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June 19, 2003

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington D.C. 20555

Subject: Duke Energy Corporation  
McGuire Nuclear Station Units 1 and 2  
Docket Nos. 50-369 and 50-370

Response to NRC November 8, 2002 letter on  
Bulletin 2002-02: Reactor Pressure Vessel Head And Vessel  
Head Penetration Nozzle Inspection Programs

Pursuant to 10 CFR 50.54(f), this letter and enclosure provide Duke Energy Corporation's response to the NRC's request to provide future inspection plans related to NRC Bulletin 2002-02 for the McGuire Nuclear Station.<sup>1</sup>

The NRC staff requested that Duke Energy Corporation provide future inspection plans for the reactor pressure vessel head no later than 90 days prior to the refueling outage following the Fall 2002 outage. The McGuire Nuclear Station's next refueling outage was originally scheduled for September 19, 2003. Due to changes in the delivery of replacement steam generators at the Oconee Nuclear Station, outage schedules were revised. On June 6, 2003, the scheduled start date for the McGuire Nuclear Station Unit 2 refueling outage was changed to September 6, 2003. This change to the outage schedule makes the submittal of this letter later than requested.

Duke Energy has not made any new regulatory commitments in this response.

If you have questions or need additional information, please contact Gregory S. Kent at (704)373-6032.

Very truly yours,

M. S. Tuckman

ENCLOSURE

A096

<sup>1</sup> Letter, R.E. Martin to D.M. Jamil, McGuire Nuclear Station, Unit 1 and 2 - Response to NRC Bulletin 2002-02, dated November 8, 2002.

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M. S. Tuckman, 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.

M. S. Tuckman

M. S. Tuckman, Executive Vice President

Subscribed and sworn to me:

June 19, 2003  
Date

May P. Nelson  
Notary Public

My Commission Expires:

JAN 22, 2006  
Date

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M.T. Cash - EC050  
C.J. Thomas - MG01RC  
M.R. Robinson - EC090  
G.S. Kent - EC050  
J.M. Shuping - EC090  
D.E. Whitaker - EC090  
K.L. Crane - MG01RC  
V.J. Thompson - MG05SE  
T.G. Foster - MG05SE  
T.A. Moore - MG05EE  
McGuire Master File - MG01DM  
ELL - EC050

**ENCLOSURE I**  
**McGuire Nuclear Station**

**Requested Information**

To provide future inspection plans for the Reactor Pressure Vessel Head (RPVH) and RPVH penetrations no later than 90 days prior to the next refueling outage (RFO) following the McGuire 1 Fall 2002 RFO.

**Response:**

McGuire Nuclear Station plans to conduct RPVH and RPVH penetration inspections on units 1 and 2 in accordance with NRC Order EA 03-009, including non-visual NDE methods. The inspection plan is a function of the calculated susceptibility category of the RPVH penetrations to potential degradation and recent inspection history.

Duke Energy's September 6, 2002 response to NRC Bulletin 2002-02 stated that McGuire Nuclear Station RPVHs have calculated total effective degradation years (EDY) values between 2 and 3. These EDY values place each RVPH in the low susceptibility category for Primary Water Stress Corrosion Cracking (PWSCC). The values of EDY will be revised for the end of each operating cycle to determine the appropriate inspection for the RPVH during the next refueling outage.

McGuire Nuclear Station completed bare metal visual inspections of the RPVH for Unit 1 in September, 2002 and for Unit 2 in March, 2002. Results of these inspections have been submitted to the NRC. No evidence of wastage or RPVH penetration leakage was detected.

Based on the results of these completed inspections and in accordance with the requirements of NRC Order EA 03-009 for RPVHs in the low PWSCC susceptibility category, plans for future RPVH inspections for each McGuire Nuclear Station unit are as follows:

- Conduct a bare metal visual examination of 100% of each RPVH surface (including 360 degrees around each RPVH nozzle) at least every third RFO (or every five years).
- Conduct an ultrasonic test of each RPVH penetration nozzle from 2 inches above the J-groove weld to the bottom of the nozzle and an assessment to determine if leakage has occurred into the interference fit zone. The supplemental volumetric examinations will be completed by February 11, 2008, and then occur at a frequency at least every fourth RFO (or every 7 years).

The methods, qualification requirements, and acceptance criteria of the supplemental volumetric examinations will be consistent with industry practices developed from EPRI research on volumetric inspection of the RPVH penetrations.