

US EPA ARCHIVE DOCUMENT



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

January 7, 2011

OFFICE OF  
SOLID WASTE AND  
EMERGENCY RESPONSE

VIA E-MAIL AND FEDERAL EXPRESS

Mr. Ed M. Sullivan  
Duke Energy Corporation  
526 South Church Street  
Charlotte, North Carolina 28202

Dear Mr. Sullivan,

On May 11-12, 2010 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Wabash River Power Station. 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 Wabash River Power Station 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 Wabash River Power Station 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 Wabash River Power Station. 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 February 7, 2011. Please send your response to:

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

You may also provide a response by e-mail to [hoffman.stephen@epa.gov](mailto:hoffman.stephen@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 ongoing efforts to ensure protection of human health and the environment.

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

Enclosures

## Enclosure 2 Wabash River Power Station Recommendations

Based on the findings of our visual inspection and review of the available records for the Wabash River Generating Station CCW impoundments, O'Brien & Gere recommends the following actions be taken to address specific stability analysis issues cited above, and conduct maintenance.

### 6.1. URGENT ACTION ITEMS

None of the recommendations are considered to be urgent, since the issues noted above do not appear to threaten the structural integrity of the impoundments in the near term.

### 6.2. LONG TERM IMPROVEMENT

#### Primary and Secondary Ash Ponds

The soil strength data and other basic data used in the stability analysis completed by Sargent & Lundy was not presented in their report; therefore, we cannot comment on the validity of the analysis. We recommend that an addendum to the report be prepared that presents the basis of the analysis. If the data used in the analysis cannot be substantiated with a reasonable degree of confidence, additional investigation of the east dike may be required to provide valid data for the slope stability analysis.

A hydrologic and hydraulic analysis should be performed to evaluate the potential for overtopping of the embankments during a 100-year to 50 percent PMP flood event and to identify a maximum surcharge pool elevation for slope stability analysis of that loading case.

Large trees growing in the outboard slope of the east dike and within five feet of the toe of the outboard slope of Primary Pond A should be removed along with other woody vegetation in accordance with standard dam safety practice. The primary reason behind the standard practice to remove trees from embankment dams is due to the potential for an uprooted tree to jeopardize the stability of the embankment and shorten seepage paths through the dike. Given that the Primary Pond A is nearly full of ash and does not retain a significant quantity of surface water (or liquid wastes) and no evidence of seepage was observed at the toe of this dike, the argument that the trees provide a measure of stability against rising and falling Wabash River levels may have merit, but only if it can be shown through investigation and analysis that the embankment will retain adequate stability should trees be uprooted, and if there is no future intent to remove the impounded ash and return Primary Ash Pond A to retaining large volumes of surface water or liquid wastes. If a decision is made to leave the trees in place, we recommend that underbrush and new tree growth be maintained to allow foot access for future visual inspections of the slope.

The trees growing along the outboard slope and within 5 feet of the toe of the Secondary Ash Pond dike should be removed. Additional maintenance recommendations are provided below:

- Remove trees/control heavy vegetation along freeboard of upstream slopes
- Place additional gravel road base in low areas on crest and regrade to maintain positive drainage
- Monitor outboard slopes for erosion and repair if conditions worsen

#### South Ash Pond

In general, the South Pond appeared to be in good condition. No major improvements to the South Pond are recommended at this time. Some minor maintenance recommendations are provided below:

- Place and compact additional gravel road base to provide minimum 6-inches of cover over non-woven geotextile along crest roads and secondary roads.
- Mow vegetated slopes at least twice annually to control vegetation
- Repair erosion along groin on outboard northwest corner of the South Pond

### 6.3. MONITORING AND FUTURE INSPECTION

The quarterly internal inspections should continue as planned; however, we recommend that the inspections be documented on a standard dam safety inspection checklist similar to the one provide by

IDNR. Consideration should be given to inspections by licensed dam safety engineers on a regular basis to document the continued proper maintenance and operation of the CCW impoundments.

#### **6.4. TIME FRAME FOR COMPLETION OF REPAIRS/IMPROVEMENTS**

We recommend that the addendum or additional investigations needed to substantiate the stability analysis of the east dike of the Primary Pond A and Secondary Pond be completed within one year of this inspection. Other recommended maintenance items should be completed as soon as practical within one year of this inspection.