

US EPA ARCHIVE DOCUMENT



DUKE ENERGY
139 E. 4th Street
Cincinnati, OH 45202

Via E-Mail and Overnight Courier

July 25, 2011

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

Re: Final Dam Safety Assessment Report
East Bend Station
6293 Beaver Road
Union, Kentucky 41091

Dear Mr. Hoffman:

Duke Energy Kentucky, Inc. (Duke Energy) received and has reviewed the final report for East Bend Station that resulted from the site assessment of the ash basin conducted on August 5, 2010 by Dewberry & Davis, LLC, under contract to the United States Environmental Protection Agency (EPA). Duke Energy supports the EPA's objective of ensuring ash basin dam safety and remains committed to the safe operation and maintenance of coal ash basins.

The impoundment facility at East Bend Station is currently under the regulatory authority of the Kentucky Department of Environmental Protection Division of Water (KDEP), Dam Safety and Floodplain Compliance area. KDEP conducts periodic assessments/inspections of the impoundment and requires East Bend Station to maintain the impoundment to ensure public safety. In addition, Duke Energy regularly conducts internal inspections and periodically contracts third party inspections of the East Bend Station impoundment.

Duke Energy remains committed to meeting all state and federal requirements and managing its coal combustion byproducts impoundments in a safe and responsible manner. Based on ongoing monitoring, maintenance and inspections, Duke Energy is confident that the East Bend Station ash basin has the structural integrity necessary to protect the public and the environment.

The EPA's report on the East Bend Generating Station supports this conclusion and found that acceptable performance is expected in accordance with the applicable safety regulatory criteria. However, the EPA's contractor made several recommendations addressing minor deficiencies and secondary studies/investigations to provide further assurance of continued structural integrity. Duke Energy responds to each of these recommendations as follows:

1.2.1 Recommendations Regarding the Structural Stability

RECOMMENDATION: 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.

RESPONSE: The ash basin did not receive a **SATISFACTORY** rating in the final USEPA inspection report solely due to the lack of availability of the original design documentation. A new comprehensive geotechnical engineering evaluation based on current standards, including seismic loading conditions, is being conducted to resolve this issue. The results of this evaluation to date confirm that the structural stability factors of safety under various loading conditions meet or exceed current standards. Duke Energy anticipates that the final results will demonstrate that the ash impoundment should be rated **SATISFACTORY** because acceptable performance is expected under all applicable loading conditions (static, hydrologic, seismic) in accordance with accepted industry standards. In addition, no existing or potential management unit safety deficiencies were recognized. The final embankment stability investigation report is expected to be completed by October 31, 2011.

1.2.2 Recommendations Regarding the Supporting Technical Documentation

RECOMMENDATION: Continued efforts to locate the original slope stability design documentation are recommended. If the original documentation cannot be located within a reasonable period of time, a geotechnical engineering evaluation is recommended (see Section 1.2.1 above).

RESPONSE: See the response to Section 1.2.1 above.

1.2.3 Recommendations Regarding the Maintenance and Methods of Operation

RECOMMENDATION: Although the maintenance program appears to be adequate, several recommendations have been made to improve maintenance and ensure trouble-free operation:

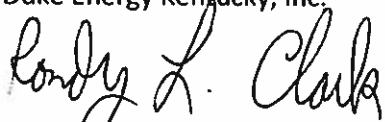
- Add rip rap armoring to toe of embankment up-gradient slope in areas susceptible to erosion caused by wave action
- Grade depressed traffic tracks along the crest to prevent water ponding and reduce erosion rills
- Repair erosion rills on both the up-gradient and down-gradient Slopes
- Increase frequency of mowing dike embankments to improve effectiveness of daily observations and monthly inspections

RESPONSE: To improve maintenance and ensure trouble-free operation, the following measures will be implemented:

- Rip rap armoring or other equivalent measures will be used at the toe of embankment up-gradient slope in areas where erosion caused by wave action currently exists. This will be completed by December 31, 2012.
- After the rip rap armoring or equivalent measures are instituted as mentioned above, the depressed traffic tracks along the crest will be graded to prevent water ponding and reduce erosion rills by December 31, 2012.
- After the rip rap armoring or equivalent measures are instituted as mentioned above, erosion rills on both the up-gradient and down-gradient slopes will be repaired by December 31, 2012.
- Duke Energy has increased the frequency of mowing dike embankments to improve effectiveness of daily observations and monthly inspections. This item is considered complete.

If you have any questions regarding the above responses, please contact Ed Sullivan at Duke Energy's corporate offices at 980-373-3719 or via e-mail.

Sincerely,
Duke Energy Kentucky, Inc.



Randy L. Clark
General Manager, East Bend Station