UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

December 24, 1992

Docket No. 50-220

Mr. B. Ralph Sylvia
Executive Vice President, Nuclear
Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212

Dear Mr. Sylvia:

SUBJECT: ISSUANCE OF SCHEDULAR EXEMPTION FROM THE REQUIREMENTS OF 10 CFR PART 50, APPENDIX J, FOR NINE MILE POINT UNIT NO. 1 REGARDING PERIODIC RETEST SCHEDULES FOR 39 TYPE C TESTS (TAC NO. M84712)

By letter dated November 3, 1992, Niagara Mohawk Power Corporation (NMPC) requested a one-time only schedular exemption (for up to a maximum of 7 weeks) from the requirements of 10 CFR Part 50, Appendix J, Section III.D.3, regarding periodic retest schedules for 39 Type C tests. The November 3, 1992, letter superseded an application from NMPC dated October 14, 1992. Section III.D.3 of Appendix J to 10 CFR Part 50 requires that Type C local leak rate tests be performed during every refueling outage at an interval not to exceed 2 years. NMPC requested the exemption to support a delay in the scheduled start of the 1993 Nine Mile Point Unit No. 1 refueling outage from January 2, 1993, until February 19, 1993.

The NRC staff has reviewed the information provided in support of NMPC's schedular exemption request. On the basis of the submitted information and as discussed in the enclosed exemption and supporting safety evaluation, the NRC staff has concluded that there is a high degree of confidence that the containment isolation valves affected by this exemption will not degrade to an unacceptable level during their extended operating interval between Type C tests. Thus, the NRC staff has concluded that your request is justified and your request for a schedular exemption to delay performance of 39 Type C tests is granted. To provide adequate time for plant shut down, the exemption will expire on February 20, 1993.

We find that granting the exemption from the requirements of 10 CFR Part 50, Appendix J, Section III.D.3, is authorized by law, will not present an undue risk to public health and safety, is consistent with the common defense and security, and meets the special circumstances described in 10 CFR 50.12(a)(2)(ii).

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Copies of the Exemption and the NRC staff's supporting safety evaluation are enclosed. The Exemption has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Robert A. Capra

Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Exemption
2. Safety Evaluation

cc w/enclosures:
See next page

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Niagara Mohawk Power Corporation

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Unit No. 1

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
NIAGARA MOHAWK POWER CORPORATION	)	Docket No. 50-220
	)	
	)	
(Nine Mile Point Nuclear Station Unit No. 1)	)	
	)	

EXEMPTION

I.

Niagara Mohawk Power Corporation (NMPC or the licensee) is the holder of Facility Operating License No. DPR-63, which authorizes operation of Nine Mile Point Nuclear Station Unit No. 1 (the facility or NMP1), at a steady-state reactor power level not in excess of 1850 megawatts thermal. The facility is a boiling water reactor located at the licensee's site in Oswego County, New York. The license provides among other things, that it is subject to all rules, regulations, and Orders of the U.S. Nuclear Regulatory Commission (the Commission or NRC) now or hereafter in effect.

II.

Section III of Appendix J to 10 CFR Part 50 requires the development of a program to conduct periodic leak testing of the primary reactor containment and related systems and components, and components penetrating the primary containment pressure boundary. The interval between local leak rate tests for containment isolation valves (Type C tests) is specified by Section III.D.3 to be no greater than 2 years.

III.

By letter dated November 3, 1992, NMPC requested a one-time only exemption (for a maximum of 7 weeks) from the requirements of 10 CFR Part 50, Appendix J, Section III.D.3, regarding periodic retest schedules for 39 Type C tests. This letter superseded an application from NMPC dated October 14, 1992. The requested exemption would permit continued operation of the facility until its next refueling outage, which will begin no later than February 19, 1993. Otherwise, the required testing would require a plant shutdown 7 weeks before the end of the current fuel cycle.

IV.

Section III.D.3 of Appendix J to 10 CFR Part 50 states that Type C tests shall be performed during reactor shutdowns for refueling, at an interval not to exceed 2 years. The licensee has requested a one-time exemption from the regulations.

The 2-year interval requirement for Type C testing is intended to be often enough to preclude significant deterioration between tests and long enough to permit the tests to be performed during routine plant outages. Leak rate testing of containment isolation valves during plant shutdown is preferable because of the lower radiation exposures to plant personnel. Furthermore, some containment isolation valves cannot be tested at power. For those valves that cannot be tested during power operation, or for which testing at power would yield unnecessary radiation exposure of personnel, the

Commission staff believes the increase in confidence of containment integrity following a successful test is not significant enough to justify the hardships and costs associated with a plant shutdown specifically to perform the tests within the 2-year time period.

V.

The Commission has determined that pursuant to 10 CFR 50.12(a)(1) this exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. The Commission further determines that special circumstances, as provided in 10 CFR 50.12(a)(2)(ii), are present justifying the exemption; namely, that application of the regulation in the particular circumstances is not necessary to achieve the underlying purpose of the rule. The underlying purpose of Section III.D.3 of Appendix J to 10 CFR Part 50 is to provide an interval short enough to prevent serious deterioration from occurring between tests and long enough to permit testing to be performed during regular plant outages. For containment isolation valves that cannot be tested at power, or for containment isolation valves where testing at power involves unreasonable risk to personnel and equipment, the increased confidence in containment integrity following successful testing is not significant enough to justify a plant outage merely to perform the tests within the 2-year interval. The licensee has presented information accepted by the Commission, which gives a high degree of confidence that the components affected by this exemption will not degrade to an unacceptable extent. Acceptable leakage limits are defined in Sections III.B.3(a) and III.C.3 of Appendix J to 10 CFR Part 50.

Pursuant to 10 CFR 51.32, the Commission has determined that granting this Exemption will not have a significant impact on the environment (57 FR 54621).

This Exemption is effective upon issuance and shall expire on February 20, 1993.

FOR THE NUCLEAR REGULATORY COMMISSION

Steven A. Varga, Director
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 24th day of December 1992

Pursuant to 10 CFR 51.32, the Commission has determined that granting this Exemption will not have a significant impact on the environment (57 FR 54621).

This Exemption is effective upon issuance and shall expire on February 20, 1993.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:

Steven A. Varga, Director
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 24th day of December 1992

*See previous concurrence

PDI-1:LA	PDI-1:PM	PDI-1:PM	SPLB	OGC	PDI-1:D
for CVogan	JMenning:sm	DBrinkman	*CMcCracken	*CMarco	RACapra
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ADRI	D:DRPE				
JCalvo	SVarga				
12/23/92	12/24/92				

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SCHEDULAR EXEMPTION FROM APPENDIX J INTERVAL

FOR LOCAL LEAK RATE TESTING OF CONTAINMENT ISOLATION VALVES

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION UNIT NO. 1

DOCKET NO. 50-220

1.0 INTRODUCTION

By letter dated November 3, 1992, Niagara Mohawk Power Corporation (NMPC) requested a schedular exemption pursuant to 10 CFR 50.12(a) from the requirements of 10 CFR 50, Appendix J, Section III.D.3. This letter superseded a NMPC application dated October 14, 1992. NMPC requested temporary relief from the requirement to perform local leak rate tests (LLRTs) at intervals of no greater than 2 years for 39 Type C tests. A one-time only delay, up to a maximum of 7 weeks, was requested for the performance of these leakage tests. NMPC's request was necessitated by a proposed delay in the start of the next refueling outage (RFO-12) of Nine Mile Point Nuclear Station Unit No. 1 (NMP1) from January 2, 1993, to February 19, 1993.

The schedular exemption is required to permit NMPC to operate NMP1 until February 19, 1993, the proposed start date for RFO-12. The refueling outage is currently scheduled to begin on January 2, 1993, with an end date of about February 25, 1993. However, based on projections from the New York Power Pool (NYPP), the current schedule may impact the ability of the NYPP to provide reliable power during the winter peak load period. Accounting for planned maintenance, required reserves, and normal unplanned outages, the NYPP is projecting net margin deficiencies during the period January 3, 1993, through February 20, 1993. Consequently, NMPC has determined that the most prudent and effective course of action would be to delay the start of RFO-12 approximately 7 weeks until February 19, 1993.

NMPC has stated that during the forced outage that began on May 1, 1992, and ended on August 8, 1992, it recognized that the start of RFO-12, originally scheduled to begin on September 11, 1992, would be impacted due to insufficient fuel burnup. The current outage start date of January 2, 1993, was established at that time, and NMPC performed the Types B and C leak tests during the forced outage required to support the revised start date. NMPC became aware of the NYPP projections of net margin deficiencies for the period January 3, 1993, through February 20, 1993, subsequent to the startup from the forced outage.

2.0 EVALUATION

The 39 Type C tests included in the exemption request are listed in Table 1. NMPC has determined that these Type C tests of containment isolation valves cannot be performed during normal power operations for one or more of the following reasons:

a. the valves are inaccessible due to their location in the drywell;
b. the valves are in normally operating systems which cannot be physically tested;
c. testing of a valve would require isolation of a system normally in service or available for service;
d. a boundary valve required for performance of the Type C test cannot be exercised because it is inaccessible due to its location in the drywell.

The licensee has performed an analysis of the past leak rate history of the 39 containment isolation valves in question. The penetrations included in the licensee's schedular exemption request represent approximately 45 percent of the Type C penetrations at NMP1, but only 6.2 percent of the total "as-left" leakage at the beginning of the current operating cycle. The total "as-left" leakage for all Types B and C penetrations was 0.24 L_a and the total "as-left" from all penetrations covered by the proposed exemption was 0.015 L_a. The combined leakage from the penetrations addressed in the exemption went from an "as-left" value of 0.016 L_a to an "as-found" value of 0.05 L_a during the 2-year interval prior to the current operating cycle. During the 2-year period prior to that, the combined leakage from these penetrations went from an "as-left" value of 0.0224 L_a to an "as-found" value of 0.095 L_a. Based on the most recent "as-left" leakage of 0.015 L_a, the historical performance of these penetrations, and a maximum increase of 7 percent in the surveillance interval, the licensee has determined that the maximum combined leakage from these penetrations would not be expected to exceed 0.1 L_a. This provides reasonable assurance that the requested surveillance interval extension will not result in the Types B and C leakage total exceeding the 0.6 L_a limit of 10 CFR Part 50, Appendix J.

The staff notes that the 2-year interval requirement for Type C components is intended to be often enough to prevent significant deterioration from occurring and long enough to permit the tests to be performed during plant outages. Leak rate testing of the penetrations during plant shutdown is preferable because of the lower radiation exposure to plant personnel. In addition, as previously noted, some penetrations cannot be tested at power. For penetrations that cannot be tested at power, or for which testing at power is inadvisable, the increase in confidence of containment integrity following a successful test is not significant enough to justify a plant shutdown specifically to perform the tests within the 2-year time period, considering the leak rate history of the penetrations addressed by the exemption.

3.0 CONCLUSION

Based on the above evaluation, the staff finds the requested schedular exemption, to allow the Type C test intervals of the 39 valves listed in Table 1 to be extended to the refueling outage which will begin no later than February 19, 1993, to be acceptable. To provide adequate time for plant shut down, the exemption should expire on February 20, 1993.

Attachment:
Appendix J Exemption Request/
Impacted Components - Table 1

Principal Contributor: J. Menning

Date: December 24, 1992

TABLE 1
NINE MILE POINT UNIT 1
DOCKET NO. 50-220
DPR-63

APPENDIX J EXEMPTION REQUEST/IMPACTED COMPONENTS

COMPONENT ID	COMPONENT DESCRIPTION
01-01	Main Steam Line Loop 11 Inboard Isolation Valve
01-02	Main Steam Line Loop 12 Inboard Isolation Valve
01-03	Main Steam Line Loop 11 Outboard Isolation Valve
31-01R	Feedwater System Loop 11 Outboard Isolation Valve
31-07	Feedwater System Loop 11 Inboard Isolation Valve
31-08	Feedwater System Loop 12 Inboard Isolation Valve
42.1-02	Liquid Poison Inboard Isolation Valve
42.1-03	Liquid Poison Outboard Isolation Valve
110-127	Reactor Recirculation Sample Line Inboard Isolation Valve
110-128	Reactor Recirculation Sample Line Outboard Isolation Valve
122-03	Post Accident Sample Line Inboard Isolation Valve
201.2-24	H_2O_2 #12 Sample Stream D Outboard Isolation Valve
201.2-26	H_2O_2 #12 Sample Stream C Outboard Isolation Valve
201.2-30	H_2O_2 #12 Sample Stream B Outboard Isolation Valve
201.2-70	H_2O_2 #12 Return Inboard Isolation Valve
201.2-71	H_2O_2 #12 Return Outboard Isolation Valve
201.2-25	H_2O_2 #12 Sample Stream C Inboard Isolation Valve
201.7-01	H_2O_2 #11 Sample Stream B Inboard Isolation Valve
201.7-02	H_2O_2 #11 Sample Stream B Outboard Isolation Valve
201.7-03	H_2O_2 #11 Sample Stream A Inboard Isolation Valve
201.7-04	H_2O_2 #11 Sample Stream A Outboard Isolation Valve
201.7-08	Drywell CAM Supply Inboard Isolation Valve
201.7-09	Drywell CAM Supply Outboard Isolation Valve
201.7-10	Drywell CAM Return Inboard Isolation Valve
201.7-11	Drywell CAM Return Outboard Isolation Valve
201.2-03	Drywell N_2 Makeup Outboard Isolation Valve
201.2-32	Drywell N_2 Makeup Inboard Isolation Valve

APPENDIX J EXEMPTION REQUEST/IMPACTED COMPONENTS (Cont'd)

COMPONENT ID	COMPONENT DESCRIPTION
201.2-06	Torus N_2 Makeup Outboard Isolation Valve
201.2-33	Torus N_2 Makeup Inboard Isolation Valve
201-07, 08	Torus Air Vent and Fill Inboard and Outboard Isolation Valves
201-16, 17	Tours N_2 Vent and Fill Inboard and Outboard Isolation Valves
201.2-109	H_2O_2 #11 Return Inboard Isolation Valve
201.2-110	H_2O_2 #11 Sample Stream C Outboard Isolation Valve
201.2-111	H_2O_2 #11 Sample Stream C Inboard Isolation Valve
201.2-112	H_2O_2 #11 Return Outboard Isolation Valve
201.1-09	Post-LOCA Vent Loop 11 Inboard Isolation Valve
201.1-11	Post-LOCA Vent Loop 11 Outboard Isolation Valve
201.1-14	Post-LOCA Vent Loop 12 Inboard Isolation Valve
201.1-16	Post-LOCA Vent Loop 12 Outboard Isolation Valve

Copies of the Exemption and the NRC staff's supporting safety evaluation are enclosed. The Exemption has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by:

Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Exemption
2. Safety Evaluation

cc w/enclosures:
See next page

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