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SUBJECT: Forwards request for schedular exemption from requirements of App J to 10CFR50 re periodic schedule for Type C leakage testing.

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NIAGARA MOHAWK POWER CORPORATION/301 PLAINFIELD ROAD, SYRACUSE, N.Y. 13212/TELEPHONE (315) 474-1511

November 3, 1992
NMP1L 0713

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

Re: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63
TAC No. M84712

Gentlemen:

SUBJECT: SCHEDULAR EXEMPTION FROM THE REQUIREMENTS OF APPENDIX J TO 10CFR PART 50 REGARDING PERIODIC SCHEDULE FOR TYPE C LEAKAGE TESTING

By letter dated October 14, 1992, Niagara Mohawk Power Corporation requested a schedular exemption from the requirements set forth in 10CFR50 Appendix J regarding periodic retest schedules for 37 Type C tests. This letter supersedes our October 14, 1992 submittal in its entirety and provides additional information concerning the specific Type C tests and why these tests cannot be performed during normal operation. In addition, two Type C tests which were inadvertently omitted from our October 14, 1992 submittal are included. The addition of the two Type C tests has a negligible impact on the data provided in our earlier submittal to support our request for exemption. Therefore, the justification for the exemption contained herein remains essentially unchanged from our October 14, 1992 submittal.

Niagara Mohawk hereby requests, pursuant to 10CFR50.12(a), a schedular exemption for Nine Mile Point Unit 1 from the requirements set forth in 10CFR50 Appendix J, Section III.D.3., regarding periodic retest schedules. Specifically, Niagara Mohawk requests temporary relief from the requirement to perform local leak rate tests (LLRT) at intervals of no greater than two years for 39 Type C tests. A one-time only delay, up to a maximum of seven weeks, is requested for the performance of the above leakage tests. This request is based upon the proposed delay in the start of the Nine Mile Point Unit 1 refueling outage (RFO-12) from January 2, 1993 to February 19, 1993.

Niagara Mohawk is proposing to delay the start of the Nine Mile Point Unit 1 refueling outage based on New York Power Pool (NYPP) projections of operating reserve during the peak winter load months of January and February with the current outage start date of January 2, 1993. The NYPP is projecting net margin deficiencies for the period from January 3, 1993 through February 20, 1993, which could impact the ability of the NYPP to provide reliable power. Therefore, Niagara Mohawk believes it prudent to delay the start of the refueling outage until February 19, 1993, when positive net margins become available.

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The exemption has been reviewed and found to be authorized by law and consistent with the common defense and security. Attachment A to this letter demonstrates that the requested exemption presents no undue risk to the health and safety of the public and that special circumstances are present to justify granting the exemption.

With regard to the "common defense and security" standard, the grant of the requested exemption is consistent with the common defense and security of the United States. The Commission's Statements of Consideration, in support of the amendment of Section 50.12(a) which became effective in 1986, notes with approval the explanation of the "common defense and security" standard set forth in Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1), LBP-84-45, 20 NRC 1343, 1400 (1984). See 50 Fed. Reg. 50764, 50766 (1985). As stated in Shoreham, the term "common defense and security" refers principally to the safeguarding of special nuclear material, the absence of foreign control over the applicant, the protection of Restricted Data and the availability of special nuclear material for defense needs. The granting of the requested exemption will not affect any of these matters and, thus, such a grant is consistent with the common defense and security.

The proposed exemption has been analyzed and determined not to cause additional construction or operational activities which may significantly affect the environment. It does not result in a significant increase in any adverse environmental impact previously evaluated in the Final Environmental Statement, a significant change in effluent or power levels or a matter not previously reviewed by the Nuclear Regulatory Commission which may have a significant adverse environmental impact.

Very truly yours,

C. D. Terry
Vice President
Nuclear Engineering

AER/mls
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Attachments

xc: Regional Administrator, Region I
Mr. W. L. Schmidt, Senior Resident Inspector
Mr. R. A. Capra, Director, Project Directorate I-1, NRR
Mr. D. S. Brinkman, Senior Project Manager, NRR
Records Management

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	]	
	]	
Niagara Mohawk Power Corporation	]	Docket No. 50-220
	]	
(Nine Mile Point Unit 1)	]	

AFFIDAVIT

C. D. Terry, being duly sworn, states that he is Vice President, Nuclear Engineering of Niagara Mohawk Power Corporation; that he is authorized on the part of said Corporation to sign and file with the Nuclear Regulatory Commission the documents attached hereto; and that all such documents are true and correct to the best of his knowledge, information, and belief.

C. D. Terry
Vice President
Nuclear Engineering

Subscribed and sworn to before me, a Notary Public in and for the State of New York and County of Onondaga, this 3rd day of November, 1992.

Notary Public in and for
Onondaga County, New York

JO ANN BOUTHILLIER
Notary Public in the State of New York
Qualified in Onondaga County No. 4713804
My Commission Expires 3/31/95

My Commission Expires:
March 31, 1995

003174GG

ATTACHMENT A

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

INTRODUCTION

This attachment describes a request, pursuant to 10CFR50.12(a), for schedular exemption from certain requirements set forth in 10CFR50, Appendix J, Section III.D.3. Niagara Mohawk requests temporary relief from the requirement to perform Type C local leak rate tests (LLRT) at intervals of no greater than two years for 39 Type C tests. A one-time only delay, up to a maximum of seven weeks, is requested for the performance of the above LLRTs. This request is based upon the proposed delay in the start of the Nine Mile Point Unit 1 refueling outage from January 2, 1993 to February 19, 1993.

BACKGROUND

The Nine Mile Point Unit 1 1993 refueling outage is currently scheduled to begin on January 2, 1993 with an end date of approximately February 25, 1993. However, based on projections from the New York Power Pool (NYPP or Power Pool), the planned outage of Nine Mile Point Unit 1 may impact the ability of the NYPP to provide reliable power during the winter peak load period. Accounting for planned maintenance, required reserve, and normal unplanned outages, the NYPP is projecting net margin deficiencies for the Power Pool during the period from January 3, 1993 through February 20, 1993.

Net margin deficiencies are indicative of potential problems and the projected deficiencies are a particular concern during peak load conditions. That concern increases when considering that the calculated deficiencies noted above are based on average unplanned outages. A higher than normal number of plant forced outages could place a severe strain on the Power Pool. Therefore, Niagara Mohawk believes that the most prudent and effective course of action is to delay the start of the refueling outage approximately seven weeks until February 19, 1993.

This exemption request is required to allow a one-time only delay in the performance of 39 Type C LLRTs to support the delay of the start of the 1993 refueling outage. During Forced Outage 92-03 (emergency condenser valve repair, May 1, 1992 - August 8, 1992), station management recognized that the start of the next scheduled refueling outage (RFO-12), originally scheduled to begin on September 11, 1992, would be impacted due to insufficient fuel burnup. Therefore, a review was conducted to identify those activities (surveillance tests, preventative maintenance activities and commitments) which had to be completed in order to delay the outage start date. Based on this review, station management decided to delay the start of RFO-12 from September 11, 1992 until January 2, 1993. This delay required the performance of 25 surveillance tests and 49 preventative maintenance activities

during Forced Outage 92-03. Subsequent to the startup from Forced Outage 92-03, Niagara Mohawk became aware of the NYPP projections of net margin deficiencies for the period of January 3, 1993 through February 20, 1993. As a result, Niagara Mohawk felt it would be prudent to delay the start of the refueling outage until February 19, 1993. This proposed delay has necessitated the exemption request contained herein for a one-time only delay of 39 Type C tests to accommodate the revised outage schedule.

The 39 Type C tests included in this exemption request are listed in Attachment B. These Type C tests cannot be performed during normal operation for one or more of the following reasons:

- the valves are inaccessible due to their location in the drywell;
- the valves are in normally operating systems which cannot be physically tested;
- testing of a valve will require isolation of a system normally in service or available for service, which is inconsistent with 10CFR50 Appendix J which states that "Type C tests shall be performed during each reactor shutdown for refueling..." (when these systems are not required to be operable);
- 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.

EVALUATION

The limitations on the primary containment leakage rates ensure that the total containment leakage will not exceed L_a, the value assumed in the accident analyses at the peak accident pressure. L_a for Nine Mile Point Unit 1 is defined as 1.5% of the containment dry air mass per 24 hours at a pressure of 35 psig. The surveillance requirements for testing penetration and isolation valve leakage rates are consistent with the requirements of 10CFR50, Appendix J (i.e., a 24-month frequency for Type B and C tests). The Type B and C tests required by Appendix J assure that the leakage from penetrations and containment barriers is maintained below 0.60 L_a between Type A tests. These barriers are the most probable leakage paths since they depend on active components and flexible sealing methods to maintain containment integrity.

The interval of 24 months specified in Appendix J is based, in part, on the expected degradation of components exposed to the environment resulting from a full 24 months of normal plant operation. The NRC, in an exemption to Catawba Nuclear Station Technical Specifications (reference USNRC to Mr. H. B. Tucker, Vice President Nuclear Production Department, Duke Power Company, July 3, 1986), states that the underlying purpose of the Appendix J regulation is to assure testing after every two full years of full power operation. At a maximum, 22 months of normal plant operation will occur between LLRTs for these valves if this exemption is granted, assuming continuous operation of Nine Mile Point Unit 1 between the date of this submittal and the end of the requested exemption period

(February 19, 1993). This is within the intent of 10CFR50, Appendix J, to perform LLRT testing every 24 months of full power operation.

A total of 39 Type C tests would be delayed based upon the proposed change in the start date of the Nine Mile Unit Point 1 refueling outage from January 2, 1993 to February 19, 1993. The remaining Type B penetrations and Type C tested valves are within the 24-month frequency or are scheduled for testing prior to the refueling outage. In addition, a Type A test will be conducted during this outage to measure the overall integrated leakage rate of the primary containment.

The most recent Type A (ILRT) test was conducted in May 1990. The Type A tests are conducted at the containment vessel reduced test pressure P_t (22 psig) as specified in the Technical Specifications. The containment "as-left" leakage rate was 0.4634% weight/day. This value is well within the Technical Specification allowable operational leak rate (L_{to}) of 0.707% weight/day. The "as-found" leakage rate was calculated to be 0.8895% weight/day. The "as-found" Type A results also met the Technical Specification maximum allowable leakage rate (L_t) of 0.943% weight/day. Further review of previous Type A tests indicates similar results. The containment is expected to perform similarly during the Type A test to be conducted in the upcoming outage.

The containment penetrations represented in this exemption request have all shown acceptable test results during the three previous Type B and C test intervals, although there have been individual valves that have failed their Type C tests. Further, there have been other containment penetrations where the failure of both valves has caused the combined Type B and C leakage criteria of 10CFR50, Appendix J to be exceeded.

The penetrations included in the proposed exemption represent approximately 45% of the Type C penetrations at Nine Mile Point Unit 1. However, they represented only 6.2% of the total "as-left" leakage at the beginning of the current operating cycle where the total "as-left" leakage for all Type B and C penetrations was 0.24 L_a and the total "as-left" leakage from the penetrations covered by this exemption request was 0.015 L_a. During the two-year interval prior to the current cycle, the combined leakage from the penetrations addressed in this exemption went from an "as-left" value of 0.016 L_a to an "as-found" value of 0.05 L_a. During the two-year interval prior to that, 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.

Extending the surveillance interval for the Type C tests until February 19, 1993 represents a maximum increase of 7% and an average increase of 6% over the currently allowed surveillance interval. 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% in the surveillance interval, the combined leakage from these penetrations is not expected to exceed 0.1 L_a.

CONCLUSION

Based on the information provided above, Niagara Mohawk concludes that the exemption from the requirements of 10CFR50, Appendix J, is justified pursuant to 10CFR50.12, Sections (a)(1), (a)(2)(ii), (a)(2)(iv), and (a)(2)(v) in that:

(a)(1) This exemption "will not present an undue risk to the public health and safety."

- The proposed exemption does not change, modify, or restrict existing plant safety limits, safety settings, systems, or operations.

- The proposed exemption does not impact the design basis of containment or alter its response to a design basis accident.

(a)(2) Special circumstances are present in that:

(ii) "Application of the regulation in the particular circumstances is not necessary to achieve the underlying purpose of the rule."

- The underlying purpose of the LLRT regulations is to assure testing of containment penetrations after every two years of full power operation. The requested exemption would still result in less than two years of full power operation between LLRTs on each penetration.

(iv) "The exemption would result in benefit to the public health and safety that compensates for any decrease in safety that may result from the grant of the exemption."

- A reliable power supply resulting from the elimination of the negative margin in the New York Power Pool is a benefit to the public health and safety. Based on historical results, the leakage from the penetrations included in the exemption is small and any increase in the leakage from the isolation valves during the time of the exemption would be minimal.

(v) "The exemption would provide only temporary relief from the applicable regulation and the licensee has made good faith efforts to comply with the regulation."

- The requested exemption is temporary and will expire on February 19, 1993. Niagara Mohawk has demonstrated its commitment to Appendix J by reducing the combined "as-left" Type B and C leakage in each of the preceding Type B and C test intervals. Further, the combined "as-found" leakage for the penetrations under the exemption has been below 10% L_a in each of the last three LLRTs.

- During Forced Outage 92-03 (May 1, 1992 - August 8, 1992); Niagara Mohawk recognized that the start of the next scheduled refueling outage would be impacted due to insufficient fuel burnup. In order to allow the outage to be delayed from September 11, 1992 to January 2, 1993, Niagara Mohawk conducted the required Type B and C leak tests during the forced outage, eliminating the need for an Appendix J exemption at that time.

ATTACHMENT B
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