US ERA ARCHIVE DOCUMENT



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September 21, 2010

## **CERTIFIED MAIL**

Mr. Craig Dufficy
US Environmental Protection Agency
Two Potomac Yard
2733 S. Crystal Dr.
5<sup>th</sup> Floor; N-5831
Arlington, VA 22202-2733

RE: Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act 42 U.S.C. 9604(e) – Coal Creek Station

Dear Mr. Dufficy;

This letter is in response to your August 24, 2010 letter that was received by Great River Energy (GRE) August 26, 2010. The letter requested information pursuant to Section 104(e) of CERCLA. August 30, GRE requested and was granted a 15 day extension to the information request.

GRE has reviewed the instructions in Enclosure A and determined that two surface impoundments meet the definition of a surface impoundments or similar diked or bermed management unit(s) designated as landfills which receive liquid-borne material from a surface impoundment used for the storage or disposal of residuals or by-products from the combustion of coal, including but limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. In addition to the two impoundments, GRE has four Evaporation Ponds that are used exclusively for the management of excess plant process water; these ponds do not receive or store residuals or by-products from the combustion of coal.

Enclosure A contains responses to information for the GRE, Coal Creek Station.

Your letter states that EPA has requested this information pursuant to authority granted under provisions of CERCLA which provides in relevant part that whenever the Agency has reason to believe that there may be a release or threat of a release of a pollutant or



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contaminant, they may require any person who has or may have information to furnish information or documents relating to the matter. GRE feels strongly that none of the impoundments at Coal Creek Station presents the threat of release. Coal Creek Station is a zero liquid discharge facility; releases would be considered a spill and would have been reported per CERCLA spill reporting guidance.

GRE has exercised the utmost care and diligence in preparing our responses. Please direct any questions concerning this submittal to my attention at the address listed below.

Sincerely,

Jøhn B. Weeda Plant Manager,

Coal Creek Station

2875 3<sup>rd</sup> St. SW

Underwood, ND 58576

Weeda

## **CERTIFICATION**

I certify that the information contained in this response to EPA's request for information and the accompanying document is true, accurate, and complete. As to the identified portions of this response for which I cannot personally verify their accuracy, I certify under penalty of law that this response and all attachments were prepared in accordance which a system designed to assure that qualified personnel properly gather and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Melda

9/22/2010

John B. Weeda:

Plant Manager, Coal Creek Station

Enclosure A: US EPA Request under Section 104(e) CERCLA September 21, 2010

1. Relative to the National Inventory of Dams criteria for High, Significant, Low or Less-than-Low, please provide the potential hazard rating for each management unit and indicate who established the rating, what the basis of the rating is and what federal, or state agency regulates the unit(s). If the unit(s) does not having a rating, please note that fact.

The Upstream Raise and Ash Pond 91 have not been rated by any agency under the National Inventory of Dams criteria. An interdependent engineer, hired by GRE, has rated the management units using the National Inventory of Dams criteria. Ratings are provided below.

Management Unit	Potential Hazard Rating	Ratings Established By	Rating Basis	Regulating Agency
Upstream Raise otherwise referred to as: Upstream Raise/ Ash Pond 92/ SW Section 16	Low	Golder Associates Inc. September, 2010	No probable loss of human life. Low economic and/or environmental losses with losses principally limited to the owners property.	North Dakota Department of Health (NDDH) Division of Waste Management Permit SP-033
Ash Pond 91	Low	Golder Associates Inc. September, 2010	No probable loss of human life. Low economic and/or environmental losses with losses principally limited to the owners property.	NDDH Division of Waste Management Permit SP-033

2. What year was each management unit commissioned and expanded?

Current impoundments Ash Pond 91 and the Upstream Raise were originally commissioned in 1979 as the South Ash Pond (SAP). Leakage from the SAP was observed and the SAP was removed from service, relined with a clay liner and returned to service.

Leakage was observed again so the SAP was removed from service and divided into three ponds: the Drains Pond, Ash Pond 91 and Ash Pond 92. The footprint for the original SAP and the three new ponds is identical; however, the ponds were deepened prior to liner installation. Composite liners and leachate collection systems were installed in Ash Pond 92 and Ash Pond 91. Ash Ponds 92/91 were returned to service in 1989/1992 respectively.

Ash Pond 92 was converted from an impoundment to a landfill/impoundment for permanent placement of scrubber sludge in 2005. This pond is now called the Upstream Raise. The Upstream Raise was expanded over the Southwest Section 16 landfill. A composite liner and leachate collection system was installed for each expansion.

Impoundment Name	Year Commissioned	Year Expanded	Scope of
Ash Pond 91	1979	1992	Pond deepened and composite liner installed
Upstream Raise	1979	1989	Pond deepened and composite liner installed
Phase I		2005	Liner construction over existing permitted footprint containing dry CCPs
Phase II		2006	Liner construction over existing permitted footprint containing dry CCPs
Phase III		2008	Liner construction over existing permitted footprint containing dry CCPs

3. What materials are temporarily or permanently contained in the unit? Use the following categories to respond to this question: (1) fly ash; (2) bottom ash; (3) boiler slag; (4) flue gas emission control residuals; (5) other. If the management unit contains more than one type of material, please identify all that apply. Also, if you identify "other" please specify the other type of materials that are temporarily or permanently contained in the unit(s).

Impoundment Name	Material	Temporary/Permanent
Ash Pond 91	Bottom Ash	Temporary
	Flue Gas Emission Control	Permanent from historic
	Residues	practices *
	Other: Pulverizer Rejects	Temporary
	Other: Economizer Ash	Temporary
Upstream Raise	Flue gas Emission Control Residues	Permanent

\*In the past flue gas desulfurization (FGD) material was blown-down to Ash Pond 91, the pond was removed from service and material was taken to a landfill. This practice stopped when the Upstream Raise was developed. FGD material remains in the pond from historical operating practices.

Bottom Ash is used for structural ballast in the construction of the Upstream Raise. Fly ash is used in the construction of the Upstream Raise; fly ash does not come into contact with the impoundment water or in contact with the flue gas desulphurization material.

**4.** Was the management unit(s) designed by a professional Engineer? Is or was the construction of the waste management units(s) under the supervision of a Professional Engineer? Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?

All management units have been designed by independent engineering firms. Quality Control/Quality Assurance (QA/QC) during the construction of all impoundments was conducted by an independent testing firm and QA/QC results are analyzed by both the State of North Dakota and the design engineer.

GRE performs monthly inspections on all impoundments. All inspections are documented in the plant Computerized Maintenance Management System (CMMS). Impoundments are inspected for all applicable rules and regulations. GRE has conducted training for all personnel performing inspections. In addition to monthly inspections, operations personnel are trained to observe abnormalities during routine rounds. Operator rounds are performed on all impoundments a minimum of twice daily.

Inspection and monitoring activity is under the supervision of a professional engineer registered in the state of North Dakota and employed by an independent engineering firm.

5. When did the company last assess or evaluate the safety (i.e. structural integrity) of the management unit(s)? Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. If the company plans an assessment or evaluation in the future, when is it expected to occur?

Impoundment Name	Assessment Date	Corrective Action
Ash Pond 91	4-14-10	Nothing Recommended
Upstream Raise	8-6-10	Nothing Recommended

Structural integrity evaluations of all impoundments at Coal Creek Station including the Upstream Raise and Ash Pond 91 were completed under the supervision of a professional engineer registered in the state of North Dakota employed by Golder Associates Inc., an independent engineering consulting firm.

6. When did a State or a Federal regulatory official last inspect or evaluate the safety (structural integrity) of the management unit(s)? If you are aware of a planned state or federal inspection or evaluation in the future, when is it expected to occur? Please identify the Federal or State regulatory agency or department which conducted or is planning the inspection or evaluation. Please provide a copy of the most recent official inspection report or evaluation.

There have been no Federal regulatory agency inspections or evaluations.

The North Dakota Department of Health, Waste Management Division performed a Solid Water inspection on 7/13/2010, all impoundments are permitted by NDDH Solid Waste Department. NDDH does not perform dam safety inspections as part of its annual site inspections but does inspect monitoring activities associated with the operation of the impoundments units. NDDH did not provide a written report or evaluation; however, nothing of concern was noted during the inspection.

7. Have assessments or evaluations, or inspections conducted by State or Federal regulatory officials conducted within the past year uncovered a safety issue(s) with the management unit(s), and, if so, describe the actions that have been or are being taken to deal with the issue or issues. Please provide any documentation that you have for these actions.

## Not Applicable – Refer to item 6

8. What is the surface area (acres) and total storage capacity of each of the management unit(s)? What is the volume of material currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) was taken. Please

provide the maximum height of the management units(s). The basis for determining maximum height is explained later in the Enclosure.

Impoundment Name	Surface Area Acres	Total Storage Capacity
Ash Pond 91	70	10,851,174 cubic feet
Upstream Raise	91.6	33,484,356 cubic feet

Impoundment Name	Date	Volume of material
		currently stored
Ash Pond 91	12/2009	690,542 Tons
Upstream Raise	9/1/2010	907,140 Tons
	Engineering Est.	

Impoundment Name	Maximum Height Feet
Ash Pond 91	25
Upstream Raise	75

9. Please provide a brief history of known spills or unpermitted releases from the unit within the last ten years, whether or not these were reported to State or federal regulatory agencies. For purposes of this question, please include only releases to surface water or to the land (do not include releases to groundwater).

No spills or unpermitted releases from the units.

10. Please identify all current legal owner(s) and operator(s) at the facility.

The current legal owner and operator of the facility: Great River Energy 12300 Elm Creek Boulevard Maple Grove, Minnesota 55369-4718