

US EPA ARCHIVE DOCUMENT



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

July 26, 2011

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL

Mr. Gary A. Dawson
Director of Environmental Services
Land and Water Management
Consumers Energy
1945 W. Parnall Road
Jackson, MI 49201

Dear Mr. Dawson,

On September 23, 2010 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the J.R. Whiting Plant 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 J.R. Whiting Plant 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 J.R. Whiting Plant 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 J.R. Whiting Plant 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 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

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

J.R. Whiting Plant Recommendations (from the final assessment report)

O'Brien & Gere recommends that additional maintenance of the embankments be performed to correct the miscellaneous deficiencies cited in the final report, based on the findings of our visual inspection and review of the available records for the J. R. Whiting facility impoundments.

6.1 URGENT ACTION ITEMS

No urgent action items are recommended.

6.2 REPAIRS/LONG TERM IMPROVEMENT

The following items should be considered for improvement of the stability and/or operation of the impoundments:

Ponds 1 & 2

- The inboard slopes should have trees removed , heavy vegetation (phragmites) regularly trimmed, and rodent burrows filled.
- The outboard slopes should have heavy vegetation (phragmites, shrubs) and mature trees removed to facilitate future inspection. Upon completion of removal activities, any irregularities in the slope surfaces should be repaired and appropriate vegetation or rip rap armoring should be implemented as needed to protect the embankments.
- Since stability calculations have not been performed for Ponds 1 & 2, the facility should consider stability analyses to demonstrate compliance with prevailing dam safety criteria for normal pool with steady state seepage, maximum surcharge pool, and seismic loading conditions.
- A SDF analysis should also be considered to demonstrate that the embankments will not be overtopped during a PMF-level storm event.

Pond 6

- Rodent burrows, minor erosion and scarping should be repaired around the perimeter of the impoundment
- The area with evidence of standing water on the southern portion of the west embankment should be monitored. The area should be re-graded to establish positive drainage if standing water and/or poor drainage continues.
- The facility should consider performing slope stability analyses for the Pond 6 embankments with its current configuration to demonstrate compliance with prevailing dam safety criteria for normal pool with steady state seepage, maximum surcharge pool, and seismic loading conditions.
- The facility should consider evaluating the installation of emergency drawdown facilities, if the current operating procedures and the 3" outlet pipe are not adequate for reliable drawdown of the pond, or if the pipe has insufficient capacity. A SDF analysis would likely demonstrate that the embankments will not be overtopped during a PMF-level storm event and aid in the evaluation of spillway design if found necessary.

6.3 MONITORING AND FUTURE INSPECTION

General

A formal dam safety inspection program should be implemented for the active impoundments. An appropriate inspection program might consist of the following:

- Monthly impoundment inspection by facility personnel noting basic conditions such as pond levels, inlet and outlet conditions, erosion, rodent burrows, seepage, etc.

- Annual detailed assessment by a third party professional engineer or corporate engineering staff.

Ponds 3, 4 & 5

As previously noted in Section 5 of the final report, the future monitoring and inspection for this area should proceed in accordance with MDNRE Part 115 Rules. Additional future inspection of this unit from a dam safety perspective will not likely provide additional value to the operation of the area, since it is no longer hydraulically operational.

Pond 6

According to records, the former surveying program ended in the mid-1990's, around the time that the buttress was installed along the majority of the impoundment. There have been no observations of settlement, slope deformations or seepage since then. However, given the chronology of failures, settlement and numerous modifications to the Pond 6 embankments outlined in Table 3.1 of the final report, a detailed quarterly or semi-annual inspection program performed by a professional engineer or corporate engineering staff is recommended.

6.4 TIME FRAME FOR COMPLETION OF REPAIRS/IMPROVEMENTS

Ponds 1 & 2

The tree and heavy vegetation removal from the inboard slopes and any minor erosion and rodent burrows repairs should be completed within one year of this inspection.

For the outboard slopes, a systematic sequence of vegetation removal should be implemented within three years of this inspection as follows:

- 1) Heavy vegetation (phragmites, shrubs) should be removed first, making the true condition of the embankment slopes more visible.
- 2) As heavy vegetation is removed, appropriate surface repair should be completed where practical (slope grading, proper vegetative cover reestablished and/or rip rap added).
- 3) A systematic tree removal program should then be planned and executed, by which a certain percentage of trees and stumps are removed per year or are removed associated to the perceived risk they present to embankment stability.
- 4) Upon removal of trees and stumps according to the established program, areas disturbed by tree removal should be repaired as described in #2 above.

Pond 6

Repair of the rodent burrows, minor erosion and scarping observed around the impoundment should be completed within one year of this inspection.