discharge channel, to a forested area for dispersion as diffuse sheet flow. The outfall would be relocated at the end of the discharge channel. SCDHEC has directed SRS to apply for an individual permit. The expected regulatory end-state for Outfall K-02 would be its coverage under the NPDES Permit for Discharge to Surface Waters.

Outfall N-01: This outfall drains an area of approximately 27 acres near the center of N Area. Stormwater sampling found that the average iron and zinc concentrations exceeded their respective WQBs. The proposed action for Outfall N-01 is to consolidate its flow with other area outfalls (i.e., N-02, N-2A, N-03, and N-05) into a new retention basin. SCDHEC has directed SRS to apply for an individual permit. Depending upon the designation of the new outfall created by implementation of the proposed option, Outfall N-01 may be eliminated. The expected regulatory end-state of the new outfall is presently unknown. The treatment offered by the retention basin may negate the need for an individual permit for this outfall. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-2A: This outfall drains an area of approximately 46 acres near the middle of N Area. Stormwater sampling found that the average iron, manganese, and zinc concentrations exceeded their respective WQBs. The proposed action for Outfall N-2A is to consolidate its flow with other area outfalls (i.e., N-01, N-02, N-03, and N-05) into a new retention basin. SCDHEC has directed SRS to apply for an individual permit. Depending upon the designation of the new outfall created by implementation of the proposed option, Outfall N-2A may be eliminated. The expected regulatory end-state of the new outfall is presently unknown. The treatment offered by the retention basin may negate the need for an individual permit for this outfall. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-05: This outfall drains an area of approximately 15 acres located in the lower central section of N Area. Stormwater sampling found that the average copper, iron, manganese, and zinc concentrations exceeded their respective WQBs. The proposed action for Outfall N-05 is to consolidate its flow with other area outfalls (i.e., N-01, N-02, N-2A, and N-03) into a new retention basin. SCDHEC has directed SRS to apply for an individual permit. Depending upon the designation of the new outfall created by implementation of the proposed option, Outfall N-05 may be eliminated. The expected regulatory end-state of the new outfall is presently unknown. The treatment offered by the retention basin may negate the need for an individual permit for this outfall. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-12: This outfall drains an area of approximately 29 acres in the southeastern section of N Area. Stormwater sampling found that the average iron, manganese, and zinc concentrations exceeded their respective WQBs. The proposed action for Outfall N-12 is to clear and reshape approximately 1000 ft of drainage channel upstream of the outfall and apply soil amendments within the catchment. Additionally, erosion control BMPs (e.g., install sod and check dams) and removal of pollutant sources from flow paths (e.g. in crane boom storage area) would be implemented. SCDHEC has directed SRS to apply for an individual permit. The expected regulatory end-state for Outfall N-12 would be its coverage under the NPDES Permit for Discharge to Surface Waters.

Outfall N-12A: This outfall receives runoff from an area of approximately 13 acres in the southwestern portion of N Area. Stormwater sampling found that the average cadmium, copper, iron, manganese, and zinc concentrations exceeded their respective WQBs. The proposed action for Outfall N-12A is to route flow from the catchment to a new retention basin. The outfall would be relocated downstream of the new basin's emergency spillway. SCDHEC has directed SRS to apply for an individual permit. The expected regulatory end-state for Outfall N-12A would be its coverage under the NPDES Permit for Discharge to Surface Waters.

Outfall Y-01: This outfall drains an area of approximately 8 acres in the southwestern section of Y Area. Stormwater sampling found that the average cadmium, copper, iron, manganese, and zinc concentrations exceeded their respective WQBs. The proposed action for Outfall Y-01 is to route runoff from the drainage to two new retention basins located within the rail yard. The existing outfall would remain in place. SCDHEC has directed SRS to apply for an individual permit. The expected regulatory end-state for Outfall Y-01 would be its coverage under the NPDES Permit for Discharge to Surface Waters.

2. Outfalls Remaining Under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall C-01: This outfall drains an area of approximately 68 acres in C Area. Stormwater sampling found that the average iron, manganese, and zinc concentrations exceeded their respective WQBs. The proposed action for Outfall C-01 is to remove pollutant sources from the catchment (e.g., temporary laydown areas, chain link fences). The expected regulatory end-state for Outfall C-01 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall E-01: This outfall receives runoff from a drainage area of approximately 113 acres in the southern portion of the burial ground complex. Stormwater sampling found no potential water quality problems. The proposed action for Outfall E-01 is the “No Action” alternative. The expected regulatory end-state for Outfall E-01 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall E-02: The drainage area for this outfall encompasses approximately 128 acres in the central-northern portion of the burial ground complex. Stormwater sampling found no potential water quality problems. The proposed action for Outfall E-02 is the “No Action” alternative. The expected regulatory end-state for Outfall E-02 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall E-03: This outfall drains an area of approximately 43 acres in the lower eastern portion of the burial ground complex. Stormwater sampling found that the average iron concentration exceeded its WQB. The proposed action for Outfall E-03 is to stabilize eroded channel areas within the catchment and dredge accumulated sediments from the receiving South Sedimentation Basin to increase its residence time. The expected regulatory end-state for Outfall E-03 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall E-04: The drainage area for this outfall encompasses approximately 50 acres in the northern central portion of the burial ground complex. Stormwater sampling found that the average iron and total suspended solids (TSS) concentrations exceeded their respective WQBs. The proposed action for Outfall E-04 is to stabilize soil stockpiles and implement erosion control BMPs within the catchment. Also, accumulated sediments are to be dredge from the receiving sedimentation basin to increase its residence time. The expected regulatory end-state for Outfall E-04 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall E-05: This outfall receives runoff from approximately 27 acres in the southwest portion of the Old Radioactive Waste Burial Ground. Stormwater sampling found no potential water quality problems. The proposed action for Outfall E-05 is the “No Action” alternative. The expected regulatory end-state for Outfall E-05 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall E-06: This outfall receives runoff from an approximately 15 acre parcel located on the east side of the burial ground complex. Stormwater sampling found that the average iron, TSS, manganese, and zinc concentrations exceeded their respective WQBs. The proposed action for Outfall E-06 is to stabilize soil stockpiles and implement erosion control BMPs within the catchment. Also, accumulated sediments are to be dredged from the receiving sedimentation basin to increase its residence time. The expected regulatory end-state for Outfall E-06 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall H-06: This outfall receives runoff from approximately 10 acres in the southeastern sector of H Area (vicinity of H Canyon). SCDHEC had originally directed that SRS apply for an individual permit for this outfall. In March 2005 WSRC completed the implementation of selected BMPs within the catchment and follow-up stormwater sampling found significantly improved water quality. Subsequently, SCDHEC eliminated this permitting requirement. The proposed action for Outfall H-06 is the “No Action” alternative. The expected regulatory end-state for Outfall H-06 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall H-7B: This outfall receives runoff from approximately 2 acres in H Area. Due to a lack of any discharge from this outfall, no stormwater data were collected. The proposed action for Outfall H-7B is the “No Action” alternative. The expected regulatory end-state for Outfall H-7B would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall L-03: The drainage area for this outfall encompasses approximately 44 acres in the eastern portion of L Area. Stormwater sampling found that the average iron concentration exceeded its WQB. The proposed action for Outfall L-03 is to maintain good housekeeping and erosion control BMPs within the catchment. The expected regulatory end-state for Outfall L-03 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall L-13: The drainage area for this outfall encompasses approximately 8 acres in the northern portion of L Area. Stormwater sampling found no potential water quality problems. The proposed action for Outfall L-13 is the “No Action” alternative. The expected regulatory end-state for Outfall L-13 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-02: This outfall drains an area of approximately 5 acres located in the northeast corner of N Area. Stormwater sampling found that the average iron and manganese concentrations exceeded their respective WQBs. The proposed action for Outfall N-02 is to consolidate its flow with other area outfalls (i.e., N-01, N-2A, N-03, and N-05) into a new retention basin. Depending upon the designation of the new outfall created by implementation of the proposed option, Outfall N-02 may be eliminated. The expected regulatory end-state of the new outfall is presently unknown. SCDHEC has directed SRS to apply for individual permits for outfalls N-01, N-2A, and N-05. However, the treatment offered by the retention basin may negate the need for an individual permit for this outfall. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-03: This outfall receives runoff from an area of approximately four acres in the northeastern corner of N Area. Stormwater sampling found that the average iron and manganese concentrations exceeded their respective WQBs. The proposed action for Outfall N-03 is to consolidate its flow with other area outfalls (i.e., N-01, N-02, N-2A, and N-05) into a new retention basin. Depending upon the designation of the new outfall created by implementation of the proposed option, Outfall N-03 may be eliminated. The expected regulatory end-state of the new outfall is presently unknown. SCDHEC has directed SRS to apply for individual permits for outfalls N-01, N-2A, and N-05. However, the treatment offered by the retention basin may negate the need for an individual permit for this outfall. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-06: This outfall receives runoff from a drainage area of approximately 24 acres in the southeastern sector of N Area. Stormwater sampling found that the average iron and manganese concentrations exceeded their respective WQBs. The proposed action for Outfall N-06 is isolate the sand blasting area, implement erosion control BMPs, and apply soil amendments within the catchment. The expected regulatory end-state for

Outfall N-06 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-14: This outfall drains an area of approximately 49 acres located in the southwestern corner of N Area. Stormwater sampling found that the average iron concentration exceeded its WQB. The proposed action for Outfall N-14 is to maintain good housekeeping and BMPs within the catchment. The expected regulatory end-state for Outfall N-14 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-15: This outfall receives runoff from a drainage area of approximately 45 acres in the northwestern sector of N Area. Stormwater sampling found that the average iron concentration exceeded its WQB. The proposed action for Outfall N-15 is to maintain good housekeeping and BMPs within the catchment. The expected regulatory end-state for Outfall N-15 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-16: This outfall receives drainage from approximately 22 acres located in the northeastern sector of N Area. Stormwater sampling found no potential water quality problems. The proposed action for Outfall N-16 is the “No Action” alternative. The expected regulatory end-state for Outfall N-16 is its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall Z-01: This outfall receives runoff from a drainage area of approximately 51 acres located in the southern portion of Z Area. Due to a lack of any discharge from this outfall, no stormwater data were collected. Engineering studies have shown that an upstream receiving basin would not overflow during a 25-year storm event. The proposed action for Outfall Z-01 is the “No Action” alternative. The expected regulatory end-state for Outfall Z-01 would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

3. Outfalls No Longer Requiring Permit Coverage.

Outfall C-04: This outfall receives stormwater collected in the Cooling Water Reservoir 186-C in C Area. Since there are no longer any industrial-related activities within the outfall’s catchment, outfall discharges are not subject to current stormwater regulations. The proposed action for Outfall C-04 is to remove it from coverage under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall FT-01: This outfall receives drainage from approximately 5 acres in the northern half of the F-Area Groundwater Treatment Unit. Stormwater sampling found no potential water quality problems. Since there are no longer any industrial-related activities within the outfall’s catchment, outfall discharges are not subject to current stormwater regulations. The proposed action for Outfall FT-01 is to remove it from

coverage under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall K-01: This outfall receives runoff from an area of approximately 17 acres in the northern sector of K Area. Stormwater sampling found that the average zinc concentration exceeded its WQB. Since there are no longer any industrial-related activities within the outfall's catchment, outfall discharges are not subject to current stormwater regulations. The proposed action for Outfall K-01 is to remove it from coverage under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall K-04: This outfall receives runoff from an area of approximately 22 acres in the southeastern portion of K Area. Stormwater sampling found that the average copper concentration exceeded its WQB. Outfall discharges probably would not reach waters of the State and, therefore, are not subject to current stormwater regulations. The proposed action for Outfall K-04 is to remove it from coverage under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall L-09: This outfall receives drainage from an area of approximately 3 acres in the southwestern section of L Area. Stormwater sampling found no potential water quality problems. Since there are no longer any industrial-related activities within the outfall's catchment, outfall discharges are not subject to current stormwater regulations. The proposed action for Outfall L-09 is to remove it from coverage under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-10: This outfall receives runoff from an area of approximately 23 acres in the southern sector of N Area. Stormwater sampling found that the average iron concentration exceeded its WQB. Outfall N-10 discharges do not reach waters of the State and, therefore, are not subject to current stormwater regulations. The proposed action for Outfall N-10 is to remove it from coverage under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall P-07: This outfall receives runoff from an area of approximately 29 acres on the south side of P Area. No stormwater sampling data was collected due to the lack of discharge. Any discharges from this outfall would probably not reach waters of the State and are, therefore, not subject to current stormwater regulations. The proposed action for Outfall P-07 is to remove it from coverage under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall P-13: This outfall receives runoff from an area of approximately 22 acres in the northern sector of P Area. Stormwater sampling found no potential water quality problems. Since there are no longer any industrial-related activities within the outfall's catchment, outfall discharges are not subject to current stormwater regulations. The proposed action for Outfall P-13 is to remove it from coverage under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall P-19: This outfall receives drainage from an area of approximately 11 acres in the southwestern section of P Area. Stormwater sampling found no potential water quality problems. Since there are no longer any industrial-related activities within the outfall's catchment, outfall discharges are not subject to current stormwater regulations. The proposed action for Outfall P-19 is to remove it from coverage under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall Z-03: This outfall receives drainage from an area of approximately 40 acres in the northern section of Z Area. No stormwater sampling data was collected due to the lack of discharge. Any discharges from this outfall would probably not reach waters of the State and are therefore not subject to current stormwater regulations. The proposed action for Outfall Z-03 is to remove it from coverage under the South Carolina General Permit for Stormwater Discharges Associated with Industrial Activity.

4. Outfalls Which Are Eliminated.

Outfall F-3B: The drainage area for Outfall F-3B encompasses approximately 47 acres in the northeastern sector of F Area. Stormwater sampling found that the average cadmium, iron, and zinc concentrations exceeded their WQBs. The proposed action for Outfall F-3B is to divert flow from the catchment into the new Mixed Oxide (MOX) Pond 400 detention basin, thereby eliminating the outfall. This pond also receives flow from Outfall F-05 which is permitted as an industrial wastewater discharge. SCDHEC had directed that SRS apply for an individual permit for Outfall F-3B. However, since implementation of the proposed action would eliminate this outfall, the agency rescinded the permitting requirement. Flow from Outfall F-3B has been diverted into MOX Pond 400 and the outfall has been eliminated.

Outfall H-7A: This outfall receives runoff from an area of approximately 11 acres in the southeastern sector of H Area. Stormwater sampling found that the average copper and zinc concentrations exceeded their respective WQBs. The proposed action for Outfall H-7A is to route flow from the catchment to industrial wastewater Outfall H-07. Flow through Outfall H-07 would continue to be regulated under the Industrial Wastewater Permit. SCDHEC has directed SRS to apply for an individual permit for Outfall H-7A. However, since implementation of the proposed action would eliminate the outfall, this permitting requirement would be negated.

Alternative Actions: In accordance with NEPA regulations, DOE examined alternatives to the proposed actions, including the "No Action" alternative. With the exception of Outfalls E-01, E-02, E-05, H-06, H-7B, L-13, N-16, and Z-01 for which no corrective actions are required (i.e., the proposed action is to take 'No Action'), alternative actions were identified for many of the outfalls. This approach allows DOE flexibility should changing circumstances result in the proposed action for any given outfall no longer being the most viable option to implement. Following are outfall-specific descriptions of alternative actions considered within the EA:

Outfall A-08: Alternative actions would redirect flow from the Carolina bay to the Outfall A-07 engineered discharge channel (B and D) or to a new retention basin constructed within the outfall's catchment (C). The expected regulatory end-state for Outfall A-08 under these alternative actions would be its coverage under the NPDES Permit for Discharge to Surface Waters.

Outfall C-01: Alternative action 'B' would clear existing vegetation and debris from flow paths and install BMPs (e.g., riprap and check dams) within the main discharge channels. The expected regulatory end-state for Outfall C-01 under this alternative action would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall C-04: No alternative action was identified for this outfall.

Outfall E-01: No alternative action was identified for this outfall.

Outfall E-02: No alternative action was identified for this outfall.

Outfall E-03: No alternative action was identified for this outfall.

Outfall E-04: No alternative action was identified for this outfall.

Outfall E-05: No alternative action was identified for this outfall.

Outfall E-06: No alternative action was identified for this outfall.

Outfall F-3B: No alternative action was identified for this outfall.

Outfall FT-01: No alternative action was identified for this outfall.

Outfall H-06: No alternative action was identified for this outfall.

Outfall H-7A: Alternative actions considered were: (B) consolidate flows from the outfall's catchment and the H-Tank Farm laydown yard and redirect it to a new retention basin and (C) redirect flow from the catchment to Outfall H-07 and install stone-filled infiltration wells to intersect runoff from the H-Tank Farm laydown yard. SCDHEC has directed SRS to apply for an individual permit for Outfall H-7A. The expected regulatory end-state of the outfall under these alternative scenarios is presently unknown. The treatment offered by the retention basin and infiltration wells may negate the need for an individual permit for this outfall. If this is the case, the Outfall H-7A would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall H-7B: No alternative action was identified for this outfall.

Outfall K-01: Alternative actions considered were: (B) direct flow through an extended discharge channel to increase its run to State waters, (C) route flow from the catchment to a new retention basin, and (D) apply soil amendments within the outfall's catchment. The expected regulatory end-state of the outfall under these alternatives would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall K-02: Alternative actions considered were: (B) direct flow through an extended discharge channel into a new retention basin and (C) apply soil amendments within the outfall's catchment. The expected regulatory end-state of the outfall under these alternatives would be its coverage under the NPDES Permit for Discharge to Surface Waters.

Outfall K-04: Alternative actions considered were: (B) remove existing vegetation and other debris from the discharge channel and move the outfall downstream and (C) regrade the discharge channel and strategically apply soil amendments within the catchment. The expected regulatory end-state of the outfall under these alternatives would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall L-03: No alternative action was identified for this outfall.

Outfall L-09: No alternative action was identified for this outfall.

Outfall L-13: No alternative action was identified for this outfall.

Outfall N-01: Alternative actions considered were: (B) install BMPs within the outfall's catchment and divert flow to Outfall N-02 (resulting in the elimination of Outfall N-01), (C) clean debris from the discharge channel and install BMPs (e.g., riprap, check dams, soil amendments) within the outfall's catchment, and (D) consolidate flows from Outfalls N-01 and N-02 into a new retention basin. A new outfall monitoring station would be located downstream of the basin's emergency spillway. SCDHEC has directed SRS to apply for an individual permit for Outfall N-01. The expected end-state for the outfall under option 'B' would be its elimination. The expected regulatory end-state for Outfall N-01 under option 'C' would be its coverage under the NPDES Permit for Discharge to Surface Waters. The expected regulatory end-state for the outfall under option 'D' is presently unknown. Depending upon the designation of the new outfall created by implementation of this option, Outfall N-01 may be eliminated. However, the treatment offered by the new retention basin may negate the need for an individual permit for this outfall. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-02: Alternative actions considered were: (B) install BMPs within the outfall's catchment and divert flow from Outfall N-01 to Outfall N-02 (resulting in the elimination of the former outfall), (C) clean debris from the discharge channel and install BMPs (e.g., riprap, check dams, and soil amendments) within the outfall's catchment, and (D) consolidate flows from Outfalls N-01 and N-02 into a new retention basin. A new outfall monitoring station would be located downstream of the basin's emergency spillway. The expected regulatory end-state for Outfall N-02 under option 'C' would be its continued regulation under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity. SCDHEC has directed SRS to apply for an individual permit for Outfall N-01. Therefore, the expected regulatory end-state for Outfall N-02 under options 'B' and 'D' (where its flow would be commingled with that of Outfall N-01) is presently unknown. Depending upon the designation of the new outfall created by implementation option 'D', Outfall N-02 may be eliminated. The expected regulatory end-state of the new outfall is presently unknown. The treatment offered by the proposed retention basin (Option 'D') may negate the need for the new outfall to be individually permitted. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-2A: Alternative action (B) would consolidate flows from Outfalls N-2A, N-03, and N-05 into a new retention basin. A new outfall monitoring station would be installed downstream of the basin's emergency spillway. Depending upon the designation of the new outfall created by implementation of this option, Outfall N-2A may be eliminated. The expected regulatory end-state for this new outfall is presently unknown. SCDHEC has directed SRS to apply for individual permits for Outfalls N-2A and N-05. The treatment offered by the proposed retention basin may negate the need for the new outfall to be individually permitted. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-03: Alternative action (B) would consolidate flows from Outfalls N-2A, N-03, and N-05 into a new retention basin. A new outfall monitoring station would be installed downstream of the basin's emergency spillway. Depending upon the designation of the new outfall created by implementation of this option, Outfall N-03 may be eliminated. The expected regulatory end-state for this new outfall is presently unknown. SCDHEC has directed SRS to apply for individual permits for Outfalls N-2A and N-05. The treatment offered by the proposed retention basin may negate the need for the new outfall to be individually permitted. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-05: Alternative actions considered were: (B) consolidate flows from Outfalls N-2A, N-03, and N-05 into a new retention basin and (C) apply soil amendments and erosion control BMPs (e.g., grass buffers) within the outfall's catchment and remove excess equipment and material from the laydown area. Implementation of option 'B' would require the installation of a new outfall monitoring station downstream of the

basin's emergency spillway. Depending upon the designation of the new outfall created by implementation of this option, Outfall N-05 may be eliminated. The expected regulatory end-state for this new outfall is presently unknown. SCDHEC has directed SRS to apply for individual permits for Outfalls N-2A and N-05. The treatment offered by the proposed retention basin may negate the need for the new outfall to be individually permitted. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity. The expected regulatory end-state for Outfall N-05 under option 'C' would be its coverage under the NPDES Permit for Discharge to Surface Waters.

Outfall N-06: No alternative action was identified for this outfall.

Outfall N-10: No alternative action was identified for this outfall.

Outfall N-12: Alternative action (B) would consolidate flows from Outfalls N-12 and N-12A into a new retention basin and apply soil amendments and erosion control BMPs within the outfall's catchment. A new outfall monitoring station would be installed downstream of the basin's emergency spillway. Depending upon the designation of the new outfall created by implementation of this option, Outfall N-12 may be eliminated. The expected regulatory end-state for this new outfall is presently unknown. SCDHEC has directed SRS to apply for individual permits for Outfalls N-12 and N-12A. The treatment offered by the proposed retention basin may negate the need for the new outfall to be individually permitted. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall N-12A: Alternative actions considered were (B) to consolidate flows from Outfalls N-12 and N-12A into a new retention basin and apply soil amendments and erosion control BMPs within the outfall's catchment and (C) apply soil amendments and BMPs within the catchment and install infiltration wells in the flow path from the salvage yard. Implementation of option 'B' would require the installation of a new outfall monitoring station downstream of the basin's emergency spillway. Depending upon the designation of the new outfall created by implementation of this option, Outfall N-12A may be eliminated. The expected regulatory end-state for this new outfall is presently unknown. SCDHEC has directed SRS to apply for individual permits for Outfalls N-12 and N-12A. The treatment offered by the proposed retention basin may negate the need for the new outfall to be individually permitted. If this is the case, the new outfall would be regulated under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity. The expected regulatory end-state for Outfall N-12A under option 'C' would be its coverage under the NPDES Permit for Discharge to Surface Waters.

Outfall N-14: No alternative action was identified for this outfall.

Outfall N-15: No alternative action was identified for this outfall.

Outfall N-16: No alternative action was identified for this outfall.

Outfall P-07: No alternative action was identified for this outfall.

Outfall P-13: No alternative action was identified for this outfall.

Outfall P-19: No alternative action was identified for this outfall.

Outfall Y-01: Alternative actions considered were: (B) plug conveyance piping and divert runoff to a small retention basin and an infiltration well, (C) plug conveyance piping and divert runoff to a new retention basin, and (D) remove all pollutant sources and cease all outside industrial-related activities within the catchment. SCDHEC has directed SRS to apply for an individual permit for Outfall Y-01. The expected end-state for the outfall under options 'B' and 'C' would be its coverage under the NPDES Permit for Discharge to Surface Waters. The proposed regulatory end-state for the outfall under option 'D' would be to apply for a "no exposure exclusion" exemption under the South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

Outfall Z-01: No alternative action was identified for this outfall.

Outfall Z-03: No alternative action was identified for this outfall.

The "No Action" alternative would consist of DOE continuing to discharge from the outfalls with no changes in stormwater quality or quantity. In the case of Outfalls E-01, E-02, E-05, H-06, H-7B, L-13, N-16, and Z-01, where no water quality problems were identified, no corrective actions would be required and the implementation of the "No Action" alternative would not adversely impact the human environment. However, in the case of the other outfalls considered in the EA, implementation of the "No Action" alternative may result in DOE adversely impacting the quality of receiving State waters and not being in compliance with the renewed South Carolina NPDES General Permit for Stormwater Discharges Associated with Industrial Activity and the NPDES Permit for Discharge to Surface Waters.

Environmental Impacts: The scope of the EA encompasses proposed and alternative actions designed to protect the quality of State waters. Many of the proposed and alternative actions would involve construction-related or soil disturbing activities within previously developed administrative or industrial areas and contiguous transition areas. Representative activities include relocating outfall sampling stations, installing erosion control measures (e.g., silt fences, riprap, check dams, and grass sod), surface grading, access road construction, excavating drainage ditches or laying pipe, removing pavement, and constructing retention basins or infiltration wells. These activities would be short-lived, cause little or no disruption to facility or area operations, and be conducted using appropriate BMPs (e.g., stormwater and sediment erosion control measures, fugitive dust controls). No known waste sites or contaminated soils would be disturbed by these activities. Any resultant construction debris (e.g., removed vegetation,

pavement, building materials) or excess excavated soils would be safely disposed of in an approved landfill. Air emissions resulting from these construction-related activities (e.g., equipment emissions, fugitive dust) would be short-lived, minimal, and not require permitting by the State. The potential for these activities to significantly impact the human environment (e.g., air, aquatic, terrestrial, and biotic resources) would be negligible. All of the proposed outfall projects are located in or adjacent to previously developed areas (i.e., administrative or industrial landscapes) which possess a low potential for significant archaeological or cultural resources. The potential for the proposed and alternative actions considered in the EA to significantly impact archaeological or cultural resources at SRS would be negligible. None of the proposed or alternative actions considered in the EA would be expected to have a measurable impact on migratory avian species. A recent biological evaluation confirmed that there would be no effect on the population status of any threatened and endangered species within the proposed project areas or on a site wide level. The potential for the proposed and alternative actions considered in the EA to result in terrorism-related activity or impacts at SRS are expected to be negligible.

Impacts to worker health and safety would be negligible due to the use of appropriate safety practices, personal protective clothing and equipment, and the provision of a safe and healthful workplace as required by Federal regulations. Workforce requirements and project costs of implementation of the proposed outfall projects would be minimal when compared to the total SRS budget and employment (approximately \$1.15 billion per year and 10,000 personnel, respectively). The socioeconomic impact(s) of the proposed outfall projects on the human environment would be negligible. There would be no disproportionately high and adverse human health or environmental effects on minority and low income populations in the SRS region of interest.

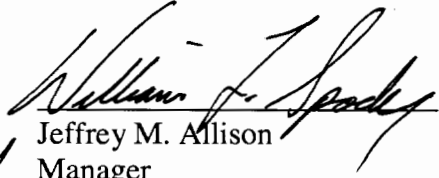
Cumulative Impacts: Construction-related activities of implementation of the proposed outfall projects would be short-lived and the potential for any resulting air emissions to interact with other SRS pollutant sources or have a cumulative impact on criteria air pollutants would be negligible. Excluding the proposed action for Outfalls N-01, N-02, N-2A, N-03, and N-05 where the respective discharges would be routed into a common retention basin, DOE expects that the potential cumulative impacts of the actions considered in this EA on the human environment would be minimal. If DOE does decide to implement the proposed action for the aforementioned outfalls, the cumulative effects on downstream hydrology and wetland resources would be minimized by the application of mitigative actions designed to compensate for any wetland loss or damage. The implementation of the proposed and alternative actions considered in the EA would allow DOE to achieve a cumulative improvement in surface water quality at SRS.

Floodplain Statement of Findings: This is a Floodplain Statement of Findings prepared in accordance with Title 10 Code of Federal Regulations Part 1022. A floodplain and wetlands assessment was incorporated in the EA. The implementation of selected proposed and alternative actions for Outfalls N-01, N-02, N-2A, N-03, and N-05 would adversely impact downstream floodplain hydrology and associated wetland resources. If these alternatives are selected for Outfalls N-01, N-02, N-2A, N-03, and N-05, a wetland

delineation of the project areas would be conducted to determine the acreage that would be affected and a mitigation and monitoring action plan formulated to address each wetland impact. Typical wetland mitigation options would be wetland creation, restoration or enhancement, preservation, or use of Wetland Mitigation Bank credits. In those instances where follow-up monitoring indicates the need for additional mitigative action, DOE will identify and implement the appropriate mitigation measures. DOE will allow 15 days of public review after publication of this statement of findings before implementing the proposed outfall projects.

Determination Based upon the information and analyses in the EA (DOE/EA-1563), DOE has determined that the proposed NPDES stormwater compliance alternatives at SRS does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA. Therefore, an EIS is not required and DOE is issuing this FONSI.

Signed in Aiken, South Carolina, this 26th day of June 2007.


Jeffrey M. Allison
Manager
Savannah River Operations Office