

US EPA ARCHIVE DOCUMENT



September 28, 2009

Mr. Stephen Hoffman  
US Environmental Protection Agency (5304P)  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

RE: Carolina Power & Light d/b/a Progress Energy Carolinas, Inc. (PEC)  
Asheville Steam Electric Plant - Skyland, NC  
Coal Combustion Waste Impoundment Dam Assessment Report

Dear Mr. Hoffman:

This letter is in response to the letter of September 14, 2009 from Matt Hale, Director, Office of Resource Conservation and Recovery regarding the recent inspection of ash pond dams at our Asheville power plant. This format shall present the recommendations that elicit a response and our applicable responses.

The following information should be noted:

- The EPA is currently evaluating and developing regulatory options for Coal Combustion Byproducts (CCBs). This rulemaking activity should produce proposed regulations before the end of this year. The final regulation promulgated as the result of this activity could significantly impact the way coal ash is managed in the future.
- In North Carolina our coal ash impoundments will shortly be subject to NCGS §143-215.23 Dam Safety Law (NC Law). As we develop our interaction with the state regulatory agency, we will be evaluating whether or not some of the older dams are considered to be dams as they do not impound or divert water. As for those dams that will remain under the purview of the NC Law, we will be working with the state regulatory agency to assess the dams' structural integrity and need for further studies.
- Finally, EPA recently announced they will revise the effluent guidelines for the Steam Electric Power Generation Industry. It is likely that these guidelines will impose restrictions on the sluicing of ash and the management of ash ponds.

These expected new requirements could very well change the way we approach using and maintaining our current ash impoundments. Significant construction projects on a dam that has been in place for decades and has not demonstrated any signs of structural issues should be carefully considered until the above mentioned regulatory activities have been resolved. PEC is

Progress Energy Carolinas, Inc.  
P.O. Box 1551  
Raleigh, NC 27602

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keenly aware of the TVA Kingston incident and the safety and environmental concerns it has generated. It is with this backdrop that we provide our responses.

In regard to the 14 calendar day turnaround for our response - to assess comments, make decisions, develop plans, and develop schedules will take much longer than 14 days to compile. Therefore, our comments will reflect our best efforts to respond at this time.

#### 1.2.1 Recommendations Regarding the Structural Stability

1964 Dam – Slope stability analysis should be performed to confirm that acceptable margins of safety exist.

*PEC response – We will complete the slope stability analysis by the end of this year. Should the analysis indicate acceptable margins of safety, we will contact your office to request the "poor" rating be replaced with a satisfactory rating. We remain unconvinced that the criteria for a poor rating as derived from the New Jersey DEP is appropriate or recognized on a national level, or was carried out in a uniform manner throughout the country.*

#### 1.2.2 Recommendations Regarding the Hydrologic/Hydraulic Safety

1964 Dam – None appear warranted at this time; however, a dam break analysis should be performed as part of an emergency action plan.

1982 Dam – None appear warranted at this time; however, a dam break analysis should be performed as part of an emergency action plan.

*PEC Response – We will contract for both dam break analyses to be performed by the end of this year.*

#### 1.2.3 Recommendations Regarding the Supporting Technical Documentation

1964 Dam – Perform inflow design flood analysis;

*PEC Response – We will contract for the inflow design flood analysis to be conducted by the end of this year.*

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

1964 Dam – It is recommended that:

- The embankment should be cleared of any trees or deep rooted vegetation that is beginning to be established;
- A program be established to have the rip-rapped embankment slope cleared of vegetation at least once every year;
- Additional rip-rap placed in the ditch along the right groin to minimize erosion;

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- Under drain outlets be protected with small-animal guards attached with a hinge allowing for unobstructed flow (a removable screen placed over the front of the weir box is an acceptable alternative providing it is affixed with a mechanism providing for unobstructed flow should clogging occur).

1982 Dam - It is recommended that:

- Precaution be taken to not mow the embankment when wet or to take necessary measures to not create ruts perpendicular to the embankment slope;
- Grass, or similar shallow rooted herbaceous vegetative cover, needs to be established in bare areas where soil is visible;
- Small-animal burrows found on the downstream slope should be filled in with the appropriate material; and
- Under drain outlets be protected with small-animal guards attached with a hinge allowing for unobstructed flow (a removable screen placed over the front of the weir box is an acceptable alternative providing it is affixed with a mechanism providing for unobstructed flow should clogging occur).

*PEC Response –The small animal burrow on the 1982 dam has been filled; grass has been sown on the bare area near the 1982 dam; and precautions are already in place to not mow the 1982 embankment when wet. A program is also already in place to remove woody vegetation once per year or as necessary from the 1964 dam. We will complete the remaining actionable items by the end of this year.*

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

1964 Dam – Continue current surveillance program and begin seepage monitoring at internal drain outlets. Implement additional monitoring recommendations as may be identified in a slope stability analysis.

1982 Dam – Continue current program.

*PEC Response – We will complete all actionable items by the end of this year.*

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

1964 Dam – Perform a slope stability analysis and implement potential recommendations. Perform dam break analysis and develop an emergency action plan in the event of dam failure.

1982 Dam – Perform dam break analysis and develop an emergency action plan in the event of dam failure.

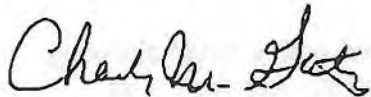
*PEC Response – We will complete all actionable items by the end of this year. An emergency action plan currently exists (EMG-ASHC-00001 - Asheville Plant Dam Emergency Notification) and will be modified as needed.*

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We appreciate the gravity of concerns regarding ash ponds in the wake of the TVA Kingston incident. We are working to better understand the EPA's assessment, since it does not reflect our own evaluations or those conducted at regular intervals by a third-party inspector. However, we take seriously the recommendations to protect the structural stability and functionality of these important units, as reflected by the above responses.

If you have questions concerning this matter, please contact Mr. Fred Holt in Environmental Health & Safety Services at (919) 546-5286.

Regards,



Mr. Charles M. Gates  
Vice President, Power Generation Carolinas  
Progress Energy Carolinas, Inc.