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

Subject: McGuire Nuclear Station Unit 1
Docket No. 50-369
Inservice Testing Program
Request for Temporary Relief for Isolation Valve Testing, MC-SRV-CA-01

Pursuant to 10CFR50.55a(a)(3)(ii), Duke Energy Corporation (Duke)requests relief from certain 1988 ASME OMa Code requirements as stipulated in Part 10, Section 4.2.2.1. This requirement mandates that valve 1CA-42B be stroke tested on a regular interval.

Relief is requested, on the basis that the mandated code requirement imposes hardships without a compensating level of quality and safety. The basis for relief is described in the attached relief request, including a basis for why the proposed alternative will provide an acceptable level of quality and safety. The duration of this relief is requested for the remainder of Unit 1 Cycle 16, which is scheduled to end when refueling begins on March 5, 2004.

Duke requests verbal approval of this relief request prior to July 18, 2003 when the subject valve is scheduled to be stroke tested. The emergent need for this request for relief is due to a misapplication of guidance provided in NUREG-1482 Section 2.4.5,"Deferring Valve Testing to Cold Shutdown or Refueling Outages". Duke was first made aware of this misapplication during a conference call with the NRC on July 10, 2003.

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

Sincerely,

G.R. Peterson

Attachment

A047

cc w/att:

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ATTACHMENT

Specific Relief Request

Item Number:	MC-SRV-CA-01
Valve:	1CA-42B
Flow Diagram:	MCFD-1592-1.0
Code Category:	B
ASME Class:	2
Function:	Close to provide containment isolation for Aux. Feedwater system penetration
Test Requirement:	Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.2.1.

Basis for Relief:

On February 4, 2003, an Auxiliary Feedwater System motor operated valve (valve 1 CA-42B) experienced a valve stem failure during planned maintenance. Duke described this event in Licensee Event Report 369 / 03-02, dated April 4, 2003. The valve stem failure was caused by an overload condition resulting from the failure of control functions of the motor actuator. The control function failure was due to previous vendor assembly deficiencies combined with the recent maintenance. A modification replaced the conventional valve stem with a custom two piece design as an interim corrective action. Long term plans include replacing the custom two piece stem on valve 1CA-42B with the original conventional design at the earliest reasonable opportunity permitted by plant operating conditions, which is no later than next refueling outage (1EOC16).

Quarterly stroke time testing the currently installed valve 1CA-42B poses an equipment damage potential which could be reduced by deferring quarterly stroke time testing until the next refueling outage.

The closing stroke of the quarterly stroke time test creates a compressive load which does not challenge a stem thread to carrier ring connection. However, the associated opening stroke (especially under differential pressure) creates a tensile load on the stem thread to carrier ring connection and thus could serve to fail this connection. Based on previous stroke time testing results since the modification, the closing function is not in question. However, the act of opening the valve to realign to normal operation may place excessive stress on the internals unnecessarily.

Valve 1CA-42B is maintained in the open position and fully

Specific Relief Request

Item Number: MC-SRV-CA-01

Basis for Relief: (cont.)

capable of performing its intended safety function to close to provide containment isolation. This valve does not have any safety function to open.

Post maintenance testing as well as surveillance testing performed since the valve repair confirms that the valve's capability to perform it's safety function to close has not been compromised by the loading in the open direction seen during the most recent test. Although the valve can be tested quarterly, the testing involves a hardship as described above (and as referenced in NUREG 1482 Section 3.1.1) which could subject the valve to undue stress or reduce it's life expectancy resulting in forced shutdown in the event the open stroke following testing were to result in a tensile failure. Such risk is considered to outweigh the benefit achieved by continued quarterly testing until the valve can be conveniently repaired during the next refueling outage (1EOC16).

This Relief Request evaluation concludes that adequate justification exists to warrant the proposed test deferral without compromise to safety or quality. Quarterly stroke testing will therefore be discontinued to prevent unnecessary stroking of and thus maintain continued operability of the valve for the balance of the current fuel cycle. During 1EOC16 or the earliest reasonable opportunity permitted by plant operating conditions, the valve will be returned to design configuration, at which time quarterly testing will be resumed.

Test Alternative & Frequency: Valve will be cycled and timed during 1EOC16. Quarterly testing will be resumed following 1EOC16 during which time repairs will be made to 1CA-42B.