



Duke Energy Corporation

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H. B. Barron
Vice President

July 23, 2001

U. S. Nuclear Regulatory Commission
Document Control Desk
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Subject: McGuire Nuclear Station, Unit 1
Docket No. 50-369
Relief Request No. 01-002, Revision 1
(TAC No. MB2069)

Pursuant to 10CFR50.55a(3)(i), Duke Energy Corporation requests relief from certain ASME Section XI Code requirements as described in the enclosed Relief Request No. 01-002, revision 1. This revision replaces the original request for relief.¹ Revision 1 clarifies the basis that this request provides an acceptable level of quality and safety.

Relief Request No. 01-002, revision 1 will be incorporated into the Third 10-Year Interval Inservice Inspection Program Plan for McGuire Nuclear Station, Unit 1. This plan will become effective December 1, 2001. The applicable code edition is the 1995 Edition with 1996 Addenda of the ASME Section XI Code.

There are no identified commitments associated with this relief request.

Please direct questions regarding this request to M. R. Wilder at (704) 382-5826.

Sincerely,

H. B. Barron

Enclosure

¹ Letter, H. B. Barron to NRC, Relief Request No. 01-002, dated May 3, 2001

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xc w/enclosure:

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ENCLOSURE

RELIEF REQUEST NO. 01-002

**Duke Energy Corporation
McGuire Nuclear Station – Unit 1
Third 10-Year Interval Request For Relief No. 01-002, Revision 1**

Pursuant to 10 CFR 50.55a (a) (3) (i), Duke Power Company requests the use of an alternative to the ASME Boiler and Pressure Vessel Code, Section XI, 1995 Edition with the 1996 Addenda.

Specifically, Duke Power Company requests approval to use, as an alternate, a system leakage test in lieu of a system hydrostatic test. A Code change removing the hydrostatic test requirement was incorporated in the 1995 Edition with the 1996 Addenda for Class 1 and Class 2 pressure-retaining components, but was not incorporated for Class 3 components.

I. Systems/Components for Which Alternative is Requested:

All McGuire Unit 1, Class 3, Category D-B, pressure-retaining components subject to IWD-5222 hydrostatic testing.

II. Code Requirement:

Section XI, Table IWD-2500-1, of the ASME Code, 1995 Edition with 1996 Addenda, requires a system leakage test each inspection period for Class 3 pressure-retaining components. Additionally, Table IWD-2500-1 requires a system hydrostatic test each inspection interval for these same Class 3 pressure-retaining components.

III. Code Requirement from Which Alternative is Requested:

Relief is requested from the mandatory requirement to perform a Class 3 hydrostatic pressure test (IWD-5222).

IV. Basis for Requesting Alternative:

Consistent with the philosophy of ASME Code Case N-498-1, this request is based on performing the VT-2 visual examinations at nominal operating pressure in lieu of the interval hydrostatic pressure tests. A review of all Class 3 interval hydrostatic pressure tests performed at McGuire Nuclear Station to date has shown that a leak has never occurred in the base metal or in an existing weld. All leaks that have occurred have been in mechanical joints such as packing glands and body-to-bonnet connections. Additionally, the ASME Boiler & Pressure Vessel Code, Section XI Committee has determined that a hydrostatic test only increases the leakage rate from that of a leakage test run at nominal operating pressure. That is, raising the test pressure from operating pressure to hydrostatic

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pressure has not identified any new leakage. Therefore, performing a VT-2 visual examination at nominal operating pressure provides reasonable assurance of system integrity.

V. Alternate Examinations or Testing:

Duke Energy Corporation requests that a Class 3 system leakage test (IWD-5221) be conducted in lieu of the Class 3 system hydrostatic test (IWD-5222).

VI. Justification for the Granting of Alternative:

The ASME Code Committee and the Nuclear Regulatory Commission has endorsed the use of a leakage test in lieu of a hydrostatic test for Class 1 and Class 2 pressure-retaining components in the 1995 Edition through the 1996 Addenda of the Boiler & Pressure Vessel Code, Section XI. Therefore, the system leakage test is sufficient to determine the leakage integrity of Class 3 pressure-retaining components at an acceptable level of quality and safety also.

VII. Implementation Schedule:

McGuire Unit 1 begins the third inspection interval on December 1, 2001. Duke Power Company requests that approval be granted to permit use of this relief at that time.

Sponsored By: J.M. Baughman Date: 6/26/01

Approved By: R. Kevin Rhyme Date: 6/26/01