

US EPA ARCHIVE DOCUMENT



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

April 21, 2010

OFFICE OF  
SOLID WASTE AND  
EMERGENCY RESPONSE

VIA E-MAIL AND FEDERAL EXPRESS

Mr. Gary Haag  
Manager, Environmental Support  
Allegheny Energy  
800 Cabin Hill Drive  
Greensburg, Pa. 15601

Dear Mr. Haag,

On October 20, 2009 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the R. Paul Smith 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 R. Paul Smith 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 R. Paul Smith 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 R. Paul Smith 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 explain why. Please provide a response to this request by May 21, 2010. 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 of 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.

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

Sincerely,  
/Maria Parisi Vickers/, Director  
Office of Resource Conservation and Recovery

Enclosures

Enclosure 2  
R. Paul Smith Recommendations

#### **4.2 Upstream Slopes**

In reviewing historic documents for Ash Ponds #3 and #4, there were several mentions of portions of the upstream slopes of the dikes being over excavated during pond dredging operations. CHA observed this type of situation on the north end of the Ash Pond #3 dike. Proposed improvements to the Ash Pond #4 upstream slopes include leaving a buttress of deposited fly ash in place after each dredging. Careful survey control and monitoring of contractor activities is needed to ensure that dredging operations do not alter the slope angles needed to meet the required factors of safety with regard to slope stability.

In addition, before Ash Pond #3 is put back into service, the upstream slope in the northeast corner of the pond should be repaired with compacted soil having similar characteristics to the design properties of the dam and placed to the designed slope angle.

#### **4.3 Downstream Slopes on Ash Pond #4**

Surface soils were quite soft on the downstream slope of Ash Pond #4 and were subject to sloughing underfoot while walking on the slopes. Irregularity in the slope surface and review of previous reports suggested that surface sloughing is an ongoing situation on the Ash Pond #4 dikes. In addition to general softness and grading irregularities, CHA observed erosion rills, and possible bulge areas as discussed in Section 2.3.1. CHA recommends quantitative monitoring of the downstream slope surfaces to provide better information regarding the nature of slope movements and changes.

Continued removal of brush and small shrubs is required. Trees between Ash Pond #4 and the Potomac River for the most part start just beyond the toe of the east dike. However, in a few locations, there are large trees within the toe of the dike. CHA recommends at least a 10-foot buffer zone between the toe of the dike and tree growth.

Some of the trees from beyond the toe of the east dike have branches nearing contact with upper portions of the slope. CHA recommends these branches be cut to facilitate access on the slope, and to prevent branches from rooting on the slope of the dike.

#### **4.4 Tree Removal on Ash Pond #3 Buttress**

The stone fill buttress on the east dike of Ash Pond #3 is heavily covered in trees. Trees on embankments can compromise the integrity of the slope by creating scarps if trees fall over from age or during a storm, and roots penetrating into the embankment can provide preferential paths for seepage. In addition, these trees make inspection of the toe of the buttress difficult. Therefore, CHA recommends the trees along the buttress be removed.

#### **4.5 Monitoring Instrumentation**

CHA recommends piezometers be installed on the Ash Pond #3 dikes to evaluate the phreatic surface with relation to the phreatic surfaced assumed for the stability analyses. Routine monitoring of the phreatic surface should be established with corresponding elevations of the water and ash levels within the pond at the time of measurement for a comprehensive understanding of the embankment behavior.

#### **4.6 Evaluation of Conditions from Potomac River Flooding**

CHA understands that the Ash Pond #3 dikes were raised in 1980 to be 3.4 feet higher than the water surface elevation attained by the Potomac River at Williamsport during Hurricane Agnes in 1972. A brief review of historical flood records suggests that Hurricane Agnes has crested in the vicinity of Williamsport higher than the flows from Hurricane Agnes at least five times since 1936. CHA recommends that a comprehensive, probabilistic analysis of flood elevations in the Potomac River at Williamsport be performed. This analysis should include estimated river velocities at the stream banks to evaluate the adequacy of the rip rap protection on Ash Pond #3 and whether bank armoring is needed on Ash Pond #4.