



North Carolina Department of Environment and Natural Resources

Pat McCrory  
Governor

John E. Skvarla, III  
Secretary

August 11, 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 3500 0000 4267 0293

Duke Energy Corporation  
Attention: Mr. John Elnitsky, Vice President  
Project Management and Construction  
550 South Tryon Street,  
Mail Code DEC 22C  
Charlotte, North Carolina 28202

7011 3500 0000 4267 0309

RE: **Notices of Deficiency Issued March 5, 2014 and June 13, 2014**  
Cliffside Steam Station Inactive Ash Basin #5 Main Dam  
RUTHE-070 – High Hazard Potential  
Broad River Basin  
Rutherford 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 McGraw Road in Rutherford County. The decant structure for this dam is comprised of a CMP riser with a concrete pipe barrel. Your dam is categorized as a "High Hazard" dam. In the event of dam failure, significant environmental damage to the Broad River could occur due to release of coal ash stored behind the dam.

On March 5, 2014, a Notice of Deficiency (Notice) was issued for the referenced dam as a result of material observed seeping at the toe of the dam during inspections conducted by Land Quality

Division of Energy, Mineral, and Land Resources  
Land Quality Section - Mooresville Regional Office

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

Telephone: 704-663-1699 / FAX: 704-663-6040 • Internet: <http://portal.ncdenr.org/web/ir/land-quality>

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Section personnel on March 1, 2014 and March 4, 2014. This office is in receipt of your correspondence dated March 14, 2014, March 21, 2014, and May 23, 2014, all in response to the March 5, 2014 Notice. Responses were issued for the two earlier letters on March 21, 2014 and March 27, 2014. The May 23, 2014 correspondence lists actions planned by Duke Energy to address the Notice. On July 28, 2014, this Division received a report for the referenced dam in response to the March 5, 2014 Notice. The report is currently under review.

On June 13, 2014, a Notice of Deficiency was issued for this dam after preliminary review of a camera inspection video and field report for the decant structure, submitted on May 6, 2014. The video documented holes/voids at the connection between the CMP riser and the concrete pipe barrel. Several stains, cracks, and infiltration drippers were also observed in the barrel.

Our Division is in receipt of your June 26, 2014 correspondence, which stated a consultant was retained to provide an engineer's assessment of the video and to make recommendations for repair based on recommendations in the engineer's assessment.

Our Division is also in receipt of your July 30, 2014 correspondence, which included a video assessment sealed by Mr. Richard L. Hiner, PE, of AMEC Environmental & Infrastructure, Incorporated. The assessment recommended repair of the decant structure and dam modification with corresponding hydraulic evaluation to verify that the spillway capacity requirements in 15A NCAC 2K .0205 are adequately met.

In order to ensure the safety of this dam, It is requested that you prepare a repair plan for this facility that addresses the recommendations provided by your consultant and submit two copies of the plan to 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). **A repair plan must be filed within forty-five (45) days or September 26, 2014, whichever term is longer.** Repair plans at minimum must include:

- A. Construction drawings depicting plan layout, profile and necessary construction details in accordance with 15A NCAC 2K .0201 (b) (2),
- B. Construction specifications in accordance with 15A NCAC 2K .0201 (e) (4), (5), and (6), and
- C. An Engineer's Report addressing any calculations necessary to support the repair design in general compliance with 15A NCAC 2K .0201.

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.

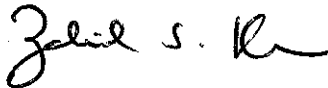
**Please submit a written response as quickly as possible, but no later than ten (10) days following receipt of this letter to advise us of your intended actions in this matter. This response must include a schedule for repair plan submittal and implementation. If positive**

**action is not taken within forty-five (45) days or September 26, 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 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  
Water Quality Regional Operations Section