

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

Mr. John Denman
Senior Vice President Fossil Generation
Arizona Public Service
Mail Station 9046
PO Box 53999
Phoenix, Arizona 85072-3999

Dear Mr. Denman,

On May 19-20, 2009 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a site assessment of the Lined Ash Impoundment and Lined Decant Impoundment at the Four Corners 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 Four Corners 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 Four Corners 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 Four Corners facility. These recommendations are found on pages 33-34 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
5th Floor, N-237
Arlington, VA 22202-2733

You may also provide a response by e-mail to 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
Four Corners Recommendations

12.1 Corrective Measures for the Structures

12.1.1 Lined Decant Water Impoundment

1. The 2003 calculated factor of safety for static steady-seepage of 1.4 is somewhat below the current state and federal guidance of 1.5. Re-evaluation of this loading condition should be documented and may need to consider less conservative assumptions regarding saturation levels in the underlying fly ash. While the 2003 factors of safety for the LDWI are somewhat below the required minimum, they are not considered deficient with respect to current guidance because the 2003 analysis was based on conservative assumptions and did not reflect the existing unsaturated condition of the underlying fly ash layer.
2. The uneven dam crest on the west embankment should be restored to full height with compacted fill. This maintenance should be performed within the next six months.
3. Tamarisk trees should be removed from the downstream toe of the west embankment (Pond #3 toe) and an evaluation for any potential seepage should be performed in that area. However, instrumentation indicates the embankment is essentially dry and the trees may be supported primarily by water in the nearby Pond #6 seepage ditch.

12.1.2 Decant Drop Inlet Structure

1. Perform a structural analysis that includes a sensitivity analysis of the HDPE decant drop inlet structure to varying water depth and the influence of multiple penetrations of the manhole sides. Evaluate the decant structure for potential for differential movement between the manhole riser and the foundation slab. Provide protection for the exposed part of the manhole from impacts from vehicles or large equipment.

12.2 Corrective Measures Required for Maintenance and Surveillance Procedures

None.

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

Continue monitoring seepage at the downstream toe of the south embankment (Pond #4 toe) for any changes in seepage quantity and flow rate or evidence that the flow is carrying soil/ash particles from the embankment.

Expand program to include additional monitoring of potential seepage under the dam at the northwest corner of the LAI, where the LAI embankment was not tied-in to the underlying Pond 3-4 embankment to provide continuity of seepage control, and where a potential seepage pathway exists if the HDPE lining fails. Install additional piezometers to address this potential seepage pathway and expand documentation in APS dam safety inspections to note any evidence of seepage near the downstream toe of the dam in this area.

Repair or replace the two settlement plates that do not appear to be providing useful information and that may have been damaged during construction or maintenance activities.