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

SEP 15 2009

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL AND FEDERAL EXPRESS

Kenneth Johnson
Vice President Generation
Westar Energy
818 S. Kansas Avenue
P.O. Box 889
Topeka, Kansas 66601-0889

Dear Mr. Johnson

On May 19-20, 2009 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a site assessment of the Bottom Ash Lake Dam and the Bottom Ash Pond Dam at the Jeffrey Energy Center facility. The purpose of this visit was to assess the structural stability of the impoundments or other similar management units that contain "wet" handled coal combustion residuals (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 Jeffrey Energy Center 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 Jeffrey Energy Center is enclosed. This report includes a specific 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 Jeffrey Energy Center. These recommendations are found on pages 36-38 in the final assessment report and 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 explain why. Please provide a response to this request within 14 calendar days of receipt of this letter. Please send your response to:

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

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

This request has been approved by the Office of Management and Budget under EPA ICR Number 2350.01.

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.

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 ongoing efforts to ensure protection of human health and the environment.

Sincerely,

Matt Hale

Matt Hale, Director
Office of Resource Conservation and Recovery

Enclosure 2 Recommendations
Jeffrey Energy Center

1.1 Corrective Measures for the Structures

1.1.1 Bottom Ash Lake

1. Re-evaluate the full reservoir, steady seepage stability analysis to address the observed higher phreatic surface. Following this evaluation, the Bottom Ash Lake Dam stability analysis results should be re-evaluated for agreement with the federal recommended minimum required factors of safety. The phreatic surface conditions should also be documented relative to the lack of seepage collected by the toe ditch and evaluated in a seepage analysis so that a consistent model of the seepage performance of the dam can be developed.

2. Significant amounts of silt and sediment have accumulated in the toe drain and behind the V-notch weir due to surface water run-on from the abutment area. We recommend the accumulated sediment be removed from these locations and the toe drain and basin behind the V-notch weir be returned to the original design condition. This will include replacing any displaced or damage riprap or bedding material. The sediment appears to not be associated with internal erosion of the blanket/toe drain. However, the lack of seepage collection by the toe ditch is not consistent with the piezometer readings and should be further evaluated within the next six months.

3. The riprap near the control crest and the approach channel to the spillway is significantly deteriorated and continues to degrade annually. In the current condition, it is likely that noticeable erosion of the spillway would occur in these locations during high flow events. Monitor the condition of the riprap closely, and repair or replacement may be necessary if the condition of the riprap continues to deteriorate.

4. Several small trees were observed at the end of the riprap lined spillway channel. These trees should be removed within the next year. If the trees are not removed soon, they could have a significant effect on the performance of the spillway and will be more expensive and difficult to remove in the future.

5. A few small trees were observed along the downstream slope of the stability berm, near the V-notch weir. These trees should be removed within the next year. If these trees are not removed, they could potentially initiate seepage paths or affect the stability of the slope. All vegetation in this area and on the downstream slope should be maintained to an acceptable level that will not obstruct visual dam safety inspections.

6. The riprap on the upstream slope of the dam is in satisfactory condition. However, noticeable deterioration of riprap was observed near the reservoir's normal pool elevation. The riprap in this location should be monitored for continued deterioration.

1.1.2 Bottom Ash Pond

1. The Bottom Ash Pond Dam may qualify as a significant hazard structure under federal guidelines due to the potential for economic/environmental damage associated with failure of the dam. A dam breach analysis and inundation mapping should be performed for Bottom Ash Pond Dam.

2. Perform supplementary stability analyses for Bottom Ash Pond Dam addressing revised fly ash material properties to represent drained strengths of the lower, weaker embankment fill, a more conservative piezometric surface, and neglecting tailwater effects from Bottom Ash Lake at the downstream toe. A rapid drawdown stability case and seepage stability analysis should also be evaluated. Following these evaluations, the Bottom Ash Pond Dam stability analysis results should be re-evaluated for agreement with the federal recommended minimum required factors of safety.

3. The CMP outlet conduit showed noticeable signs of corrosion and rusting through the pipe side wall, near the outlet. The outlet conduit has not been previously dewatered and thoroughly inspected. In the near future, the outlet conduit should be dewatered for inspection and maintenance to ensure leakage or seepage through corroded or rusted section of the conduit is not adversely affecting the embankment stability and to assess measures to extend the service life of the outlet pipe.

4. The downstream slope of Bottom Ash Pond Dam showed minor signs of surface erosion and the formation of small erosion rills. Currently, this is not a dam safety concern. If erosion on the downstream slope continues, the slope should be repaired or riprap slope protection should be installed in the future.

1.2 Corrective Measures Required for Maintenance and Surveillance Procedures

None.

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

None.

1.4 Any New or Additional Monitoring Instruments, Periodic Observations, or Other Methods of Monitoring Project Works or Conditions That May Be Required

There are several issues associated with the instrumentation at Bottom Ash Lake Dam. Piezometers PB-3, PB-13, and PB-15 are damaged or unreadable and need to be evaluated.

rehabilitated, or replaced. Piezometers PB-7 and PB-9 have shown an anomalous rise in readings in recent years, these piezometers should be evaluated. An evaluation of the phreatic surface through the embankment and the lack of drainage collection in the toe drain should be performed. Additional instrumentation and monitoring may be needed to address these issues