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 - Allen 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 - Allen Fossil Plant 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 Tennessee Valley Authority - Allen 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 - Allen 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/UVJnT0NkR0ZEa1cwYjhUQw

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 - Allen 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 - Allen Fossil Plant Recommendations (from the final assessment report)

CONCLUSIONS

The following conclusions pertain principally to the East Ash Pond at the Allen Fossil Plant. There also is an inactive West Ash Pond at the plant, which impounds no water. The West Ash Pond has been viewed in the field but no technical documentation is available for the dike embankments that enclose this pond. Conclusions are based on visual observations from a one-day site visit on September 19, 2011, and review of technical documentation provided by the Tennessee Valley authority (TVA).

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

Based on a review of the engineering data provided by TVA's technical staff and Dewberry engineers' observations during the site visit, the East Ash Pond dike embankments, spillway and outlets appear to be structurally sound under static loading conditions. Furnished static and seismic stability technical documentation shows that the dike embankments meet minimum factors of safety. The embankments are shown to meet long term static stability with values of 2.8, well above the 1.5 minimum. For seismic stability the embankments have a Factor of Safety of 1.0, which is equal to minimum FS standards. Liquefaction can occur at this site, particularly with its proximity to the New Madrid fault. Liquefaction displacement is calculated to range from 0.7 – 2.3 inches. Structural stability after displacement is essentially unchanged and meets minimum FS values.

From visual assessment in the field the inactive West Ash Pond dike embankments and outlet structure appeared to be stable under the prevailing normal static conditions in which it impounds no water. Even though this pond is inactive, TVA should continue surveillance and maintenance of the dike embankments and ensure that the inactive pond does not impound water.

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

Furnished documentation shows that the East Ash Pond under current conditions should be able to pass the full 6-hour PMP event without overtopping the perimeter dike. Therefore, on the basis of furnished hydrologic/hydraulic documentation, the East Ash Pond has satisfactory hydrologic/hydraulic safety for the designed event.

Simple calculations show that the empty inactive West Ash Pond could safely contain 100 percent of the rainfall of the 6-hour PMP over its catchment area. Therefore, in its current condition the inactive West Ash Pond appears to have satisfactory hydrologic safety.

Conclusions Regarding the Adequacy of Supporting Technical Documentation

The supporting technical documentation for the East Ash Pond is adequate, based on the October 2012 updated studies and letter report (Appendix A, Doc 18). Engineering documentation reviewed is referenced in this report and selected parts of the documentation are included in Appendix A.

For the inactive West Ash Pond there currently appears to be no need for technical documentation as long as this pond remains inactive and does not impound a significant amount of water. However, if this pond should be brought back into service, stability and seepage analyses and hydrologic/hydraulic analysis should be performed to evaluate and document its safety for in-service scenarios.

An abandoned 60-inch concrete sewer line runs east-west across the southern boundary of the ponds (East Dredge Cell, East Ash Pond and East Ash Stilling Pond). TVA reported that there were no construction documents available. The depth of the pipe is not known. See Doc 02 in Appendix A for location of sewer line. Based on the sewer line being abandoned in place and there is no history of problems, no additional recommendations are warranted.

Conclusions Regarding the Description of the Management Unit(s)

The description of the management units provided by TVA is 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 dike embankments, spillway, and outlet structures were observed to have no signs of overstress, significant settlement, shear failure, or other signs of instability. The dike embankments visually appeared structurally sound. There are no apparent indications of unsafe conditions or conditions needing emergency remedial action. Some minor maintenance is needed.

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 undocumented embankment repairs or prior releases observed during the field inspection.

Conclusions Regarding the Adequacy of the Surveillance and Monitoring Program
The surveillance program is adequate. The piezometer monitoring program is adequate. In the absence of problem or suspect conditions, there is no need for additional performance monitoring instrumentation at this time.

Classification Regarding Suitability for Continued Safe and Reliable Operation
The East Ash Pond is SATISFACTORY for continued safe and reliable operation. No existing or potential management unit safety deficiencies are recognized in the field assessment and review of furnished operations, maintenance, surveillance, and monitoring information. Acceptable performance is expected under applicable static and seismic loading conditions and hydrologic conditions in accordance with the applicable criteria. The inactive West Ash Pond is not rated at this time.

RECOMMENDATIONS

Recommendations Regarding the Structural Stability
No recommendations are warranted at this time.

Recommendations Regarding the Hydrologic/Hydraulic Safety
No recommendations for physical or operational modifications to enhance hydrologic/hydraulic capacity appear warranted at this time.

Recommendations Regarding the Supporting Technical Documentation
No recommendations appear warranted at this time.

Recommendations Regarding the Description of the Management Unit(s)
No recommendations appear warranted at this time.

Recommendations Regarding the Field Observations
Based on the field observations, some recommendations were provided in the DRAFT Dam Assessment Report as follows:
1) Repair gully erosion on the divider dike;
2) Add crushed stone surfacing material in worn shallow depression on the dike crest south side where haul trucks turn into the dredge cell;
3) Avoid mowing the slopes when the ground is still wet from rainfall to minimize mower ruts on the slopes;
4) Observe over time the wet area at the toe of the north side exterior slope to verify that the puddle is not due to seepage. If the water source is found to be seepage, then repair the slope with an inverted filter. If the water is not from seepage, then re-grade or fill the slight depression with crushed stone surfacing material.
5) Paint corroded metal parts and hardware at the spillway in the divider dike and on the gates and gate-operators at the discharge end of the primary outlet conduits.
It is understood that TVA has addressed these recommendations (see Stantec's letter dated October 11, 2012 in Appendix A Doc 18).

Recommendations Regarding Continued Safe and Reliable Operation
No additional recommendations appear warranted at this time.