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

July 26, 2011

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL

Mr. Bradley Beecher
Vice President-Chief Operating Officer Electric
The Empire District Electric Company
602 Joplin Street
P.O. 127
Joplin, Missouri 64102

Dear Mr. Beecher,

On September 23, 2010 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Riverton Generating Station facility. The purpose of this visit was to assess the structural stability of the impoundments 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 Riverton Generating 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 Riverton Generating Station facility is enclosed. 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 Riverton Generating Station facility. These recommendations 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 provide a rationale. Please provide a response to this request by August 23, 2011. 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 of hand delivery mail, please use the following address:

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

You may also provide a response by e-mail to hoffman.stephen@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

Enclosures

US EPA ARCHIVE DOCUMENT

Enclosure 2

Riverton Generating Station Recommendations (from the final assessment report)

12.1 Corrective Measures and Analyses for the Structures

1. A thick growth of trees, many up to 1-foot in diameter, was observed on the East Cell east perimeter dike downstream slope and at the toe in the cooling water channel. The trees should be removed to prevent root systems from creating seepage paths through the embankment slopes. Removal of root balls of large trees can cause additional damage to a dike and is not recommended without proper engineering planning and consideration.
2. Trees were observed near the downstream toe of the perimeter dike along most of the perimeter of the CCW impoundment. A minimum of about 25 feet of clear space should be provided between the downstream toe and the tree line. Removal of root balls of large trees can cause additional damage to a dike and is not recommended without proper engineering planning and consideration.
3. A trashrack for the outlet in the northwest corner of the East Cell should be installed to prevent large debris from obstructing flows through the outlet pipe. The grating shown in Photo 14 of the final report is reported by Empire to be "used only as a platform to safely collect samples" and is not intended for use as a trashrack.
4. A slope stability analysis should be performed based on material properties consistent with the loading condition and that includes revised static slope stability analysis, pseudo-static seismic analysis and an evaluation of the liquefaction potential of the perimeter dike embankment and foundation soils. The analysis should address stability concerns within the existing ash stockpiles and within or beneath the perimeter dikes. The revised slope stability analysis should be presented relative to the appropriate FERC requirements.

12.2 Corrective Measures Required for Instrumentation and Monitoring Procedures

1. Daily water levels are not measured and there are no staff gages for reference in any of the ponds or basins. No piezometers or settlement monuments are installed at the ash pond or settling basin dams. We recommend an instrumentation and monitoring program be developed and implemented that would include, at a minimum, piezometers and settlement monuments installed along the dikes of any impoundment or cell that will continue to receive wet coal combustion waste or any dikes currently experiencing seepage. Seepage should be measured and monitored at the observed seepage locations. Flow measurement devices (weirs, flumes, etc.) should be installed at the discharge locations into the West Cell and out of the East Cell into the north drainage ditch to allow for measurement and recording of discharge volumes. A staff gage should also be installed in the East Cell to monitor water levels and should be set to the vertical datum used.

12.3 Corrective Measures Required for Maintenance and Surveillance Procedures

1. Currently, the CCW impoundment is visually inspected daily by EDE staff. We recommend EDE develop and document formal annual inspections of the ash ponds and settling basins by EDE staff trained in dam safety evaluations, and include an inspection at a minimum of every 5 years by a third-party professional engineer with experience in dam safety evaluations.

12.4 Corrective Measures Required for the Methods of Operation of the Project Works

None.

12.5 Summary

The following factors were the main considerations in determining the final rating of the CCW impoundment at the Riverton Power Plant.

- The perimeter dike of the CCW impoundment is a significant-hazard structure based on federal and state classifications.

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- The CCW impoundment was generally observed to be in fair condition in the field assessment.
- There is thick vegetation, including large trees up to 1-foot diameter, at the toe of the perimeter dike around the majority of the CCW impoundment.
- An especially large and dense growth of trees is present in the downstream slope and at the toe of the perimeter dike on the east portion of the East Cell perimeter dike.
- The slope stability analyses performed on the dikes in 2010 are considered inadequate due to a lack of seismic and liquefaction analysis, use of potentially un-conservative material parameters, analysis methods and hydrostatic loading conditions.
- There is currently no instrumentation in place for the CCW impoundment. There is no method of accurately recording water levels, flow volumes or monitoring of perimeter dike performance (i.e. movement, settling, etc.).
- Maintenance, surveillance and operational procedures are considered fair.

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