

US EPA ARCHIVE DOCUMENT



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

May 9, 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 - Martin Lake Steam Electric Plant

Dear Ms. Mireles

On September 25, 2012 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Luminant Power - Martin Lake Steam Electric 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 Luminant Power - Martin Lake 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 - Martin Lake Steam Electric Plant facility is attached.

This report includes a specific condition rating for the CCR management units and recommendations and actions that our engineering contractors believe should be undertaken to ensure the stability of the CCR impoundments located at the Luminant Power - Martin Lake 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 units 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 **June 9, 2014**. Please send your response to:

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

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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  
5<sup>th</sup> Floor, N-5838  
Arlington, VA 22202-2733

You may also provide a response by e-mail to [hoffman.stephen@epa.gov](mailto:hoffman.stephen@epa.gov), [dufficy.craig@epa.gov](mailto:dufficy.craig@epa.gov), [kelly.patrickm@epa.gov](mailto:kelly.patrickm@epa.gov) and [englander.jana@epa.gov](mailto: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 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,  
/Barnes Johnson /, Director  
Office of Resource Conservation and Recovery

Enclosures

**Luminant Power - Martin Lake Steam Electric Plant Recommendations (from the final assessment report)**

**CONCLUSIONS**

Conclusions are based on visual observations from a one-day site visit, September 25, 2012, and review of technical documentation provided by 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. Initially documentation of slope stability Factors of Safety under static and seismic conditions for one Permanent Disposal Pond (PDP-5) and Ash Disposal Pond East Cell was the only information provided for review. Subsequent to the site inspection, Luminant provided Dewberry a stability analysis report that included PDP-4, and a reanalysis of the Bottom Ash Pond, East Cell, and Emergency Sludge Cells. HDR conducted a 'Soil and Liner Evaluation Report' for PDP-5, (See Appendix A, Doc 07 of the final report) certifying that the liner has been constructed as designed in accordance with the issued permit and in general compliance with the regulations. Golder Associates performed slope stability studies for the other coal combustion waste management units (See Appendix C, Doc 16 of the final report). Based on the documentation of slope stability factors of safety for the cells (East Cell, West Cell and Emergency Sludge Cell) in the Ash Disposal Pond and PDP-4 and PDP-5, the slope stability of the coal combustion waste management units is satisfactory.

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

The Ash Disposal Ponds and Permanent Disposal Ponds (PDPs), which do not receive off-site runoff, appear to have adequate hydrologic/hydraulic safety against design rainfall events. This conclusion is based on review of furnished technical information and Dewberry engineers' simple calculations to check capacity of the Ash impoundments to safely contain design rainfall over the area of the ponds.

**Conclusions Regarding the Adequacy of Supporting Technical Documentation**

The supporting technical documentation is fair. No documentation of either hydrologic or hydraulic safety for any of the impoundments was provided. Slope stability documentation was provided and considered adequate.

**Conclusions Regarding the Description of the Management Unit(s)**

The description of the management units 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 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.

The impoundments do not have outlet structures (i.e., there is no discharge to the environment). Sluice water and storm water falling into the impoundments are directed to the Ash Disposal Ponds before being pumped back to the power plant for reuse.

During the field observations burrowing animal (e.g. rodents or armadillos) holes were observed in the embankments. The animals should be removed and the holes should be filled.

**Conclusions Regarding the Adequacy of Maintenance and Methods of Operation**

The current maintenance and methods of operation appear to be adequate for the coal combustion residuals management units. 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 PDP-4 and PDP-5 dikes are instrumented. Based on the size of the dikes, the portion of the impoundment currently used to store wet ash

and slag, the history of satisfactory performance and the current inspection program, piezometric data is not needed at this time.

**Classification Regarding Suitability for Continued Safe and Reliable Operation**

Based on the technical information provided and the findings of the field observations, impoundments PDP-4, PDP-5, and the Bottom Ash Disposal Pond are each rated SATISFACTORY at Martin Lake Steam Generating Plant for continued operation.

**RECOMMENDATIONS**

**Recommendations Regarding the Structural Stability**

No recommendations appear warranted at this time.

**Recommendations Regarding the Hydrologic/Hydraulic Safety**

No recommendations for remedial work to ensure hydrologic/hydraulic safety appear warranted at this time.

**Recommendations Regarding the Supporting Technical Documentation**

No recommendations appear warranted at this time.

**Recommendations Regarding the Field Observations**

Based on the field observations, a maintenance recommendation is:

- Control all burrowing animals (e.g. rodents or armadillos) and appropriately fill-in burrows in the embankments around the ponds. The burrows were also noted in the two annual inspection reports; see Appendix A – Docs 01 and 04 of the final report.