

US EPA ARCHIVE DOCUMENT



March 26, 2009

Mr. Richard Kinch
US Environmental Protection Agency
Two Potomac Yard
2733 S. Crystal Dr.
5th Floor; N-5783
Arlington, VA 22202 2733

VIA OVERNIGHT MAIL

Re: Surface Impoundment Section 104(e) Request
Louisa Generating Station, Muscatine, Iowa

Dear Mr. Kinch:

This letter responds to the subject information collection request issued by the United States Environmental Protection Agency (EPA) pursuant to section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9604(e). MidAmerican Energy Company's Louisa Generating Station received your request on March 13, 2009, and this response has been timely submitted within the required ten (10) business days.

MidAmerican Energy Company (MidAmerican) understands that it is not obligated to provide any information or documents protected from disclosure by either attorney-client privilege or the work product doctrine. MidAmerican notes, objects, and reserves all rights to object in the future to EPA's apparent assumption that the residuals or byproducts from the combustion of coal are potential subjects of liability for reimbursement of costs or response under CERCLA; that they are appropriate subjects of the information requests to which MidAmerican is responding; or that they are "hazardous substances" within the meaning of CERCLA. Further, by responding to EPA's request, MidAmerican does not acknowledge that there is any release or threatened release of a hazardous substance, pollutant, or contaminant. MidAmerican also reserves all rights, including rights to object to the requests, not expressly waived.

MidAmerican further objects to this request because it contains undefined and ambiguous terms such as "surface impoundment", "similar diked or bermed management unit(s)", "landfills", "liquid-borne material", "storage or disposal", "no longer receive", "coal combustion residues", "residuals or byproducts", "residues or by-products", and "free liquids", and because the terms "residuals or byproducts" and "residues or by-products" seem to be used interchangeably without an explanation whether the terms are intended to have the same meaning.

Subject to the objections stated herein, MidAmerican provides the following response.

MidAmerican's Louisa Generating Station (Louisa) has one surface impoundment that receives liquid-borne material for the storage of residuals or by-products from the combustion of coal. The questions enclosed in the information collection request have been copied below (in italics) with responses for the surface impoundment.

1. Relative to the National Inventory of Dams criteria for High, Significant, Low, or Less than Low Hazard Potential, 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 have a rating, please note that fact.

To MidAmerican's knowledge, the Louisa surface impoundment has not been rated by a Federal or State regulatory agency relative to the National Inventory of Dams criteria.

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

The surface impoundment was placed into service in 1983, and there has been no expansion.

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 types of materials that are temporarily or permanently contained in the unit(s).

All solid materials in the surface impoundment are coal combustion residue and are temporarily stored. The details are as follows:

- (1) Fly ash – Approximately 5% of the material is fly ash, coal pyrites and economizer ash. Fly ash is present due to occasional transfer of fly ash during periods of maintenance on the dry fly ash collection system. Coal pyrites are minerals and rocks found in coal that are not milled in the coal pulverizers. Coal pyrites also include a very small amount of unburned coal that is rejected along with the minerals. Economizer ash is lighter than bottom ash and travels to the back-pass of the boiler, but is heavy enough to deposit in the back-pass and not be captured as fly ash. Economizer ash has a consistency similar to sand.
- (2) Bottom ash – Approximately 95% of the material is bottom ash and boiler slag.
- (3) Boiler slag – This material is included as part of the bottom ash estimate in (2) above. The boiler slag volume can not be separately estimated from the bottom ash mixture.
- (4) Flue gas emission control residuals – No flue gas emission control residuals are stored in the surface impoundment.

- (5) Other – The surface impoundment also accepts plant waste water and storm water. Annual storm water is estimated at 6.3 million gallons. Waste water averages 300,000 gallons per day, and includes plant service water waste (e.g. non-contact bearing cooling water, wash-down water), water treatment waste water from reverse osmosis and filter backwash, and boiler blow-down. Waste water is discharged from the surface impoundment in accordance with the terms and conditions of an Iowa Department of Natural Resources National Pollution Discharge Elimination System permit, via an outfall to the Mississippi River.

4. Was the management unit(s) designed by a Professional Engineer? Is or was the construction of the waste management unit(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?

The Louisa surface impoundment was not designed by a Professional Engineer, nor was construction under the supervision of a Professional Engineer. As discussed in question #5, inspection and monitoring of the safety of the surface impoundment has been conducted by MidAmerican employees.

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?

MidAmerican employees make daily rounds that include an inspection of the perimeter fence adjacent to the road along the eastern portion of the surface impoundment looking for visible signs of surface erosion. Specifically, the employees look for a gap between the perimeter fence and the ground of more than six inches. Any eroded areas are repaired to return the bottom of the fence-to-ground distance to six inches or less. While the structural integrity of the Louisa surface impoundment has not been extensively and formally evaluated, the impoundment is at, or near, the surrounding grade, and therefore, it has a limited potential to breach in a fashion that would result in a sudden and significant release of its contents.

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.

The Louisa surface impoundment has not been the subject of any specific inspections by State or Federal regulatory officials, and MidAmerican is not aware of any planned

inspections. However, numerous regulatory agency inspectors have visited the site for other reasons during the unit's operating history and such inspections may have included a visual observation of the surface impoundment. The Army Corps of Engineers performs periodic inspections of the Mississippi River flood wall near the eastern portion of the surface impoundment.

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.

There have been no assessments, evaluations or inspections by State or Federal regulatory officials within the past year of the Louisa surface impoundment. No other assessments, evaluations or inspections by State or Federal regulatory officials within the past year referenced safety issues regarding the Louisa surface impoundment.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials 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 unit(s). The basis for determining maximum height is explained later in this Enclosure.

The total surface area of the Louisa surface impoundment is 42 acres, and the total volumetric storage capacity is estimated to be approximately 390,000 cubic yards of coal combustion residue. As of January 31, 2009, the surface impoundment was estimated to contain 195,000 cubic yards of coal combustion residue.

The Louisa surface impoundment sits at, or near, the surrounding grade. The maximum height of the surface impoundment is approximately nine feet as measured from the adjacent land level on the east side of the impoundment down to the lowest nearby land level (approximately 80 feet to the east). However, at least five feet of freeboard is maintained in the surface impoundment.

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).

There have been no known spills or unpermitted releases from the Louisa surface impoundment within the last ten years.

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

The legal operator of Louisa Generating Station is MidAmerican Energy Company. The legal owners of Louisa Generating Station, and their respective ownership shares, are

listed below:

- MidAmerican Energy Company (88.0%)
- Central Iowa Power Cooperative (4.6%)
- Alliant Energy (4.0%)
- City of Waverly, Iowa (1.1%)
- City of Harlan, Iowa (0.8%)
- City of Tipton, Iowa (0.5%)
- City of Eldridge, Iowa (0.5%)
- City of Geneseo, Illinois (0.5%)

I certify that the information contained in this response to EPA's request for information and the accompanying documents 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 with a system designed to assure that qualified personnel properly gather and evaluate 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.

Signature: _____



Name: Reginald R. Soepnel

Title: General Manager – Mississippi River Energy Center