

US EPA ARCHIVE DOCUMENT



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

January 12, 2012

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL

Mr. Fred Holt
Progress Energy Carolinas
P.O. Box 1551
Raleigh, North Carolina 27602

Re: Request for Action Plan regarding Progress Energy Carolinas Inc - W. H.
Weatherspoon Power Station

Dear Mr. Holt,

On February 22, 2011 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Progress Energy Carolinas Inc - W. H. Weatherspoon Power Station facility. The purpose of this visit was to assess the structural stability of the impoundment 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 unit at the Progress Energy Carolinas Inc - W. H. Weatherspoon 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 Progress Energy Carolinas Inc - W. H. Weatherspoon 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 Progress Energy Carolinas Inc - W. H. Weatherspoon 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

**Progress Energy Carolinas Inc - W. H. Weatherspoon 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 22, 2011, and review of technical documentation provided by Progress Energy Carolinas, Inc.

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

The structural soundness is Fair. At the time of the site visit, sections of the original embankment system were found to be in disrepair and require mitigation. Progress Energy, subsequent to the site visit, developed a plan of corrective actions that was permitted through the State and implemented in 2011. Based on information subsequently provided by PEC, structural stability factors of safety for static and seismic conditions are at or above the US Army Corps of Engineers minimum threshold for the Ash Pond dams.

A Satisfactory rating was not made because trees and shrubs continue to grow along the northern and eastern downstream slopes, as approved by the State, and the potential for liquefaction documentation was not provided.

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

Adequate impoundment capacity to contain and pass the 100-year design storm without overtopping the dikes is currently present.

1.1.3 Conclusions Regarding the Adequacy of Supporting Technical Documentation

The supporting technical documentation is adequate. Engineering documentation reviewed is referenced in Appendix A of the final report.

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

The description of the management unit provided by the owner was an accurate representation of what Dewberry observed in the field.

1.1.5 Conclusions Regarding the Field Observations

The overall assessment of the ash pond embankment system was that it was in fair condition. It is our understanding that the trees and shrubs found on the northern and eastern downstream slopes. will remain in place at the direction of the North Carolina Department of Environment and Natural Resources (NCDENR); however, this does not negate the inherent safety concerns posed by improper vegetation on the embankment slopes. The original dike downstream slope was in disrepair, but it was documented to be part of a major repair plan that was implemented concurrently with the northern embankment. Seeps along the downstream toe of the southern, eastern and western dike were observed and also addressed in the repair plan. There were minor ruts observed along the crest and standing water within the roadside ditches adjacent to the downstream of toe.

1.1.6 Conclusions Regarding the Adequacy of Maintenance and Methods of Operation

The current maintenance and methods of operation appear to be inadequate for the ash management unit. There was evidence of significant embankment repairs that were needed. Now that the repairs have been made, maintenance should be improved.

1.1.7 Conclusions Regarding the Adequacy of the Surveillance and Monitoring Program

The surveillance program appears to be adequate. The management unit dikes have just recently been instrumented. Progress Energy started recording piezometer readings in 2011, so there are no historical readings.

1.1.8 Classification Regarding Suitability for Continued Safe and Reliable Operation

The Ash Pond is rated FAIR for continued safe and reliable operation. Trees 8-inches and larger in diameter were left along the northern and eastern dikes at the direction of NCDENR, but this does not negate the inherent safety concerns imposed by improper vegetation along the embankment slopes.

1.2 RECOMMENDATIONS

1.2.1 Recommendations Regarding the Structural Stability

An action plan needs to be developed to prevent the number of trees and wooded vegetation from increasing along any ash pond embankment and for remediating the original dike. It was noted that the tree removal and dike repair will require NCDENR approval. A liquefaction analysis should be performed to further characterize the safety of the embankments.

1.2.2 Recommendations Regarding the Field Observations

The following recommendations made in the Draft report were addressed by PEC as part of the remediation activities that were permitted by NCDENR and implemented in 2011:

- Installed animal guards at toe drains
- Began monitoring seepage along downstream toe along southern, eastern and western dikes
- Repaired rutting along crest
- Addressed standing water within roadside ditches downstream of toe

1.2.3 Recommendations Regarding the Maintenance and Methods of Operation

Removal of trees and woody vegetation needs to be addressed more often. It is noted this has been adopted in recent inspection reports. NCDENR has requested the current 8-inch and larger trees be left.

1.2.4 Recommendations Regarding Continued Safe and Reliable Operation

For continued safe operation we recommend the following:

Address tree removal along the downstream slope while coordinating with NCDENR.