

US EPA ARCHIVE DOCUMENT



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

June 3, 2014

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL

Ms. Kimberly Mireles
Director, Environmental & Generation
Luminant Power
1601 Bryan Street
Dallas, Texas 75201

Re: Request for Action Plan regarding Luminant Power – Big Brown Steam Electric Plant

Dear Ms. Mireles,

On September 26, 2012 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Luminant Power - Big Brown Steam Electric Plant facility. The purpose of this visit was to assess the structural stability of the impoundment or other similar management unit 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 Luminant Power - Big Brown Steam Electric 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 Luminant Power - Big Brown Steam Electric Plant facility is attached.

This report includes a specific condition rating for the CCR management unit and recommendations and actions that our engineering contractors believe should be undertaken to ensure the stability of the CCR impoundment located at the Luminant Power - Big Brown Steam Electric 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 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 3, 2014**. Please send your response to:

Mr. Stephen Hoffman
U.S. Environmental Protection Agency (5304P)
1200 Pennsylvania Avenue, NW

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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 this report 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 unit, 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,
/Barnes Johnson /, Director
Office of Resource Conservation and Recovery

Enclosures

Luminant Power - Big Brown Steam Electric Plant Recommendations (from the final assessment report)

CONCLUSIONS

Conclusions are based on visual observations from a one-day site visit, September 26, 2012, and review of technical documentation provided by the Luminant.

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

The dike embankments appear to be structurally sound based on Dewberry engineers' observations during the site visit. However, documentation of slope stability Factors of Safety under static and seismic conditions for the Bottom Ash Pond was not provided for review. Subsequent to Dewberry's Draft submittal Golder Associates completed the Ash Pond slope stability analyses (See Doc 08 in Appendix C of the final report). Based on the new documentation of slope stability factors of safety, the embankments are rated SATISFACTORY for structural soundness.

Conclusions Regarding the Hydrologic/Hydraulic Safety of the Management Unit

Documentation of the hydrologic and hydraulic safety was not provided to Dewberry for review. However, since the pond only receives ash sluice water at a controlled rate and direct rainfall, the safety of the pond can be determined without an extensive hydrologic analysis. The normal pool elevation of the Bottom Ash Pond is managed to a relatively constant +347 feet, providing a 3-ft. freeboard. Dewberry examined the 100-year rainfall event and compared the data with the available freeboard. The freeboard should be adequate to contain the one-percent probability, 24-hour precipitation event (10.6 inches) without overtopping the impoundment embankments. Based on the information reviewed the management unit is rated SATISFACTORY for hydrologic and hydraulic safety.

Conclusions Regarding the Adequacy of Supporting Technical Documentation

The supporting technical documentation is adequate although no documentation for the hydrologic and hydraulic safety analyses was provided to Dewberry for review.

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 embankments 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.

The Bottom Ash Pond does not have an outlet spillway. After the bottom ash is collected at the dewatering bins, the transport water is returned to the two-celled Bottom Ash Pond at the east end of the impoundment.

Water, from sluice water and precipitation, is removed using a 42-in. diameter pipe through the west end of each cell. The discharge pipes lead to below grade control valves which are used to recycle water back through the plant.

Conclusions Regarding the Adequacy of Maintenance and Methods of Operation

The Bottom Ash Pond appears to be well maintained with no outstanding issues.

Conclusions Regarding the Adequacy of the Surveillance and Monitoring Program

The Bottom Ash Pond monitoring program consists of reading groundwater levels, and collecting samples for water quality testing from the piezometers installed near the toe of the embankments. Piezometer readings are taken on a semi-annual basis.

The surveillance program consists of weekly inspections with results recorded on site checklists, and formal annual inspections documented with formal written report.

Classification Regarding Suitability for Continued Safe and Reliable Operation

The Bottom Ash Pond Cell impoundment embankments are rated SATISFACTORY for continued safe and reliable operation.

RECOMMENDATIONS**Recommendations Regarding Structural Stability**

Based on the new report (Ash Pond Slope Stability Investigation Report, See Doc 08 in Appendix C of the final report) no recommendations are warranted regarding structural stability.

Recommendations Regarding the Supporting Technical Documentation

Since Dewberry issuance of the Draft Report Luminant submitted additional documentation, see Doc 08 in Appendix C of the final report. The supporting technical documentation is adequate.

Recommendations Regarding Continued Safe and Reliable Operation

No recommendations for continued safe and reliable operation of the management unit are warranted at this time.