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

March 13, 2013

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL

Mr. Mike Fluharty Vice President Plant Operations
Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismark, North Dakota 58503-0564

Re: Request for Action Plan regarding Basin Electric Power Co-ops – Laramie River Power Station

Dear Mr. Fluharty,

On May 12, 2011 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Basin Electric Power Co-ops – Laramie River Power 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 Basin Electric Power Co-ops – Laramie River 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 Basin Electric Power Co-ops – Laramie River 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/UVJqV28rd0FvQUxOUjhUQw

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 Basin Electric Power Co-ops – Laramie River 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
5th Floor, N-5838
Arlington, VA 22202-2733

You may also provide a response by e-mail to hoffman.stephen@epa.gov, dufficy.craig@epa.gov, kelly.patrickm@epa.gov and 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

Basin Electric Power Co-ops – Laramie River Power Station Recommendations (from the final assessment report)

Conclusions

11.1.1 Field Assessment

The field assessment consisted of visual observations of the CCW impoundments at LRS. No visual signs of instability, movement or seepage were observed at any of the CCW impoundments. The upstream concrete slope protection of Bottom Ash Pond 1 in the northeast corner has been cracked and displaced due to ice action, which enables wave action to erode the underlying embankment. Basin Electric has indicated the concrete slope protection has been partially repaired in 2011 and is to be completed in 2012.

11.1.2 Adequacy of Structural Stability

There are no records of structural stability evaluations of the CCW impoundments. No geotechnical information is available for the embankments and limited information is available for the foundation for potential application to a stability analysis of the dikes.

11.1.3 Adequacy of Hydrologic/Hydraulic Safety

The ponds have adequate capacity to store and pass the regulatory design floods without overtopping the dam based on the recommended hazard classification for the dam.

11.1.4 Adequacy of Instrumentation and Monitoring of Instrumentation

Bottom Ash Ponds 1, 2 and 3 have staff gauges, but the Emergency Holding Ponds do not have any instrumentation. Monitoring wells are located on-site; however, the location and depths of the monitoring wells were selected based on environmental monitoring requirements, which is their intended purpose, rather than geotechnical monitoring of the phreatic surface for use in seepage and stability assessments.

11.1.5 Adequacy of Maintenance and Surveillance

The CCW impoundments are generally adequately maintained and routine surveillance is performed by LRS staff. Basin Electric has indicated Scott Woolsey, P.E. has been trained in dam safety inspections.

11.1.6 Adequacy of Project Operations

Operating personnel are knowledgeable and are well trained in the operation of the project. The current operations of the facilities are satisfactory.

Recommendations

12.1 Corrective Measures and Analyses for the Structures

1. The concrete slope protection on the upstream slopes of Bottom Ash Pond 1 should be repaired wherever erosion has occurred, specifically in the northeast corner around the Sewage Treatment Plant Effluent (STPE) conduit that discharges into Bottom Ash Pond 1. Basin Electric reports that the concrete slope protection at Bottom Ash Pond 1 was partially repaired in 2011 and will be completed by summer of 2012.
2. A geotechnical exploration program should be performed to classify the embankment soils and the foundation soils. A geotechnical soils testing program should accompany the drilling program and should include index property tests along with strength tests. These test results would provide the necessary information to perform slope stability analyses on the CCW impoundments as described below.
3. Static and seismic slope stability analyses for the five CCW impoundments should be performed on the maximum section of each CCW impoundment with a phreatic surface representative of steady seepage at normal water surface conditions. Critical slopes should be identified and evaluated. Additional loading due to ash being piled up a few feet higher than the dike crest, such as in the northeast corner of Bottom Ash Pond 3, should be included in the stability analyses. The slope stability analysis should be presented relative to the appropriate dam

safety guidelines such as the Army Corps of Engineers, Bureau of Reclamation or the Federal Energy Regulatory Commission (FERC).

12.2 Corrective Measures Required for Instrumentation and Monitoring Procedures

Staff gauges should be installed in the East and West Emergency Holding Ponds and flow rates into and out of all of the ponds should be measured. Staff gauges should be set to the vertical datum used. Static water levels, prior to pumping or sampling, should be recorded for the environmental monitoring wells located near Bottom Ash Ponds 1 and 2. If data from monitoring well 21B located at the northeast corner downstream toe of Bottom Ash Pond 1 is determined to be not helpful to dam safety monitoring, consideration should be given to installing a separate observation well in the northeast corner for dam safety monitoring because this location is near the maximum embankment section of Bottom Ash Pond 1. Observation wells should be considered for Bottom Ash Pond 3 along the south dike, and in particular, at the northeast corner as this is the highest and most critical dike location.

12.3 Corrective Measures Required for Maintenance and Surveillance Procedures

Currently, the CCW impoundments are inspected every 5 years by the Wyoming State Engineer's Office. We recommend Basin Electric develop and document informal annual inspections of the ash ponds by Basin Electric staff trained in dam safety evaluations.

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

None.