Comments

EPA: None

State:

From: "Boyle, Jason (DNR)" <Jason.Boyle@state.mn.us>
To: James Kohler/DC/USEPA/US@EPA
Cc: "Dostert, Dana M (DNR)" <Dana.Dostert@state.mn.us>
Date: 02/07/2011 09:43 AM
Subject: RE: Comment Request on Laskin Energy Center Draft Report

The Minnesota DNR Dam Safety program has no comments on the Laskin Energy Center Draft Report.

Jason Boyle

Company: See attached letter.

minnesota power
AN ALLETE COMPANY

Allan S. Rudeck, Jr., Vice President - Generation

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

Dear Mr. Hoffman,

Minnesota Power (MP) has reviewed the GZA Geoenvironmental, Inc. draft report dated November 18, 2010 presenting findings of their September 23 and 24, 2010 inspection of our Laskin Energy Center (LEC) coal combustion residual (CCR) management facilities in Hoyt Lakes, Minnesota. The inspection was conducted by GZA on behalf of the Environmental Protection Agency (EPA). In the following paragraphs the observations and recommendations contained in GZA's draft report are restated in their entirety (in italics), followed by Minnesota Power's response.

The following minor deficiencies were noted in the Executive Summary (page i) of the draft report:

Based on the results of the visual inspection, discussions with LEC personnel, and a review of available design documentation, the following minor deficiencies were noted at the impoundments:

1. Presence of trees on the upstream embankment and top of Cells A-D Impoundment;

The entire perimeter of Cells A, B, C and D were mowed and brushed by Lake State Tree Service on 11-04-2010.

2. Potholes and rutting of the crest access road of the Cells A-D Impoundment;

The presence of the potholes and rutting does not interfere with routine impoundment inspection nor does it affect embankment performance. However, potholes and ruts will be repaired during the upcoming 2011 construction season.

3. No monitoring, maintenance or emergency action plan for the Cells A-D Impoundment;

Cells A through D are inspected twice-daily (once per shift) by LEC operations personnel, with inspection results input into the plant Intelatrack database. An LEC Emergency Action Plan (EAP) exists and includes Cell E. Due to the low height of perimeter embankments for Cells A through D, the uniform grade of the ash below embankment elevation, the accompanying low water elevations, and substantial water surface setback from the embankments, it is not immediately obvious what conditions could develop in Cells A through D that would require emergency response. However, in conjunction with a planned review of the existing EAP to occur in 2011, Minnesota Power will further consider what emergency conditions could develop in Cells A through D and, if any potential emergency conditions that could develop are identified, these conditions and recommended preventative and response actions will be addressed in the updated EAP.

4. Minor erosion along the down slope toe of the east embankment of the Cell E Impoundment;

The small eroded area to the east/southeast of Cell E was filled with Class 5 aggregate in the fall of 2010. This area is included in MPs routine dam safety inspection, and will be reviewed again during the dam safety inspection scheduled for spring 2011.

5. Minor potholes along the crest gravel access road of the Cell E Impoundment; and,

These potholes are minor and will be repaired in conjunction with roadway grading to take place in the summer of 2011.

6. Presence of trees at the down slope toe of the northwest corner of the embankment of the Cell E Impoundment.

The trees located at the down slope toe of the northwest corner of the Cell E embankment will be removed in 2011 if it is determined through further review that they could have a detrimental effect on embankment performance.

In addition to the minor deficiencies noted by GZA in the Executive Summary, as restated and responded to above, GZA also recommended specific follow-up actions as follows.

GZA recommends that the owner arrange for the following to be performed at the dam:

Studies and Analyses:
1. Evaluate the stability and flowability of the ash contained within the Cells A-D Impoundment.

Due to the low height of perimeter embankments for Cells A through D, the uniform grade of the ash below embankment elevation and lack of ash above embankment elevation, the accompanying low water elevations, and substantial water surface setback from the

embankments, it is not immediately apparent what conditions could develop in Cells A through D that would cause the ash in these cells to liquefy (flow), nor is it apparent where concerns for stability exist. Further the references, on Pages i and 3 of the draft report, to ash 32 feet above grade may be in error. The survey data that was provided to GZA was for the site access roads surrounding the ash disposal areas; not specifically the elevation of the ash within the disposal areas. We respectfully request clarification of the objectives for this Study and Analysis recommendation in any final recommendations from the EPA.

Operations and Maintenance Activities:
1. Increased mowing of the grasses on the embankments to facilitate daily inspections and reduce the risk of burrowing animals;

Embankment mowing will be completed on annual basis to improve visibility for annual and daily inspections and reduce susceptibility to burrowing animals.

2. Repair the potholes present in the gravel crest access road. Grade the road to provide better drainage and reduce future potholing;

Roadway pothole filling and grading to provide better drainage and to reduce future potholing will be completed in the summer of 2011.

3. Clear deep rooted vegetation from embankments and top of impoundments;

A portion of this work was completed following the fall 2010 GZA embankment inspections. This work will be completed during the summer of 2011 and will be repeated at a frequency thereafter as needed.

4. Document impoundment inspections conducted by facility personnel each shift; and,

See response to Item 3 in the initial section of this letter.

5. Extend monitoring, maintenance and emergency action plans to include the Cells A-D Impoundment.

See response to Item 3 in the preceding section of this letter.

Minor Repairs:
1. Repair rutting present on the Cells A-D Impoundment crest access road.

See response to Item 2 in the initial section of this letter.

In addition to the GZA recommendations contained in the Executive Summary of the November 18, 2010 Draft LEC CCR Impoundment inspection report, GZA recommendations are also included in report Section 3.0. GZA recommendations and MP responses are provided below.

3.2 Studies and Analyses

GZA recommends that LEC evaluate the stability and flowability of the ash contained within the
Cells A-D Impoundment.

See response to "Studies and Analysis" Item 1 in preceding section of this letter.

3.3 Recurrent Operation & Maintenance Recommendations

GZA recommends the following operation and maintenance level activities:

1. Increased mowing of the grasses on the embankments to facilitate daily inspections and reduce the risk of burrowing animals;

See response to "Operations and Maintenance Activities" Item 3 in preceding section of this letter.

2. Repair the potholes present in the gravel crest access road. Grade the road to provide better drainage and reduce future potholing;

See response to "Operations and Maintenance Activities" Item 2 in preceding section of this letter.

3. Clear deep rooted vegetation from embankments and top of impoundments;

See response to "Operations and Maintenance Activities" Item 3 in preceding section of this letter.

4. Document impoundment inspections conducted by facility personnel each shift; and,

See response to "Operations and Maintenance Activities" Item 4 in preceding section of this letter.

5. Extend monitoring, maintenance and emergency action plans to include the Cells A-D

See response to Item 3 in the initial section of this letter.

Impoundment.

3.4 Repair Recommendations

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

1. *Repair rutting present on the Cells A-D Impoundment crest access road.*

See response to Item 2 in the first section of this letter.

Please take into consideration the information contained herein as you work toward finalizing EPA recommendations regarding the Minnesota Power Laskin Energy Center CCR Cells A through E, and please contact me in the event that you have any questions.

Best regards,

Allan S. Rudeck, Jr., P.E.
Vice President – MP Generation

c Mike Polzin, Tom Pustovar, Blake Francis, Lainie Plotnik, Kathy Benham, Mark Scharnott