



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

September 26, 2018

OMB Control No. 3150-0231

Mr. Tom Ray  
Site Vice President  
McGuire Nuclear Station  
Duke Energy Carolinas, LLC  
12700 Hagers Ferry Road  
Huntersville, NC 28078-8985

**SUBJECT: MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 – CLOSEOUT OF GENERIC LETTER 2016-01, “MONITORING OF NEUTRON-ABSORBING MATERIALS IN SPENT FUEL POOLS” (CAC NOS. MF9920 AND MF9432; EPID L-2016-LRC-0001)**

Dear Mr. Ray:

On April 7, 2016, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2016-01, “Monitoring of Neutron-Absorbing Materials in Spent Fuel Pools” (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16097A169), to address the degradation of neutron-absorbing materials (NAMs) in wet storage systems for reactor fuel at power and non-power reactors.

The generic letter requested that licensees provide information to allow the NRC staff to verify continued compliance through effective monitoring to identify and mitigate any degradation or deformation of NAMs credited for criticality control in spent fuel pools (SFPs).

By letter dated October 31, 2016 (ADAMS Accession No. ML16306A036), as supplemented by letter dated May 30, 2018 (ADAMS Accession No. ML18150A703), Duke Energy Carolinas, LLC (the licensee), responded to GL 2016-01 for McGuire Nuclear Station, Units 1 and 2 (McGuire 1 and 2). In the licensee’s response to GL 2016-01, the licensee stated that, for McGuire 1 and 2, the licensee credits Boral for criticality control and will implement an updated NAM monitoring program by the end of 2019 as part of its commitments for license renewal. The NRC staff’s review determined that the provided response sufficiently addressed the five areas of information described in Appendix A of GL 2016-01 for Boral. In particular, the described monitoring program for the Boral includes the following key features:

- Neutron attenuation testing of coupons.
- Established processes to ensure that the licensee will take the appropriate corrective actions if any potentially non-conforming material is discovered.
- A testing frequency not to exceed 10 years.

- Acceptance criteria to ensure maintenance of the 5-percent subcriticality margin for the SFP.

The NRC staff found that the licensee intends to monitor the condition of its NAMs as described in its response for McGuire 1 and 2, through the period of extended operations for its renewed license.

For McGuire 1 and 2, the NRC staff's review determined that the information provided sufficiently addressed the five areas of information described in Appendix A to GL 2016-01. Based on the review of the information provided, the NRC staff concludes no further information is requested regarding GL 2016-01.

Sincerely,

A handwritten signature in black ink, appearing to read "Doug A. Broaddus". The signature is fluid and cursive, with a large initial "D" and "B".

Douglas A. Broaddus, Chief  
Special Projects and Process Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

cc: ListServ

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**ADAMS Accession No.: ML18253A130****\*via email**

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