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**Cc:** [Robertson, Jeffrey N](#); [Richards, Brian H](#); [Vu, Phong T](#); [Murphy, George M](#); [Woodyatt, Diana](#)  
**Subject:** McGuire Unit No. 1 and 2: LAR-Technical Specification 3.6.14, "Divider Barrier Integrity" to allow a steam generator enclosure hatch or a pressurizer enclosure hatch to be open for up to 48 hours  
**Date:** Wednesday, October 19, 2016 3:57:00 PM

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By letter dated June 30, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16193A656), Duke Energy Carolinas, LLC (the licensee) submitted a license amendment request to change the McGuire Nuclear Station, Units 1 and 2, Technical Specification 3.6.14, "Divider Barrier Integrity" to allow a steam generator enclosure hatch or a pressurizer enclosure hatch to be open for up to 48 hours to facilitate potential inspections and maintenance to enhance personnel and radiation safety.

The U.S. Nuclear Regulatory Commission staff has reviewed the licensee's submittal and determined that additional information is required in order to complete the review. The requested additional information is as follows:

1. While reviewing the LAR for adherence to GDC 16 and GDC 50, the staff had the following questions regarding the containment peak pressure:
  - a. Provide the basis for determining that the additional bypass leakage area provided by the open hatch is inconsequential to the long term containment peak pressure analysis, stated on page 4 of 8 of your LAR. Please quantify the new long term containment peak pressure.
  - b. Provide the basis for determining the containment spray initiation maintains the long term containment peak pressure at or below 13.87 psig. For example, it is stated that the containment spray would be manually initiated prior to the time of ice bed meltout in the limiting scenario. How is the time of containment spray initiation changed, if at all. State the containment spray initiation time for the open pressurizer hatch as well as the open SG hatch. In this limiting scenario, are one or two trains of containment spray assumed?
  - c. Before the time of complete ice melt at spray initiation, because of the additional open area of 7.5 ft<sup>2</sup>, it is expected that more steam would be present in the upper compartment than for the open area of 5 ft<sup>2</sup>. Verify quantitatively that the peak containment pressure is not affected due to additional open area.
2. Reference 36 stated in FSAR Section 6.2.1.3.1.1 is the Westinghouse WCAP-10325-P-A LOCA Mass and Energy (M&E) release methodology. The SATAN code in this methodology is used for the blowdown M&E release analysis during a LOCA which is an input to determine the subcompartment pressure and differential pressure responses (UFSAR Section 6.2.1.2.3) during the blowdown phase using the TMD code. Westinghouse has issued Nuclear Safety Advisory Letters (NSALs)-06-6, -11-5, and -14-2, and InfoGram IG-14-1 reporting errors in the WCAP-10325-P-A methodology. Correction of M&E analysis should be made for the errors reported in the above NSALs and InfoGram. Provide the revised containment pressure and temperature responses, and subcompartment pressure, and differential pressure responses, and the revised results of any other analysis

that used the WCAP-10325-P-A methodology.

Please submit responses to these by November 21, 2016.

If you have any questions, please do not hesitate to contact me.

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V. Sreenivas, Ph.D., CPM.,

Project Manager

NRR/DORL/LPL2-1

301-415-2597