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

March 24, 2010

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL AND FEDERAL EXPRESS

Mr. Ed M. Sullivan
Duke Energy
526 South Church Street
Charlotte, NC 28202

Dear Mr. Sullivan,

On October 8-9, 2009 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the WC Beckjord 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 WC Beckjord 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 WC Beckjord 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 WC Beckjord 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 April 27, 2010. 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 of 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 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,
/Matt Hale/, Director
Office of Resource Conservation and Recovery

Enclosures

4.2 Maintaining Vegetation Growth

Vegetation obscured visual observations of the north and west dikes of Ash Pond A. Trees and brush should be cleared from all of the interior and exterior slopes of all the ash pond dikes. On impoundments with either standing water, or high water levels within the deposited ash (i.e., not at the surface of the ash, but not as low as the toe of the dike either), tree roots can allow for seepage of the retained water through the dikes, which could lead to internal erosion such as is the concern in an impoundment with free water. Internal erosion would weaken the dike, and could result in a slope failure.

Additionally, the uprooting of trees during storms can create large voids in the embankment that are then susceptible to erosion. Considering the progressive erosion that could occur during a storm which blows the tree over during heavy rains (i.e., hurricane type storm systems) progressive erosion could potentially result in enough loss of soil from the dike to create an unstable situation, which if failure occurs could result in a release of ash.

CHA recommends that vegetation be cut on a regular basis to ensure that adequate visual observations are being made by Duke Representatives during routine inspections.

4.3 Erosion Protection and Repair

Erosion rills, sinkholes and subsequent loss of grass cover were observed on multiple embankment slopes of the Ash Pond A, Ash Pond B, Ash Pond C and Ash Pond C Extension as discussed in Sections 2.2.1, 2.3.1, 2.4.1 and 2.5.1, respectively. Thinning and loss of grass cover due to concentrated flow was noted on the embankment slopes. CHA recommends filling all rills and sinkholes and re-seeding these areas.

4.4 Animal Control

Evidence of animal burrows and slides were observed on the south dike of Ash Pond A, east dike of Ash Pond C and on the south and west dikes of Ash Pond C Extension. CHA recommends Duke Energy to make note of areas disturbed by animal activity, trapping of the animals responsible, and repair to the areas to protect the integrity of the dikes. Although not seen on other dikes, vegetation cover hides these features.

4.5 Repair of Surficial Sloughs

Active and/or grassed-over sloughs were observed on the exterior slopes of Ash Pond A (east dike), Ash Pond B (east dike), Ash Pond C (east, south, west dikes), and Ash Pond C Extension (east, south, west dikes). These areas of slough should be repaired. It should be noted that plans and specifications for repairing slides on the Ash Pond C east dike have been approved as part of the Phase II of the 2003 repairs. Also as outlined in the OH DNR inspection reports the areas of slough and overall stability of the dikes must be monitored monthly until the repairs are made.

4.6 Monitoring of Unknown Pipe Outlet Ash Pond B

The OH DNR Inspection Report for the Ash Pond B notes that Duke Energy personnel should monitor the unknown pipe outlet every six months for changes in flow or for cloudy or muddy discharge. This pipe was investigated in the 2007 repair of Ash Pond B, but its purpose could not be determined. Any changes in the discharge from this pipe could indicate conditions requiring more frequent monitoring or repair. If changes are observed a qualified engineer

should be contacted immediately to investigate the changed condition.

4.7 Stability Analysis

It is recommended that detailed stability analyses be performed for the Ash Pond A, Ash Pond B, Ash Pond C and Ash Pond C Extension impoundments.

CHA was not provided with information regarding stability analyses performed prior to or following construction of Ash Pond A or Ash Pond B nor information regarding properties of the embankment and foundation soils.

Orbital Engineering performed stability analyses for Ash Pond C which indicated that the embankment was marginally stable and remedial work was required. The stability analyses did not consider loading conditions for maximum surcharge pool (flood), seismic, or rapid drawdown conditions.

ATEC prepared a report for Ash Pond C Extension which included a stability analysis for deep slope failures. The analysis did not consider maximum surcharge pool (flood), seismic, or rapid drawdown conditions.

The stability analyses for each pond should include a subsurface investigation to determine existing soil parameters in the embankments and foundation soils and the installation of piezometers to determine the current phreatic surface.

4.8 Inspection Recommendations

Based on the information reviewed by CHA it does not appear that Duke Energy has an adequate inspection practices. Currently observations by plant personnel consist of “drive-by inspections” to identify any slips, animal activities and/or mechanical failures and the observations are documented on a weekly basis. In recent inspection reports the OH DNR outlined items that should be monitored and the frequency of which these items should be monitored. CHA recommends that plant personnel develop more detailed inspection procedures to ensure they are performing adequate inspections. Inspection procedures should include the recording of data from existing piezometer and inclinometers in the embankments. In addition, inspections made following heavy rainfall and/or high water events on the Ohio River should be documented. It is recommended that records of inspection be retained at the facility for a minimum of three years.