



North Carolina Department of Environment and Natural Resources

Pat McCrory  
Governor

John E. Skvarla, III  
Secretary

**NOTICE OF DEFICIENCY**

June 13, 2014

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Duke Energy Corporation  
Attention: Mr. Sean DeNeale, Engineer II  
Environmental Services  
Post Office Box 1006  
Mail Code EC 13K  
Charlotte, North Carolina 28201-1006

**7011 1570 0000 0154 7418**

Duke Energy Corporation  
Attention: Mr. John Elnitsky, Vice President  
Project Management and Construction  
Post Office Box 1007  
Mail Code ST-28U  
Charlotte, North Carolina 28201-1007

**7011 1570 0000 0154 7425**

RE: Buck Steam Station Main Dam  
ROWAN-047 – High Hazard Potential  
Yadkin – Pee Dee River Basin  
Rowan County

Dear Mr. DeNeale and Mr. Elnitsky:

The "Dam Safety Law of 1967," as amended, provides for the certification and inspection of dams in the interest of public health, safety, and welfare, in order to reduce the risk of failure of such dams; to prevent injuries to persons, damage to property; and to insure the maintenance of stream flows.

Our records indicate that you are the owner/and or responsible for the referenced dam, which is located off Dukeville Road in Rowan County. On May 6, 2014, this Office received a digital copy of an internal inspection of the spillway system for the referenced dam. This submittal was in

Division of Energy, Mineral, and Land Resources

Land Quality Section - Mooresville Regional Office

610 East Center Avenue, Suite 301, Mooresville, North Carolina 28115

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response to an information request issued by this Division on March 5, 2014, in which this Division requested that Duke Energy camera inspect all facilities that have decant structures with corrugated metal pipe (CMP) and concrete components. The decant structure for this dam is comprised of a concrete riser with a CMP pipe barrel. The video was originally submitted to this Division on December 10, 2013 with an engineered evaluation. The evaluation stated in part, "The 2013 condition of the pipe is similar to the previous condition in 2012. Thus, there is no change in the conclusion that the pipe currently does not show signs of being in a critical condition for the immediate future, but evidence that it is approaching the end of its safe performance life includes: 1) The age of the pipe; 2) the failing asphalt coating; 3) The rusted walls, and 4) The leaks (at two locations) through walls between joints."

A preliminary review of the camera inspection video of the decant structure and report has been performed by personnel of the Land Quality Section for the referenced dam. Comparison was made between the submitted video and an internal inspection video of the discharge barrel submitted by Duke Energy Corporation on January 27, 2011. The current video documented numerous infiltration drippers and weeping locations. At approximate location 285.9, dripping has increased to two locations, with increased flow in this area.

The condition of the decant structure appears serious enough to justify further engineering study in order to determine appropriate remedial measures. Your dam is categorized as a "High Hazard" dam. In the event of dam failure, significant environmental damage to the Yadkin River could occur due to release of coal ash stored behind the dam.

In order to ensure the safety of this dam, you are directed to retain the services of a registered professional engineer competent in the area of dam safety to review the internal video and provide a professional assessment of the decant structure with regard to overall structural integrity and recommendations for repair. Plans and specifications for repair based on the results of the study must be filed with the Division of Energy, Mineral and Land Resources for approval pursuant to the North Carolina Administrative Code, Title 15A, Subchapter 2D – Dam Safety (15A NCAC 2K). Please note any excavations in the dam or major repair work to this dam must be approved by this Division before any work is done. Additionally, please note that this dam may not be breached, meaning the dam may not be drained by cutting a notch in the dam, without prior engineered breach plans being submitted to and approved by this Division.

**Please submit a written response as quickly as possible, but no later than ten (10) days following receipt of this Notice to advise us of your intended actions in this matter. This response must include a schedule for repair plan development and implementation. If positive action is not taken within thirty (30) days or before July 17, 2014, whichever term is longer, we shall present the case information for appropriate enforcement action in accordance with North Carolina General Statute 143-215.36. Enforcement action could include a civil penalty of up to \$500.00 per day of violation, and/or issuance of a Dam Safety Order requiring the repair or removal of this dam, and/or injunctive relief to gain compliance.**

Please notify this Office in writing if you wish to assert that you have no ownership or are otherwise not responsible for maintenance or repairs to the subject dam. If you have an emergency situation

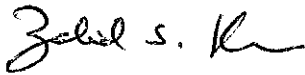
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Buck Steam Station Main Dam  
ROWAN-047

during non-office hours, you should notify 911 and the State Emergency Operations center at 1-(800) 858-0368. They will notify the appropriate personnel in this office of the situation.

It is recommended that you or your engineer direct questions related to repair applications or the dam plan review process to our dam safety staff at (919) 707-9220. All plans, specifications design data, and calculations must be submitted to the State Dam Safety Engineer. If you have any questions regarding this letter, please contact me at (704) 663-1699. Your cooperation and consideration in maintaining a safe dam is appreciated.

Sincerely,



Zahid S. Khan, CPM, CPESC, CPSWQ  
Regional Engineer  
Land Quality Section

ec: Steven M. McEvoy, PE, State Dam Safety Engineer  
cc: Water Quality Regional Operations Section