

US EPA ARCHIVE DOCUMENT



August 22, 2011

CERTIFIED MAIL: 7002 3150 0001 2354 9273

Mr. Stephen Hoffman
US Environmental Protection Agency (5304P)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

**Re: Ameren Missouri
Meramec Power Station
Dewberry & Davis, LLC Coal Combustion Waste Impoundment
Round 7 – Final Dam Assessment Report**

Dear Mr. Hoffman:

In the USEPA letter to Mr. Michael Menne dated July 26, 2011, the USEPA requested information on how Ameren intended to address recommendations found in the final report on the structural stability of the fly ash and bottom ash ponds at Ameren Missouri's Meramec Power Station. This report was prepared by your engineering consultant (Dewberry & Davis, LLC) based on a site visit and review of engineering documentation provided by Ameren. Your engineering consultant then provided their evaluation of the structural stability of the fly and bottom ash pond and provided recommendations in their final report dated June 2011.

In 2010 and citing investigation authority under CERCLA, USEPA instituted a review of coal ash impoundments at electric generating facilities located throughout the United States. Ameren Corporation and its operating companies cooperated fully with that investigation and provided a variety of engineering documentation and made its facilities available for site inspections performed by USEPA's engineering consultant. That limited review effort has culminated in USEPA's issuance of reports regarding the structural stability of impoundments located at our facilities. While many of the observations are routine, we do have some concerns as to the methodology and process employed in drafting the reports. As a preliminary matter, the language used by your consultant is not tied to a regulatory definition, engineering standard or protocol. As such, condition ratings such as "satisfactory", "fair", "poor", "unsatisfactory" or "unknown" lack regulatory or statutory definition. To the extent USEPA has created its own standard and/or grading system; such a process could create confusion and be misleading to members of the public who are unfamiliar with the regulatory and engineering standards applicable to these facilities.

In fact, USEPA's regulatory basis both its initial investigation, and most recent correspondence regarding structural assessments remains unclear. (As you are aware, USEPA has proposed revisions to RCRA which would allow for the direct regulation including the engineering and design of impoundments and landfills. That regulatory process, however, has not been finalized.) In fact, state regulatory authorities such as Missouri Department of Natural Resources (MDNR) traditionally have authority over the structural integrity of such facilities through their dam safety programs. Accordingly, in responding to USEPA's reports regarding the structural stability of ash ponds at our facilities, Ameren reserves its right to object to a USEPA's assertion of jurisdiction in an area that appears to be outside of its regulatory purview. To the extent that Ameren has decided to implement a recommendation, such implementation is on a voluntary basis.

Subject to the above comments and objections, below are Ameren Missouri's responses to the conclusions and recommendations provided in the Dewberry & Associates final dam safety assessment of the coal combustion waste (CCW) impoundments at the Meramec Power Station. The conclusions and recommendations from the report are presented in **bold print** and our responses are provided in regular print.

1.1.8 Classification Regarding Suitability for Continued Safe and Reliable Operations: In Accordance with EPA criteria CCW ponds are currently rated "POOR" for continued safe and reliable operation. The rating is based on the results of the steady seepage loading reported in the November 2010 Ash Pond Dam Stability Analysis conducted by Reitz & Jens, Inc.. The minimum required safety factor for steady seepage loading under static conditions was not met. See Table 1.1 for structural stability rating. Implementation of recommendations as presented below would improve the rating to "SATISFACTORY" based upon subsequent information provided by Ameren Missouri.

Response: Ameren Missouri agrees that a **"Satisfactory"** rating is warranted for the CCW embankments upon completion of the slope flattening project at the Meramec Power Station. The project will increase the embankment cross-sectional area and improve the factor of safety of the perimeter levee to 1.5 or greater. Ameren plans to complete this project by the end of 2011, however, implementation of this project requires water levels in adjacent rivers remain in bank and requires permits are obtained from the United States Army Corp of Engineers (USACE).

1.2.1 Recommendations Regarding the Structural Stability: The minimum factor of safety for steady seepage required by MDNR and USEPA is not met. Ameren Missouri has initiated a project to be implemented in 2011 to flatten the existing slopes on the downstream side of Pond 1, 2, and 4 to improve the factor of safety to meet and exceed minimum Factors of Safety (see Appendix A, Docs 1.11 and 1.12 of the final report). According to Ameren Missouri, the project cannot begin until river levels recede to normal levels (i.e. Summer 2011). We strongly recommend the dikes be re-configured as quickly as possible.

Response: Ameren is proceeding with the implementation of the slope flattening project at the Meramec Power Station. This project will bring the factor of safety of the perimeter embankment to 1.5 or greater as required by the MDNR dam safety regulations which were used by Ameren as a benchmark for the stability analysis performed on the embankments. High water levels on adjacent river systems have inhibited progress on the implementation of this project. Ameren plans on completing the project by the end of 2011 provided adjacent river levels remain in bank and necessary permits are obtained from the USACE.

1.2.2 Recommendations Regarding the Hydrologic/Hydraulic Safety: The data provided indicates the 100-year, 24-hour storm event will overtop embankment levees of Pond 1 and Pond 2, and the 100-year Mississippi River flood will inundate Meramec Power Station. However, based on the history (including the 2011 flooding) and future downstream slope improvement project, failures of the embankment levees are not anticipated. It is recommended to monitor 100-year, 24-hour storm events for overtopping of the embankment levees and make repairs from potential erosion caused by overtopping.

Response: Agreed. Ameren monitors the condition of perimeter embankments during weekly and annual inspections. Damage to the embankments during flooding events are identified and repaired as required to ensure the integrity of the embankment.

1.2.3 Recommendations Regarding the Description of the Management Unit(s): Documented descriptions of the CCW ponds and operational procedures were not provided. An Operation & Maintenance manual for the Meramec PS to provide a summary of the purpose and processes within the CCW ponds is planned by Ameren Missouri in 2011.

Response: Agreed. Ameren has developed an Operations & Maintenance Manual for the CCW ponds as recommended.

1.2.4 Recommendations Regarding the Maintenance and Methods of Operation: It is recommended to continue to monitor the seepage area observed at the outside toe of Pond 4 for changed conditions.

It is recommended to continue to monitor the inside slope and retaining wall of Pond 1.

As recommended in the engineer's report of November 2010, Ameren Missouri must continue to ensure positive drainage is maintained from the inactive ponds.

Response: Agreed. Ameren will continue to monitor seepage and drainage conditions on weekly and annual dam safety inspections for changed or unusual conditions and make repairs or changes as warranted.

1.2.5 Recommendations Regarding the Surveillance and Monitoring Program: Internal inspections of the outlet structures with a remote camera or by personnel using confined-space procedures should be conducted on a frequency of at least once every 5 years.

Response: Agreed. Ameren will perform an inspection of the outlet structures with a remote camera or by personnel using confined-space procedures on a frequency of at least once every 5 years.

1.2.6 Recommendations Regarding continued Safe and Reliable Operation: Continued safe and reliable ash management is dependent upon completing the proposed modifications to the downstream side of the dikes for Ponds 1, 2 and 4 as soon as possible. Ameren Missouri should notify USEPA upon completion of the re-configuration project.

Response: Agreed. Ameren Missouri will notify the USEPA upon completion of the slope flattening project.

Business Confidentiality Claim

We request the final Dam Safety Assessment Report for the Meramec Power Station prepared by Dewberry & Davis as well as our responses to this report remain confidential. This request is made in accordance with the procedures described in 40 CFR, Part 2, Subpart B. We also request that engineering documents initially submitted to Dewberry & Davis for preparation of their draft report along with the stability analysis submitted for consideration in Ameren's response to the draft report be designated as Confidential Business Information.

If you need further information, please feel free to contact me at 314-554-2388.

Sincerely,



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