



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

January 8, 1993

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 AMENDMENT FOR NINE MILE POINT NUCLEAR STATION UNIT NO. 1
(TAC NO. M84587)

The Commission has issued the enclosed Amendment No. 138 to Facility Operating License No. DPR-63 for the Nine Mile Point Nuclear Station Unit No. 1 (NMP-1). The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated September 25, 1992.

The amendment revises Technical Specification Table 3.6.2a to permit bypassing of the High Reactor Pressure and Main Steam Line Isolation Valve Position scram signals during reactor coolant system pressure testing and/or control rod scram testing when the Reactor Mode Switch is in the Refuel Position.

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

Sincerely,

Donald S. Brinkman

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

Enclosures:

1. Amendment No. 138 to DPR-63
2. Safety Evaluation

cc w/enclosures:
See next page

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Sincerely,
Original signed by:
Donald S. Brinkman, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 138 to DPR-63
2. Safety Evaluation

cc w/enclosures:

See next page

OFFICE	PDI-1:LA	PDI-1:PM	NRR/SICB	OGC	PDI-1:D
NAME	CVogan	DBrinkman:avl	SNewberry	RBochmann	RACapra
DATE	12/15/92	12/15/92	12/17/92	12/23/92	01/08/93

OFFICIAL RECORD COPY

FILENAME: G:\NMP1\NM184587.AMD

Mr. B. Ralph Sylvia
Niagara Mohawk Power Corporation

Nine Mile Point Nuclear Station
Unit No. 1

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DATED: January 8, 1993

AMENDMENT NO. 138 TO FACILITY OPERATING LICENSE NO. DPR-63-NINE MILE POINT
UNIT 1

Docket File
NRC & Local PDRs
PDI-1 Reading
S. Varga, 14/E/4
J. Calvo, 14/A/4
R. Capra
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G. Hill (4), P1-22
Wanda Jones, P-370
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OPA
OC/LFMB
PD plant-specific file
C. Cowgill, Region I

cc: Plant Service list



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

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-220

NINE MILE POINT NUCLEAR STATION UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 138
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 September 25, 1992, 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;
 - 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:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 138, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

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: January 8, 1993

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 138 TO FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Revise Appendix A as follows:

Remove Pages

191

196

196a

Insert Pages

191

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196a

Table 3.6.2a

INSTRUMENTATION THAT INITIATES SCRAM**Limiting Condition for Operation**

<u>Parameter</u>	<u>Minimum No. of Tripped or Operable Trip Systems</u>	<u>Minimum No. of Operable Instrument Channels per Operable Trip System (a)</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				Shutdown	Refuel	Startup	Run
(1) Manual Scram	2	1			x	x	x
(2) High Reactor Pressure	2	2	≤ 1080 psig		(p)	x	x
(3) High Drywell Pressure	2	2	≤ 3.5 psig		x	(a)	(a)
(4) Low Reactor Water Level	2	2	≥ 53 inches (Indicator Scale)		x	x	x
(5) High Water Level Scram Discharge Volume	2	2	≤ 45 gal.		(b)	x	x

NOTES FOR TABLES 3.6.2a and 4.6.2a

- (a) May be bypassed when necessary for containment inerting.
- (b) May be bypassed in the refuel and shutdown positions of the reactor mode switch with a keylock switch.
- (c) May be bypassed in the refuel and startup positions of the reactor mode switch when reactor pressure is less than 600 psi, or for the purpose of performing reactor coolant system pressure testing and/or control rod scram time testing with the reactor mode switch in the refuel position.
- (d) No more than one of the four IRM inputs to each trip system shall be bypassed.
- (e) No more than two C or D level LPRM inputs to an APRM shall be bypassed and only four LPRM inputs to an APRM shall be bypassed in order for the APRM to be considered operable. No more than one of the four APRM inputs to each trip system shall be bypassed provided that the APRM in the other instrument channel in the same core quadrant is not bypassed. A Travelling In-Core Probe (TIP) chamber may be used as a substitute APRM input if the TIP is positioned in close proximity to the failed LPRM it is replacing.
- (f) Calibrate prior to starting and normal shutdown and thereafter check once per shift and test once per week until no longer required.
- (g) IRM's are bypassed when APRM's are onscale. APRM downscale is bypassed when IRM's are onscale.
- (h) Each of the four isolation valves has two limit switches. Each limit switch provides input to one of two instrument channels in a single trip system.
- (i) May be bypassed when reactor power level is below 45%.
- (j) Trip upon loss of oil pressure to the acceleration relay.
- (k) May be bypassed when placing the reactor mode switch in the SHUTDOWN position and all control rods are fully inserted.
- (l) Only the trip circuit will be calibrated and tested at the frequencies specified in Table 4.6.2a, the primary sensor will be calibrated and tested once per operating cycle.
- (m) This calibration shall consist of the adjustment of the APRM channel to conform to the power values calculated by a heat balance during reactor operation when THERMAL POWER \geq 25% of RATED THERMAL POWER. Adjust the APRM channel if the absolute difference is greater than 2% of RATED THERMAL POWER. Any APRM channel gain adjustment made in compliance with Figure 2.1.1 shall not be included in determining the absolute difference.

NOTES FOR TABLES 3.6.2a and 4.6.2a (cont)

- (n) Within 24 hours prior to the planned start of the hydrogen injection test with the reactor power at greater than 20% rated power, the normal full-power radiation background level and associated trip and alarm setpoints may be changed based on a calculated value of the radiation level expected during the test. The background radiation level and associated trip and alarm setpoints may be adjusted during the test program based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. The background radiation level shall be determined and associated trip and alarm setpoints shall be reset within 24 hours of re-establishing normal radiation levels after completion of the hydrogen injection or within 12 hours of establishing reactor power levels below 20% rated power, while these functions are required to be operable. At reactor power levels below 20% rated power, hydrogen injection shall be terminated and the injection system secured.
- (o) A channel may be placed in an inoperable status for up to 2 hours for required surveillances without placing the Trip System in the tripped condition provided at least one operable channel in the same trip system is monitoring that parameter. This time interval is extended up to 5 hours for the High Radiation Main-Steam Line Instrument Channel Calibration surveillance.
- (p) May be bypassed during reactor coolant system pressure testing and/or control rod scram time testing.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 138 TO FACILITY OPERATING LICENSE NO. DPR-63

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION UNIT NO. 1

DOCKET NO. 50-220

1.0 INTRODUCTION

By letter dated September 25, 1992, Niagara Mohawk Power Corporation (the licensee) submitted a request for changes to the Nine Mile Point Nuclear Station Unit No. 1, Technical Specifications (TS). The requested changes would revise TS Table 3.6.2a to permit bypassing of the High Reactor Pressure and Main Steam Line Isolation Valve Position scram signals during reactor coolant system pressure testing and/or control rod scram testing when the Reactor Mode Switch is in the Refuel Position.

2.0 EVALUATION

The current TS require the High Reactor Pressure scram instrumentation to be operable with a set point of ≤ 1080 psig whenever the Reactor Mode Switch is in the Refuel, Startup, or Run position. These TS also require the Main Steam Line Isolation Valve Position scram instrumentation to be operable with a set point of ≤ 10 percent valve closure from full open whenever the Reactor Mode Switch is in the Refuel, Startup, or Run position but permit this scram instrumentation to be bypassed when the Reactor Mode Switch is in the Refuel or Startup position if reactor pressure is less than 600 psig.

Reactor coolant system (RCS) hydrostatic leak testing is performed with the reactor subcritical at a minimum pressure of 1050 psig, which is 30 psi or less below the set point of the High Reactor Pressure scram. Since the RCS is isolated during the performance of these tests, the reactor coolant temperature and pressure may inadvertently rise due to heat addition from fuel decay heat and/or operation of the recirculation pumps. Such pressure increases could result in unnecessary actuations of the reactor protection system if the RCS pressure reaches the scram set point of ≤ 1080 psig. Actuation of the reactor protection system would result in unnecessary hydraulic cycles on the control rod drive components. Therefore, the licensee proposed to bypass the High Reactor Pressure scram when the Reactor Mode Switch is in the Refuel position during RCS pressure testing.

The High Reactor Pressure scram provides overpressure protection for the RCS when the reactor is critical and making a substantial heat input to the reactor coolant. Operation of this scram will make the reactor subcritical and will thereby substantially decrease the reactor's heat input to the reactor coolant. However, if the reactor is already subcritical, operation of this scram will have no significant affect on heat addition to the reactor coolant and therefore, its operability and operation are not required when the reactor is being maintained subcritical. The one rod out interlock prevents withdrawal of more than one control rod at a time when the Reactor Mode Switch is in the Refuel position. Since the reactor cannot be made critical by withdrawal of only one control rod, operability or operation of the High Reactor Pressure scram is not required when the Reactor Mode Switch is in the Refuel position. Therefore, the NRC staff finds that the proposal to permit bypassing of the High Reactor Pressure scram during RCS pressure testing when the Reactor Mode Switch is in the Refuel position acceptable.

The licensee also proposed to bypass the High Reactor Pressure scram during scram time testing of individual control rods when the Reactor Mode Switch is in the Refuel position. As noted above, the overpressure protection provided by the High Reactor Pressure scram is not required when the Reactor Mode Switch is in the Refuel position since the reactor cannot then be made critical. Therefore, the NRC staff finds the proposal to permit bypassing of the High Reactor Pressure scram during scram time testing of individual control rods while the Reactor Mode Switch is in the Refuel position acceptable.

The licensee further proposed to permit bypassing of the Main Steam Line Isolation Valve Position scram during RCS pressure tests and/or during individual control rod scram time testing when the Reactor Mode Switch is in the Refuel position. The Main Steam Line Isolation Valve Position scram initiates a reactor scram on partial closure (≤ 10 percent from full open) of the main steam line isolation valves. This scram functions to ensure that the reactor is not operated without its main heat sink.

The main steam line isolation valves must be closed during RCS pressure tests since they are part of the RCS pressure boundary during these tests. RCS pressure tests are conducted with the reactor in a shutdown condition (Reactor Mode Switch in Shutdown position or Refuel position). The reactor cannot be made critical with the Reactor Mode Switch in the Shutdown position because no control rods can be withdrawn. The reactor cannot be made critical with the Reactor Mode Switch in the Refuel position since the one rod out interlock prevents the withdrawal of more than one control rod and the reactor cannot be made critical with only one control rod withdrawn. Since the reactor cannot be made critical during RCS pressure tests, the operability or operation of the main steam line isolation valve position scram is not required during RCS pressure tests. Therefore, we find the proposal to bypass the main steam line isolation valve position scram during RCS pressure tests with the Reactor Mode Switch in the Refuel position acceptable.

TS 4.1.1c requires all operable control rods to be scram time tested from the fully withdrawn position prior to power operation after each refueling outage with reactor pressure above 800 psig. Control rod withdrawal can only be accomplished with the Reactor Mode Switch in the Refuel, Startup, or Run positions. However, since TS 4.1.1c requires that scram time testing be performed prior to power operation, such testing must be performed with the Reactor Mode Switch in the Refuel position. As noted above, the reactor cannot be made critical with the Reactor Mode Switch in the Refuel position; therefore, the operability or operation of the main steam line isolation valve position scram is not required during control rod scram time testing when the Reactor Mode Switch is in the Refuel position. Therefore, we find the proposal to bypass the main steam line isolation valve position scram during control rod scram time testing with the Reactor Mode Switch in the Refuel position acceptable.

We further note that the proposed changes are consistent with the NRC staff's Standard Technical Specifications for General Electric Boiling Water Reactors (GE-STs) in that the GE-STs do not require operability of either of these scram functions when the Reactor Mode Switch is in the Refuel position.

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 (57 FR 48821). 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:
D. Brinkman

Date: January 8, 1993