US EPA ARCHIVE DOCUMENT

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 - John Sevier 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 - John Sevier 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 - John Sevier 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 - John Sevier 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 - John Sevier 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:

US EPA ARCHIVE DOCUMENT

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

US EPA ARCHIVE DOCUMENT

Enclosure 1

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

CONCLUSIONS

Conclusions are based on visual observations from a one-day site visit, September 13, 2011, and review of technical documentation provided by the Tennessee Valley Authority.

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

The dike embankments and spillways appear to be structurally sound based on Dewberry engineers' observations during the site visit. Calculations of Factors of Safety under static and seismic conditions for the Bottom Ash Disposal Area 2 and the Dry Fly Ash Stack impounding embankments by TVA and its contractors show the embankments meet the minimum Factors of Safety. Dewberry engineers noted that different shear strength values were used in static and seismic analyses for factors of safety for Bottom Ash Disposal Area 2.

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

Hydrologic and hydraulic analyses provided to Dewberry indicate adequate impoundment capacity to pass the Probable Maximum Precipitation 6-hour design storm without overtopping the embankment.

The hydrologic and hydraulic data indicate the Dry Fly Ash Stack West Sediment Pond can pass the one-percent probability (i.e., the 100-year storm) in a given year precipitation without overtopping the embankment. The East Sediment Pond can pass the 25-year storm event without overtopping the perimeter.

The hydrologic and hydraulic data indicate the Bottom Ash Disposal Area 2 and Dry Fly Ash Stack West Sediment Pond meet the minimum US Army Corps of Engineers recommended design criteria. However, the Dry Fly Ash Stack East Sediment Pond does not meet the recommended design criteria. Based on the relatively small size of the pond, its location away from the Holston River, and the minimal amount of ash in the pond, not meeting the design requirements in not considered a major issue for ash release.

Conclusions Regarding the Adequacy of Supporting Technical Documentation

The supporting technical documentation is adequate. Although the documentation provided did not include an assessment of the potential for liquefaction, a qualitative analysis conducted by Dewberry indicates that the soils identified in the boring logs do not have a significant liquefaction potential at either the Bottom Ash Disposal Area 2 or Dry Fly Ash Stack impoundments. TVA-provided engineering documentation is referenced in Appendix A. The Dewberry liquefaction analysis is in Appendix B, Doc 16.

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 units required to conduct a thorough field observation. The visible parts of the embankments and outlet structure 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 remedial action.

Conclusions Regarding the Adequacy of Maintenance and Methods of Operation

The current maintenance and methods of operation appear to be adequate for the Bottom Ash Disposal Area 2 and Dry Fly Ash Stack Impoundment management units. There was no evidence of significant embankment repairs or prior releases at the Bottom Ash Disposal Area 2 impoundment observed during the field inspection.

There was no evidence of recent releases from the Dry Fly Ash Stack impoundment. Although there was little visible indication of recent construction, the condition of the Dry Fly Ash Stack impoundment embankments were consistent with design improvements recommended in the February 8, 2010 geotechnical report.

US EPA ARCHIVE DOCUMENT

Conclusions Regarding the Adequacy of the Surveillance and Monitoring Program
The surveillance program appears to be adequate. The management unit dikes are instrumented. Both piezometers and inclinometers have been placed within the embankments and are monitored weekly.

Classification Regarding Suitability for Continued Safe and Reliable Operation
The Bottom Ash Disposal Area 2 and Dry Fly Ash Stack impoundment embankments are rated SATISFACTORY for continued safe and reliable operation.

RECOMMENDATIONS

Recommendations Regarding Structural Stability
The Draft report recommended that the Bottom Ash Disposal Area 2 static and seismic slope stability analyses be revisited to calibrate the different shear strength values used in the static and seismic models. Based on Dewberry's recommendation TVA's consultant (Stantec) reviewed the slope stability analyses and determined that the appropriate shear strengths were used, (See Doc 18 Appendix C). Based on the information provided no recommendations are warranted.

Recommendations Regarding the Supporting Technical Documentation
No recommendations warranted.

Recommendations Regarding Continued Safe and Reliable Operation
No recommendations warranted.

US EPA ARCHIVE DOCUMENT