

US EPA ARCHIVE DOCUMENT



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

April 19, 2011

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL AND FEDERAL EXPRESS

Mr. Jeff Baudier
NRG
112 Telly Street
New Roads, Louisiana 70760

Dear Mr. Baudier:

On June 21, 2010 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Big Cajun 2 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 Big Cajun 2 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 Big Cajun 2 facility is enclosed. This report includes a specific 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 Big Cajun 2 facility. These recommendations are listed in Enclosure 2.

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 explain why. Please provide a response to this request by May 19, 2011. Please send your response to:

Mr. Stephen Hoffman
US Environmental Protection Agency (5304P)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

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If you are using overnight or hand delivery mail, please use the following address:

Mr. Stephen Hoffman
US Environmental Protection Agency
Two Potomac Yard
2733 S. Crystal Drive
5th Floor, N-237
Arlington, VA 22202-2733

You may also provide a response by e-mail to hoffman.stephen@epa.gov

This request has been approved by the Office of Management and Budget under EPA ICR Number 2350.01.

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 non-CBI portions of 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.

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 ongoing efforts to ensure protection of human health and the environment.

Sincerely,
/Suzanne Rudzinski/, Director
Office of Resource Conservation and Recovery

Enclosures

Enclosure 2
Big Cajun 2 Recommendations

Based upon the above conclusions as well as the sum of information found within this report, the recommendations presented below are proposed.

1.2.1 Recommendations Regarding the Structural Stability

Although observations made during the site visit do not indicate signs of overstress, significant settlement, shear failure, or other signs of instability, the structural stability cannot be evaluated without reviewing the results of engineering analyses of the slope stability factors of safety under various load conditions. It is recommended that if the original design analyses cannot be located, a new geotechnical engineering evaluation be conducted. The new geotechnical engineering evaluation should be based on current standards, including seismic loading conditions.

Subsequent to the site visit Dewberry was informed that Big Cajun II was unable to locate the original slope stability analyses. Big Cajun II has contacted the original geotechnical engineering firm which will review its files in an effort to locate the original analyses. Big Cajun II also has requested a proposal to perform a new geotechnical engineering evaluation.

1.2.2 Recommendations Regarding the Hydrologic/Hydraulic Safety

Recommendations regarding the Hydrologic/Hydraulic safety at the site were inconclusive at the time of the assessment. See Section 1.2.3.

1.2.3 Recommendations Regarding the Supporting *Technical Documentation*.

The following recommendations are provided to document that the design and construction of the existing dike embankments meet the requirements of the current Louisiana Dam Safety Program:

- Conduct slope stability analysis of existing embankments to verify safety factors meet or exceed the minimum requirements of the dam safety program for all required loading condition.
- Conduct a hydrologic/hydraulic analysis of the existing impoundment to verify that it can store storm water from a 1 percent probability (100-year) design event without overtopping the dike. Amend and expand the Emergency Action Plan to include a dam break response.

Subsequent to the site visit Dewberry was informed that proposals for conducting slope stability analyses and hydrologic/hydraulic analyses have been requested by Big Cajun II. Based on the results of the hydrologic/hydraulic analyses, the Big Cajun II Emergency Action Plan will be amended to include a dam break response.

1.2.4 Recommendations Regarding the Description of the Management Unit(s).

No recommendations appear warranted at this time.

1.2.5 Recommendations Regarding the Field Observations.

The appearance of sloughing along the Bottom Ash Pond's landside southern embankment should be addressed. This area appeared to be wet and muddy. The possibility of partial collapse at this location should be investigated. At the time of the field observations, there appeared to be a slight depression in the embankment.

Subsequent to the site visit Dewberry was informed by Big Cajun II that sloughing observed during the site visit would be investigated by a geotechnical engineering consultant and any recommended corrective actions would be implemented.

1.2.6 Recommendations Regarding the Maintenance and Methods of Operation.

To help maintain a safe and trouble free operation, we recommend: Develop and implement a written Operations and Maintenance program for the dike embankments to include regular inspection by qualified dam safety/assessment engineers.

1.2.7 Recommendations Regarding the Surveillance and Monitoring Program.

To help maintain a safe and trouble free operation, we recommend:

- Monitor the areas of local sloughing and soft, wet spots along the downstream slope of the bottom ash cell dike to evaluate the cause and appropriate corrective measures, if required.
- Implement a program of regular inspections by dam safety engineers to identify changes in the performance of the embankments in a timely manner.

Subsequent to the site visit Dewberry was informed that Big Cajun II is consulting with the Louisiana Department of Transportation and Development – Dam Safety for guidance on developing a dam inspection program. Based on the results of those consultations, a program for periodic inspections by dam safety engineers will be implemented.

1.2.8 Recommendations Regarding Continued Safe and Reliable Operation.

No recommendations appear warranted at this time.