

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001 September 30, 1993

Docket No. 50-410

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 AMENDMENT FOR NINE MILE POINT NUCLEAR STATION, UNIT 2 (TAC NO. M86186)

The Commission has issued the enclosed Amendment No. 48 to Facility Operating License No. NPF-69 for the Nine Mile Point Nuclear Station, Unit 2. The amendment consists of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated April 7, 1993.

The amendment revises TS 3.1.5, "Standby Liquid Control System," to remove the requirement for the standby liquid control system to be operable in OPERATIONAL CONDITION 5 (Refueling) when any control rod is withdrawn.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly <u>Federal Register</u> notice.

Sincerely,

Donald J. Buinforman

John E. Menning, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures: 1. Amendment No. 48 to NPF-69 2. Safety Evaluation

cc w/enclosures: See next page

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cc:

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Vice President - Nuclear Generation Nine Mile Point Nuclear Station Niagara Mohawk Power Corporation P. O. Box 32 Lycoming, New York 13093 DATED: September 30, 1993

AMENDMENT NO. 48 TO FACILITY OPERATING LICENSE NO. NPF-69-NINE MILE POINT UNIT 2 Docket File NRC & Local PDRs PDI-1 Reading S. Varga, 14/E/4 J. Calvo, 14/A/4 R. Capra C. Vogan J. Menning OGC D. Hagan, 3302 MNBB G. Hill (2), P1-22 C. Grimes, 11/F/23 M. Razzaque, 8/E/23 ACRS (10) OPA OC/LFDCB PD plant-specific file C. Cowgill, Region I cc: Plant Service list



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PDR

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. 48 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 April 7, 1993, 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.
- 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) <u>Technical Specifications and Environmental Protection Plan</u>

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. 48 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert A. Capra, Director

Project, Directorate I-1 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: September 30, 1993

ATTACHMENT TO LICENSE AMENDMENT

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AMENDMENT NO. 48 TO FACILITY OPERATING LICENSE NO. NPF-69

DOCKET NO. 50-410

Revise Appendix A as follows:

<u>Remove Page</u>	Insert Page
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REACTIVITY CONTROL SYSTEMS

3/4.1.5 STANDBY LIQUID CONTROL SYSTEM

LIMITING CONDITIONS FOR OPERATION

3.1.5 The standby liquid control system shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2

ACTION:

- a. With one pump and/or one explosive valve inoperable, restore the inoperable pump and/or explosive valve to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.
- b. With the standby liquid control system otherwise inoperable, restore the system to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

- 4.1.5 The standby liquid control system shall be demonstrated OPERABLE:
- a. At least once per 24 hours by verifying that;
 - 1. The temperature of the sodium pentaborate solution in the storage tank is greater than or equal to 70°F.
 - 2. The available volume of sodium pentaborate solution is within the limits of Figure 3.1.5-1.
 - 3. The temperature of the pump suction piping is greater than or equal to 70°F.



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO. 48 TO FACILITY OPERATING LICENSE NO. NPF-69 NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION. UNIT 2

DOCKET NO. 50-410

1.0 INTRODUCTION

By letter dated April 7, 1993, Niagara Mohawk Power Corporation (the licensee) submitted a request for changes to the Nine Mile Point Nuclear Station, Unit 2, Technical Specifications (TSs). The requested changes would revise TS 3.1.5. "Standby Liquid Control System," to remove the requirement for the standby liquid control (SLC) system to be operable in OPERATIONAL CONDITION 5 (Refueling) when any control rod is withdrawn.

2.0 EVALUATION

The purpose of the SLC system is to provide the capability of shutting down the reactor from a full power condition, and maintaining it subcritical until the cold shutdown condition is achieved without control rod movement. The SLC system injects sodium pentaborate solution into the reactor core upon initiation. In OPERATIONAL CONDITION 5, the reactor is already shut down with control rods fully inserted in any core cells that have fuel assemblies in them.

The one-rod-out interlock associated with the Refuel position of the reactor mode switch provides protection against inadvertent criticality while the reactor is in OPERATIONAL CONDITION 5. Specifically, the reactor mode switch will be in the Refuel position (and locked) and this initiates the Refuel position one-rod-out interlock which prevents the selection of a second control rod for movement when any other control rod is not fully inserted. The core is designed such that adequate shutdown margin (SDM) is maintained with one control rod fully withdrawn.

Additional protection against inadvertent criticality is also achieved in OPERATIONAL CONDITION 5 because in accordance with TS and procedural controls. the amount of reactivity present in the core will be constantly reduced during core offloading. This means that the SDM of the core is the same or greater than its initial value during the entire core offloading process. SDM is analytically determined prior to fuel being reloaded into the reactor vessel. The calculated SDM is the acceptance criterion used in TS 4.1.1. If a control rod is withdrawn in OPERATIONAL CONDITION 5 and SDM has not been demonstrated (i.e., during reload) additional restrictions are placed on the plant by TSs 3.9.2 and 3.10.3. Specifically, if adequate SDM has not been

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demonstrated, at least two source range monitor channels must be operable with the shorting links removed from the reactor protection system (RPS) circuitry prior to and any time one control rod is withdrawn. In the extremely unlikely event that an inadvertent criticality occurs during this time, these additional restrictions assure that the control rod system will be automatically actuated by the RPS.

The NRC staff has concluded that the SLC system should not be required to be operable in OPERATIONAL CONDITION 5 when any control rod is withdrawn since adequate SDM in conjunction with TS requirements for operability of the Refuel position one-rod-out interlock will assure that an inadvertent criticality event will not occur during refueling operations. The staff, therefore, finds the TS changes proposed by the licensee to be acceptable.

3.0 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.

4.0 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 (58 FR 25859). 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.

5.0 CONCLUSION

The Commission 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. Razzaque

Date: September 30, 1993

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Sincerely,

Original signed by:

Donald S. Brinkman for John E. Menning, Project Manager Project Directorate I-1 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 48 to NPF-69
- 2. Safety Evaluation

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