

Template NRR-058

Mr. John H. Mueller
Chief Nuclear Officer
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station
Operations Building, Second Floor
P. O. Box 63
Lycoming, NY 13093

February 15, 2000

SUBJECT: NINE MILE POINT NUCLEAR STATION, UNIT NO. 2 - ISSUANCE OF
AMENDMENT RE: SURVEILLANCE CAPSULE WITHDRAWAL
(TAC NO. MA7768)

Dear Mr. Mueller:

The Commission has issued the enclosed Amendment No. 90 to Facility Operating License No. NPF-69 for the Nine Mile Point Nuclear Station, Unit No. 2. The amendment consists of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated December 28, 1999.

This amendment revises TS Table 4.4.6.1.3-1, "Reactor Vessel Material Surveillance Program - Withdrawal Schedule." The revised requirement permits the withdrawal of surveillance capsule number 1 at 8 effective full-power years (EFPY) instead of the original 10 EFPY.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's biweekly Federal Register Notice.

Sincerely,

/RA/

Peter S. Tam, Senior Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-410

Enclosures: 1. Amendment No.90 to NPF-69
2. Safety Evaluation

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

February 15, 2000

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cc w/encls: See next page

Nine Mile Nuclear Station
Unit No. 2

Regional Administrator, Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Resident Inspector
Nine Mile Point Nuclear Station
P.O. Box 126
Lycoming, NY 13093

Mr. Jim Rettberg
NY State Electric & Gas Corporation
Corporate Drive
Kirkwood Industrial Park
P.O. Box 5224
Binghamton, NY 13902-5224

Mr. John V. Vinqvist, MATS Inc.
P.O. Box 63
Lycoming, NY 13093

Supervisor
Town of Scriba
Route 8, Box 382
Oswego, NY 13126

Mr. Richard Goldsmith
Syracuse University
College of Law
E.I. White Hall Campus
Syracuse, NY 12223

Charles Donaldson, Esquire
Assistant Attorney General
New York Department of Law
120 Broadway
New York, NY 10271

Mr. Timothy S. Carey
Chair and Executive Director
State Consumer Protection Board
5 Empire State Plaza, Suite 2101
Albany, NY 12223

Mark J. Wetterhahn, Esquire
Winston & Strawn
1400 L Street, NW.
Washington, DC 20005-3502

Gary D. Wilson, Esquire
Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, NY 13202

Mr. F. William Valentino, President
New York State Energy, Research,
and Development Authority
Corporate Plaza West
286 Washington Avenue Extension
Albany, NY 12203-6399



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-410

NINE MILE POINT NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 90
License No. NPF-69

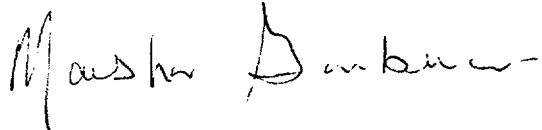
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Niagara Mohawk Power Corporation (the licensee) dated December 28, 1999, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter 1;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-69 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 90 are hereby incorporated into this license. Niagara Mohawk Power Corporation shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Marsha Gamberoni, Acting Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 15, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 90

TO FACILITY OPERATING LICENSE NO. NPF-69

DOCKET NO. 50-410

Replace the following pages of Appendix A, Technical Specifications, with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove

3/4 4-31

Insert

3/4 4-31

TABLE 4.4.6.1.3-1

REACTOR VESSEL MATERIAL SURVEILLANCE PROGRAM - WITHDRAWAL SCHEDULE

<u>CAPSULE NUMBER</u>	<u>VESSEL LOCATION</u>	<u>LEAD FACTOR @ 1/4 T</u>	<u>WITHDRAWAL TIME (EFPY)</u>
1	3°	0.46	8
2	177°	0.46	20
3	183°	0.46	Spare



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 90 TO FACILITY OPERATING LICENSE NO. NPF-69

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION, UNIT NO. 2

DOCKET NO. 50-410

1.0 INTRODUCTION

By letter dated December 28, 1999, Niagara Mohawk Power Corporation (NMPC), the licensee for the Nine Mile Point Nuclear Station, Unit 2 (NMP2), requested that the NRC review and approve its proposed Technical Specification (TS) change to modify its reactor pressure vessel (RPV) surveillance capsule withdrawal schedule. The proposed change would change the date of withdrawal of the first surveillance capsule in TS Table 4.4.6.1.3-1 from 10 effective full-power years (EFPY) of operation to 8 EFPY.

2.0 BACKGROUND

Nuclear power plant licensees are required by Title 10 of the Code of Federal Regulations, Part 50, Appendix H (10 CFR Part 50, Appendix H) to implement RPV surveillance programs to "monitor changes in the fracture toughness properties of ferritic materials in the reactor vessel beltline region ... which result from exposure of these materials to neutron irradiation and the thermal environment." Regarding RPV surveillance program design and specimen testing, 10 CFR Part 50, Appendix H incorporates by reference the editions of the American Society for Testing and Materials (ASTM) Standard Practice E 185, "Conducting Surveillance Tests for Light-Water Cooled Nuclear Power Reactor Vessels," through the 1982 edition. Under 10 CFR Part 50, Appendix H, the licensee's RPV surveillance program design and withdrawal schedule is required to meet the requirements of the edition of ASTM E 185 that is current on the issue date of the American Society of Mechanical Engineers Pressure and Vessel Code (ASME Code) to which the RPV was specified, although later editions may be used, up to and including the 1982 edition. The test procedures and reporting requirements must however meet the requirements of the 1982 edition of ASTM E 185, to the extent practical for the configuration of the specimens in the capsules.

3.0 EVALUATION

The NMP2 RPV was specified to the 1971 Edition of the ASME Code through the 1972 Winter addenda. As such, the edition of ASTM E 185 to which the NMP2 RPV surveillance program was designed was the 1970 edition (ASTM E 185-70). Paragraph 4.6 of ASTM E 185-70 addresses the withdrawal schedule as follows, "[i]t is recommended that sets of specimens be

withdrawn at three or more separate times. One of the data points obtained shall correspond to the neutron exposure of the reactor vessel at no greater than 30 percent of its design life. One other data point obtained shall correspond to the neutron exposure of the component near the end of its design life.”

In its December 28, 1999, submittal the licensee stated that its reason for requesting this TS change was to obtain the neutron dosimetry data from the capsule and validate the results of the NMP2 neutron transport calculations. These transport calculations were being performed for the licensee to obtain flux and fluence information at core shroud locations. This change in the TS requirements would permit the licensee to remove the surveillance capsule during the next outage, scheduled for spring 2000, at which time the plant would have been operated for approximately 8.7 EFPY.

With regard to the impact of the surveillance capsule schedule change on its ability to monitor RPV integrity, the licensee found that the change would not challenge its ability to operate the RPV safely or monitor the effects of irradiation embrittlement. The licensee stated that the NMP2 surveillance program would continue to meet the requirements of 10 CFR Part 50, Appendix H, after this change was enacted.

The NRC staff reviewed the information supplied by the licensee and the regulatory requirements stated above. The staff agrees with the licensee's conclusion that the change in the first capsule withdrawal from 10 to 8 EFPY was acceptable. The staff reached this conclusion because compliance with the ASTM E 185-70, as required for NMP2 by 10 CFR Part 50, Appendix H, only requires that the first capsule be withdrawn at an exposure level equivalent to less than 30 percent of the vessel design life. Considering that, as stated in the licensee's submittal, the surveillance capsule fluence lags the peak RPV 1/4T fluence by a factor of 0.46, removal of the capsule at 8.7 EFPY instead of after 10 EFPY is sufficient to meet this criteria. Therefore, withdrawal of the first capsule at 8 EFPY would be in compliance with 10 CFR Part 50, Appendix H. In addition, the staff notes that the RPV pressure-temperature limits for NMP2 will continue to be based on the generic procedures (Position 1.1) of Regulatory Guide (RG) 1.99, Revision 2 (RG 1.99, Rev. 2) until at least two data points are obtained from the NMP2 surveillance program, thus no effect from this change in first capsule withdrawal date is expected. The use of RG 1.99, Rev. 2 Position 1.1 will continue to provide an appropriately conservative assessment of the RPV pressure-temperature limits.

The NRC staff has concluded that the change of the withdrawal requirement, as specified in TS Table 4.4.6.1.3-1, for the first NMP2 RPV surveillance capsule from 10 EFPY to 8 EFPY is acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (65 FR 2443). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: M. Mitchell

Date: February 15, 2000