

US EPA ARCHIVE DOCUMENT



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

December 14, 2009

OFFICE OF  
SOLID WASTE AND  
EMERGENCY RESPONSE

VIA E-MAIL AND FEDERAL EXPRESS

Mr. Craig Shamory  
PPL Generation  
Two North Ninth Street  
Allentown, Pa. 18101-1179

Dear Mr. Shamory:

On September 2-3, 2009 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Martins Creek 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 Martins Creek 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 Martins Creek 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 Martins Creek 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 January 15, 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 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  
Martins Creek Recommendations

## 1.2 RECOMMENDATIONS

### 1.2.1 Recommendations Regarding the Structural Stability

Ash Basin No. 1 Dam - None appear warranted at this time for the embankment dam. Although the visible parts of the outlet structure appeared sound, the structure cannot be expected to remain perpetually sound after closure. Therefore, it is recommended that the outlet structure be completely plugged with concrete as part of final closure, if possible. As discussed in Subsection 1.1.1, it is recommended that the plug completely fill the standpipe below final grade and completely fill the portion of the outlet pipe that extends through the dam. If the outlet structure must remain functional after closure, the post-closure plan should include routine internal inspection of the outlet structure as recommended in Subsection 1.2.7, below.

Ash Basin No. 4 Dam – None appear warranted at this time for the embankment dam. Although the visible parts of the outlet structure appeared sound, the structure cannot be expected to remain perpetually sound after closure. Therefore, it is recommended that the decant tower and outlet pipe be completely plugged with concrete as part of final closure, if possible. As discussed in Subsection 1.1.1, it is recommended that the plug completely fill the decant tower below final grade and completely fill the portion of the outlet pipe that extends through the dam. If the outlet structure must remain functional after closure, the post-closure plan should include routine internal inspection of the outlet structure as recommended in Subsection 1.2.7, below.

### 1.2.2 Recommendations Regarding the Hydrologic/Hydraulic Safety

Ash Basin No. 1 Dam - None appear warranted at this time.

Ash Basin No. 4 Dam - None appear warranted at this time.

### 1.2.3 Recommendations Regarding the Supporting Technical Documentation

Ash Basin No. 1 Dam - None appear warranted at this time.

Ash Basin No. 4 Dam - None appear warranted at this time.

### 1.2.4 Recommendations Regarding the Description of the Management Unit(s)

Ash Basin No. 1 Dam - None appear warranted at this time.

Ash Basin No. 4 Dam - None appear warranted at this time.

### 1.2.5 Recommendations Regarding the Field Observations

Ash Basin No. 1 Dam – None appear warranted at this time, other than maintaining vegetation on the crest and outside slope and visual monitoring of the shallow depression at the outside toe of the embankment at the southeast corner as recommended in Subsection 1.2.6, below.

Ash Basin No. 4 Dam - None appear warranted at this time, other than more frequent mowing of the outside slope and implementing a burrowing animal control program as recommended in Subsection 1.2.6, below.

### 1.2.6 Recommendations Regarding the Maintenance and Methods of Operation

Ash Basin No. 1 Dam – As long as the embankment dam is capable of impounding water, it is recommended that the crest be cleared and maintained clear of trees, and it is recommended that the vegetation on the outside slope of the dam (excluding the more remote slope below the

access road on the east side of the dam) be cut at least once a year to prevent large woody growth on the slope and allow visual inspection of the condition of the slope; the clearing should be coordinated with a programmed inspection, preferably one with a PA DEP dam safety inspector present. At the time the slope is cleared it is recommended that a trail be cleared to the shallow depression on the outside toe of the embankment at the southeast corner to facilitate access for inspectors. The post-closure maintenance program should also include repair of eroded areas that may develop on the outside slope or crest and control of burrowing animals, as necessary. If the standpipe and outlet pipe through the dam are to remain open and functional after closure, it is recommended that these structures be maintained or repaired as needed, based on the results of routine inspections.

Ash Basin No. 4 Dam - It is recommended that the outside slope be mowed at a frequency of 3 times per year: one time each during spring, summer, and fall. PPL's quarterly inspections and the annual inspection by the independent consultant should be coordinated with the mowing schedule. On the basis of observations made by an outside consultant in June 2009, it is recommended that a burrowing animal control program be implemented. It appears that the animals should be trapped and moved to a different location or eradicated. It is recommended that the control program be implemented within a time frame of one year. Filling of their burrows apparently is not effective and only encourages the animals to make new burrows. The post-closure maintenance program should also include repair of eroded areas that may develop on the outside slope or final closure cap. If the decant tower and outlet pipe are to remain open and functional after closure, it is recommended that these structures be maintained or repaired as needed, based on the results of routine inspections.

#### 1.2.7 Recommendations Regarding the Surveillance and Monitoring Program

Ash Basin No. 1 Dam – In addition to the monthly drive-by inspections it is recommended that a more detailed walk-around inspection be performed at least once annually by a PPL engineer and documented by a written report or checklist. As long as the dam is capable of impounding water and is regulated by the PA DEP, it should also be inspected in accordance with the PA DEP manual titled, "Inspection, Maintenance, and Operation of Dams in Pennsylvania." If the outlet structure must remain functional to allow storm water drainage after closure of the basin, it is recommended that post-closure surveillance include internal inspection of the outlet structure on a frequency of at least once every five years to check for deterioration and structural defects that could develop in the interim; the information obtained would be used for assessing performance of the structure and judging when remedial work may be needed. Consideration may be given to using borehole cameras for inspection, particularly of the outlet pipe. Confined space techniques must be used by qualified, experienced personnel if the inspection is done by a person. In future inspections it is recommended that visual monitoring of the shallow depression observed at the outside toe of the embankment at the southeast corner be done. The visual monitoring may be discontinued if no adverse changes are noted after two years of monitoring, or sooner if so advised by an independent consultant or the PA DEP Division of Dam Safety.

Ash Basin No. 4 Dam – If the outlet structure must remain functional after closure of the basin, it is recommended that post-closure surveillance include internal inspection of the outlet structure on a frequency of at least once every five years as discussed above for the Ash Basin No. 1 outlet structure. As long as the dam is capable of impounding water and is regulated by the PA DEP, it should continue to be inspected in accordance with the PA DEP manual referenced above.

#### 1.2.8 Recommendations Regarding Continued Safe and Reliable Operation

Ash Basin No. 1 Dam – No additional recommendations for continued safe and reliable operation appear warranted at this time.

Ash Basin No. 4 Dam – No additional recommendations for continued safe and reliable operation appear warranted at this time.