

US EPA ARCHIVE DOCUMENT



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VIA CERTIFIED MAIL/RETURN RECEIPT REQUESTED

April 12, 2010

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

**RE: Plan for Addressing Recommendations in Site Assessment Report from CHA, contractor
for EPA
Kentucky Utilities Ghent Generating Station
Ash Treatment Basin Number 1 (ATB1), Ash Treatment Basin Number 2 (ATB2) and
Gypsum Stacking Facility (GS)**

Dear Mr. Hoffman:

This is a response on behalf of Kentucky Utilities (KU) to EPA's March 8, 2010 letter requesting KU to inform you of our plans to address the recommendations in EPA's site assessment report for three impoundments at the Ghent Generating Station including Ash Treatment Basin Number 1 (ATB1), Ash Treatment Basin Number 2 (ATB2) and Gypsum Stacking Facility (GS). Specifically, this response covers how KU intends to address the recommendations made by EPA and its engineering contractors, Clough Harbour & Associates LLP (CHA), as a result of a site assessment conducted at the Ghent facility on October 7 and 8, 2009. KU has reviewed the recommendations and intends to address each of the recommendations to ensure the continued stability of the CCR impoundment at the Ghent facility. The attached (Table 1) identifies the specific plans and schedules for implementing each of the recommendations.

Please contact Mike Winkler at (502) 627-2338 or Michael.Winkler@eon-us.com if you have any questions regarding this response.

Sincerely,

Table 1 - revised May 27, 2010

Recommendations from EPA and CHA RE: Assessment of Dam Safety Coal Combustion Surface Impoundments (Task 3) Final Report, February 25, 2010			
Impoundment Name	Recommendation	Implementation Plan	Implementation Schedule
1	Monitor steep areas near the top of the downstream slope for slope movements. Monitor tire ruts from mowing operations to ensure they are not worsening or resulting in localized surficial sloughing or erosion.	ATB1 and ATB2 are periodically inspected by personnel responsible for the operation and maintenance of the impoundments. KU plans to repair shallow erosion rills, tire ruts and improve drainage during the dry season of 2010.	Periodic monitoring ongoing. Shallow erosion rills, tire rut repairs and drainage improvements expected to begin in the summer of 2010 and be completed by December 2010.
2	ATB1 Fill the depression and shallow erosion rills on the bench at the northeast corner of the impoundment. These areas should be identified after filling for further monitoring to ensure that this depression is not a continuing condition indicative of embankment stability concerns.		
3	Continue to be vigilant in watching for rodent holes. A few small rodent holes were observed.		
4	ATB2 Monitor, and improve drainage where possible on the benches to prevent stormwater from ponding.		
5	Monitor the crest for potholes and erosion rills that may require refilling.		
6	ATB1 Remove debris and vegetation from the ATB1 skimmer at the decant structure to discourage further vegetation growth.	Debris and vegetation has been removed from the ATB1 skimmer.	Completed Fall 2009
7	Cut larger brush from the embankment/groin swale contacts where mowers cannot get close enough to the swale rip rap for effective mowing.	Larger brush at the embankment/groin swale contacts has been cut.	
8	Keep toe drains free of vegetation and debris.	KU routinely maintains toe drains to keep them free of vegetation and debris.	Periodic maintenance ongoing.
9	On the west side of the main fill of the dam, there is an erosion rill about 2 feet deep. This erosion feature needs to be filled and the adjacent drainage swale regraded as necessary to prevent this type of erosion from occurring in this area.	KU plans to fill the erosion rill and regrade the swale erosion on the west side of the main fill of the dam during the dry season of 2010.	Work expected to begin in the summer of 2010 and be completed by December 2010.
10	ATB2 One of the toe drains on the east side of the secondary fill has mud partially clogging the end of the drain pipe. It appeared from our observations and a review of ATC's January 2009 inspection that a natural slope slough in the area of this headwall had buried the pipe. While the drain pipe had been re-exposed, mud from the slough still partially clogged the pipe. This pipe needs to be cleaned out, and monitored to confirm that seepage is clear and that the surrounding natural slopes are stable.	KU plans to clean the drain pipe during the dry season of 2010. The pipe and surrounding natural slopes will be periodically monitored by personnel responsible for the operation and maintenance of the impoundment to confirm that seepage is clear and natural slopes are stable.	
11	A rapid drawdown analysis has not been performed for ATB2. Although the potential for this type of loading condition is low, it is standard dam safety practice to evaluate the condition for full understanding of the behavior of the upstream embankment should water need to be evacuated from the reservoir rapidly. There have also been documented case histories where other types of failure (such as a gate failure) have resulted in rapid drawdown conditions developing which have led to a domino effect and made the situation worse. CHA recommends that a rapid drawdown analysis be performed for ATB2, particularly since the clay (low permeability) core is located on the upstream slope of the raised portion of the dam.	KU retained the engineer of record for ATB2, Stantec (formerly known as Fuller Mossbarger Scott and May (FMSM)) to conduct a rapid drawdown stability analysis for ATB2.	Final report to be complete by July 2010.
12	Standing water was observed along the east side of the Gypsum Stacking Facility. Indications were that this standing water was related to poor drainage of stormwater. However, long term standing water can contribute to softening of the embankment toe and foundation soils, and prevent inspectors from differentiating seepage from ponded stormwater. CHA recommends improving the drainage in this area to provide positive drainage of stormwater in this area.	KU intends to evaluate the stormwater drainage along the east side of the Gypsum Stacking Facility and to implement drainage improvements as necessary.	Evaluation in progress. Any necessary work expected to be done in 2010.
13	CS Kentucky Utilities is working with Stantec to evaluate and resolve a seep observed about 2 feet below the crest of the starter dike on the east embankment. Corrective action of this seep would appear critical prior to raising the pool elevation within the stacking facility.	KU received a recommendation from Stantec to install a drain system along the east toe of the Gypsum Stacking facility. Portions of the drain have been installed near the area where CHA noted seepage in October of 2009. The area has remained dry and no indications of seepage have been noted in recent inspections. KU intends to continue to monitor this area for seepage.	Corrective action complete. Periodic monitoring ongoing.