



JUN 21 2007

M&O-SGW-2007-00312

Mr. Richard A. Haynes, P. E., Director
Division of Waste Management
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Dear Mr. Haynes:

PROPOSED RCRA PERMIT LANGUAGE FOR F- AND H-AREA HAZARDOUS WASTE MANAGEMENT FACILITIES AT SRS

As discussed with members of your staff, SRS is proposing to change the language in the SRS RCRA Permit, Module IV, Sections B and C, that regulate the F- and H-Area Hazardous Waste Management Facility groundwater corrective actions at the SRS. The proposed changes modify the Phase 2 corrective action achievement dates in order to provide additional time for the current, effective passive corrective action systems to operate. Redlined permit pages that show the proposed changes are attached. These changes are considered a Class 2 modification. A public notice will be issued within seven days of this submittal, announcing a sixty day public comment period. A public meeting has been scheduled for July 16th, 3:00 p.m. at the Aiken County Library in Aiken, South Carolina.

Your approval of these changes is requested following the end of the public comment period. If you have any questions, please call Leslie Wells at (803) 952-7769.

Sincerely,

Mary A. Flora, Manager
Program and Regulatory Integration
Soil and Groundwater Closure Projects

MAF/LHW:tb

- c: W. C. Whitaker, DOE-ACP, 730-B (concur)
A. B. Gould, DOE-EQMD, 730-B (concur)
J. Johnston, EPA-Atlanta
R. T. Caldwell, II, SCDHEC-Aiken
R. W. Wingard, SCDHEC-Columbia
K. B. Frasier, SCDHEC-Columbia
K. D. Tappa, SCDHEC-Columbia

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other methods that are consistent with managing the contaminants in the extracted water in accordance with the procedures described in Volume IV, Section E.8 of the approved permit application. This program shall consist of the following objectives: **Phase 1)** Implementation of groundwater extraction and injection system to capture and remediate those portions of the contaminant plume delineated by the 10,000 pCi/ml tritium isoconcentration contour. Details of the groundwater extraction and injection system are contained in Section E.8.3.3 of the approved permit application. This initial phase will prevent these portions of the plumes from further migration and discharge to Four Mile Branch. Phase 1 will also provide additional field data which will be used to evaluate the effectiveness of this strategy and aid in designing additional phases, as appropriate; **Phase 2)** Evaluate the performance of Phase I including groundwater capture zones; contaminant concentrations downgradient of the Phase 1 system, downgradient of the F-area inactive process sewer line, and at Four Mile Branch (using seepline and surface water data); treatment system effectiveness; and fate of injected water. Provide a Phase 2 corrective action plan that will: a) ~~within five (5) years of the plan's approval~~ **before October 31, 2012** reduce the mass flux (Curies/year) of tritium discharging from the F-Area plume to Four Mile Branch by 70% and reduce the discharge of the remaining Appendix IVB-A constituents to Four Mile Branch to levels that are less than GWPS, **and develop and test practicable technologies to be employed for the 2b goals (except tritium);** and b) ~~before July 31, 2010~~ **2015** reduce the discharge from the F-Area plume of all Appendix IVB-A constituents at the seepline to levels that are less than the GWPS; **Phase 3)** Three (3) months after meeting the Phase 2 objectives or by July 31, ~~2010~~ **2015** whichever comes first, evaluate the performance of Phase 2 and submit a Phase 3 corrective action plan that, upon approval, will capture and remediate the entire contaminant plume above those concentrations listed in the GWPS and/or evaluate the applicability of Alternate Concentration Limits (ACL) and/or a Mixing Zone. If an ACL and/or Mixing Zone is proposed and it is determined that an ACL and/or Mixing Zone is inappropriate, then within three (3) months, submit a Phase 3 corrective action plan that, upon approval, will capture and remediate the entire contaminant plume above those concentrations listed in the GWPS. Evaluate the performance of the overall corrective action system and implement any modifications to the system deemed necessary to improve its effectiveness. The schedule for implementation of the corrective action plan is included as Appendix IVB-C of this permit.

IVB.B.5.c.

If the groundwater protection standard is met during the compliance period, the Permittee shall continue corrective action to the extent necessary to ensure that the groundwater protection standard is not exceeded. If corrective action is required beyond the compliance period, it must continue until the groundwater protection standard has not been exceeded for three consecutive years.

Mile Branch (using seepage and surface water data); treatment system effectiveness; and fate of injected water. Provide a Phase 2 corrective action plan that will: a) ~~within five (5) before October 31, 2012 years of the plan's approval~~ reduce the mass flux (Curies/year) of tritium discharging from the H-Area plume to Four Mile Branch by 70% (or alternatively, reduce the concentration of tritium discharging from the H-Area plume to Four Mile Branch to less than the GWPS) and reduce the discharge of remaining Appendix IVC-A constituents to Four Mile Branch to levels that are less than the GWPS, **and develop and test practicable technologies to be employed for the 2b goals (except tritium)**; and b) before July 31, ~~2010~~ **2015** reduce the discharge from the H-Area plume of all Appendix IVC-A constituents at the seepage to levels that are less than the GWPS; Phase 3) Three (3) months after meeting the Phase 2 objectives or by July 31, ~~2010~~ **2015** whichever comes first, evaluate the performance of Phase 2 and submit a Phase 3 corrective action plan that, upon approval, will capture and remediate the entire contaminant plume above those concentrations listed in the GWPS and/or evaluate the applicability of Alternate Concentration Limits (ACL) and/or a Mixing Zone. If an ACL and/or Mixing Zone is proposed and it is determined that an ACL and/or Mixing Zone is inappropriate, then within three (3) months, submit a Phase 3 corrective action plan that, upon approval, will capture and remediate the entire contaminant plume above those concentrations listed in the GWPS. Evaluate the performance of the overall corrective action system and implement any modifications to the system deemed necessary to improve its effectiveness. The schedule for implementation of the corrective action plan is included as Appendix IVC-C of this permit.

IVC.B.5.c. If the groundwater protection standard is met during the compliance period, the Permittee shall continue corrective action to the extent necessary to ensure that the groundwater protection standard is not exceeded. If corrective action is required beyond the compliance period, it must continue until the groundwater protection standard has not been exceeded for three consecutive years.

IVC.B.6. Sampling and Analysis Procedures

The Permittee shall use the following techniques and procedures when obtaining samples and analyzing samples from the groundwater monitoring wells described in condition IVC.B.4.b to provide a reliable indication of the quality of the groundwater as required under R.61-79.264.97(d) and (e).

IVC.B.6.a Samples shall be collected, preserved, and shipped (when shipped off-site for analysis) in accordance with the procedures specified in Volume I, Section E of the approved permit application. Metals analyses shall be for total metals.

IVC.B.6.b. The Permittee shall ensure the frequency of sample collection and the wells to be sampled are in accordance with the Groundwater Monitoring Schedule, Appendix IVC-D of this permit.

IVC.B.6.c. Samples shall be analyzed according to the procedures specified in Volume I, Section E of the approved permit application or in the current EPA Manual SW-846 using whichever procedure is more recent at the time of analysis. For those constituents which have established maximum contaminant levels (MCLs), the analytical method chosen must be capable of achieving a practical quantitation limit (PQL) below the established MCL for that method must achieve the lowest reasonably achievable PQL based on instrumentation and the analytical method.