



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

April 24, 2014

Mr. Steven D. Capps
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, 2004-02, "POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY RECIRCULATION DURING DESIGN BASIS ACCIDENTS AT PRESSURIZED-WATER REACTORS" (TAC NOS. MC4692 AND MC4693)

Dear Mr. Capps:

The U.S. Nuclear Regulatory (NRC) issued Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML042360586) dated September 13, 2004, requesting that licensees address the issues raised by Generic Safety Issue (GSI) - 191, "Assessment of Debris Accumulation on Pressurized Water Reactor Sump Performance."

The stated purpose of GL 2004-02 was focused on demonstrating compliance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50 Section 50.46, "Acceptance Criteria For Emergency Core Cooling Systems For Light Water Reactors." Specifically the GL requested addressees to perform an evaluation of the emergency core cooling system (ECCS) and containment spray system (CSS) recirculation and, if necessary take additional action to ensure system function, in light of the potential susceptibility of pressurized-water reactor (PWR) sump screens to blockage during a design basis accident requiring recirculation operation of the ECCS or CSS, and on the potential for additional adverse effects due to debris blockage of flowpaths necessary for ECCS and CSS recirculation and containment drainage.

By letters dated March 1, 2005 (ADAMS Accession No. ML050670465), and September 1, 2005 (ADAMS Accession No. ML052500399), Duke Energy Carolinas, LLC (the licensee) provided responses to GL-2004-02 for the McGuire Nuclear Station, Units 1 and 2. In order for the NRC staff to complete its review, by letter dated February 9, 2006 (ADAMS Accession No. ML060370427) the NRC issued a request for additional information (RAI).

By letters dated February 28, 2008 (ADAMS Accession No. ML080730131) and April 30, 2008, (ADAMS Accession No. ML081280488) the licensee provided responses to the RAIs. The NRC staff reviewed the responses and concluded that additional information was still required. By letter dated November 18, 2008 (ADAMS Accession No. ML083080350) the NRC issued a second set of RAIs.

By letters dated September 30, 2010 (ADAMS Accession No. ML102870100), July 2, 2012 (ADAMS Accession No. ML12200A021), and July 31, 2013 (ADAMS Accession No. ML13231A113), the licensee provided responses to the second set of RAIs.

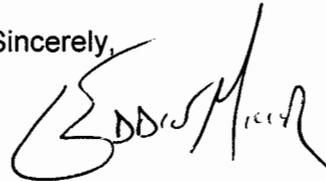
S. Capps

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The NRC staff performed a thorough review of all Duke Energy Carolinas, LLC responses and RAI supplements to GL 2004-02. The NRC staff conclusions have been documented (ADAMS Accession No. ML14085A065). Based on the NRC staff conclusions, the NRC staff finds that Duke Energy Carolinas, LLC has provided adequate information as requested by GL 2004-02. The NRC staff finds the information provided demonstrates that debris will not inhibit the ECCS or CSS performance of its intended function in accordance with 10 CFR 50.46 to assure adequate long term core cooling following a design basis accident. Therefore, the NRC staff finds the licensee's responses to GL-2004-04 are adequate and considers GL-2004-02 closed for the McGuire Nuclear Station, Units 1 and 2. No further information or action is requested of the licensee.

If you have any questions, please call me at 301-415-2481.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Edward Miller". The signature is fluid and cursive, with the first name "G." being particularly prominent.

G. Edward Miller, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

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The NRC staff performed a thorough review of all Duke Energy Carolinas, LLC responses and RAI supplements to GL 2004-02. The NRC staff conclusions have been documented (ADAMS Accession No. ML14085A065). Based on the NRC staff conclusions, the NRC staff finds that Duke Energy Carolinas, LLC has provided adequate information as requested by GL 2004-02. The NRC staff finds the information provided demonstrates that debris will not inhibit the ECCS or CSS performance of its intended function in accordance with 10 CFR 50.46 to assure adequate long term core cooling following a design basis accident. Therefore, the NRC staff finds the licensee's responses to GL-2004-04 are adequate and considers GL-2004-02 closed for the McGuire Nuclear Station, Units 1 and 2. No further information or action is requested of the licensee.

If you have any questions, please call me at 301-415-2481.

Sincerely,

/RA/

G. Edward Miller, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

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