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November 30, 2001

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

Subject: McGuire Nuclear Station, Units 1 and 2  
Docket Nos. 50-369, 50-370  
Request for Inservice Test Program Relief for Check Valve  
Testing, MC-GRV-04 Revision 1

Reference: Letter from Mr. H.B. Barron of Duke Energy to the NRC, dated  
October 19, 2001, Relief Request MC-GRV-04

Pursuant to 10CFR50.55a(f)(4)(iv), Duke Energy Corporation requests relief from certain ASME Section XI Code requirements as described in the enclosed Relief Request No. MC-GRV-04, revision 1. This revision replaces the original request for relief. Revision 1 provides clarification at the request of the NRC staff.

Should you have any questions on this matter, please contact Norman T. Simms at (704) 875-4685.

Sincerely,

H B Barron

Attachment: McGuire Nuclear Station Generic Relief Request MC-GRV-04,  
Revision 1

A047  
Rec'd  
01/31/02

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Revision 1

cc w/att:

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Page 3 of 3

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McGuire Master File # 1.3.2.13

**Generic Relief Request**

Item Number: MC-GRV-04, revision 1

Component Number (s): All check valves in the IST Program

Flow Diagram (s): All applicable

Function (s): All safety functions

Test Requirement: OM-10 (OMa-1988), Sections 4.2 - Inservice Test for Category A and B valves, along with section 4.3.2 - Exercise Test for Check Valves.

Basis for Relief: In order to take advantage of the American Society of Mechanical Engineer's (ASME) and Nuclear Regulatory Commission's (NRC) improvement efforts in developing a performance-based code (versus the current prescriptive code requirements), relief is being requested to implement the Appendix II, "Check Valve Condition Monitoring Program," per ASME OM Code-1995 Edition through 1996 Addenda. This is an approved and acceptable ASME Code alternative to testing check valves as set forth in ASME/ANSI OMa-1988, Part 10 section 4.3.2, "Exercising Tests for Check Valves." Relief is being requested in accordance with 10CFR50.55a(f)(4)(iv).

Check Valves will be monitored by the condition monitoring approach adopting the requirements of Appendix II, "Check Valve Condition Monitoring Program," in the ASME OM Code-1995 Edition through 1996 Addenda, subject to the three modifications found in 10CFR50.55a(b)(3)(iv).

The schedule for implementing the Appendix II condition monitoring program allows a time period for one complete refuel cycle to be completed, to test valves that can only be safely tested during a refuel outage, which is the case for some of the check valves not currently bi-directional tested. It will also allow sufficient time to establish the process and procedures, and evaluate groupings, which are necessary to implement the Appendix II Condition Monitoring Program

requirements. The implementation period requested is approximately two years and extends to December 31, 2003.

There are 74 Unit 1 and 68 Unit 2 check valves that are not currently tested in both the open and close directions, but will be bi-directional tested based on approval of this request. The initial evaluations performed will include those valves not currently bi-directional tested. Bi-directional testing improves the capability to detect failures. This code update for check valves only, is in advance of the March 1, 2004 required 10-year IST program Code update. This proposed alternative provides an acceptable level of quality and safety.

**Code Alternative:**

As an alternative to the testing or examination requirements of OM-10 (Oma-1988), Sections 4.2 - Inservice Test for Category A and B valves, along with Section 4.3.2 - Exercise Test for Check Valves, the Owner may establish a condition monitoring program. The purpose of this program is both to improve check valve performance and to optimize testing, examination, and preventive maintenance activities in order to maintain the continued acceptable performance of a select group of check valves. The Owner may implement this program on a valve or a group of similar valves. The program shall be implemented in accordance with ASME OM Code-1995 Edition through 1996 Addenda, Appendix II, Check Valve Condition Monitoring Program. If the Appendix II program is discontinued for a valve or group of valves, the requirements of all applicable check valve portions of ASME OM Code-1995 Edition through 1996 Addenda will be implemented.

**ADDITIONAL INFORMATION:**

**ACCEPTANCE CRITERIA:**

Disassembly and inspection, non-intrusive test, and surveillance test acceptance criteria will be in accordance with station procedures.

**REFERENCES:**

Part 50 - Statements of Consideration for the Final Rule Effective November 22, 1999.

**APPROVAL REFERENCES:**

This request needs to be submitted and approved pursuant to 10 CFR 50.55a(f)(4)(iv) because it allows a period of time for implementing bi-directional testing of check valves currently tested in one direction only.