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

July 26, 2011

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

Dear Mr. Fluharty,

On September 21, 2010 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Leland Olds 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 Leland Olds 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 Leland Olds 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 Leland Olds 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

Enclosure 2

Leland Olds Station Recommendations (from the final assessment report)

12.1 Corrective Measures and Analyses for the Structures

1. Ash Pond #1 north dike downstream slope in the Coal Yard Runoff Drainage Ditch has no erosion protection. Erosion protection should be installed along the slopes of the Coal Yard Runoff Drainage Ditch (Erosion Control mats, riprap, grassy vegetation, etc.).
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 analysis on the CCW impoundments as is described below.
3. Slope stability analyses for the three CCW impoundments should be performed on the maximum section of each CCW impoundment with a phreatic surface representative of steady seepage with normal water surface conditions. CCW materials in the foundation of the dikes, if not specifically removed during construction, should be included in the stability analyses. For the dry ash storage in Ash Pond #1, the stability analyses should use loading conditions of dry ash and partially saturated ash. The slope stability analysis should be presented relative to the appropriate dam guidelines such as the Army Corps of Engineers, Bureau of Reclamation or the Federal Energy Regulatory Committee (FERC).
4. A liquefaction potential analysis should be conducted on the perimeter dikes and foundation soils for the three CCW impoundments.
5. A hydrologic analysis of the LOS site and the three CCW impoundments should be performed to verify the adequacy of the pond volumes to store the inflow design flood and that the intakes for the CCW impoundments are adequately sized for the design flood. As part of the hydrologic analysis, stage-storage curves should be developed to provide accurate pond volumes.

12.2 Corrective Measures Required for Instrumentation and Monitoring Procedures

Currently, there are no benchmarks located at the CCW impoundments which tie to a vertical datum. Benchmarks should be set and inverts of the operational outlet/inlet structures should be surveyed. Staff gages and flow measurement devices (weirs, flumes, etc.) should also be installed in both Ash Ponds #2 and #3 to allow for measurement and recording of water levels and discharge into and out of Ash Ponds #2 and #3. The staff gages should be set to the vertical datum used.

12.3 Corrective Measures Required for Maintenance and Surveillance Procedures

Currently, the three CCW impoundments are visually inspected bi-annually by NDDH staff. We recommend Basin Electric develop and document informal annual inspections of the ash ponds and settling basins by Basin Electric 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. We also recommend a brief daily check inspection of the facilities and seepage areas be conducted by Basin Electric personnel.

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 three CCW impoundments at LOS.

- The perimeter dike at Ash Pond #1 is a significant-hazard structure based on federal and state classifications. Ash Pond #1 facilities are suitable for their current function as dry landfill storage.

- The dike at Ash Pond #2 is a significant-hazard structure based on federal and state classifications.
- The dike at Ash Pond #3 is a significant-hazard structure based on federal and state classifications.
- The three CCW impoundments were generally observed to be in good condition in the field assessment.
- There is minor erosion of the north dike of Ash Pond #1 and currently does not have erosion protection installed.
- There are no hydrologic analyses indicating the Ash Ponds can store the regulatory design flood without overtopping. There is also no stage-storage curve associated with the ponds or no accurate record of reservoir volumes.
- There is no stability analysis on record for the three CCW impoundments.
- There is currently no instrumentation in place for the three CCW impoundments. 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.