

US EPA ARCHIVE DOCUMENT



VIA CERTIFIED MAIL/RETURN RECEIPT REQUESTED

May 21, 2010

Mr. Stephen Hoffman  
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**RE: Plan for Addressing Recommendations in Assessment of Dam Safety, Coal  
Combustion Surface Impoundments (Task 3) Final Report April 16, 2010  
Louisville Gas and Electric Company  
Cane Run Station**

Dear Mr. Hoffman:

On behalf of Louisville Gas and Electric Company (LG&E), this response to EPA's April 21, 2010 letter describes of our plans to address the recommendations in EPA's site assessment report for the Cane Run Station. Specifically, this response covers how LG&E intends to address the recommendations made by EPA and its engineering contractors, CHA, as a result of a site assessment conducted at the Cane Run facility on October 28, 2009. LG&E has reviewed the recommendations and intends to address each of the recommendations to ensure the continued stability of the CCR impoundments at the Cane Run facility. The attached (Table 1) identifies the specific plans and schedules for implementing each of the recommendations. Please note that the owner of the Cane Run Station is LG&E rather than Kentucky Utilities (KU) as indicated in your letter.

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

Sincerely,

John N. Voyles Jr.

**LOUISVILLE GAS and ELECTRIC COMPANY**  
**Plan For Addressing Recommendations in Assessment of Dam Safety, Coal Combustion Surface**  
**Impoundments (Task 3) Final Report April 16, 2010**  
**Louisville Gas and Electric Company – Cane Run Station**

Table 1

Recommendations from EPA and CHA RE: Assessment of Dam Safety, Coal Combustion Surface Impoundments (Task 3) Final Report April 16, 2010			
	Recommendation	Implementation Plan	Implementation Schedule
1	Ash Treatment Basin (ATB)/E-Pond Complex - Regrade and/or stabilize the south dike section adjacent to the E-Pond.	LG&E retained Riverside Group to regrade and stabilize the south dike section adjacent to the E-Pond. The stabilization work included regrading the downstream slope, installation of geotextile fabric and a 12 inch layer of crushed limestone.	Completed May 2010
2	ATB/E-Pond Complex - Fill the shallow erosion rills and rodent burrows on the downstream slope along the north side of the dike, and monitor for the development of similar features.	LG&E continues to periodically monitor downstream slopes of the pond for shallow erosion rills and similar features. LG&E plans to incorporate repairs of erosion rills and rodent burrows as part of ongoing maintenance of the slopes.	Seasonal maintenance is expected to be complete in Fall 2010.
3	ATB/E-Pond Complex-Monitor the irregularity in the north downstream slope grading to assess if the irregularity is the result of an overfill repair or signs of slope creep. Tire ruts from mowing operations should be monitored to ensure they are not worsening or resulting in localized surficial sloughing or erosion. Periodic maintenance may be warranted.	LG&E continues to periodically monitor downstream slopes of the pond for irregularities. LG&E plans to assess noted irregularities and implement maintenance as warranted.	Monitoring ongoing
4	ATB/E-Pond Complex-Continue efforts to improve drainage at the bottom of the downstream slope of the north dike.	Drainage improvements implemented by LG&E in November 2009 at the bottom of the downstream slope of the north dike created positive drainage. The repairs are periodically observed and continue to be effective.	Completed November 2009
5	ATB/E-Pond Complex-Have the twin 24-inch-diameter drainage pipes that extend below the ATB dike at the eastern corner be assessed and the pipe outlet be located.	LG&E inspected the twin 24-inch-diameter drainage pipes that extend below the ATB at the eastern corner. LG&E located the pipe outlet during the inspection. In 2005, the pipes were filled with concrete extending from the pipe outlet to the first manhole to the west.	Completed 2005
6	Basin/Dead Storage Ponds-Establish routine mowing to promote growth of grass ground cover.	LG&E includes the Basin/Dead Ponds as part of the routine mowing of the plant grounds.	Established spring 2010
7	Basin/Dead Storage Ponds-Stump where woody brush and trees were cut monitored for decay. If depressions develop from stump decay, remove and backfill with compacted fill under the supervision of a Professional Engineer.	The Basin Ponds and Dead Storage Pond are periodically inspected by LG&E. Inspection includes monitoring areas where trees and woody brush were cut. In preparation for landfill construction, the Basin/Dead Storage Ponds have been drained. LG&E plans to address any depressions that develop as a result of stump decay by removing and backfilling under the supervision of a professional engineer.	Monitoring Ongoing
8	Basin/Dead Storage Ponds-Fill the shallow erosion rills on the upstream and downstream slopes along the east dike.	LG&E installed riprap to stabilize upstream slope in the summer of 2009. LG&E plans to remove the existing Basin/Dead Storage Ponds as part of landfill construction scheduled to begin construction in 2011. In preparation for landfill construction, the Basin/Dead Storage Ponds have been drained.	Installed 2009
9	Basin/Dead Storage Ponds-Monitor the irregularity in the grading on the downstream side of the east and north dikes to assess if the irregularity is the result of slope creep. Irregularities include surface slumps, erosion rills and tire ruts.	The Basin Ponds and Dead Storage Pond are periodically inspected by LG&E. Inspections include monitoring areas for slumps, erosion rills, and tire ruts.	Monitoring ongoing
10	Basin/Dead Storage Ponds-Improve grading along crest road surface to prevent water ponding.	LG&E has improved the grading along the crest road to prevent water ponding as part of the ongoing maintenance of the facility.	Completed Fall 2009
11	Engineering Analysis-Update the ATB Operation and Maintenance Plan with maximum dredge elevations where the "buttress" effect of deposited fly ash on the upstream slope is a key component of maintaining adequate factors of safety under all loading conditions.	LG&E plans to retain a professional geotechnical engineering firm to provide a plan that illustrates maximum dredge elevations to maintain adequate safety factors under all loading conditions prescribed by Kentucky guidelines.	Scheduled for completion by Fall 2010.
12	Engineering Analysis-Evaluate the potential impact of soft clay/CCW fill that appeared to be in place below portions of the Dead Storage/Basin Pond Dike.	LG&E retained MACTEC to conduct a stability analysis on the Basin/Dead Storage Pond dikes. MACTEC's engineering analysis included the soft clay and CCW fill. The analysis determined that the dikes are stable and the calculated factors of safety exceed regulatory guidelines.	Completed May 2010

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Table 1 continued

13	Engineering Analysis-Additional information is required to clarify the Stantec hydrologic and hydraulic analysis for the ATB regarding their analysis parameters and how they relate to the Kentucky regulations.	LG&E retained Stantec to conduct additional hydrologic and hydraulic analyses for the ATB. The analyses included recommendations to raise portions of the ATB crest to an elevation of 458.6 feet so that the ATB is able to contain the 500 year flood with a minimum of 1 foot of freeboard. LG&E installed engineered fill to raise the ATB to the recommended elevation.	Report completed April 2010. ATB elevation raise completed May 2010.
14	Hydrologic and hydraulic analysis for the Basin/Dead Storage Ponds should be performed.	LG&E plans to remove the existing Basin/Dead Storage Ponds and install a new Basin Pond as part of landfill construction. In preparation for landfill construction, the Basin/Dead Storage Ponds have been drained. LG&E is scheduled to begin landfill construction in 2011.	LG&E does not plan to conduct hydrologic and hydraulic analysis for the Basin/Dead Storage Ponds because the ponds are planned to be removed as part of landfill construction scheduled to begin in 2011.