



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

November 25, 2015

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, UNIT 2: REQUEST FOR ADDITIONAL
INFORMATION RELIEF REQUEST 15-MN-003 REGARDING WELD
EXAMINATION COVERAGE (CAC NO. MF6470)

Dear Mr. Capps:

By letter dated July 9, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15202A126), Duke Energy Carolinas, LLC (Duke Energy) submitted a relief request for McGuire Nuclear Station (MNS), Unit 2. The request pertains to examination coverage of American Society of Mechanical Engineers Code Class 1 piping welds.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the request and determined that additional information is needed in order to complete our review. The enclosed document describes the additional information needed. On November 4, 2015, Mr. P.T. Vu of your staff indicated that a response to the RAI would be provided within 60 days.

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".

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

Docket No. 50-370

Enclosure: Request for Additional
Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST 15-MN-003, SECTIONS 3.0 ISI AND 4.0 ISI,

REGARDING WELD EXAMINATION COVERAGE

DUKE ENERGY CAROLINAS, LLC

MCGUIRE NUCLEAR STATION, UNIT 2

DOCKET NUMBER 50-370

By letter dated July 9, 2015 (Accession No. ML15202A126), Duke Energy Carolinas, LLC (Duke) requested relief from the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (B&PV Code). Relief request 15-MN-003, Section 3.0 ISI and Section 4.0 inservice inspection (ISI) pertain to the examination coverage of the ASME Code Class 1 piping welds (Weld Number 2NC2FW39-1 and 2NC2FW45-5) at the McGuire Nuclear Station, Unit 2.

To complete its review, the NRC staff requests the following additional information.

1. The NRC staff notes that the third 10-year ISI interval started on March 1, 2004, and ended on July 14, 2014. It appears that the third 10-year ISI interval was greater than ten calendar years. Please clarify whether IWA-2430 was invoked to extend the third 10-year ISI interval by a few month not exceeding one year, and that all applicable requirements in IWA-2430 have been met.
2. For Weld Numbers 2NC2FW39-1 and 2NC2FW45-5, Please (a) discuss the ISI history (e.g., inspection years and disposition of detected flaws); (b) discuss whether the licensee identified any indication(s) during construction and preservice inspections (i.e., radiographic testing or surface examination, or both) on the volume not covered by UT; and (c) discuss disposition of identified flaws.
3. Please discuss any walkdowns (e.g., under Boric Acid Corrosion Control program or normal operator round) usually performed to monitor and identify leakage in the event of a through wall leak.
4. In the event of a potential through wall flaw and leakage, please discuss significance of the leak and potential for structural failure of the subject welds.
5. Regarding operating experience, please (a) discuss any industry or plant-specific operating experience regarding potential degradation (e.g., stress corrosion cracking and fatigue) and potential severe loading (e.g., vibration, water hammer, and overloading) for Weld Number 2NC2FW39-1 and 2NC2FW45-5, and

Enclosure

(b) The NRC staff notes that due to recent operating experience regarding thermal fatigue cracking in some plants, the Electric Power Research Institute (EPRI) issued an interim guidance "EPRI-MRP Interim Guidance for Management of Thermal Fatigue (Accession Number ML15189A100)" that supplemented the existing industry thermal fatigue guidelines (e.g., MRP-146 and MRP-192) to better manage thermal fatigue cracking. Please discuss whether Duke will take any compensatory measures to better manage thermal fatigue cracking in the subject welds to ensure structural integrity and leak tightness since essentially 100 coverage was not achieved by the UT.

6. Please discuss whether Duke has inspected similar welds in comparable environments subject to similar degradation mechanism (i.e., thermal fatigue cracking) and achieved the ASME Code required coverage in the current or ~~past~~¹ 10-year ISI intervals.

¹ Clarifying wording change based upon the November 4, 2015, conference call.

November 25, 2015

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, UNIT 2: REQUEST FOR ADDITIONAL INFORMATION RELIEF REQUEST 15-MN-003 REGARDING WELD EXAMINATION COVERAGE (CAC NO. MF6470)

Dear Mr. Capps:

By letter dated July 9, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15202A126), Duke Energy Carolinas, LLC (Duke Energy) submitted a relief request for McGuire Nuclear Station (MNS), Unit 2. The request pertains to examination coverage of American Society of Mechanical Engineers Code Class 1 piping welds.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the request and determined that additional information is needed in order to complete our review. The enclosed document describes the additional information needed. On November 4, 2015, Mr. P.T. Vu of your staff indicated that a response to the RAI would be provided within 60 days.

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 No. 50-370

Enclosure: Request for Additional Information

cc w/encl: Distribution via Listserv

DISTRIBUTION:

Public	LPL2-1 R/F
RidsACRS_MailCTR Resource	RidsNrrDorLpl2-1 Resource
RidsNrrDeEicb Resource	RidsNrrPMMcGuireResource (hard copy)
RidsNrrLASFiguroa Resource	RidsRgn2MailCenter Resource

ADAMS Accession No. ML15323A254

OFFICE	DORL/LPL2-1/PM	DORL/LPL2-1/LA	DE/EPNB/BC	NRR/LPL2-1/BC
NAME	GEMiller	SFiguroa	DAlley*	MMarkley
DATE	11/25/15	11/23/15	10/18/15	11/25/15

OFFICIAL RECORD COPY