

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 - Widows Creek
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 - Widows Creek 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 - Widows Creek 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 - Widows Creek 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/UVJnT0NkOW5veE43czhUQw>

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 - Widows Creek 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:

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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

Tennessee Valley Authority - Widows Creek 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 Tennessee Valley Authority (TVA).

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

The dike embankments and spillway appear to be structurally sound based on a review of the engineering data provided by the owner's technical staff and consultants, and Dewberry engineers' observations during the site visit. The dikes meet minimum factors of safety under static and seismic conditions. However, the Main Ash Complex dikes have been built and raised such that parts of the embankments sit atop ash material, and no liquefaction potential information has been provided.

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

Hydrologic and hydraulic analyses provided to Dewberry indicate adequate impoundment capacity to contain the 1 percent probability design storm without overtopping the dikes.

Conclusions Regarding the Adequacy of Supporting Technical Documentation

The supporting technical documentation pertaining to the seismic stability analyses is inadequate, due to the lack of a liquefaction potential analysis. The 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. 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 fly ash management unit. Except for recently constructed inverted filter drains for seepage control, 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. Embankments impounding the Main Ash Complex and Gypsum Stack are both instrumented with groundwater piezometers and slope inclinometers.

Classification Regarding Suitability for Continued Safe and Reliable Operation

The Gypsum Stack management unit is rated SATISFACTORY. The CCR ash management unit is rated FAIR for continued safe and reliable operation due to lack of sufficient engineering data. Implementation of the following recommendation would help improve the rating. It is anticipated that the Main Ash Complex management units would be considered satisfactory for continued safe and reliable operation upon implementation of the recommendation below.

RECOMMENDATIONS

Recommendations Regarding the Supporting Technical Documentation

Additional documentation is recommended to:

- Conduct liquefaction susceptibility analysis of Main Ash Complex Raised Dike, and CCR materials supporting the raised dike.