

US EPA ARCHIVE DOCUMENT



AEP Clinch River Plant
Carbo, Virginia
US EPA Inspection – February 2011
Action Plan based on Final Recommendations – February 12, 2012

AEP has reviewed the final report provided by Dewberry and Davis, LLC as part of their assessment of the ash impoundment facilities at the Clinch River Plant. As explained in Section 1.1.1 of the FINAL Dam Assessment Report AEP developed engineering plans for closure of Ash Pond 2, eliminating its storage capacity and constructing a low permeable cap system. Permit documents were submitted in 2009 but AEP later retracted the submittal. AEP plans to resubmit permit documents for the closure of Ash Pond 2 and anticipates making this submittal by March 1, 2012. Closure of Ash Pond 2 is scheduled to begin during the 2012 construction season upon approval of all permits. The responses to the recommendations below reflect the impending closure of Pond 2 and declassification of the structure as a dam.

AEP's comment is denoted in *italic* print after Dewberry and Davis's recommendation.

1.2.1 Recommendations Regarding the Structural Stability

Perform a structural stability analysis of Ash Pond 2 that is representative of ash saturation conditions in the pond.

A structural stability analysis of Ash Pond 2 was included in the supporting documentation provided as part of this inspection. It is included as part of Appendix A, Document 6 "Ash Pond 2 Design Summary for Final Closure, by BBC&M Engineering" This analysis is representative of the observed phreatic groundwater condition. AEP is closing the Ash Pond 2 facility by installing an impervious cap that will prohibit further saturation of ash and prevent an increase in the phreatic groundwater level. Further structural analysis representative of the closure condition will be included in the Ash Pond 2 closure calculation documents that will be submitted to VA DCR. AEP will perform this task by March 2012.

1.2.2 Recommendations Regarding the Hydrologic/Hydraulic Safety

A hydrologic and hydraulic analysis should be performed to evaluate the hydrologic/hydraulic safety of Ash Pond 1 and Ash Pond 2. The analysis should consider off-site drainage to Ash Pond 1 and Ash Pond 2 and should be in accordance with all requirements for such analyses as required by Virginia Department of Conservation and Recreation (VA DCR), Division of Dam Safety and Floodplain Management, including spillway capacity. This recommendation is consistent with our understanding of the State's planned actions in 2012.

AEP will perform a hydrologic and hydraulic analysis for Ash Pond 1 that will include off-site drainage in accordance with VA DCR requirements. This analysis will be submitted to the VA DCR by March 2013. A hydrologic and hydraulic analysis will be included in Ash Pond 2 closure calculation documents that will be submitted to VA DCR in March 2012.

1.2.3 Recommendations Regarding the Maintenance and Methods of Operation

It is recommended that the facility maintain frequent inspections of Ash Pond 1 and resume recording monitoring results for inspections of Ash Pond 2 in accordance with Owner's current inspection program until such time that the facility is formally closed and the closure is approved by the state. It is recommended that all underbrush and trees be removed from the Ash Pond 2 perimeter dike in accordance with VA DCR DSFM requirements. It is recommended that all animal burrows located along the perimeter dike of Ash Pond 1 and Ash Pond 2 be backfilled in accordance with standard geotechnical engineering practices for dams, and monitored for future reoccurrence. It is recommended that the Owner perform an interior inspection of all outfall pipes from the Ash Pond 1 & 2 outlet structures to the reclaim pond as well as an interior inspection of the pipe systems that bypass off-site drainage through Ash Pond 1. Interior inspections should focus on the structural integrity of the pipes as well as seepage paths into and out of the pipes. The inspection report should summarize findings and remedial action required, if any.

AEP will continue its dam inspection and maintenance program, and perform any repairs that are necessary to ensure a safe facility for Ash Pond 1 and Ash Pond 2. This program will continue until each facility is formally closed.

After the US EPA inspection in February 2011 and as part of AEP's maintenance program prior underbrush and trees were cleared from the Ash Pond 2 perimeter dike. This maintenance will continue until Ash Pond 2 is formally closed.

AEP will continue to monitor for animal burrows as part of its maintenance and monitoring program. As standard practice they are backfilled as they are found.

AEP will perform video inspection of the outfall pipes from the Ash Pond 1 outlet structure to the reclaim pond as well as the pipe systems that bypass off-site drainage through Ash Pond 1. This work will be completed by March 2013. With the impending closure Ash Pond 2 outlet pipes will be abandoned therefore an inspection of these pipes will not be necessary. Details of the pipe abandonment will be included in the Ash Pond 2 closure documents submitted to the VA DCR.

1.2.4 Recommendations Regarding Continued Safe and Reliable Operation

No recommendations, other than the above studies and maintenance activities, appear warranted at this time.

AEP will continue the safe and reliable operation of both Pond 1A/1B, and Pond 2.