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

June 13, 2013

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL

Ms. Cynthia Anderson, Senior Manager, Water and Waste Compliance
Fossil Generation Development & Construction
Tennessee Valley Authority
1101 Market Street, BR 4A
Chattanooga, TN 37402-2801

Re: Request for Action Plan regarding Tennessee Valley Authority - Kingston Fossil Plant

Dear Ms. Anderson,

On September 19, 2011 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Tennessee Valley Authority - Kingston Fossil Plant 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 Tennessee Valley Authority - Kingston Fossil Plant 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 Tennessee Valley Authority - Kingston Fossil Plant facility can be accessed at the secured link below. The secured link will expire on July 31, 2013.

Here is the link: http://www.yousendit.com/download/UVJnT0NkOW44NVhOTzhUQw

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 Tennessee Valley Authority - Kingston Fossil Plant facility. These recommendations are listed in Enclosure 1.

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 **July 15, 2013**. 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 or 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, dufficy.craig@epa.gov, kelly.patrickm@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 1

Tennessee Valley Authority - Kingston Fossil Plant Recommendations (from the final assessment report)

CONCLUSIONS

Conclusions are based on visual observations from a one-day site visit, October 21, 2011, and review of technical documentation provided by the Tennessee Valley Authority (TVA).

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

Dike C impounding Ash Pond C and the dike impounding the Gypsum Disposal Facility appear to be structurally sound based on a review of the engineering data provided by the owner's technical staff and Dewberry's engineers' observations during the site visit. Remediation of Dike C was substantially complete in each area at the time of the site visit. However a 2009 geotechnical report indicated slope Factors of Safety less than the required minimum value of 1.5. The 2011 design report for the remediation measures includes updated slope stability analyses demonstrating the long term Factors of Safety were equal to or greater than 1.5.

No liquefaction evaluation was performed for the dikes of Ash Pond C or the Gypsum Disposal Facility. TVA stated during the site visit that they plan on performing such analyses upon closure of Ash Pond C, and Phase 1 of the Gypsum Disposal Facility. Phase 2 of the Gypsum Disposal Facility has been redesigned and is being constructed to accept dry product only.

Results of a Dewberry qualitative evaluation of liquefaction potential of - at the CCR impoundments identified a concern pertaining to the embankment and foundation soils at Ash Pond C. Without information concerning potential releases of CCR as a result of liquefaction under seismic conditions, for dikes that could fail, such as Ash Pond C, the dikes cannot be rated Satisfactory. No concerns were indentified for the embankments or underlying soils at the Gypsum Disposal Facility.

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

Hydrologic and hydraulic analyses provided to Dewberry indicate that Ash Pond C has adequate impoundment capacity to contain the 1 percent probability storm without overtopping either the Ash Pond or an adjacent Settling Pond. The analyses indicate that the 6-hour Probable Maximum Precipitation (PMP) event would result in overtopping the Ash Pond embankment. However, subsequent analyses indicate that the Ash Pond has adequate capacity to store one-half the 6-hour PMP event without overtopping. Capacity to store one-half the 6-hour PMP event meets the design requirements of the current Tennessee dam safety regulations for intermediate, significant hazard potential dams.

The Hydrologic and hydraulic analyses indicate the Gypsum Disposal Facility stormwater pond can retain the 1/3 – six-hour PMP event without overtopping which is the design event required by Tennessee dam safety regulations for Small, Significant hazard dams.

Conclusions Regarding the Adequacy of Supporting Technical Documentation

The supporting technical documentation is inadequate, due to the lack of quantitative analysis of liquefaction potential. Engineering documentation reviewed is referenced in Appendix A.

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.

Conclusions Regarding the Field Observations

Dewberry staff was provided access to all areas in the vicinity of the management unit required to conduct a thorough field observation. The visible parts of the embankment dikes and outlet structure were observed to have no signs of overstress, significant settlement, shear failure, or other signs of instability although visual observations were hampered by the presence of thick vegetation in some areas. Embankments appear structurally sound. There are no apparent indications of unsafe conditions or conditions needing remedial action.

Conclusions Regarding the Adequacy of Maintenance and Methods of Operation
The current maintenance and methods of operation appear to be adequate for Ash Pond C and the Gypsum Disposal Facility. There was no evidence of significant embankment repairs or prior releases observed during the field inspection**.**

Conclusions Regarding the Adequacy of the Surveillance and Monitoring Program
The surveillance program appears to be adequate. The management unit dikes are instrumented. The Ash Pond C embankments are monitored with piezometers and slope inclinometers. The Gypsum Disposal Facility is monitored with piezometers.

Classification Regarding Suitability for Continued Safe and Reliable Operation
The Ash Pond C is rated FAIR and the Gypsum Disposal Facility is rated SATISFACTORY for continued safe and reliable operation based on visual assessment and the pertinent technical documentation provided. Implementation of the recommendations described in 1.2 would help improve the ratings.

RECOMMENDATIONS

Recommendations Regarding Continued Safe and Reliable Operation
It is anticipated that both Ash Pond C and the Gypsum Disposal Facility will be considered SATISFACTORY for continued safe and reliable operations upon:
A determination that there is no liquefaction potential for soils and materials at the management units, particularly Ash Pond C, under the design seismic event.