

US EPA ARCHIVE DOCUMENT



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

SEP 15 2009

OFFICE OF  
SOLID WASTE AND  
EMERGENCY RESPONSE

VIA E-MAIL AND FEDERAL EXPRESS

Ms. Bob Arambel, Managing Director  
Jim Bridger Power Station  
P.O. Box 158  
Pont of Rocks, Wyoming 82942

Dear Mr. Arambel

On June 9-10, 2009 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a site assessment of the FGD Pond 1 and FGD Pond 2 at the Jim Bridger facility. The purpose of this visit was to assess the structural stability of the impoundments or other similar management units that contain "wet" handled coal combustion residuals (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 Jim Bridger 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 Jim Bridger facility is enclosed. This report includes a specific 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 Jim Bridger facility. These recommendations are found on pages 29-30 in the final assessment report and 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 explain why. Please provide a response to this request within 14 calendar days of receipt of this letter. Please send your response to:

Mr. Stephen Hoffman  
US 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  
US Environmental Protection Agency  
Two Potomac Yard  
2733 S. Crystal Drive  
5<sup>th</sup> Floor, N-237  
Arlington, VA 22202-2733

You may also provide a response by e-mail to [hoffman.stephen@epa.gov](mailto:hoffman.stephen@epa.gov)

This request has been approved by the Office of Management and Budget under EPA ICR Number 2350.01.

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.

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 ongoing efforts to ensure protection of human health and the environment.

Sincerely,



Matt Hale, Director  
Office of Resource Conservation and Recovery

Enclosures

Enclosure 2  
Jim Bridger Recommendations

## **12.1 Corrective Measures for the Structures**

### **12.1.1 FGD Pond 1**

1. During the interim period until the final cover is installed and closure is completed, it is important to be able to route flood flows across FGD Pond 1 such that unacceptable erosion damage to Dike B does not occur. Measures could include maintaining adequate capacity for flood storage or providing erosion protection for Dike B.

### **12.1.2 FGD Pond 2**

1. The calculated factor of safety at Station 8+00 of 1.33 for static steady-seepage is below the state and federal guidance of 1.5. Re-evaluate this loading condition at Station 8+00 and, if the issue cannot be resolved by analysis, implement measures to improve the stability to achieve a factor of safety of 1.5. Also, the 2001 stability results could not be reproduced in check analyses and did not address the anticipated loss of embankment due to the planned erosion of the upstream slope. Revisit and revise the 2001 stability analysis as necessary to complete the documentation of the design.

2. Protect the embankment crest from developing soft spots that result in vehicle ruts by restricting vehicle traffic or upgrading the crest surface in problem areas.

3. Consistent with the 2002 Addendum to the Design Report, settlement monitoring near Station 54+00 should be performed and documented as part of operations. This monitoring should include documentation of observed embankment conditions at, and around, Station 54+00, and a surveyed crest settlement monument.

4. Abandon the CMP at Station 59+00 in-place by grouting full or remove the CMP if it is found to serve no useful purpose or if it penetrates beneath the dam.

### **12.1.3 FGD Pond 1 Outlet Structure – FGD Pond 2 Inlet Structure**

1. Repair the north and west safety railing, stabilize surrounding soils, and clear debris from the structure.

## **12.2 Corrective Measures Required for Maintenance and Surveillance Procedures**

1. Address the excessive sage brush vegetation on FGD Pond 1 main dam.

2. Monitor and repair the minor surface erosion present at various locations on the upstream face of FGD Pond 2.

3. Perform studies to demonstrate that FGD solids are equal to, or stronger than, the compacted embankment or discount the contribution of infilling with FGD solids to replace eroded dam embankment. Monitor wave erosion and take measures to address excessive erosion such that the upstream slope geometry remains within an acceptable sacrificial zone as identified based on revised slope stability and seepage analysis for the dam.

4. Document inspections using a checklist for consistency.

## **12.3 Corrective Measures Required for the Methods of Operation of the Project Works**

None.

#### **12.4 Any New or Additional Monitoring Instruments, Periodic Observations, or Other Methods of Monitoring Project Works or Conditions That May Be Required**

1. Install instrumentation to monitor the performance of the FGD Pond 2 dams and dikes and implement a program of regular readings and engineering evaluation of the data. Instrumentation and the associated monitoring program provide important information about the internal performance of a dam and its foundation.

Instrumentation may be implemented as a modest program at key locations initially and supplemented in the future based on the monitoring results and visual inspections of the dam performance.

2. Continue monitoring seepage at the downstream toe of FGD Pond 2 northern embankment for any changes in seepage quantity and flow rate or evidence that the flow is carrying soil/ash particles from the embankment.