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December 7, 2006

U.S. Nuclear Regulatory Commission
Washington D.C. 20555

ATTENTION: Document Control Desk

Subject: McGuire Nuclear Station, Unit 2
Docket No. 50-370
Response to NRC Bulletins 2002-01 & 2002-02
Reactor Pressure Vessel Head Penetrations and Inspection

Pursuant to 10 CFR 50.54(f), this letter and the enclosure provide Duke Energy Carolinas, LLC's (Duke's) response to specific items of NRC Bulletin 2002-01 and NRC Bulletin 2002-02 for McGuire Nuclear Station (MNS); Unit 2.

These bulletins requested plant-specific information regarding the results of the next inspections of the reactor pressure vessel head and associated penetrations to identify degradation. The enclosure to this letter provides this information regarding an inspection that occurred during the End of Cycle 17 Refueling Outage for MNS Unit 2. This response is being provided within the required 30 day period from the Unit 2 return to online operation that occurred on November 11, 2006.

Specifically, the enclosure provides responses to NRC Bulletin 2002-02 items 2.A and 2.B. Also, these responses satisfy the requested information for NRC Bulletin 2002-01 items 2.A and 2.B. Please refer to Duke's previous response regarding commitments associated with NRC Bulletin 2002-02.[1,2]

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[1] Letter from M.S. Tuckman to NRC, 30 Day response to NRC Bulletin 2002-02, dated September 6, 2002.

[2] Letter from D.M. Jamil to NRC, Response to NRC Bulletins 2002-01 & 2002-02, dated November 4, 2002

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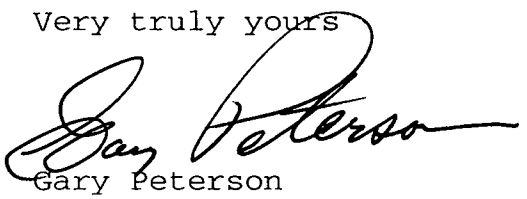
If you have questions or need additional information, Please contact Reza Djali at 704-875-4228.

Very truly yours



Gary Peterson
Enclosure

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G. R. Peterson affirms that he is the person who subscribed his name to the foregoing statement, and that all the matters and facts set forth herein are true and correct to the best of his knowledge.

G. R. Peterson, Site Vice President

Subscribed and sworn to me: December 4, 2006
Date

Freda K. Crump, Notary Public

My commission expires: August 17, 2011
Date

Enclosure

McGuire Nuclear Station
Response to NRC Bulletin 2002-01 & NRC Bulletin 2002-02

Requested Information

2. Within 30 days after plant restart following the next inspection of the reactor pressure vessel head and vessel head penetration nozzles to identify the presence of any degradation, all PWR addressees are requested to provide:

   A. the inspection scope and results, including the location, size, extent, and nature of any degradation (e.g., cracking, leakage, and wastage) that was detected; details of the NDE used (i.e., method, number, type, and frequency of transducers or transducer packages, essential variables, equipment, procedure and personnel qualification requirements, including personnel pass/fail criteria); and criteria used to determine whether an indication, "shadow," or "backwall anomaly" is acceptable or rejectable.

Response:

McGuire Unit 2 conducted a complete bare metal visual inspection of the reactor pressure vessel head during the End of Cycle 17 Refueling Outage.

Scope: The top of the reactor vessel head including the entire reactor vessel head surface area and the annular area 360 degrees around each of the individual penetrations were included in the inspection scope.

Results: The head was determined to be free of boron deposits with no evidence of vessel head penetration leakage, cracking, or wastage.

The annular areas around all penetrations were visibly accessible for inspection and there was no evidence of leakage, cracking, or wastage.

NDE Details:

NDE Details:

The procedural method was visual inspection with illumination sufficient to detect evidence of leakage in accordance with Inservice Inspection Code[3]. The examiner, or optical aid were required to be capable of resolving a 0.158 in. character height at a 6 ft. distance, and a 0.044 in. character at a distance of no more than 1 ft.

The acceptance criterion was that any evidence of leakage, material degradation, and metal wastage would be identified. Evidence of leakage is any buildup of boric acid crystal residue. Evidence of wastage is boron deposits including those that are not white in color.

Personnel qualifications for examiners were a qualified inspector to VT-2 methods and a knowledgeable engineer.

Requested Information

2. Within 30 days after plant restart following the next inspection of the reactor pressure vessel head and vessel head penetration nozzles to identify the presence of any degradation, all PWR addressees are requested to provide:

   B. the corrective actions taken and the root cause determinations for any degradation found.

Response:

No degradation was identified. Therefore, no corrective action or root cause determination was necessary, and none is included in this response.

[3] American Society of Mechanical Engineers Boiler & Pressure Vessel Code, Section XI, IWA-2300, 1995 Edition with 1996 Addenda