Anda A. Ray
Senior Vice President
Environment and Technology

October 27, 2011

Mr. Richard Kinch
U.S. Environmental Protection Agency
Two Potomac Yard
2733 South Crystal Drive
5th Floor: N-5783
Arlington, Virginia 22202-2733

Dear Mr. Kinch:

On October 22, 2010, the Tennessee Valley Authority (TVA) provided hazard rating updates for our five wet coal combustion impoundments originally designated as "high hazard". At that time, our consultant had completed a more detailed assessment of our impoundments and reduced four of the five impoundments classified as "high hazard" to "significant hazard". Due to continued physical work and assessments at the final impoundment, TVA is now able to reduce this classification from "high hazard" to "significant hazard". A copy of the internal memo is attached to this letter for your review.

As of the end of September 2011, TVA has no impoundments with greater than "significant hazard" classification. We continue to work to ensure and maintain the stability of all of our impoundments.

If you have questions, please do not hesitate to contact me at (865) 632-8511.

Sincerely,

Anda A. Ray

Enclosures

Coal Combustion Products Engineering

September 28, 2011

Memo No: CUF 11-0001

Dam Safety Officer, Michael T. Scott, LP 3D-C

CUMBERLAND FOSSIL PLANT ASH POND
HAZARD CLASSIFICATION "SIGNIFICANT"

The Cumberland Fossil Plant is located at the confluence of Wells Creek and the Cumberland River in Stewart County, Tennessee. The fly ash pond has a footprint of approximately 50 acres with a dike crest elevation of approximately 394 feet.

In 2010, TVA contracted Stantec to perform a detailed analysis using recently developed topographic data to determine the limit of impact caused by a breach of the Cumberland Fly Ash Pond dike. The report titled, "Dam Breach Analysis and Inundation Mapping - Cumberland Fly Ash Pond," summarizes the additional study of the breach impacts using HEC-HMS, a hydrologic routing software, and HEC-RAS, a hydraulic modeling software capable of performing unsteady flow routing.

The analysis was performed for two basic failure scenarios: (1) A "Sunny Day" breach, which consists of a piping failure assumed to occur during normal operational inflows. The impoundment water surface elevation is normally assumed to be at the top of the lowest non-clogging spillway; and (2) A Probable Maximum Precipitation (PMP) event, which consists of an overtopping failure during a PMP event. The results revealed that no external buildings were located within the inundation limits. However, scour protection for the Cumberland City Road Bridge was a concern. Underwater inspections confirmed that there was inadequate armoring of the bridge foundations and abutments.

Working with TDOT (Tennessee Department of Transportation), construction plans were developed to address the scour protection deficiencies. Construction activities began in August 2011 and were completed on September 16, 2011. Construction activities were verified by Stantec via construction observation and the record survey. The attached Stantec memo recommends that the hazard classification be lowered from "High Hazard" to "Significant Hazard." TVA CCP Engineering has reviewed the report and concurs with the methodology of analysis and the subsequent results. Therefore, CCP Engineering is sending this memo to Dam Safety to document the lowering of the Hazard Classification of the Cumberland Ash Pond to "Significant."

Scott Turnbow
Senior Manager, CCP Engineering
LP 5E-C

MST:MST
Attachment: Stantec 175631002 and 175639026
cc (Attachment):
J. C. Kammeyer, LP 5D-C
J. T. Barton, LP 3D-C
K. L. Mullinax, CUF 1A-CCT
S. E. Bennett, LP 5E-C