

October 31, 1988

Docket No. 50-220

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Mr. Charles V. Mangan
Senior Vice President
Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212

Dear Mr. Mangan:

In response to your request of September 14, 1988, the Commission has issued the enclosed Exemption from 10 CFR 50.62(c)(4). The Exemption is being granted to allow the smaller vessel size at Nine Mile Point Unit No. 1 to be considered when determining the system requirements for the liquid poison system to meet an equivalent control capacity of 13 weight percent sodium pentaborate at 86 GPM. This is consistent with guidance provided in Generic Letter (GL) 85-03, "Clarification of Equivalent Control Capacity for Standby Liquid Control Systems," January 28, 1985. The bases for this Exemption are discussed in the enclosed Exemption and Safety Evaluation. The Exemption has been forwarded to the Office of Federal Register for publication (TAC 67506 and 69400).

The Commission has also issued the enclosed Amendment No. 101 to Facility Operating License No. DPR-63 for the Nine Mile Point Nuclear Station Unit 1 (NMP-1). The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated March 7, 1988, as supplemented April 13, 1988 (TAC 67506).

This amendment revises Technical Specifications 3.1.2 and 4.1.2 for the liquid poison system to satisfy the requirements of 10 CFR 50.62, "Requirements for Reduction of Risk from Anticipated Transients without Scram (ATWS) Events for Light-Water-Cooled Nuclear Power Plants" except as exempted in the enclosed

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Exemption. The staff has found one of the requested changes, the revision to Figure 3.1.2b, to be unacceptable and the licensee has agreed to its deletion from this amendment. A copy of the Notice of Partial Denial is enclosed. The basis for the staff's finding is discussed in the enclosed Safety Evaluation. All other requested changes have been found acceptable and are incorporated in the enclosed amendment.

A Notice of Issuance will be included in the Commission's next regular bi-weekly Federal Register notice.

Sincerely,

Mary F. Haughey, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects, I/II

Enclosures:

- 1. Exemption
- 2. Amendment No. 101 to DPR-63
- 3. Safety Evaluation
- 4. Notice of Partial Denial

cc: w/enclosures
See next page

*SEE PREVIOUS CONCURRENCE

<p><i>CV</i> PDI-1 CVogan 9/29/88*</p>	<p><i>M Haughey</i> PDI-1 MHaughey:mak:vr 9/30/88*</p>	<p><i>MH</i> SRXB MHodges 9/1/88*</p>	<p>OGC 10/12/88*</p>	<p><i>RC</i> PDI-1 RCapra 10/27/88 27</p>
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Sincerely,

Mary F. Haughey, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects, I/II

- Enclosures:
1. Exemption
 2. Amendment No. to DPR-63
 3. Safety Evaluation
 4. Notice of Denial

cc: w/enclosures
See next page

*SEE PREVIOUS CONCURRENCE

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 CVogan 9/29/88*

M. Haughey
 PDI-1 10/21/88
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 9/30/88*

SRXB
 MHodges
 9/1/88*

OGC *M. Young* 10/2/88
 MYoung
 10/12/88*

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 RCapra / /88

Mr. C. V. Mangan
Niagara Mohawk Power Corporation

Nine Mile Point Nuclear Station,
Unit No. 1

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Ms. Donna Ross
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16th Floor
Albany, New York 12223

UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of

NIAGARA MOHAWK POWER CORPORATION

(Nine Mile Point Nuclear Station Unit No. 1)

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Docket No. 50-220

EXEMPTION

I.

Niagara Mohawk Power Corporation (the licensee) is the holder of Facility Operating License No. DPR-63, which authorizes operation of the Nine Mile Point Nuclear Station Unit No. 1 (NMP-1 or the facility). The license provides, among other things, that the facility is subject to all rules, regulations and Orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

The facility is a boiling water reactor located at the licensee's site in Oswego County, New York.

II.

By letter dated September 14, 1988, the licensee requested an exemption from the requirements of 10 CFR Part 50.62(c)(4), which establishes the minimum injection flow rate and the boron concentration for the standby liquid control system (SCLCS).

Specifically, 10 CFR Part 50.62(c)(4) requires that each boiling water reactor must have an SLCS with a minimum flow capacity and boron content equivalent in control capacity to 86 gallons per minute (gpm) of 13 weight percent sodium pentaborate solution. The licensee requests an exemption from this requirement to permit use of an equivalency formula considering sodium pentaborate concentration, pump flow rate, boron enrichment and the requirements for the liquid poison system which performs the function of the SLCS.

The requirement established by the regulation was intended to provide for prompt injection of negative reactivity into a boiling water reactor pressure vessel in the event of an anticipated transient without scram (ATWS) event. The reactor vessel size used to establish the required flow rate of 86 gpm and the sodium pentaborate concentration of 13 weight percent was the large 251-inch diameter vessel used in the BWR/5 and BWR/6 designs. The NMP-1 reactor has a much smaller, 213-inch diameter, vessel. For the NMP-1 reactor, a lesser rate of injection of sodium pentaborate and/or a smaller concentration will provide adequate shutdown margin in an ATWS event, equivalent to that called for by the regulation for the larger 251-inch diameter boiling water reactor vessel. Refer to Generic Letter 85-03, "Clarification of Equivalent Control Capacity for Standby Liquid Control Systems," January 28, 1985.

III.

The purpose of the rule is to reduce the risk from ATWS events by ensuring adequate shutdown margin. In this case, the injection flow rate, increased enrichment, and boron concentration will provide the equivalent level of control capacity for the smaller NMP-1 reactor pressure vessel as that called for by ATWS

rule based on larger reactor pressure vessels. Requiring NMP-1 to provide the flow rate-boron concentration capacity specified by the rule would not, in these particular circumstances, serve the underlying purpose of the rule. Thus, the Commission's staff finds that there are special circumstances in this case which satisfy the standards of 10 CFR Part 50.12(a)(2)(ii). As set forth in the safety evaluation for Amendment No. 101, issued concurrently with this Exemption.

IV.

The licensee provided a determination that special circumstances exist under 10 CFR 50.12(a). As discussed above, the underlying purpose of the requirements of paragraph (c)(4) of 10 CFR 50.62 is to ensure adequate shutdown margin in an ATWS event. The underlying purpose is achieved and served by using the equivalency formula discussed in the licensee's application for a Technical Specification amendment concerning the liquid poison system dated March 7, 1988.

Accordingly, the Commission has determined that pursuant to 10 CFR Part 50.12(a), the Exemption, as described in Section III, is authorized by law and will not present an undue risk to the public health and safety and is consistent with common defense and security, and special circumstances are present for the Exemption, in that application of the regulation in these particular circumstances is not necessary to achieve the underlying purposes of 10 CFR Part 50.62(c)(4). Therefore, the Commission hereby grants the Exemption from paragraph (c)(4) of 10 CFR Part 50.62 to allow the consideration of the smaller

vessel size in determining the equivalent control capacity of 13 weight percent sodium pentaborate at 86 gpm for the liquid poison system at NMP-1.

Pursuant to 10 CFR Part 51.32, the Commission has determined that the granting this Exemption will have no significant impact on the environment (53 FR 43297).

This Exemption is effective upon issuance.

Dated at Rockville, Maryland, this 31 day of October 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

Gus C. Lainas, Acting Director
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

*SEE PREVIOUS CONCURRENCE

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Pursuant to 10 CFR Part 51.32, the Commission has determined that the granting this Exemption will have no significant impact on the environment (53 FR 43297).

This Exemption is effective upon issuance.

Dated at Rockville, Maryland, this 31 day of October 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

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

*SEE PREVIOUS CONCURRENCE

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This Exemption is effective upon issuance.

Dated at Rockville, Maryland, this day of .

FOR THE NUCLEAR REGULATORY COMMISSION

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

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Concurrence not needed per discussion w/Hodges 10/4/88



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

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-220

NINE MILE POINT NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 101
License No. DPR-63

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Niagara Mohawk Power Corporation (the licensee) dated March 7, 1988, as supplemented April 13, 1988, 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 I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission. A related exemption from the provisions of 10 CFR 50.62(c)(4) was issued at the same time as this amendment;
 - 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. DPR-63 is hereby amended to read as follows:

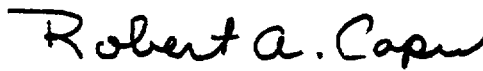
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(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 101 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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 31, 1988



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

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 101 TO FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Revise Appendix A as follows:

Remove Pages

41

42

43

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Insert Pages

41

42

43

45

LIMITING CONDITION FOR OPERATION

- c. The liquid poison tank shall contain a minimum of 1185 gallons of boron bearing solution. The solution shall have a sufficient concentration of sodium pentaborate enriched with Boron-10 isotope to satisfy the equivalency equation.

$$\frac{C}{13\% \text{ wt}} \times \frac{628300}{M} \times \frac{Q}{86 \text{ GPM}} \times \frac{E}{19.8\% \text{ Atom}} \geq 1$$

- Where: C = Sodium Pentaborate Solution Concentration (Wt %)
M = Mass of Water in Reactor Vessel and Recirculation piping at Hot Rated Conditions (501500 lb)
Q = Liquid Poison Pump Flow Rate (30 GPM nominal)
E = Boron-10 Enrichment (Atom %)
- d. The liquid poison solution temperature shall not be less than the temperature presented in Figure 3.1.2.b.
- e. If Specifications "a" through "d" are not met, initiate normal orderly shutdown within one hour.

SURVEILLANCE REQUIREMENT

Remove the squibs from the valves and verify that no deterioration has occurred by actual field firing of the removed squibs. In addition, field fire one squib from the batch of replacements.

Disassemble and inspect the squib-operated valves to verify that valve deterioration has not occurred.

- (2) At least once per month -

Demineralized water shall be recycled to the test tank. Pump discharge pressure and minimum flow rate shall be verified.

- b. Boron Solution Checks:

- (1) At least once per month -

Boron concentration shall be determined.

- (2) At least once per day -

Solution volume shall be checked. In addition, the sodium pentaborate concentration shall be determined and conformance with the requirements of the equivalency equation shall be checked any time water or boron are added or if the solution temperature drops below the limits specified by Figure 3.1.2.b.

LIMITING CONDITION FOR OPERATION

SURVEILLANCE REQUIREMENT

(3) At least once per day-

The solution temperature shall be checked.

(4) At least once per operating cycle

Verify enrichment by analysis.

c. Surveillance with Inoperable Components

When a component becomes inoperable its redundant component shall be demonstrated to be operable immediately and daily thereafter.

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BASES FOR 3.1.2 AND 4.1.2 LIQUID POISON SYSTEM

The liquid poison system (Section VII-C*) acting alone does not prevent fuel clad damage for any conceivable type of Station transient. This system provides a backup to permit reactor shutdown in the event of a massive failure of the control rods to insert.

The liquid poison system is designed to provide the capability to bring the reactor from full design rating (1850 thermal megawatts) to a cold, xenon free shutdown condition assuming none of the control rods can be inserted. A concentration of 120 ppm of boron-10 (the boron isotope with a high neutron cross section) in the reactor coolant will bring the reactor from full design rating (1850 thermal megawatts) to greater than 3 percent delta k subcritical ($0.97 k_{eff}$) considering the combined effects of the control rods, coolant voids, temperature change, fuel doppler, xenon, and samarium.

In order to provide good mixing, the injection time has to be greater than 17 minutes⁽²⁾. The rate of boron-10 injection must also be sufficient to achieve hot shutdown during ATWS events.

The liquid poison storage tank minimum volume assures that the above requirements for boron solution insertion are met with one 30 gpm liquid poison pump. The quantity of Boron-10 isotope required to be stored in solution includes an additional 25 percent margin beyond the amount needed to shutdown the reactor to allow for any unexpected non-uniform mixing. The relationship between sodium pentaborate concentration and sodium pentaborate Boron-10 enrichment must satisfy the equivalency equation: (1)

$$\frac{C}{13\% \text{ wt}} \times \frac{628300}{M} \times \frac{Q}{86 \text{ GPM}} \times \frac{E}{19.8\% \text{ Atom}} \geq 1$$

Where: C = Sodium Pentaborate Solution Concentration (Wt %)
M = Mass of Water in Reactor Vessel and Recirculation piping at Hot Rated Conditions (501500 lb)
Q = Liquid Poison Pump Flow Rate (30 GPM nominal)
E = Boron-10 Enrichment (Atom %)

The tank volume requirements include consideration for 197 gallons of solution which is contained below the point where the pump takes suction from the tank and therefore cannot be inserted into the reactor.

The solution saturation temperature varies with the concentration of sodium pentaborate. Figure 3.1.2.b. includes a 5F margin above the saturation temperature to guard against precipitation. Temperature and liquid level alarms for the system are annunciated in the Control Room.

*FSAR

- (1) GE Topical Report NEDE-31096-P-A, "Anticipated Transients Without Scram. Response to ATWS Rule 10CFR50.62."
(2) GE Report NEDC-30921, "Assessment of ATWS Compliance Alternatives."



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 101 TO FACILITY OPERATING LICENSE NO. DPR-63
NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT NUCLEAR POWER STATION, UNIT NO. 1
DOCKET NO. 50-220

INTRODUCTION

In a letter dated March 7, 1988, the licensee requested Technical Specifications Sections 3.1.2 and 4.1.2 be revised for the liquid poison system to incorporate changes required by 10 CFR Part 50.62, "Requirements for reduction of risk from anticipated transients without scram (ATWS) events for light-water-cooled nuclear power plants." Specifically, the proposed changes would (1) delete Figure 3.1.2a; (2) identify the liquid poison system minimum volume requirements; (3) incorporate the equivalency equation for determining the concentration of sodium pentaborate solution enriched in the boron-10 isotope; (4) revise Figure 3.1.2b to allow a lower concentration of sodium pentaborate as a result of using the enriched isotope; and (5) revise Technical Specification 4.1.2b to incorporate additional surveillance requirements for monitoring the enriched boron-10 isotope concentration. The Bases for Technical Specification Sections 3.1.2 and 4.1.2 would also be revised to incorporate the equivalency equation and to remove the reference to the maximum injection time and revise the minimum injection time. The deviations from 10 CFR Part 50.62(c)(4) associated with the Technical Specification changes are identified in an exemption request dated September 14, 1988. The discussion of the exemption request is included as part of this Safety Evaluation.

EVALUATION

The exemption proposed by the licensee has been reviewed by the staff against the requirements of the Anticipated Transient Without Scram (ATWS) rule (10 CFR Part 50.62) and Generic Letter No. 85-03 "Clarification of Equivalent Control Capacity for Standby Liquid Control Systems," dated January 28, 1985. The licensee's proposed consideration of the 213-inch diameter vessel size in determining an equivalent control capacity will provide a boron content equivalent in control capacity to 86 gpm of 13 weight percent sodium pentaborate for a 251-inch inside diameter vessel. This meets the intent of 10 CFR Part 50.62 and is, therefore, acceptable. Granting of this Exemption provides justification for certain of the TS changes identified in the amendment request.

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The liquid poison system is a backup to the Control Rod Drive System. When a scram signal occurs, the control rods are automatically inserted to bring the reactor to a subcritical condition. In the event the control rods would fail to insert, the liquid poison system is designed to inject a sufficient quantity of soluble boron to bring the reactor to a hot subcritical condition. The liquid poison system at Nine Mile Point Unit 1 (NMP-1) performs the function of the standby liquid control system (SLCS) required by Paragraph (c)(4) of 10 CFR 50.62 which states, in part:

"Each boiling water reactor must have a standby liquid control system (SLCS) with a minimum flow capacity and boron content equivalent in control capacity to 86 gallons per minute of 13 weight percent sodium pentaborate solution."

Generic Letter 85-03, dated January 28, 1985, stated that the equivalent boron content could be achieved by increasing the flow rate, or the boron concentration, or through boron enrichment. These methods of meeting the requirements of 10 CFR 50.62 were also evaluated in the staff's review of NEDE-31096-P "Anticipated Transients Without Scram: Response to ATWS Rule 10 CFR 50.62," (G. Lainas to T. Pickens, October 21, 1986). The staff's evaluation of NEDE-31096-P also discussed an equivalency equation which could be used to ensure that the SLCS has a control capacity equivalent to 86 GPM of 13 weight percent natural sodium pentaborate solution.

In its application dated March 7, 1988, the licensee requested that the Technical Specifications for NMP-1 be revised to incorporate the following equivalency equation which was discussed in the staff's evaluation.

$$\frac{Q}{86} \times \frac{M_{251}}{M} \times \frac{C}{13} \times \frac{E}{19.8} \geq 1$$

where: Q = expected Liquid Poison System flow rate (30 GPM)
M = mass of water in the reactor vessel and recirculation system at hot rated conditions (501,500 lbs.)
C = sodium pentaborate solution concentration, weight percent
E = boron-10 isotope enrichment (19.8% for natural boron), atom percent
M251 = mass of water for 251-inch reference plant (628,300 lbs.)

The licensee has proposed to meet the equivalency equation by using appropriate combinations of solution concentration and boron-10 enrichment.

The licensee has indicated that the enriched boron would be supplied premixed by its vendor. On April 13, 1988 the licensee supplemented its amendment application with a letter committing to revise the applicable site procedures to require an isotopic analysis of the enriched sodium pentaborate to be performed by an independent laboratory. In addition, the licensee's amendment application of March 7, 1988 included surveillance requirements to verify conformance with the equivalency equation any time boron or water is added or if the solution temperature drops below the limits specified by Figure 3.1.2b,

and to verify enrichment by analysis once per operating cycle. The staff finds the proposed surveillance requirements and the licensee's commitment to have an independent verification to be adequate assurance that the liquid poison system will meet the requirements of the SLCS required by 10 CFR 50.62.

With the use of the equivalency equation, the effective rate of boron injection into the core will be the product of pumping capacity (flow rate), solution concentration, boron (B^{10}) enrichment, and mixing capacity. Previously conducted mixing tests were accepted by the NRC staff and, as a result, boron mixing is not a factor in determining equivalency to the ATWS rule. By meeting the equivalency equation, the licensee will ensure that sodium pentaborate is injected at a rate equivalent to 13 weight percent at 86 GPM. As the rate of injection will be governed by the equivalency equation and boron mixing is not a factor, the minimum and maximum injection times need not be reviewed by the staff. Therefore, the deletion of the maximum mixing time and the revision to the minimum mixing time in the Bases is acceptable.

Figure 3.1.2a of the Technical Specifications specified the volume-concentration limits of the liquid poison system. This curve is applicable for natural (unenriched) boron. These limits will now be determined by the use of the equivalency equation and therefore, deletion of Figure 3.1.2a of the Technical Specifications is acceptable.

Figure 3.1.2b of the Technical Specifications specified the minimum allowable solution temperature for a specified weight percent of sodium pentaborate in solution. This curve was being revised to include the lower weight percent of sodium pentaborate allowed by the equivalency equation. However, the licensee did not address the potential for freezing at the lower temperatures (30°F) represented on the new curve. In addition, during a discussion with Mr. Peter Francisco of the licensee's staff on June 23, 1988, Mr. Francisco indicated that the curve was erroneously shifted in the non-conservative direction. Mr. Francisco further indicated that operation with the equivalency equation with the existing Figure 3.1.2b would be acceptable. The use of the existing figure for the minimum allowable solution temperature would not be affected by the use of the equivalency equation. Therefore, the staff finds the proposed revision to Figure 3.1.2b to be unacceptable and the licensee has agreed that change will be deleted from the proposed revision to the Technical Specifications. This change did not alter or affect the action noticed or the staff's initial determination published in the Federal Register on June 1, 1988.

On the basis of the above discussion, the staff finds that the licensee's changes to the Technical Specification and the Bases for the liquid poison system as proposed in its application of March 7, 1988 with the exception as modified, are acceptable and are consistent with the purpose of 10 CFR Part 50.62 for the SLCS.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of the facility components located within the restricted areas as defined in 10 CFR Part 20 and changes inspection or surveillance requirements. The staff has determined that this 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Sec 51.22(c)(9). Pursuant to 10 CFR Sec. 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

CONCLUSION

On the basis of the above evaluation the staff finds that the licensee's proposed exemption from 10 CFR Part 50.62(c)(4) as requested in the submittal dated September 14, 1988 is acceptable. Thereafter, the licensee shall comply with the provisions of such rule or renew its request for exemption.

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: October 31, 1988

PRINCIPAL CONTRIBUTOR:

M. Haughey

UNITED STATES NUCLEAR REGULATORY COMMISSION
NIAGARA MOHAWK POWER CORPORATION
DOCKET NO. 50-220
PARTIAL DENIAL OF AMENDMENTS TO FACILITY OPERATING
LICENSES AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) has denied a portion of a request by the licensee for an amendment to Facility Operating License No. DPR-63 issued to Niagara Mohawk Power Corporation for operation of the Nine Mile Point Nuclear Station Unit No. 1 (the facility), located in Oswego County, New York.

The denied portion of the proposed amendment would have revised Figure 3.1.2b, "Minimum Allowable Solution Temperature" in the Technical Specifications. The revised curve would have extended the curve to lower temperatures (from 40°F to 30°F) to define the weight percent sodium pentaborate in solution at temperatures as low as 30°F. Notice of consideration of issuance of the amendments was published in the FEDERAL REGISTER on June 1, 1988 (53 FR 20044). The licensee's application for amendment was dated March 7, 1988, as supplemented April 13, 1988.

During the review, the staff determined that the revised curve for Figure 3.1.2b had been shifted in the non-conservative direction as well as extended. This was discussed with the licensee's staff who stated that the shift was made in error. The licensee further stated that the revised curve

was independent of the other changes requested in the amendment and was not necessary for operation with the other proposed changes for the Liquid Poison System. The staff determined that operation with the revised curve was not acceptable but that operation with the existing Figure 3.1.2b with the other changes in the amendment request was acceptable.

By December 7, 1988, the licensee may demand a hearing with respect to the denial described above and any person whose interest may be affected by this proceeding may file a written petition for leave to intervene.

A request for a hearing or petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C., by the above date.

A copy of any petitions should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C., 20555, and to Mr. Troy B. Conner, Jr., Esq., Conner & Wetterhahn, Suite 1050, 1747 Pennsylvania Avenue, N.W. Washington, D.C. 20006, attorney for the licensee.

For further details with respect to this action, see (1) the application for amendment dated March 7, 1988, as amended April 13, 1988, and (2) the Commission's letter to Niagara Mohawk Power Corporation dated October 31, 1988, which are available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C., and at the Reference and Document

Department, Penfield Library, State University of New York, Oswego, New York 13126. A copy of item (2) may be obtained upon request addressed to the U.S. Nuclear Regulatory commission, Washington, D.C. 20555, Attention: Director, Division of Reactor Projects I/II.

Dated at Rockville, Maryland, this 31st day of October 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

Mary F. Haughey, Project Manager
Project Directorate I-1
Division of Reactor Projects, I/II

*SEE PREVIOUS CONCURRENCE

PDI-1
*LA:CVogan
10/20/88

PDI-1
*PM:MHaughey:d1g
10/21/88

OGC
*MYoung
10/24/88

PDI-1
*PM:RCapra
10/27/88

Dated at Rockville, Maryland, this 31st day of October 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

Mary F. Haughey, Project Manager
Project Directorate I-1
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PDI-1 *W*
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10/24/88

RC
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PM:RCapra
10/27/88