

CATEGORY 1

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SUBJECT: Submits relief requests VG-2, CS-RR-6, LP-RR-2 & CRD-RR-3, for
 review & approval of license amend implementing Option B,
 "Performance-Based Requirements," of App J to 10CFR50.

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NIAGARA MOHAWK

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CARL D. TERRY
Vice President
Nuclear Engineering

August 9, 1996
NMP1L 1110

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

Subject: Relief Requests VG-2, Rev. 1; CS-RR-6, Rev. 1; LP-RR-2, Rev. 1; and CRD-RR-3, Rev. 1

Gentlemen:

Under separate cover, dated July 16, 1996 (NMP1L 1101), Niagara Mohawk requested that the Staff review and approve a proposed license amendment that would implement Option B, "Performance-Based Requirements," of Appendix J to 10 CFR 50 for Type A, B, and C leakage rate testing. Currently, this testing conforms to the requirements of Option A, "Prescriptive Requirements," of Appendix J to 10 CFR 50. The above four relief requests are needed to support implementation of the proposed license amendment. These relief requests were originally submitted and approved by Staff Safety Evaluations as follows:

<u>Relief Request</u>	<u>Submittal Date</u>	<u>Approval Date</u>	
VG-2	3/28/89	3/7/91	TAC 60450
CS-RR-6	2/10/95	6/26/95	TAC-M91583
LP-RR-2	3/28/89	3/7/91	TAC 60450
CRD-RR-3	3/28/89	3/7/91	TAC 60450

These relief requests have been revised to replace the prescriptive testing intervals of Section XI of the American Society of Mechanical Engineers (ASME) Code with the testing intervals of Option B of Appendix J to 10 CFR 50, and to make appropriate editorial changes consistent with implementation of Option B.

These relief requests are needed in order to avoid unnecessary testing since credit is currently taken for Appendix J leakage testing as satisfying certain testing requirements of Section XI of the ASME Code. Previously, these relief requests took credit for the performance of leakage testing in accordance with Option A of Appendix J to 10 CFR 50 (i.e., prescriptive testing intervals similar to Section XI of the ASME Code).

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As indicated in the four relief requests, Niagara Mohawk has determined that compliance with certain ASME Section XI Inservice Testing requirements would be impractical or result in hardship, and has proposed alternative testing to provide an acceptable level of quality and safety. Consequently, relief is requested pursuant to 10 CFR 50.55a(a)(3)(i) or (a)(3)(ii), and (f)(6)(i) or (g)(6)(i).

Niagara Mohawk is requesting that these relief requests be approved and issued by January 15, 1997 to support the upcoming fourteenth refueling outage. Furthermore, Niagara Mohawk is requesting that these relief requests be issued in conjunction with the proposed license amendment described above.

Very truly yours,



C. D. Terry

Vice President - Nuclear Engineering

AFZ/kap
(relief.req)
Enclosures

xc: Mr. T. T. Martin, Regional Administrator, Region I
Mr. B. S. Norris, Senior Resident Inspector
Mr. D. S. Hood, Senior Project Manager, NRR
Records Management

7.0 General Relief Requests for Valves (Cont'd.)

General Relief Request : VG-2

Valves : Containment Isolation Valves,
Pressure Isolation Valves

Category : A, AC

Test Requirements : Leak rate test in accordance with
Subsection IWV-3421 through 3425
and IWV-3427(b) every two years.

Basis for Relief : There are three types of leakage
tests performed at NMP1. These
tests are designated as either LJ,
LA, or LK in the test requirement
column of the Valve Tables. A
description of each test is
contained in the following
paragraphs.

Containment isolation valves (CIV's) are required to be leakage rate tested in accordance with 10CFR50, Appendix J, Option B. These valves are designated as LJ valves in the test requirement column of the Valve Tables. The leakage rate requirement is based on a total allowable leakage rate for all valves instead of an individual valve leakage rate. IWV-2200(a) defines Category A as "valves for which seat leakage is limited to a specific maximum amount in the closed position of fulfillment of their function". Although leakage rates for containment isolation valves are not limited on an individual basis, they have been determined to be Category A valves.

Since containment isolation valves are Category A, the leakage rate testing requirements of IWV-3420 must be satisfied. The leakage rate testing performed per Appendix J satisfies the intent of IWV-3421 through 3425; however, it does not satisfy the individual valve leakage rate analysis and corrective actions of IWV-3426 and

7.0 General Relief Requests for Valves (Cont'd.)

IWV-3427 respectively. In order to prevent duplicate leakage testing of these valves, individual leakage rates will be obtained during Appendix J testing and the requirements of IWV-3426 and 3427(a) will be applied via separate procedure. The test frequency will be in accordance with the performance based requirements of Option B of 10 CFR 50 Appendix J.

The second type of leakage tests are for valves which are designated as LA valves in the test requirement column of the Valve Tables. These valves have been included in the IST Program as they are designated as Containment Isolation Valves but are exempt from Local Leak Rate Testing with air in accordance with 10CFR50, Appendix J. These containment isolation valves are tested with water in accordance with IWV-3421 through IWV-3427(a). Typically, these valves do not provide a flow path for post-accident containment atmosphere because they are in lines which remain filled with water during an event. The subject valves are depended upon to ensure the water exists in the lines.

The third type of leakage tests are pressure isolation valves. These valves are designated as LK valves in the test requirement column of the Valve Tables. They are leakage tested in accordance with NMP1 Technical Specifications Section 3.2.7.1 rather than IWV-3420. This is per Generic Letter 89-04, Position 4, which states that pressure isolation valve testing should be performed in accordance with Plant Technical Specifications and referenced as such in the IST Program.

As outlined in Generic Letter 89-04, Position 10, the usefulness of IWV-3427, "Corrective Action", Part (b) requirements does not justify the burden of compliance with this requirement for valves tested in accordance with

7.0 General Relief Requests for Valves (Cont'd.)

10CFR50, Appendix J (air leakage tests for CIV's). Relief is requested from the requirements of IWV-3427(b) for NMP1 LJ valves based on Position 10 of GL 89-04. Similarly, based on a review of NMP1 historical water leakage test results, the usefulness of IWV-3427(b) does not justify the burden of complying with this requirement for LA and LK valves.

Alternate Testing

: The NMP1 leakage test programs will be conducted as follows:

1. 10CFR50, Appendix J,
Containment Isolation Valve
(LJ)

Containment isolation valves will be leak rate tested in accordance with the 10CFR50 Appendix J, Option B testing program. In addition, individual valve leakage rates will be obtained by test or analysis and the requirements of IWV-3426 and 3427(a) will be applied via a separate procedure for those valves that are Appendix J, Type C tested. The trending required by IWV-3427(b) will not be performed. The test frequency will be in accordance with the performance based requirements of Option B of 10 CFR 50 Appendix J.

2. NMP1/NRC 10CFR50, Appendix J
Commitments (LA)

LA containment isolation valves will be leakage rate tested with water in accordance with ASME Section XI, IWV-3420. The trending required by IWV-3427(b) will not be performed.

3. Pressure Isolation Valves (LK)

LK pressure isolation valves will be leakage rate tested and will have corrective action taken in

7.0 General Relief Requests for Valves (Cont'd.)

accordance with NMP1 Technical Specification Section 3.2.7.1 versus IWV-3420. The trending required by IWV-3427(b) will not be performed.

RELIEF REQUEST

CS-RR-6

System : Core Spray System (CS)

Valves : 81-241, 81-242, 81-243 and 81-244

Category : A, C

Class : 2

Function : Provide minimum flow recirculation path for the core spray and core spray topping pumps; provide containment isolation for line to torus.

ASME Section XI
Quarterly Test
Requirements : Per ASME XI IWV-3412, quarterly exercise to verify full stroke open and close.

Basis for Relief : Relief is necessary since it is not practical to exercise these valves on a quarterly basis for the following reasons:

1. Operating the pumps in the minimum flow condition for an extended period of time is detrimental to the pumps.

The vendor has endorsed operating the pumps in the minimum flow mode of operation for only limited periods of time (i.e., 15 minutes); operation at such low flows beyond such limited periods of time unnecessarily increases the rate of degradation.
2. These valves are containment isolation valves whose failure to close during a cycling test may result in loss of containment integrity (Section 3.1.1.(2) of NUREG-1482).

RELIEF REQUEST CS-RR-6 (Cont'd)

Alternate Testing : The following alternate testing is proposed:

1. In order to verify that the valves will open at their set pressure, Relief Valve testing per PTC 25.3-1976 shall be performed in accordance with ASME XI, IWV3510.
2. The pumps are tested quarterly with flow through an alternate test line; this testing will prove that the relief valves remain closed based upon the pumps reference values remaining consistent. That is, if the valve were to open during testing, the pump flow would increase significantly (and pressure would drop).
3. The valves were installed as part of a plant modification in 1995. The post-modification testing shall ensured that the valves, when fully open, pass adequate flow. The test shall also ensured the valves close after testing.
4. The valves will be leak rate tested in accordance with 10CFR50 Appendix J. The test frequency will be in accordance with the performance based requirements of Option B of 10 CFR 50 Appendix J.

RELIEF REQUEST

CRD-RR-3

System	:	Control Rod Drive
Valve	:	44.3-12, (301-112), 44.3-13 (301-113)
Category	:	A,C
Class	:	1
Function	:	Containment Isolation
ASME Section XI Quarterly Test Requirements	:	Verify reverse flow closure IWV-3522 quarterly IWV-3521
Basis for Relief	:	During all modes of operation, the CRD pumps are normally inservice and discharge to the reactor vessel through these valves at a pressure above reactor pressure. Reverse flow closure for these valves has to be performed from inside containment (access to test connections) which is not available quarterly and not always during cold shutdowns (inerted atmosphere, temperature levels/ALARA concerns, etc.).
Alternate Testing	:	These valves will have reverse flow closure verified during each refueling outage either during Appendix J Type C Leakage testing or by otherwise establishing a differential pressure across the valve.



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RELIEF REQUEST

LP-RR-2

System : Liquid Poison

Valves : 42.1-02, 42.1-03

Category : A,C

Class : 1

Function : Containment Isolation Check Valves
(reverse flow closure for containment isolation)

ASME Section XI
Quarterly Test
Requirements : Verify reverse flow closure IWV-3522
quarterly IWV-3521

Basis for Relief : These valves are normally closed and are only opened during refueling outages when the simulated injection test of liquid poison is performed. The valves are then verified closed. A containment entry is required to perform this reverse flow closure verification test. Since the containment is normally inerted, it is not feasible to perform the test during normal operation or cold shutdowns.

Alternate Testing : During each refueling outage, reverse flow closure will be verified either during Appendix J, Type C testing or by establishing a differential pressure across the valve.

