UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

January 12, 2012

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL

Mr. R. M. Singletary, Senior Vice President
Santee Cooper
One Riverwood Drive
Moncks Corner, South Carolina 29461-2901

Re: Request for Action Plan regarding Santee Cooper (South Carolina Pub Serv Auth) - Cross Power Station

Dear Mr. Singletary,

On February 23, 2011 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Santee Cooper (South Carolina Pub Serv Auth) - Cross Power Station facility. The purpose of this visit was to assess the structural stability of the impoundments or other similar management units that contain "wet" handled CCRs. We thank you and your staff for your cooperation during the site visit. Subsequent to the site visit, EPA sent you a copy of the draft report evaluating the structural stability of the units at the Santee Cooper (South Carolina Pub Serv Auth) - Cross Power Station facility and requested that you submit comments on the factual accuracy of the draft report to EPA. Your comments were considered in the preparation of the final report.

The final report for the Santee Cooper (South Carolina Pub Serv Auth) - Cross Power Station facility is enclosed. This report includes a specific condition rating for each CCR management unit and recommendations and actions that our engineering contractors believe should be undertaken to ensure the stability of the CCR impoundment(s) located at the Santee Cooper (South Carolina Pub Serv Auth) - Cross Power Station facility. These recommendations are listed in Enclosure 2.

Since these recommendations relate to actions which could affect the structural stability of the CCR management unit(s) and, therefore, protection of human health and the environment, EPA believes their implementation should receive the highest priority. Therefore, we request that you inform us on how you intend to address each of the recommendations found in the final report. Your response should include specific plans and schedules for implementing each of the recommendations. If you will not implement a recommendation, please provide a rationale. Please provide a response to this request by February 13, 2012. Please send your response to:

Mr. Stephen Hoffman
U.S. Environmental Protection Agency (5304P)

1200 Pennsylvania Avenue, NW
Washington, DC 20460

If you are using overnight of hand delivery mail, please use the following address:

Mr. Stephen Hoffman
U.S. Environmental Protection Agency
Two Potomac Yard
2733 S. Crystal Drive
5th Floor, N-5838
Arlington, VA 22202-2733

You may also provide a response by e-mail to hoffman.stephen@epa.gov, kohler.james@epa.gov, and englander.jana@epa.gov.

You may assert a business confidentiality claim covering all or part of the information requested, in the manner described by 40 C. F. R. Part 2, Subpart B. Information covered by such a claim will be disclosed by EPA only to the extent and only by means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when EPA receives it, the information may be made available to the public by EPA without further notice to you. If you wish EPA to treat any of your response as "confidential" you must so advise EPA when you submit your response.

EPA will be closely monitoring your progress in implementing the recommendations from these reports and could decide to take additional action if the circumstances warrant.

You should be aware that EPA will be posting the report for this facility on the Agency website shortly.

Given that the site visit related solely to structural stability of the management units, this report and its conclusions in no way relate to compliance with RCRA, CWA, or any other environmental law and are not intended to convey any position related to statutory or regulatory compliance.

Please be advised that providing false, fictitious, or fraudulent statements of representation may subject you to criminal penalties under 18 U.S.C. § 1001.

If you have any questions concerning this matter, please contact Mr. Hoffman in the Office of Resource Conservation and Recovery at (703) 308-8413. Thank you for your continued efforts to ensure protection of human health and the environment.

Sincerely,
/Suzanne Rudzinski/, Director
Office of Resource Conservation and Recovery

Enclosure

Enclosure 2

Santee Cooper (South Carolina Pub Serv Auth) - Cross Power Station
Recommendations (from the final assessment report)

1.0 CONCLUSIONS AND RECOMMENDATIONS

1.1 CONCLUSIONS

Conclusions are based on visual observations from a one-day site visit, February 23, 2011, and review of technical documentation provided by Santee Cooper.

1.1.1 Conclusions Regarding the Structural Soundness of the Management Unit(s)

Based on a review of the engineering data provided by the owner's technical staff and Dewberry engineers' observations during the site visit, the dike embankments and emergency outlets appear to be structurally sound under static loading conditions. The dike embankments are also indicated to be stable under moderate seismic loading conditions, provided no excessive loss of shear strength occurs in the Pleistocene foundation soils. Isolated layers of very loose to loose sands and some layers of very soft to soft silty clays occur at depth in the foundation soil profile beneath the dikes. However, localized liquefaction or deformations probably would not be reflected through the firmer and stiffer overlying soils in sufficient magnitude to create unacceptable displacements in the dike embankments under moderate earthquake shaking. Therefore, with respect to seismic stability and liquefaction/deformation potential, it appears that the dike embankments will safely withstand an earthquake with 2,475-year return period (equivalent to 2%, 50-year return period).

1.1.2 Conclusions Regarding the Hydrologic/Hydraulic Safety of the Management Unit(s)

No hydrologic/hydraulic analyses have been provided for the ash ponds or gypsum pond. However, for purposes of this assessment rigorous analyses are not needed for evaluation of hydrologic safety of the ash ponds and gypsum pond, which are totally contained within perimeter dike systems and do not receive uncontrolled off-site drainage. By inspection, the ash ponds and gypsum pond currently have adequate hydrologic safety for at least the 50-year "design" precipitation depth of 8.40 inches (0.70 foot), since there currently is more than sufficient flood storage volume between the normal operating water levels and the lowest crest elevations on the impounding dikes.

1.1.3 Conclusions Regarding the Adequacy of Supporting Technical Documentation

The supporting technical documentation is generally adequate for these dikes of Low hazard potential. Engineering documentation reviewed is contained in Appendix A of the final report (Doc 06 and Doc 08). The documentation did not include hydrologic/hydraulic analyses, but as noted above, hydrologic safety can be assessed simply on the basis of inspection of the ring-dike systems, which do not receive uncontrolled off-site drainage. The documentation included both static and seismic stability analyses. The static stability analyses are adequate. The existing pseudo-static stability analysis documentation for the CCR pond dikes is more than what typically exists for dikes with Low and Less than Low hazard potential classifications. The documentation did not include liquefaction potential analysis of the generally isolated thin layers of very loose to loose silty sands or excess deformation potential analysis of very soft to soft clays in the lower part of the foundation soil profile under the dikes. For low dikes with low consequences of failure (i.e., Low hazard potential), such as the Cross dikes, the standard of practice usually does not include liquefaction/deformation potential analyses or seismic stability analyses.

Therefore, the level of technical documentation for structural stability appears to be adequate for the Cross dikes. Performing detailed liquefaction/deformation studies and additional seismic stability analyses is not warranted at this time but would be advisable if the hazard potential ratings should be increased to Significant or High due to development in down-gradient areas.

1.1.4 Conclusions Regarding the Description of the Management Unit(s)

The descriptions of the management units provided by the owner were an accurate representation of what Dewberry observed in the field.

1.1.5 Conclusions Regarding the Field Observations

Dewberry staff was provided access to all areas in the vicinity of the management units required to conduct a thorough filed observation. The visible parts of the embankment dikes and emergency outlet structures were observed to have no signs of overstress, significant settlement, shear failure, or other signs of instability. Embankments appear structurally sound. There are no apparent indications of unsafe conditions or conditions needing emergency remedial action. Some minor maintenance is needed (see Subsection 1.2.1).

1.1.6 Conclusions Regarding the Adequacy of Maintenance and Methods of Operation

The current maintenance and methods of operation appear to be adequate for the CCR management units. There was no evidence of significant embankment repairs or prior releases observed during the field inspection.

1.1.7 Conclusions Regarding the Adequacy of the Surveillance and Monitoring Program

The surveillance program appears to be adequate. The management unit dikes do not have dedicated dam performance instrumentation, although groundwater levels are measured semi-annually in groundwater quality monitoring wells located on the crest of the ash pond dikes. Based on the size of the dikes, the history of satisfactory performance, the current inspection program, and in the absence of problem or suspect conditions, there is no need for installation of performance monitoring instrumentation at this time.

1.1.8 Classification Regarding Suitability for Continued Safe and Reliable Operation

The three CCR management units at Cross Generating Station are generally SATISFACTORY for continued safe and reliable operation. No existing or potential management unit safety deficiencies are recognized. Although some engineering documentation is marginal, acceptable performance is expected under all applicable loading conditions (static, hydrologic, seismic) in accordance with the applicable criteria commensurate with low hazard potential classification.

1.2 RECOMMENDATIONS

1.2.1 Recommendations Regarding Maintenance

It is recommended that routine maintenance pay particular attention to:

a. Re-establishing good grass cover in areas of sparse grass growth and in areas eroded by surface runoff;

b. Removing or otherwise controlling vegetation growing on (or in thin sediment on) the Fabriform revetment on the interior slopes of the ash pond dikes.

1.2.2 Recommendations Regarding Continued Safe and Reliable Operation

No recommendations appear warranted at this time.