

US EPA ARCHIVE DOCUMENT



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

March 13, 2013

OFFICE OF  
SOLID WASTE AND  
EMERGENCY RESPONSE

VIA E-MAIL

Mr. Mark Matus, Manager Environmental Services  
Lansing Board of Water and Light  
1232 Haco Drive  
Lansing, MI 48901-3007

Re: Request for Action Plan regarding Lansing Board of Water & Light's – Erickson Power Station

Dear Mr. Matus,

On May 19, 2011 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Lansing Board of Water & Light's – Erickson Power Station facility. The purpose of this visit was to assess the structural stability of the impoundment 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 Lansing Board of Water & Light's – Erickson Power Station 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 Lansing Board of Water & Light's – Erickson Power Station facility can be accessed at the secured link below. The secured link will expire in 60 days.

Here is the link: <http://www.yousendit.com/download/UVJqV295Tk1ubHdQWWNUQw>

This report includes a specific condition 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 Lansing Board of Water & Light's – Erickson Power Station facility. These recommendations are listed in Enclosure 1.

Since these recommendations relate to actions which could affect the structural stability of the CCR management unit(s) 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 provide a rationale. Please provide a response to this request by **April 15, 2013**. Please send your response to:

Mr. Stephen Hoffman  
U.S. 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  
U.S. Environmental Protection Agency  
Two Potomac Yard  
2733 S. Crystal Drive  
5<sup>th</sup> Floor, N-5838  
Arlington, VA 22202-2733

You may also provide a response by e-mail to [hoffman.stephen@epa.gov](mailto:hoffman.stephen@epa.gov), [dufficy.craig@epa.gov](mailto:dufficy.craig@epa.gov), [kelly.patrickm@epa.gov](mailto:kelly.patrickm@epa.gov) and [englander.jana@epa.gov](mailto:englander.jana@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 efforts to ensure protection of human health and the environment.

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

Enclosure

Enclosure 1  
**Lansing Board of Water & Light's – Erickson Power Station Recommendations  
(from the final assessment report)**

## **CONCLUSIONS**

The Ash Pond was found to have the following deficiencies:

1. Presence of a brush pile on the southeast side of the outer slope (*GZA understands this brush pile has been removed based on LBWL's letter, dated June 28, 2012*);
2. Several large stumps remaining on the interior and outer slopes (*GZA understands that the tree stumps have been removed based on LBWL's letter, dated June 28, 2012*);
3. The interior slope in the areas that had been excavated did not appear to be sloped at the design angle (3H: 1 V) (*GZA understands that LBWL is in the process of designing a new smaller surface impoundment within the existing impoundment and will address this design consideration*);
4. Leaking at the bottom ash discharge pipe (*GZA understands that LBWL's general contractor performing work on the ash removal project has repaired the leakage as discussed in LBWL's letter, dated June 28, 2012*);
5. No formal operation and maintenance plan or inspection checklist to observe and document the structural conditions of the dike (*LBWL provided a copy of a formal inspection checklist with their letter, dated June 28, 2012. This checklist was revised to include visual structural condition observations*);
6. Presence of vegetation and an apparent lack of an animal barrier in the emergency overflow pipe (*GZA understands that this vegetation has been removed based on LBWL's letter, dated June 28, 2012*);
7. The discharge pipes from the discharge structure to the pump house, from the transfer structure to Clear Water Pond, and from the emergency overflow in Clear Water Pond to the emergency overflow outlet have not been inspected internally since they were installed;
8. There was an unknown pipe observed on the north side of the Ash Pond;
9. No Geotechnical computations with respect to the embankments' stability were made available to GZA for review (*According to LBWL's letter, dated June 28, 2012, GZA understands that LBWL is in the process of designing a small [less than 5 acres] surface impoundment within the existing 33 acre footprint and will address these design considerations.*); and,
10. No Hydrologic/Hydraulic computations with respect to the impoundment's ability to safely pass the Spillway Design Flood (SDF) were made available to GZA for review (*According to LBWL's letter, dated June 28, 2012, GZA understands that LBWL is in the process of designing a small [less than 5 acres] surface impoundment within the existing 33 acre footprint and will address these design considerations.*).

## **RECOMMENDATIONS**

The following recommendations and remedial measures generally describe the recommended approach to address current deficiencies at the Ash Pond. Prior to undertaking recommended maintenance, repairs, or remedial measures, the applicability of environmental permits needs to be determined for activities that may occur within resource areas under the jurisdiction of the appropriate regulatory agencies.

### **Studies and Analyses**

**GZA recommends the following studies and analyses:**

1. If the Ash Pond is refilled with ash after ash removal activities are completed, perform a geotechnical stability analysis of the embankments under all applicable loading conditions, including earthquake-induced loading. (*According to LBWL's letter, dated June 28, 2012, GZA*

*understands that LBWL is in the process of designing a small [less than 5 acres] surface impoundment within the existing 33 acre footprint and will address these design considerations.)*

2. If the Ash Pond is to be used as originally designed, perform a detailed hydrologic and hydraulic study using current methodology to evaluate the impoundment's ability to safely pass the SDF. *(According to LBWL's letter, dated June 28, 2012, GZA understands that LBWL is in the process of designing a small [less than 5 acres] surface impoundment within the existing 33 acre footprint and will address these design considerations.)*

### **Operation & Maintenance Recommendations**

#### **GZA recommends the following operation and maintenance level activities:**

1. Remove the brush piles and grind the stumps down and fill in the depressions left from the stump removal; remove stumps and root balls and backfill with compacted fill. *(GZA understands this vegetation was removed based on LBWL's letter, dated June 28, 2012);*
2. Clear vegetation and logs from the emergency overflow outlet area and install a fence to prevent animals from nesting in the emergency overflow pipe, if a fence is not already installed *(GZA understands this vegetation was removed based on LBWL's letter, dated June 28, 2012);*
3. If LBWL has the opportunity, inspect the discharge pipes from the discharge structure to the pump house, from the transfer structure to Clear Water Pond, and from the emergency overflow in Clear Water Pond to the emergency overflow outlet to verify that they are operating correctly and are in good condition. This may be performed by video photograph;
4. Create a formal checklist for visual inspections of the Ash Pond structure and maintain the inspection records on file *(GZA understands that LBWL revised their checklist to include observations of visual structural conditions. A copy of the revised checklist was provided in LBWL's letter, dated June 28, 2012);*
5. Confirm that all dike embankments have not been overexcavated/or over filled during the ongoing ash removal operation. If the slopes have been excavated steeper than 3H: 1 V, then the oversteep slope should be backfilled in controlled, compacted lifts of similar soils used for the original dike construction. If the slopes have been over filled, the excess material should be removed down to the original 3H:1V slope angle. Reestablish the 12-inch thick layer of slope protection (i.e. riprap) and 6-inch layer of filter material on the interior slope between El. 886.5 and E. 880.5 where needed. *(According to LBWL's letter, dated June 28, 2012, GZA understands that LBWL is in the process of designing a small [less than 5 acres] surface impoundment within the existing 33 acre footprint and will address these design considerations);*
6. Remove unwanted vegetation from the 12-inch thick layer of slope protection at the toe of the outer slope of the dike adjacent to the railroad tracks *(GZA understands that this vegetation was removed and the area repaired based on LBWL's letter, dated June 28, 2012);*
7. Repair the erosion and add erosion mitigation measures to prevent future erosion from occurring at the discharge end of the runoff pipe from the coal pile *(GZA understands that LBWL's general contractor performing work on the ash removal project has repaired the erosion and installed rip-rap to prevent further erosion from the coal pile runoff as discussed in LBWL 's letter, dated June 28, 2012);* and,
8. Confirm operability of the sluice gate in the drainage structure.

### **Repair Recommendations**

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

1. Repair the leaking bottom ash discharge pipe and eroded slope below the leak *(GZA understands that LBWL's general contractor performing work on the ash removal project has repaired the leakage as discussed in LBWL's letter, dated June 28, 2012);* and,

2. Evaluate the necessity of the unknown pipe found on the north side of the Ash Pond and remove the pipe if it is not needed.