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August 29, 2011

Via E-mail to: Hoffman.Stephen@epamail.epa.gov

Mr. Stephen Hoffman
U.S. Environmental Protect ion Agency (5304P)
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Interstate Power and Light Company – M.L. Kapp Generating Station Response to July 28, 2011 EPA letter and Final Report of Dam Safety Assessment of Coal Combustion Surface Impoundments

Dear Mr. Hoffman:

On July 28, 2011, Interstate Power and Light Company's M.L. Kapp Generating Station ("IPL") received the United States Environmental Protection Agency's ("EPA") "Report of Dam Safety Assessment of Coal Combustion Surface Impoundments" ("Report") and corresponding cover letter. The cover letter provided recommendations that the EPA believes are necessary to ensure the stability of the coal combustion residual impoundments. In addition, the letter requested that IPL respond by August 29, 2011 with specific plans and schedules for implementing the recommendations.

IPL has carefully reviewed the findings and recommendations contained in the Report. Attachment 1 provides IPL's response regarding the applicability and implementation of the recommendations pursuant to your request. If you have any questions, feel free to contact me at (563) 241-1504.

Sincerely,

Greg R Hudson

Greg Hudson
Plant Manager

Enclosure

Cc: Bill Skalitzky
Jenna Wischmeyer

Attachment 1

M.L. Kapp Generating Station
Report of Dam Safety Assessment of Coal Combustion Surface Impoundments
Recommendations

4.2.1 Hydrologic and Hydraulic

EPA's Observation and Recommendation:
As the Main and Emergency Ash settling Ponds were just able to contain design storm runoff volumes with little to no freeboard, AMEC recommends that Alliant Energy, IPL, and their consultants determine the most appropriate method to increase freeboard above the design storm water surface elevations for all facility CCW ponds and to perform the necessary steps to complete the improvements. MSHA suggests a minimum freeboard of 3 feet as described in Section 3.2.1 of the Assessment Report. However, in AMEC's opinion, a freeboard increase to at least 18 inches above the design storm water surface elevation would merit improved condition ratings to the level of Fair for all ponds.

IPL's Response:
IPL is requesting that EPA withhold issuance of the Final Report and associated condition ratings for the main and emergency ash ponds until our contractor, Aether DBS, can fully inspect the site and confirm the hydraulic assumptions previously submitted to the EPA. Based on a review of the rudimentary assumptions, IPL has reason to believe that the assumptions may provide overly conservative conclusions. The hydraulic characteristics of the ponds are dependent on the operational set points and the flows of the ponds. A revised detailed hydraulic report of the main and emergency ash ponds will be submitted to the EPA by September 15, 2011.

4.2.2 Geotechnical and Stability Recommendations

EPA's Observation and Recommendation:
After the publication of the Draft Report, an additional study was prepared by Sargent and Lundy (M.L. Kapp Generating Station *Pond Examination Report,* dated January 2011) along with comments in regard to items in the Draft Report. Specifically, the following responses to comment items were presented:

Comment Letter ITEM 1: The use of 1.2 as the minimum factor of safety for seismic load condition.

Response: *The factor of safety varies from 1.0 to 1.3 as referenced in many text books on the subject. There is only a minor difference between the factor used (1. 15) and the recommended value of 1.2. All of the stability analyses results have factors of safety greater than 1.2.*

Based on a June 6, 2011 memorandum from Stephen Hoffman and Craig Dufficy of EPA to Belinda Holmes regarding the IPL – Burlington Generating Station, the acceptable

minimum factor for seismic stability is any value greater than 1.0. Please remove the reference 1.2 and insert "greater than 1.0". This memorandum is attached for your reference.

4.2.3 Inspection Recommendations

EPA's Observation and Recommendation:
Annual visual inspections of each management unit should be performed by a Professional Engineer. Inspection reports should be maintained by the facility. Additionally, routine inspections (daily or weekly) performed by facility O&M personnel should be supported by an inspection checklist that could also serve as documentation of the inspection.

Vegetation on the impoundments should continue to be aggressively managed. We further recommend that vegetation be managed based on guidance in (a) Corps of Engineers EM 111 0·2·301, *Guidelines for Landscape Planting and Vegetation Management at Floodwalls, Levees, and Embankment Dams* and (b) FEMA 534, *Technical Manual for Dam Owners: Impacts of Plants on Earthen Dams.* Additionally, animal impact should be mitigated based on guidance in FEMA 473. *Technical Manual for Dam Owners: Impacts of Animals on Earthen Dams.*

IPL's Response:
IPL, along with our independent consulting engineer, Aether DBS, will prepare a site-specific operations and maintenance plan ("O&M Plan") based on the following criteria:

- Corps of Engineers EM 111 0.2.301, *Guidelines for Landscape Planting and Vegetation Management at Floodwalls, Levees, and Embankment Dams;*
- FEMA 534, *Technical Manual for Dam Owners: Impacts of Plants on Earthen Dams;*
- FEMA 473, *Technical Manual for Dam Owners: Impacts of Animals on Earthen Dams;* and
- U.S. Department of Labor, Second Edition, May 2009: *Engineering and Design Manual for Coal Refuse Disposal Facilities, Chapter 12: Monitoring, Inspections, & Facility Maintenance*

The O&M Plan is likely to include semi-annual inspections by plant staff and an annual inspection by a professional engineer from Aether DBS. The Plan will be developed and implemented, including training for selected power plant personnel, no later than May 1, 2012. Inspection reports will be maintained by the facility. Any routine inspections conducted by facility O&M personnel will be supported by an inspection checklist.

As part of the development of the O&M Plan, IPL and Aether DBS will evaluate the necessity to remove larger trees based on the slope stability reports and the impact the removal may have on the overall integrity of the dikes. This evaluation is expected to be completed by December 31, 2011. All small trees and brush will be maintained in accordance with the O&M Plan. Prior to any tree removal, an endangered species review will need to be conducted. In addition, any necessary approvals or permits will need to be obtained from the Iowa Department of Natural Resources and Army Corp of Engineers.

IPL anticipates removing those trees identified in the O&M Plan by June 1, 2012, pending receipt of all required regulatory approvals.