Duke Energy Carolinas

DUKE ENERGY CAROLINAS
ALLEN STEAM STATION / 253 Plant Allen Rd.
Belmont, NC 28012

704 829-2423
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Via E-Mail and Overnight Courier

December 31, 2009

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

RE: US EPA Request/ICR # 2350.01
Allen Steam Station
253 Plant Allen Road
Belmont, North Carolina 28012

Dear Mr. Hoffman,

Duke Energy Carolinas, LLC (DEC) received and has reviewed the final draft report for Allen Steam Station that resulted from the site assessment of the Coal Ash Retention Impoundments conducted by the US EPA and its engineering contractors on June 11-12, 2009. Duke Energy supports the EPA's objective to ensure ash basin dam safety. We have a comprehensive and robust monitoring, maintenance, and inspection program in place for all of our coal ash basin dams and remain committed to operating and maintaining these facilities safely.

The impoundment facilities at Allen are currently under the regulatory authority of the North Carolina Utilities Commission. The Commission requires Duke Energy to have an inspection performed every five years by an independent consultant using qualified licensed Professional Engineers. The consultants utilized by Duke Energy to meet this requirement are equally qualified as those used by the EPA for its assessment. Effective January 1, 2010, the facilities will be under the regulatory authority of the North Carolina Department of the Environment and Natural Resources (NCDENR), Division of Land Resources, Office of Dam Safety. The Office of Dam Safety will conduct an assessment/inspection of the impoundments at a minimum of once every two years and in practice, plans to do the inspections once a year. Duke Energy also plans to continue our rigorous internal inspection program.

EPA's engineering contractor has rated the Allen impoundments in accordance with the National Inventory of Dams rating criteria as "Significant Hazard Potential". As previously noted, this rating is not an indication of the structural integrity of the impoundment, but of the hazard potential if the impoundment were to fail. "Significant Hazard Potential" is used where failure results in no probable loss of human life but can cause

significant economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns. In our response to the CERCLA 104(e) Request for Information Question #1 submitted last March for Allen, we stated that no National Inventory of Dams criteria rating had been assigned to the Allen structures by a State or Federal agency; however, the North Carolina Utilities Commission had classified the structures as "high hazard" under the North Carolina Dam Safety Rules due to the potential environmental damage of an ash release in the event of failure. This highlights the difference between the North Carolina rating criteria where high hazard potential is a classification also used if economic damage of greater than $200,000 is expected; versus the National Inventory of Dams criteria where high hazard potential is reserved for those cases where there would be a probable loss of human life. The National criteria rating of "Significant Hazard Potential" from the contractor is an accurate reflection of the reasoning behind the North Carolina rating of "High Hazard Potential". The EPA's engineering contractor's rating is a reduction in rating from that previously released by the EPA of high hazard from the CERCLA 104(e) Request for Information.

Duke Energy remains committed to meeting all state and federal requirements and to managing its coal combustion byproducts impoundments in a very safe and responsible manner. We are confident, based on our ongoing monitoring, maintenance and inspections, that each of our ash basin dams has the structural integrity necessary to protect the public and the environment. EPA's report supports this conclusion and found that acceptable performance is expected in accordance with the applicable safety regulatory criteria. EPA's contractor did, however, make several recommendations to address minor deficiencies and secondary studies/investigations to provide further assurance of continued structural integrity. Duke Energy responds to each of these recommendations as follows:

3.2 Studies and Analyses:

1. *A seismic stability and liquefaction analysis of the upstream and downstream embankment slopes and foundation should be conducted after surveying the actual configuration of these slopes.*

   Duke Energy will have as-built surveys performed at critical cross-sections of the North and East Dikes of the active ash basin to validate cross-sections used in the existing stability analyses. The surveyor selected will be a professional land surveyor registered in North Carolina. Then, Duke Energy will have a third-party engineering consultant conduct the recommended slope stability and liquefaction analysis of the upstream and downstream embankment slopes and foundation by December 31, 2010.

   Engineered maintenance repairs of the scarps should be undertaken and a monitoring program implemented to detect potential stability or seepage issues.

   The scarps and seepage noted in this inspection report have been identified in previous inspections performed by independent engineering consultants. These third party inspections were required by the North Carolina Utility Commission. Duke Energy has been monitoring these areas in accordance with recommendations from these previous inspections. Duke Energy will continue to monitor these areas. If future engineering inspections and monitoring identify any areas of slope instability, a repair plan will be developed with oversight from the Dam Safety Office, within the North Carolina Department of Environment and Natural Resources. This recommendation is considered complete.

2. *The piezometer data from all instruments should be collected, plotted and evaluated. This includes piezometer and observation wells. An updated monitoring program should be developed based on conditions observed during this inspection and performance history of the dikes during and after construction.*

   Duke Energy will collect, plot and evaluate piezometer and observation well data consistent with our ongoing inspection and maintenance program requirements. This recommendation is considered complete.

3. *Observations of the upper downstream toe of the East Dike should be made during periods of low rainfall to determine whether the standing water observed at the toe was due to surface water runoff or internal seepage. Seepage conditions should be monitored regularly.*

   Duke Energy will conduct additional observations of the upper downstream toe of the East Dike during periods of low rainfall prior to December 31, 2009. This area will be specifically incorporated into the Station's ongoing inspection and maintenance program.

4. *Since a portion of the North Dike is underlain with coal ash, slope stability analysis should be undertaken if the site operator plans to proceed with land filling in Cells 1, 2 and 3.*

   Duke Energy has no plans to landfill within these cells and thus there is no need for the analysis. This recommendation is considered complete.

3.4 Repair Recommendations:

1. *Regrading of the ruts associated with the construction on the embankment near Cell 1 should be undertaken. The embankment should be revegetated after construction is complete.*

   Duke Energy will repair and re-seed the identified ruts on the embankment near Cell 1 by July 31, 2010.

If you have any questions regarding the above responses, please contact Ed Sullivan at our corporate offices at 980-373-3719 or via e-mail.

Sincerely,
Duke Energy Carolinas, LLC

Stephen J. Immel
General Manager II, Allen Steam Station
Regulated Fossil Stations