Steven D. Capps Vice President McGuire Nuclear Station

Duke Energy MG01VP I 12700 Hagers Ferry Road Huntersville, NC 27078

> o: 980.875.4805 f:: 980.875.4809

Steven.Capps@duke-energy.com

10 CFR 50.54(f)

March 12, 2014 Serial: MNS-14-025

ATTN: Document Control Desk U.S. Nuclear Regulatory Commission Washington, DC 20555

Duke Energy Carolinas, LLC (Duke Energy) McGuire Nuclear Station (MNS), Units 1 and 2 Docket Numbers 50-369, 50-370 Renewed License Numbers NPF-9 and NPF-17

**Subject:** Flood Hazard Reevaluation Report, Response to NRC 10 CFR 50.54(f) Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3 and 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012

## **References:**

- NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012, (Agencywide Document and Management System (ADAMS) Accession Number ML12053A340)
- NRC Letter, Prioritization of Response Due Dates for Request For Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Flooding Hazard Reevaluation for Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012, (ADAMS Accession Number ML12097A509)
- 3. NRC Letter, Trigger Conditions for Performing an Integrated Assessment and Due Date Response, dated December 3, 2012, (ADAMS Accession number ML12326A912)
- Duke Energy Letter, McGuire Nuclear Station Flooding Walkdown Information Requested by NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012, dated November 26, 2012, (ADAMS Accession Number ML12361A006)
- NRC Letter, Supplemental Information To Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Flooding Hazard Reevaluations for Recommendation 2.1 of the Near-Term Task Force Review of Insights From the Fukushima Dai-Ichi Accident, dated March 1, 2013, (ADAMS Accession Number ML13044A561)

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On March 12, 2012, the NRC issued Reference 1 to all power reactor licensees and holders of construction permits in active or deferred status. Enclosure 2 of Reference 1 requested that each licensee perform a reevaluation of external flooding sources and report the results in accordance with the NRC's prioritization plan (Reference 2). The due date established for MNS was March 12, 2014. Attachment 1 to this letter contains the required Flooding Hazard Reevaluation Report (HRR) for MNS.

The MNS Flooding HRR in Attachment 1 of this submittal describes the approach, methods and results from the reevaluation of flood hazards at MNS. The eight (8) flood-causing mechanisms and a combined effect flood identified in Attachment 1 to Enclosure 2 of Reference 1 are described in the report along with the potential effects on MNS.

The MNS Flooding HRR shows that some flood levels are not bounded by the Current Licensing Basis (CLB) levels. These reevaluated non-bounded hazards have been entered into the MNS Corrective Action Program (CAP). The non-bounded hazards are the results of newer methodologies and guidance which are applicable to new reactor reviews and typically exceed the methodologies and guidance used to establish the CLB for existing plants. As such, these non-bounded hazards do not represent errors in the current MNS flooding design or licensing basis. Therefore, consistent with Reference 5, the MNS flood hazard reevaluation results and the reevaluated non-bounded hazards do not call into question the operability or functionality of a MNS Structure, System, or Component (SSC) and they are not reportable pursuant to 10 CFR 50.72 and 10 CFR 50.73.

As discussed within Reference 1, NRC acknowledged that an accident with consequences similar to the Fukushima event is unlikely with nuclear power plants located in the United States. The NRC concluded that continued plant operation does not pose an imminent risk to the public health and safety. The flooding walkdowns of MNS CLB flood protection features have been performed and the results were provided by Reference 4. In general, the flood walkdowns verified that the flood protection systems for MNS are available, functional and implementable and if necessary, any degraded, nonconforming flood protection features were entered in the MNS Corrective Action Program.

In accordance with Reference 3, an Integrated Assessment (IA) is required if flood levels determined during the flood hazard reevaluation are not bounded by the CLB flood levels. Enclosure 2 of Reference 1 specifies that the IA be completed and a report submitted within two years of submitting the Flooding HRR. An IA will be completed and a report submitted no later than March 12, 2016.

Section 4 of the MNS Flooding HRR and Attachment 2 of this submittal provide a discussion of the interim evaluation and actions taken or planned to address the reevaluated non-bounded hazards relative to the CLB flood levels. These actions will enhance the current capability to maintain the plant in a safe condition during the beyond-design-basis external flooding events that exceed the CLB flood levels and as a result, continued plant operation does not impose an imminent risk to the units and public health and safety while completing the Integrated Assessment.

This letter contains regulatory commitments as listed in the table provided in Attachment 3 of this submittal. Duke Energy commits to not modify any of these commitments and associated completion dates without notifying the NRC in advance.

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Should you have any questions concerning this letter or require additional information, please contact Jeff Robertson, at 980-875-4499.

I declare under penalty of perjury that the foregoing is true and correct. Executed on March 12, 2014.

Sincerely,

Steven D Capps

Attachments:

- 1. McGuire Nuclear Station Flooding Hazard Reevaluation Report
- 2. McGuire Nuclear Station Flooding Interim Actions Taken or Planned
- 3. McGuire Nuclear Station Reevaluation Report Interim Action Regulatory Commitments

xc:

V.M. McCree, Region II Administrator U.S. Nuclear Regulatory Commission Marquis One Tower 245 Peachtree Center Avenue NE, Suite 1200 Atlanta, Georgia 30303-1257

J. C. Paige, Project Manager (CNS & MNS) U.S. Nuclear Regulatory Commission 11555 Rockville Pike Mail Stop 8 G9A Rockville, MD 20852-2738

J. Zeiler NRC Senior Resident Inspector McGuire Nuclear Station

Justin Folkwein American Nuclear Insurers 95 Glastonbury Blvd., Suite 300 Glastonbury, CT 06033-4453 bxc:

C.J. Thomas (EC05P) D.H. Llewellyn (EC09E) G.D. Robison (EC09E) M.C. Nolan (EC05P) S.D. Capps (MG01VP) C.J. Morris (MG01VP) S.M. Snider (MG01VP) J. N. Robertson (MG01RC) G.J. Holbrooks (MG02MO) J.L. Miller (MG02MO) B.D. Meyer (MG02MO) R.S. Lytton (MG02MO) MNS Master File (MG01DM, File MC 801.01)

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