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

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL AND FEDERAL EXPRESS

Mr. Donald Fulkerson
Environmental Affairs Director
Indiana Kentucky Electric/Ohio Valley Electric
3932 U.S. Route 23
P.O. Box 468
Piketon, Ohio

Dear Mr. Fulkerson

On June 10-11, 2009 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a site assessment of the South Fly Ash and West Bottom Ash Ponds at the Clifty Creek facility. The purpose of this visit was to assess the structural stability of the impoundments or other similar management units that contain "wet" handled coal combustion residuals (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 Clifty Creek 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 Clifty Creek 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 Clifty Creek facility. These recommendations are found on pages 14-15 in the final assessment report and 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 within 14 calendar days of receipt of this letter. 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.

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

Enclosure 2
Clifty Creek Recommendations

Fly Ash:

3.2 Studies and Analyses

1. Based on our review of existing information, it does not appear that a recent hydrologic and hydraulic analysis has been conducted, under current engineering standards, to adequately assess spillway capacity under design flood conditions. IKEC/AEP should contact INDNR and formerly establish the magnitude of the spillway design flood for this dam. Previous studies allude to the possibility that the spillway does not have adequate capacity. Modification to the existing spillway and 72-inch outlet, including addition of a separate emergency spillway should, if necessary, be carried out based on the results of this detailed hydrologic and hydraulic analysis.

2. A seepage and stability analysis should be conducted for the up and downstream slopes based on the existing geotechnical information developed during the dam raising feasibility project and supplemented with more recent piezometric water level readings at the dam. This should include a seismic stability and liquefaction analysis of the upstream and downstream embankment slopes and foundation.

3. It has been about 25 years since the last visual inspection of the interior of the 72-inch diameter RCP. A follow-up study, executed under confined space entry conditions, should be carried out to evaluate the current condition of pipe section alignment, joints, concrete surfaces, and support struts.

3.3 Recurrent Operation & Maintenance Recommendations

GZA recommends the following operation and maintenance level activities:

1. Develop a formal, written Emergency Action Plan;

2. Enact the proposed inspection program which is to include routine drive by inspections, quarterly checklist completion by IKEC engineering staff.

3. Install a staff gage at the spillway decant intake in order to easily and regularly record pond level.

4. Monitor repaired sinkhole near the end of the outlet pipe on a monthly basis, at a minimum.

3.4 Repair Recommendations

GZA recommends the following minor repairs which may improve the overall condition of the dam, but do not alter the current design of the dam. The recommendations may require design by a professional engineer and construction contractor experienced in dam construction.

1. Repair minor eroded areas on downstream slope near outfall headwall.

3.5 Remedial Modifications Recommendations

1. There are no major repairs recommended at this time. However, additional repairs and/or modifications may be necessary and should be revisited based on the general stability and seismic analyses of the embankment, as well as establishment of the regulatory SDF and refined analysis of spillway capacity.

3.6 Alternatives

There are no practical alternatives to the repairs itemized above.

Bottom Ash

3.2 Studies and Analyses

1. Based on our review of existing information, it does not appear that the dam safety section of INDNR has taken jurisdiction of the WBAP Dam. However, they do have jurisdiction, and periodically inspect, IKEC's South Fly Ash Pond Dam also located at the Clifty Creek facility. As both dams are similar is size, volume and hazard classification, this appears to be an inconsistency, in our opinion. GZA recommends that IKEC contact INDNR to formally include this impoundment in their dam safety inventory.

2. Based on the above recommendation, the hazard class and magnitude of the spillway design flood (SDF) should be formally established under INDNR rules and regulations. The adequacy of the dam's existing spillway should be confirmed under the regulatory SDF, as may be necessary.

3. A subsurface exploration program should be developed and executed to include a limited number of borings and installation of piezometers and other instrumentation to analyze and regularly monitor embankment seepage and stability. A seismic stability analysis of the upstream and downstream embankment slopes should be conducted after surveying the actual configuration of the slopes.

4. Based on the results of the subsurface program noted in no. 3 above, a seepage and stability analysis should be conducted for the up and downstream slopes. This should include a seismic stability and liquefaction analysis of the upstream and downstream embankment slopes and foundation.

3.3 Recurrent Operation & Maintenance Recommendations
GZA recommends the following operation and maintenance level activities:

1. Develop a formal, written Emergency Action Plan;

2. Enact the proposed inspection program which is to include routine drive by inspections, quarterly checklist completion by IKEC engineering staff.

3. Install a staff gage at the intake (or other convenient location) in order to easily and regularly record pond level.

4. Monitor repaired sinkhole near the end of the outlet pipe on a monthly basis, at a minimum.

3.4 Repair Recommendations

GZA recommends the following minor repairs which may improve the overall condition of the dam, but do not alter the current design of the dam. The recommendations may require design by a professional engineer and construction contractor experienced in dam construction.

1. Repair of grading including minor depressions found on the crest to insure a consistent top of dam at about elevation 470 MSL.

2. Investigate seeps at the downstream slope in dry weather, with repairs designed by a professional engineer and construction by a contractor experienced in dam repair.

3.5 Remedial Modifications Recommendations

1. The dense vegetation on the upstream slope should be removed; this includes removal of stumps and backfilling and compaction with well draining material, supplemented with loam and seeding in the upper portions of the embankment and riprap placement at the normal fluctuation of the water level.

Additional repairs and/or modifications may be necessary and should be revisited based on the general stability and seismic analyses of the embankment, primarily of the upstream slope, as well as establishment of the regulatory SDF.

3.6 Alternatives

There are no practical alternatives to the repairs itemized above.