



North Carolina Department of Environment and Natural Resources

Pat McCrory  
Governor

John E. Skvarla, III  
Secretary

**Certificate of Approval**

December 10, 2014

Mr. John Elnitsky  
Vice President  
Duke Energy  
P.O Box 1321, DEC 22C  
Charlotte, NC 28201-1007

RE: Approval to Repair – Scope 1  
Marshall Active Ash Basin Dam  
Catawba County  
State Dam ID: CATAW-054

Dear Mr. Elnitsky:

This is in response to your submission dated October 10, 2014, received on October 15, 2014 of plans, specifications and design data for repair of the subject dam in compliance with the Dam Safety Law of 1967. This dam is of high hazard classification. The plans, specifications and design data submitted were prepared under the supervision of Mr. Joshua M. Bell, PE of AMEC Environment & Infrastructure, Inc.

Scope 1 General Work Description: Engineered repair directions for horizontal outlet pipe to treat leaking hole and minor crack (using an approved acrylamide applied with joint packer).

This letter constitutes approval of the proposal to repair the subject dam according to the plans and specifications received by this Division on October 15, 2014 with the following stipulations:

1. Project construction shall be supervised by Mr. Joshua M. Bell, PE. Mr. Joshua M. Bell, PE shall be responsible for field observation of construction as necessary to ensure compliance with approved plans.
2. During construction, the Division of Energy, Mineral, and Land Resources may require such progress reports as are deemed necessary.
3. Reference Specification 33 42 04, Section 3.01, A., 2: "Point repairs", including excavation, shall require written approval by this Division prior to implementation. Point repair plans

Division of Energy, Mineral, and Land Resources  
Energy Section • Geological Survey Section • Land Quality Section  
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shall bear the seal of a North Carolina professional engineer in accordance with NCGS 143-215.29 and 15A NCAC 2K .0203.

4. In accordance with GS 143-215.29 and NCAC 15A-2K .0203, .0212, .0215, and .0216, within 30 days of completion of the project, Mr. Joshua M. Bell, PE shall inspect the completed work and upon finding that the work has been done as specified and the dam is safe, shall file with the Division of Energy, Mineral, and Land Resources two sets of record drawings and a certificate stating that the work has been completed in accordance with approved plans, specifications and other requirements.
5. Field records as called for by Specification 33-42-04, Section 3.01, E., 4. a., in clear legible form shall be compiled into report format by Mr. Joshua M. Bell, PE which shall be provided with the record drawings. This report shall also provide opinion by Mr. Joshua M. Bell, PE relative to the degree of success in the treatment of those areas requiring repair.
6. In accordance with GS 143-215.30 and NCAC 15A-2K .0220, final written consent must be issued by the Director of the Division of Energy, Mineral, and Land Resources for use of this dam pursuant to these repairs.
7. An operation and maintenance (O&M) plan are required for all high hazard dams. The O&M plan should address routine maintenance, frequency of piezometer readings, frequency of inspections by the owner or the owner's representative, and annual operation of the bottom drain to ensure that it is functional. The O&M plan must be received prior to issuance of final written consent for use of this dam pursuant to these repairs.
8. This approval does not convey the right to access the private property of others. Any required access to perform the approved work must be secured prior to initiation of construction activities.
9. Water control activities required to complete approved repairs which involve diversion and discharge of reservoir waters to discharge points not covered by an existing NPDES permit, or which utilize procedures that are not approved by an existing NPDES permit, must receive approval from the Division of Water Resources prior to implementation.
10. You must notify Mr. Zahid Khan, PE, Regional Engineer, Land Quality Section, 610 East Center Avenue, Mooresville, North Carolina 28115, (704) 663-1699 ten days before the start of construction.

The Army Corps of Engineers and the Water Resources Division of this Department should be contacted to determine if additional permits are required. Also, the erosion and sediment control program having jurisdiction should be contacted to determine permit requirements. In any case, sediment must be prevented from entering the waters of the state or flowing onto neighboring property.

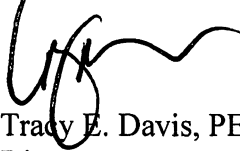
Because the subject dam is currently under a Notice of Deficiency issued by this Division, it is essential that the approved repairs are implemented as soon as possible to protect public safety

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and eliminate the need for further enforcement actions. For assistance you may contact the Mooresville Regional Office at (704) 663-1699 or a staff member of the Dam Safety Program in the Raleigh Central Office at telephone number (919) 707-9220.

Sincerely,



Tracy E. Davis, PE, CPM  
Director

TED/smm

cc: Mr. Joshua M. Bell, PE  
Mr. Zahid Khan, Land Quality Regional Engineer  
Mr. Jeff Poupart, Division of Water Resources  
Ms. Kim Hutchinson, Duke Energy  
Mr. John Toepfer, Duke Energy  
Mr. Sean DeNeale, Duke Energy

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