GREAT RIVER
ENERGY®

12300 Elm Creek Boulevard • Maple Grove, Minnesota 55369-4718 • 763-445-5000 • Fax 763-445-5050 • www.GreatRiverEnergy.com

VIA ELECTRONIC
AND U.S. MAIL

May 13, 2013

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

RE: Action Plan regarding EPA Coal Ash Impoundment Site Assessment Final Report for Great River Energy's Coal Creek Station, Underwood, North Dakota

Dear Mr. Hoffman:

Great River Energy (GRE) received and has reviewed the Coal Ash Impoundment Site Assessment Final Report for Coal Creek Station dated October 31, 2012, and the accompanying United States Environmental Protection Agency's (EPA) letter dated March 13, 2013, requesting an action plan addressing recommendations in the Report. EPA's contractor, Kleinfelder, prepared the final report after performing a site assessment of Ash Pond 91 and the Upstream Raise/Ash Pond 92 on May 17, 2011. This letter provides GRE's comments and action plan in response to the final report, particularly regarding report recommendations.

Management Unit Condition and Potential Hazard Rating

We are pleased that the report concludes that the coal combustion product (CCP) management units at Coal Creek Station are in "Satisfactory" condition. We also agree with the report's recommended potential hazard rating as "Low."

Report Recommendations

The final report included seven recommendations; those recommendations are followed by GRE's responses below.

Priority 1 Recommendations:

1. ***Prepare an Emergency Action Plan (EAP) for the facility by July 31, 2013.*** *An EAP should be prepared for both Ash Pond 91 and the Upstream Raise. The EAP could be a very short and straightforward document that basically documents that*

sufficient volume exists in Samuelson Slough to contain releases, and outlines procedures to undertake in the event of an unplanned release, including gate closure and phone calls to interested and potentially impacted parties.

GRE Response – Coal Creek Station has an Emergency Response Safety Procedure for the entire site that is regularly reviewed and updated (attached). This plan provides a site-wide uniform procedure for notification, response, and reporting of a chemical spill or release. This plan has been updated to explicitly include the release of material from a coal combustion product (CCP) impoundment and defines the notification procedure for such a release. As stated in the report, sufficient volume exists on Coal Creek Station property to contain a release from the CCP Impoundments. This information has been added to the Contingency Plans section of the CCP management units Operation Plan, which also references the Emergency Response Safety Procedure (see attached operations plan addendum).

2. ***Control vegetation on the downstream slopes. Remove the isolated trees and woody brush, including roots/stumps, at the toe of the embankment by July 31, 2013.*** *Refer to FEMA Manual 534 (Impact of Plants on Earthen Impoundments) for guidance on vegetation removal. This manual is available on the FEMA website.*

GRE Response – The identification and removal of trees and woody brush on the embankments of the CCP management units is part of GRE's ongoing maintenance practice. GRE has removed the isolated vegetation identified by Kleinfelder and will continue to evaluate the facility for future vegetation growth during regular inspections. GRE will remove future vegetation growth in a timely manner.

Priority 2 Recommendations:

1. ***Repair erosion of Upstream Raise/Ash Pond 92 embankment by July 31, 2013.*** *Minor surface erosion was noted at the Upstream Raise. Areas where erosion has occurred should be filled in and revegetated to prevent erosion from cutting further into the embankments. This action is only necessary on areas that have been topsoiled and vegetated, as it is recognized that parts of the Upstream Raise are under construction and will be dressed and vegetated at the appropriate time.*

GRE Response – The identification and correction of erosion on the embankments and covered slopes of the CCP management units is part of GRE's ongoing maintenance practice. GRE will repair the eroded areas identified by Kleinfelder by July 31, 2013, and will continue to evaluate the facility for erosion damage during regular inspections and correct it in a timely manner.

2. ***Evaluate and repair erosion at the toe on west embankment of Ash Pond 91 by July 31, 2013.*** *Ash Pond 91 west embankment toe appears to have a permanent slough feature adjacent to the downstream toe and was observed to have scarps along the slough water line. Erosion at the toe can shorten seepage paths and decrease stability of the embankment. Since the slough likely keeps the toe in a saturated condition a*

seepage and stability analysis should be performed on the west embankment and the toe should be repaired and armored based on results of the analysis.

GRE Response – To evaluate the potential impact of the adjacent slough to the berm stability, a slope stability analysis was performed for the west embankment of Ash Pond 91. Based on similar assumptions to the original south embankment slope stability analysis (unsaturated berm), a factor of safety of 2.3 was estimated for the west embankment. A conservative analysis assuming a full impoundment and partially saturated berm was performed and a factor of safety of 1.9 was estimated, indicating that the adjacent slough does not pose a stability concern for the impoundment berms (see attached analysis).

The observed scarps/erosion along the slough water line of the Ash Pond 91 west embankment is likely due to minor wave action and soil saturation. The eroded areas identified will be repaired by July 31, 2013. Repair will include removal of unsuitable material, placement and compaction of clean fill to restore original embankment grades, and placement of shoreline protection/armoring.

3. ***Maintain a log of maintenance and other activities at Ash Pond 91 and the Upstream Raise impoundments and supporting facilities by July 31, 2013.*** *We have seen examples of Work Orders documenting inspection of the facilities by plant staff. Other Work Orders may exist that document routine maintenance and repair activities, and if so, those should be collected and bound in a notebook in a secure location if that practice is not being followed currently. We believe that this log will provide continuity during periods of staff change.*

GRE Response – GRE does not plan to print out the electronic documents pertaining to maintenance, inspection and other activities. GRE currently maintains a record of inspections and maintenance Work Orders for Ash Pond 91 and the Upstream Raise facility on GRE's electronic workspace accessible to GRE employees. This system may not have been sufficiently described to the Kleinfelder engineers. The system automatically initiates work orders for scheduled inspections and maintenance, and is the method by which site personnel record observations and maintenance needs resulting from the site operations and inspections. All future, active and historical records are maintained in this system. GRE's best management practices are to use the electronic document to assure that outdated documents do not exist. Coal Creek Station employs an Environmental Management System that is ISO 14001 registered and that utilizes this best management practice.

4. ***Perform video assessments of culvert piping by July 31, 2013.*** *This would include only the permanent culvert piping used for the outlet works of the impoundments, and specifically the cross connection pipes between Ash Pond 91 and the Drains Pond. The video survey should determine the type of pipe material, the condition of the pipes, and the condition of the valves. In addition, the valves should be exercised to assess functionality. Because most of the other piping is moved around or replaced as*

it loses capacity due to scale deposition, video survey of those pipes in the pond do not appear to be necessary.

GRE Response – GRE considers this recommendation to be related to plant operations and not impoundment stability, and thus does not plan to perform video assessment of the culvert piping. Unlike a dam where indirect and uncontrollable natural influences (i.e., run-on from a large drainage basin) may cause excess water to build up and overtop a dam, water levels (inflows) to these facilities are directly controlled by plant operations. If a problem with the outlet lines connecting Ash Pond 91 and the Drains Pond were to exist, GRE can use backup pumps to remove water from Ash Pond 91 or may reduce or eliminate inflows to Ash Pond 91 until the outlet lines are repaired. Since GRE can control the inflow to Ash Pond 91, the blockage of these lines would not lead to an overtopping condition.

Thank you for this opportunity to comment. If you have any questions concerning our comments or the information we have provided, please contact Jennifer Charles at 701-442-7081.

Sincerely,

Mary Jo Roth
Manager, Environmental Services

c: Hoffman.Stephen@EPA.gov
Dufficy.Craig@EPA.gov
Kelly.PatrickM@EPA.gov
Englander.Jana@EPA.gov
Diane Stockdill
Jennifer Charles
Erik Silvola

Att: Coal Creek Station Emergency Response Safety Procedure SF 10.14 (Revision 6, 11/12/2012)

Addendum 1 to July 8, 2004 Operations Plan (10/31/2012)

Ash Pond 91 West Embankment Stability (4/11/2013)